

Factors Influencing Responsibility Attribution to