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Valerie Chambers  
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School of Accountancy  
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Arizona State University  
will discuss

**“The Role of Prosecutor Persuasion on Auditor Fraud  
Negligence Liability”**

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# **The Role of Prosecutor Persuasion on Auditor Fraud Negligence Liability**

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## **Abstract**

Prior literature has provided conflicting evidence on the effect of auditor effort level on juror assessments of auditor negligence in the event the auditor fails to detect management fraud. We extend prior literature by introducing prosecutor persuasion as a factor that can influence juror negligence decisions. We test the hypothesis that prosecution strength will increase juror negligence assessments, particularly when auditor effort is low, by performing an experiment in which we manipulate auditor effort level and prosecution strength. We find that, while prosecution strength does increase participants' guilty negligence verdicts, the interaction of prosecutor strength and auditor effort yields the greatest proportion of negligence verdicts when both prosecution strength and auditor effort are high. We perform mediation analysis to suggest participant perceptions that may cause our counter-intuitive findings, identifying perceptions of auditor competence and negative emotions toward auditors as two full mediators of the negligence verdicts and the interaction of prosecution strength and auditor effort. We also explore the influence of four potential determinants – outcome severity, standard of care, affect, and promotion regulatory focus – on participants' assessment of damages against the auditor.

## **I. Introduction**

Auditing standards serve as one guide for actions that auditors must take when performing a financial statement audit, including general procedures auditors should perform in consideration of fraud audit risks (AICPA, SAS 99). In a litigation environment, auditors must employ the knowledge, skill, and judgment which other auditors would exercise (Causey and Causey 1982). This vague standard of evaluation leaves room for exploration regarding jurors' perception of auditor effort and application of effort level in deciding auditor negligence when fraud has been found after an unqualified audit opinion was issued.

While a growing body of literature provides evidence about the expectations of laymen, as jurors, for auditors in the litigation setting, few studies include manipulations of auditor effort to explore responses across levels of effort. Some recent accounting literature has investigated the hypothesis that an increased effort to identify and perform procedures to assess fraud risks may actually serve to increase the auditor's legal liability rather than decrease it (Reffett 2010; Maksymov and Nelson 2012). We extend the prior literature by exploring the relationship between auditor effort and negligence penalties in a setting where the prosecuting attorney strongly attempts to persuade jurors about the auditor's failure under both low and high audit effort conditions. We also respond to the call for further understanding of the determinants of damage penalties assessed against auditors (Kadous 2000).

Research in the law field indicates that the plaintiff's attorney ("prosecutor") has a unique opportunity to provide a frame for the jurors to use to process information throughout the remainder of the trial (Pyszczynski and Wrightsman 1981). Prosecutors begin the trial proceedings with their opening statements, which most effectively take the form of a narrative (Spiecker and Worthington 2003). An effective prosecutor will take the opportunity to provide

jurors with a salient story, to which jurors may refer as they filter evidence and information provided during the trial. Prosecutors should use any possible legal methods of persuasion because persuasion is the purpose of trial communication (Aron et al. 1996). These methods include emotional appeal, evoking imagination of what should have been done differently, and reinforcing juror confirmation bias once the initial story has been told (Clements 2013). A primary objective of this study is to provide evidence regarding the relationship between auditor effort levels and negligence assessments when prosecutors do or do not exercise their extensive ability to persuade jurors through opening and closing trial statements. We predict that the proportion of guilty negligence verdicts will increase with prosecutor strength. We also predict that prosecutor strength will have a greater effect under low audit effort, compared to high audit effort.

To test this prediction, we conduct an experiment in which United States jury-eligible participants serve in the role of individual jurors to assess negligence verdicts and damages when auditors are sued for failing to detect fraud in their audit. We manipulate levels of auditor effort in performing fraud assessment and audit procedures over environmental remediation liabilities and we manipulate prosecution argument strength and effort of persuasion while holding the arguments of the defense attorney constant. After reading a case summarizing plaintiff and defense attorney arguments, witness statements and cross-examination, and judge's jury instructions, participants assessed a yes/no negligence verdict, probability of auditor negligence, and damages against the auditor. Participants also completed post-survey questions intended to measure the factors considered in making their decisions about auditor negligence and damage penalties.

We do find the predicted significant main effect of prosecution strength. However, our findings for the relationship between negligence verdicts and the interaction of and prosecution strength with auditor effort are not directionally consistent with our predictions. In additional analysis, we utilize findings from prior literature (Reffett 2010 and Backof 2013) to identify participants' assessment of auditor competence and participants' affective reactions toward the auditor as full mediators of the counter-intuitive interaction effects. This suggests that the persuasive power of the prosecuting attorney lies in his or her ability to reduce juror perception of auditor competence and to evoke negative emotional responses toward the auditor, but that the prosecutor is most successful when auditors have performed more work toward identifying and investigating for fraud.

Additionally, we utilize a subsample of participants who find the auditors guilty of negligence to determine relevant factors in participants' assessment of compensatory damages. Consistent with prior literature, we find that outcome severity and bias (Robbennolt 2000; Bornstein 1998; Greene et al. 1999) and perceived standard of care (Kadous 2000; Maksymov and Nelson 2012) are significant factors in determining damage amounts. We also find that a promotion regulatory focus (Roese et al. 1999), causing participants to focus on auditor inaction rather than action, is a significant factor in determining damage amounts.

We contribute to recently expressed concerns and literature evidencing that auditors might be penalized by the United States legal system for performing and documenting procedures to investigate fraud (Coffee 2004; Reffett 2010; Backof 2013). We provide additional evidence of mechanisms – perceptions of auditor competence and affective response toward auditors – which might explain why increased auditor effort results in higher negligence assessments. Finally, we contribute to a growing body of literature (Lowe, Reckers, and

Whitecotton 2002; Reffett 2010; Maksymov and Nelson 2012; Backof 2013) providing evidence of factors utilized by jurors in assessing damages against negligent auditors.

Section II develops the theory relevant to the predicted hypotheses. Section III discusses the experimental design and method. Section IV presents results.

## **II. Development of Hypotheses**

### ***Prosecution strength and auditor liability***

In a courtroom setting, it is possible that the individual juror approaches the auditor negligence decision with a certain perception and general idea of auditor guilt already preconceived in his or her mind (Studebaker and Penrod 2005). However, the “story model” theory (Pennington and Hastie 1993 and Hastie 1999) has demonstrated that a story constructed by the juror will determine the juror’s decision. Research has evidenced that opening statements predispose jurors to favor one side or the other early in the trial and that jurors tend to maintain this predisposition throughout the course of the trial (Pyszczynski and Wrightsman 1981). In civil negligence trials, the prosecutor initiates direct communication with the jury through his or her opening statement. As the prosecutor has the first opportunity to speak to the jury in opening statements and to call the plaintiff’s witnesses first, it is expected that the prosecutor will play a significant role in providing jurors with a story that will lead jurors to find the defendant – the auditor – negligent. After listening to a strong argument against the defendant, the juror will “seek data that are likely to be compatible with the beliefs [he or she] currently hold” (Kahneman 2011). As such, we hypothesize that increasing prosecutor strength through greater length, more evocative language, and provision of a salient story will increase participants’ guilty negligence verdicts.

**H1a:** Prosecution strength will positively affect participants' negligence verdicts.

***Interaction of auditor effort and prosecution strength***

Auditors should only be found liable for negligence if they do not exercise the same knowledge, skill, and judgment which other auditors would exercise (Causey and Causey 1982). When auditors put forth a greater effort to identify and investigate for fraud, they leave less room for the likelihood that other auditors would exercise a greater level of effort. An effective prosecutor gives jurors a story in their opening statement to frame testimony and evidence heard and seen through the course of a trial (Pennington and Hastie 1993; Hastie 1999; Spiecker and Worthington 2003). A more complete story is easier to understand, provides more information (Brewer and Liechtenstein 1981; Gaines, Brown, and Doyle 1996) and leaves less room for jurors to mentally fill in gaps or modify the story during evidence interpretation and deliberation (Bower 1978; Keene 2012). We expect that a prosecutor who gives participants a stronger and more complete story, particularly in their opening argument, will enable jurors to better identify and more strongly penalize lower auditor effort.

**H1b:** Prosecution strength and auditor effort will interact to yield greater guilty negligence verdicts when auditors exert less effort and prosecution strength is high.

**Factors influencing damage assessments**

Kadous (2000) called for future work to investigate the determinants of damages awarded by jurors in auditor negligence trials. The author expected that a juror likely uses a separate set of determinants in setting damages that may not overlap with determinants of negligence. Recent literature has explored various factors that may contribute to damage assessments, including

outcome severity and bias, affective response to case, promotion regulatory focus, and standard of care.

### ***Importance of outcome severity***

Robbennolt (2000) provides evidence from a meta-analysis of psychology research, performed between 1966-1997, demonstrating that judgments of compensatory damages in civil trials are significantly and positively related to outcome severity. Additionally, prior literature provides evidence that more severe negative outcomes result in larger outcome bias (Lowe and Reckers 1994; Bornstein 1998; Greene, Johns and Bowman 1999; Harley 2007), and greater compensatory damage awards against defendants (Bornstein, 1998; Greene et al., 1999). Accordingly, we expect that participants who consider the severe outcome to be more important in their assessment of auditor negligence will assess greater damages against the auditor.

**H2a:** There will be a positive relationship between perceived outcome severity importance and damage assessments among participants who find auditors to be negligent.

### ***Affective response to case***

Studies have evidenced that people pay better attention to and exhibit better memory of mood-congruent information (Bower 1991; Forgas and Bower 1987). However, research evidence is conflicted on the settings in which “affect priming” is exhibited (Forgas and George 2001). Chan, Song, and Yao (2011) utilize structural equation modeling techniques to demonstrate that participants’ affect is positively and significantly related to their attribution of responsibility for fraud loss to auditors. Additionally, Lowe et al. (2002) provide evidence that juror’s responsibility attribution to auditors is positively and significantly related to damages

assessed against auditors for negligence. We hypothesize that participants' net affective response to the auditor and plaintiff will be significantly related to damage assessments such that greater net positive affect toward the auditor (plaintiff) yields lower (higher) damages.

**H2b:** Greater net positive affect toward the auditor (plaintiff) will result in lower (higher) damage assessments among participants who find auditors to be negligent.

### ***Regulatory Focus***

Accounting research has not examined the effect of action versus inaction perceptions on juror damage assessments, particularly within the realm of auditor fraud investigation procedures. Roese et al. (1999) identified regulatory focus as a moderator for action versus inaction effects, such that a focus on action or inaction causes an individual to imagine what might have been – counterfactual thoughts – with greater clarity. Regulatory focus may be oriented in either a *promotion* or *prevention* processing style (Roese et al. 1999). The promotion focus concentrates on the acquisition of a positive goal and promotion failure produces thoughts focused on the addition of an omitted action. Conversely, the prevention focus concentrates on the absence of a negative outcome and a prevention failure produces thoughts focused on the subtraction of a committed action. Thus, a promotion focus generates more intense counterfactual thoughts in the presence of *inaction* while a prevention focus generates more intense counterfactual thoughts in the presence of *action*. We expect that participants with a promotion regulatory focus will be more focused on auditors' omitted procedures and failure to achieve the positive goal of finding fraud, and will therefore assess greater damages.

**H2c:** The promotion regulatory focus of participants will result in higher damage assessments among participants who find auditors to be negligent.

## *Standard of Care*

Auditing standards requires auditors to exercise “due professional care” in the performance of their audits (PCAOB AU 230). Common law holds that auditors may be found negligent if they do not exercise the same care that other professional auditors would exercise (Causey and Causey 1982). Kadous (2000) provides evidence that “standards of care for auditors are moving targets” and that standards of care increase with auditor effort. Maksymov and Nelson (2012) also find that standard of care increases with auditor effort, but that the increase in standard of care does not impact damages once the experimental participants made the decision to find the auditor guilty of negligence. Accordingly, we do not hypothesize a directional effect of standard of care on damages against the auditor.

**H2d:** There will be no relationship between participants assessment of standard of care and damage assessments among participants who find auditors to be negligent.

## **III. Experimental Design and Method**

### *Participants*

One hundred ninety-seven jury-eligible adults participated in the study. Participants were recruited from SurveyMonkey’s Audience (“Audience”) panel members in exchange for \$0.50 donated to a charity of their choice and an opportunity to enter a weekly \$100 Amazon gift card drawing, sponsored by SurveyMonkey. Participants were recruited by SurveyMonkey via Web contacts and received emails inviting them to participate in the experiment. Participants who opted-in to the experiment completed the instruments on the SurveyMonkey web platform, enabling SurveyMonkey to utilize Internet Protocol (IP) algorithms and weekly survey limits to minimize the risk of duplicate responses (Pickett et al. 2013). Audience is a recently-developed

tool and is just emerging as an alternative to utilizing the traditional university student population and as a competitor to the Amazon Mechanical Turk (AMT) crowd-sourcing website. Audience has similar advantages and limitations when compared to AMT, which has been evidenced to adequately represent the United States population (Paolacci, Chandler and Ipeirotis 2010) and to provide results replicable of prior judgment and decision making research (Paolacci et al. 2010, Horton, Rand and Zeckhauser 2011). While both Audience and AMT are opt-in convenience sample mechanisms, Audience is expected to attain a higher non-response rate, as Audience participants are unable to see a description of the task until they enter the survey while AMT provides task descriptions and completion time estimates prior to selecting to enter a task. Participants in this study were limited by the Audience recruiting functionality to United States residents ages 18 and older, in order to appropriately represent jury-eligible citizens. Thirteen participant responses were excluded from the analysis because participants reported employment in an accounting field and are unlikely representatives of a jury-eligible citizen in an accounting-oriented trial.

### ***Materials and Experimental Procedure***

Participants were randomly selected to receive one of six experimental conditions by SurveyMonkey's Audience feature and received an email link to their respective survey. Upon opening the survey and consenting to participate, participants indicated the extent to which they felt five positive and five negative affective states (from I-PANAS, Thompson 2007). In testing our hypotheses, participants read a summary of a civil negligence lawsuit, adapted from Reffett (2010) and Kadous (2000 and 2001). In the case, a lender sues a company's auditor for negligence after the lender sustains substantial losses when the audit client declares bankruptcy due to management's fraudulent exclusion of \$8,000,000 known environmental remediation

liabilities from the year-end financial statements. After reading the trial transcript contained in the case instrument, which concluded with judge's closing instructions to the jury reminding participants of the standard of proof and proportional liability damage rule, participants were immediately prompted to answer a series of questions about their evaluations of the auditor's negligence and the case. As noted by Kadous (2000), the format of the experimental materials enhance external validity, as the trial order is preserved through the opening statement, witness testimony and cross-examination, closing statements, and judge's final instructions to the jury. We enhance the external validity of the experimental materials by also including judge's opening instructions to the jurors, taken from the Model Jury Instructions of the US Court of Appeals 3<sup>rd</sup> Circuit (US Court of Appeals), to include instructions to participants regarding their role as jurors and the standard of proof required in civil trials.

### ***Independent Variables***

Assigned conditions represented two manipulations of level of audit work performed to test the fraud risk (none and high) and three manipulations of prosecutor intensity (low strength and two high strength conditions which varied only in phrasing). In the low audit effort manipulation, experimental materials indicated that auditors held a fraud risk brainstorming session prior to beginning the audit and performed necessary work to address all identified fraud areas, but environmental remediation was not identified as a high fraud risk area and was excluded from fraud audit procedures. In the high audit effort manipulation, participants were informed that auditors identified environmental remediation as a high fraud risk in their fraud brainstorming session, that auditors had performed inquiries of management about the remediation liabilities, and auditors had engaged an environmental expert to visit and test for appropriate remediation estimates at two of seven of the client's quarry locations.

For both the low and high prosecution conditions, we maintain a constant level of length, tone, and persuasiveness in the defense attorney's argument, in order to only manipulate the arguments of the prosecuting attorney. In the low prosecution strength manipulation, the prosecution and defense opening and closing statements are similar in length and argument persuasiveness; the prosecutor does not evoke vivid imagination or imagery in emphasizing the arguments alleging the auditor's negligence. In the high prosecution strength conditions, the prosecution opening and closing statements are much lengthier than the defense and continuously emphasize the auditor's lack of professional skepticism, the lack of substantial work performed by the auditor, and the claim that "other competent auditors" would have been professionally skeptical, performed additional audit procedures and found the fraud. Two high prosecution conditions were utilized, but differed only in phrasing of the salient concepts. As no responses to the two high prosecution conditions were significantly different, we treat them as a single "high prosecution strength" condition in our analyses.

### ***Dependent Variables***

Following prior literature (Kadous 2000 and 2001; Reffett 2010; Maksymov and Nelson 2012; Backof 2013), the experiment measures participants' evaluations of auditor negligence liability through a yes/no auditor negligence verdict decision and assessment of 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 management fraud.

### ***Potential Mediating Variables***

To explore the factors relevant in participants' damage assessments, participants answered questions on 11-point Likert scales measuring how important the \$9 million plaintiff

loss was on the decision of auditor negligence (0 = not at all important to 10 = very important) and the extent to which participants felt that other auditors would have found the fraud (0 = definitely would not have found the fraud to 10 = definitely would have found the fraud). Participants indicated their affective responses to both auditor and plaintiff by ranking their feelings on a scale from -10 to 10 (-10 = very strong negative feelings to 10 = very strong positive feelings). We calculate a net affective response, following Reffett (2010) and Backof (2013), by subtracting participants' responses about affect toward the plaintiff from responses about affect toward the auditor (-20 = very strong pro-plaintiff affective reaction; 0 = neutral overall affective reaction; 20 = very strong pro-auditor affective reaction). Finally, participants responded to six self-evaluation statements on a 7-point scale ranging from Definitely Untrue to Definitely True, which correspond to a Regulatory Focus Scale designed by Fellner et al. (2007) to identify promotion and prevention regulatory focus in participants.

#### **IV. Results**

##### ***Comprehension checks***

Three comprehension check questions were interspersed through the case instrument to check both participant attention and grasp of concepts relevant to the case. In particular, participants were asked multiple choice questions about the definition of material misstatement, the definition of auditor negligence, and the fraud committed by management. Seven participants responded incorrectly to two of the three comprehension question, suggesting they did not satisfactorily comprehend the case; these participants were removed from further analysis. One final participant's responses were removed from further analysis due to a vote of no auditor

negligence and a conflicting assessment of full damages. All other participants appeared to understand the concepts of the case.

***Test of H1: Effect prosecution strength on negligence verdict***

Table 1, Panel A provides the proportion of negligence verdicts (numeric and percentage) for each of the four manipulation conditions<sup>1</sup> and for the total main effects of auditor effort and prosecution strength. Table 1, Panel B shows the results of binary logistic regression, utilized to test H1a, with participants' negligence verdict assessments as the dependent variable and both effort and prosecution manipulation conditions as the independent variables<sup>2</sup>. H1a predicts a main effect of prosecution strength such that as a prosecutor makes auditor failure more salient, negligence verdicts will increase. We find the predicted main effect between prosecution strength and negligence verdicts ( $p = 0.027$ ) and demonstrate that negligence verdicts against the auditor increase as prosecution strength increases. H1b predicts an interaction effect between auditor effort and prosecution strength such that greater guilty negligence verdicts occur when auditors exert less effort and prosecution strength is high. The interaction term in the regression is significant ( $p = 0.045$ ). T-tests comparing the mean verdict<sup>3</sup> between experimental conditions (untabulated) indicate that the change in negligence does not significantly decrease (increase)

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1 As noted previously, the original instrumentation included two manipulations of high prosecution, differing only in phrasing and not in content. As the participant responses to the two conditions were not significantly different, we treat them as a single high prosecution condition in analyses.

2 Auditor effort and prosecution strength variables are coded 0 for low and 1 for high.

3 Verdict is an indicator equal to 0 or 1 if participants vote not-guilty and guilty, respectively. Therefore, the mean verdict per experimental condition is equal to the percentage of guilty verdicts relative to total participants per experimental group.

between auditor effort conditions when prosecution is low (high) ( $t = 1.363$ ,  $p = 0.177$  and  $t = 1.49$ ,  $p = 0.14$ , respectively).<sup>4</sup> However, the difference in negligence verdicts between low and high prosecution strength is only significant when auditor effort is high ( $t = 2.28$ ,  $p = 0.025$ ). The direction of results from our analysis does not agree with the hypothesized effect and we explore the difference further in additional analysis below.

### ***Test of H2: Factors determining damage assessments***

As previously noted, we focus on the first-stage negligence verdict as our primary dependent variable of interest, as jurors must first make a negligence decision before determining the compensatory damages to be assessed against the auditor. However, we respond to calls in prior literature to determine factors utilized by jurors in the assessment of damages once the negligence decision has been made. Using the population of participants finding the auditor negligent in their initial decision<sup>5</sup>, we explore factors which prior literature indicates might contribute to jurors' damage assessments.

Hypothesis 2 proposes that importance of outcome in severity in participants' negligence decision, participants' belief that others would have found the fraud (standard of care), affective response to case and trial participants, and promotion level of regulatory focus will each be significant factors in the participants' damage assessments after initially deciding that auditors are negligent. Table 2 reports the result of a regression model to test these hypotheses, where the

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4 These results are consistent with those found by Kadous (2000) and Maksymov and Nelson (2012) when they manipulated auditor effort. We noted that Reffett (2010) found that an increase in auditor effort yielded an increasing proportion of negligence verdicts. We adapted versions of Reffett's (2010) low and high auditor effort instruments for administration in on an online platform, but given the changes in instrumentation, we did not hypothesize similar differences in negligence between auditor effort levels.

5 After reading the case, participants were first asked to indicate their negligence decision and then subsequently provide an assessment of damages against the auditor. Participants were informed that a not-guilty negligence verdict corresponds to a \$0 damage assessment, as auditors found not guilty of negligence would not be required to pay damages to the plaintiff.

dependent measure is the damage assessment for participants who initially decided the auditors were guilty of negligence and the independent variables are (1) the participant responses to questions about standard of care, (2) outcome severity importance, (3) net feelings toward the auditor/plaintiff, and (4) responses to self-evaluations on the regulatory focus scale<sup>6</sup>. Controls for demographic information (age, income level, education level, and gender) are also included in the regression model.

The regression is significant ( $F = 3.029$ ,  $p = 0.005$ ) and the variables combine to explain approximate 14 percent of the damage assessments (adjusted  $R^2 = 0.141$ ). As predicted by H3, outcome severity ( $t = 2.742$ ,  $p < 0.01$ ), standard of care ( $t = 1.861$ ,  $p < 0.07$ ), and promotion regulatory focus ( $t = 2.103$ ,  $p < 0.04$ ) are all significant determinants of damage assessments for participants finding the auditors guilty of negligence. However, participants' affective reactions to the plaintiff and auditor are not a significant component of their damage assessment. Of the control variables, age is the only significant factor ( $t = 2.094$ ,  $p < 0.04$ ). This suggests that older jurors are more likely to support higher damage assessments against auditors after a negligence verdict than younger jurors<sup>7</sup>.

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6 Regulatory focus factors were constructed from participants' responses to six statements from the Regulatory Focus Scale (Fellner et al. 2007). Three self-evaluation statements load on promotion focus and three load on prevention focus.

7 Participants' age demographics are automatically provided by SurveyMonkey Audience within ranges consisting of 18-29, 30-44, 45-60, and > 60. We code these age groupings as 1, 2, 3, and 4, respectively.

### *Additional analysis*

#### *Mediation between auditor effort x prosecution strength and negligence verdict*

The results of our analysis regarding the effect of the interaction between prosecution strength and auditor effort were not consistent with the hypothesized direction. H1c hypothesized that stronger prosecutor persuasion would increase the salience of low auditor effort and would significantly increase damage assessments against auditors in the low effort condition. Our results suggest that prosecution strength does not affect juror judgment when auditor effort is low, but rather *increases* juror judgments against auditors when audit effort is high. To further explore the mechanism of prosecutors persuading juror negligence verdicts, we consider two mediators suggested by prior literature. Reffett (2010) provides evidence that two variables mediate a relationship between auditor effort and a measure of auditor negligence probability: affective reaction toward the trial players and assessments of auditor competence. Backhof (2013) utilizes the Culpable Control Model (Alicke 2000) to provide further evidence that jurors' affective reactions to the negligence case and the auditors influence jurors' assessments of auditor blame and negligence. We measure auditor competence as participants' response, on an 11-point scale, to a question asking how competent the auditors were in performing their audit (0 = completely incompetent to 10 = completely competent).

To perform mediation analysis, we first establish a significant relationship between the interaction term and both auditor competence and participants' affective response to auditors. Both relationships are significant, as noted in Figure 1 ( $p = 0.02$  and  $p = 0.016$  for competence and affect toward auditor, respectively). Additionally, we establish a significant relationship between the proposed mediators and the dependent variable, negligence verdicts. Again, both relationships are shown to be significant ( $p < 0.01$  for both competence and affect toward

auditor). The final step in assessing complementary mediation relationships requires the diminishment, or disappearance, of significance between the original independent variable and the dependent variable when the mediator is introduced into the regression model. Table 3, Panels A and B, shows the binary logistic regression analyses with negligence verdict as the dependent variable, prosecution strength and auditor effort main effects, the interaction term, and the proposed mediators. As noted, both mediators result in the disappearance of the significant relationship between the interaction term and the negligence verdict, confirming mediation relationships found in prior literature and suggesting that diminishing auditor competence and evoking negative affect toward the auditor are two key mechanisms that prosecutors can use to effectively persuade jurors of auditor negligence.

### ***Counterfactual thinking***

Reffett (2010) shows that his finding of a negative relationship between low auditor effort and participants' negligence probability assessments is mediated by a measure of counterfactual thought intensity. Counterfactual thinking is the thought of "what might have been" regarding past actions or events (Roese, Sanna, and Galinsky 2005). It has been regarded as an essential property of human intelligence (Hofstadter 1979 and Kahneman and Miller 1986) and is frequently used as a method of regret or consolation in everyday life (Epstude and Roese 2008; Roese 2004). Reffett provides evidence suggesting that jurors engage in greater counterfactual thinking as auditor effort increases, and that greater counterfactual thinking induces larger negligence and damage assessments against the auditor. As we do not find a significant direct relationship between auditor effort and negligence verdicts, we perform additional analysis of our results using a measure of counterfactual thought intensity as initially utilized by Reffett (2010). Participants were asked to rate, on an 11-point scale, how intense their

thoughts of alternative actions the auditors could have taken were while reading the case (0 = no strong thoughts to 10 = very strong thoughts). Using this measure of counterfactual intensity, we do not find a direct mediation relationship between auditor effort and negligence verdicts. As the negligence verdict is a binary measure, it cannot be used as the dependent variable in a structural equation model. Therefore, we examine the two components of the mediation model – first, the relationship between counterfactual intensity and negligence verdicts and second, the relationship between auditor effort and counterfactual intensity.

As did Reffett (2010), we find the predicted positive relationship between counterfactual thought intensity and negligence verdicts ( $\chi^2 = 14.785$ ,  $p < 0.001$ , untabulated). To explore the relationship of auditor effort and counterfactual thought intensity, we first regress our indicator of auditor effort on counterfactual intensity. We find no significant relationship ( $t = 1.171$ ,  $p = 0.243$ ). However, we still consider mediating variables, as Zhao, Lynch, and Chen (2010) note that “competing mediators” may still exist in the absence of a direct effect. A primary source of counterfactual thinking is the perceived closeness of the outcome (Roese 1997), such that the closer an outcome seems, the greater the engagement in counterfactual thought. Reffett (2010) finds no relationship between outcome closeness and counterfactual thinking when controlling for auditor effort level. However, we consider outcome closeness, as measured by participant responses, on an 11-point scale, to how close the auditors were to detecting the fraud (0 = not close at all to 10 = very close), as the competing mediator in the relationship between auditor effort and counterfactual thought intensity.

In untabulated calculations, we find a significantly positive relationship between auditor effort and outcome closeness ( $t = 1.794$ ,  $p < 0.08$ ) and a significantly positive relationship between outcome closeness and counterfactual intensity ( $t = 3.497$ ,  $p < 0.001$ ). When controlling

for outcome closeness, we find a moderately significantly *negative* relationship between auditor effort and counterfactual intensity ( $t = 1.704$ ,  $p = 0.09$ ). Therefore, outcome closeness appears to be a competing mediator, such that auditor effort has a negative relationship with counterfactual intensity, offset by a positive relationship with outcome closeness. The identified relationship between auditor effort and outcome closeness is consistent with counterfactual theory (Roese 1997) and with the results found by Reffett (2010). However, the moderately significant indirect negative relationship between auditor effort and counterfactual intensity is not consistent with results found by Reffett (2010) and could be explored in further experimental settings.

## **V. Summary and Discussion**

The results of this study contribute to literature exploring juror decisions of auditor negligence by providing evidence that the persuasiveness of the prosecutor is influential in juror decisions of auditor guilt and necessary compensatory damages. We find an unexpected interaction effect between prosecutor strength, auditor effort level, and negligence verdicts which is mediated by participants' perception of auditor competence and affective response toward the auditor. This suggests that the prosecutor's greatest ability to persuade jurors toward auditor negligence exists when auditors have performed a more substantial amount of work toward investigating for fraud and the prosecutor can induce jurors to either (1) question the competence of the auditors' audit performance and/or ability to evaluate evidence or (2) experience negative feelings toward the auditor in general. Further research can explore techniques that auditors or defense attorneys can employ to mitigate questions about auditor competence or negative emotions toward auditors in the courtroom.

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This study also contributes to prior literature identifying factors used by jurors in the determination of compensatory damages once auditors are found negligent. We confirm prior findings that suggest jurors use outcome severity and a moving standard of care target in determination of damages. We also suggest that a promotion regulatory focus influences jurors to focus on auditor inaction in the assessment of damages. Future research can incorporate these determinants to build a more comprehensive understanding of all factors that can influence juror damage assessments against auditors.

One potential limitation of this study is the computerized medium used to obtain participants. SurveyMonkey's Audience platform is an opt-in convenience sample, raising a question of potential bias inherent in those people who elected to respond to the survey invitation. While this concern is partially mediated by prior literature demonstrating the validity of Amazon Mechanical Turk, another opt-in crowd-sourcing platform, the relatively new development of SurveyMonkey Audience has not yet allowed for substantial research on differences in the population of crowd-sourcing respondents across platforms.

A further limitation of this study is the inability to provide all nuanced characteristics of a civil litigation suit in the natural courtroom setting. We follow accounting literature (Kadous 2000 and 2001; Reffett 2010; Maksymov and Nelson 2012; Backof 2013) utilizing case instruments organized in the natural court order, including major courtroom elements such as judge's instructions before and after testimony begins, plaintiff and defense opening and closing statements, and witness testimony and cross-examination for both plaintiff and defense experts. However, future experiments can further enhance external validity of juror decision-making in auditor negligence trials through use of video and lengthier trial transcripts to incorporate more trial elements.

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**Table 1**  
**Jurors' Negligence Verdicts**

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

	Low Audit Effort	High Audit Effort	Total
Low Prosecution	26/41 63.4%	23/47 48.9%	49/88 55.7%
High Prosecution	25/45 55.6%	31/43 72.1%	56/88 63.6%
Total	51/86 59.3%	54/90 60.0%	105/176 59.7%

**Panel B: Binary Logistic Regression**

Dependent Variable: Verdict

<u>Independent Variable</u>	df	$\chi^2$	two-tailed p-value	
Auditor Effort	1	2.186	0.139	
Prosecution	1	4.899	0.027	**
Prosecution x Effort	1	4.030	0.045	**
Constant	1	7.793	0.005	***

\*\* and \*\*\* Significant at  $p < 0.05$  and  $p < 0.01$ , respectively

*Auditor effort* and *Prosecution* are manipulated between low and high experimental conditions.

*Verdict* is the participants' yes/no decision of auditor negligence after reading the experimental materials.

**Table 2**  
**Factors considered in Compensatory Damage Assessments**

**Regression of Hypothesized Factors on Damage Assessments**

<u>Independent Variable</u>	Coefficient	SE	t-statistic	two-tailed p-value	
Intercept	2.083	1.466	1.421	0.159	
Outcome Severity Importance (H2a)	0.273	0.099	2.742	0.007	***
Affective Response (H2b)	0.036	0.049	0.742	0.460	
Promotion Regulator Focus (H2c)	0.578	0.275	2.103	0.038	**
Standard of Care (H2d)	0.289	0.155	1.861	0.066	*
Gender	-0.325	0.506	-0.642	0.522	
Age	0.561	0.268	2.094	0.039	**
Income	0.108	0.224	0.482	0.631	
Education	-0.338	0.268	-1.261	0.211	

\*, \*\*, \*\*\* Significant at  $p < 0.1$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively

*Outcome severity importance* is measured as participants' response, on an 11-point scale, to a question asking how important the \$9 million plaintiff loss was on the decision of auditor negligence (0 = not at all important to 10 = very important).

*Standard of care* is measured as participants' response, on an 11-point scale, to a question asking the extent to which participants felt that other auditors would have found the fraud (0 = definitely would not have found the fraud to 10 = definitely would have found the fraud).

*Affective response* is measured as the subtraction of participants' response about affect (-10 = very strong negative feelings to 10 = very strong positive feelings) toward the plaintiff from participants' responses about affect toward the auditor (-20 = very strong pro-plaintiff affective reaction; 0 = neutral overall affective reaction; 20 = very strong pro-auditor affective reaction).

*Promotion regulatory focus* is measured by a factor constructed from a six question self-evaluation Regulatory Focus Scale (from Fellner et al. 2007), where respondents rate themselves on a 7-point scale ranging from Definitely Untrue to Definitely True. Three self-evaluation statements load on promotion regulatory focus.

*Gender, Age, Income, and Education* are demographics provided by SurveyMonkey Audience for every respondent.

*Damage Assessments* are provided by participants on a scale of \$0-\$9 million, where \$9 million represents the total loss by the plaintiff when the audit client declared bankruptcy due to management fraud

**Table 3**  
**Mediators of Prosecution x Effort and Jurors' Negligence Verdicts**

**Panel A: Binary Logistic Regression Including Auditor Competence**

Dependent Variable: Verdict

<u>Independent Variable</u>	df	$\chi^2$	two-tailed	
			p-value	
Auditor Effort	1	0.116	0.734	
Prosecution	1	2.029	0.154	
Prosecution x Effort	1	1.121	0.290	
Competence	1	33.58	0.000	***
Constant	1	24.678	0.000	***

**Panel B: Binary Logistic Regression Including Affect toward Auditor**

Dependent Variable: Verdict

<u>Independent Variable</u>	df	$\chi^2$	two-tailed	
			p-value	
Auditor Effort	1	0.847	0.357	
Prosecution	1	1.500	0.221	
Prosecution x Effort	1	1.352	0.245	
Affect toward Auditor	1	18.414	0.000	***
Constant	1	0.048	0.827	

\*\*\*Significant at  $p < 0.01$

*Auditor effort* and *Prosecution* are manipulated between low and high experimental conditions

*Competence* is measured as participants' response, on an 11-point scale, to a question asking how competent the auditors were in performing their audit (0 = completely incompetent to 10 = completely competent).

*Affect toward auditor* is measured as participants' ranking their feelings on a scale from -10 to 10 (-10 = very strong negative feelings to 10 = very strong positive feelings).

*Verdict* is the participants' yes/no decision of auditor negligence after reading the experimental materials.

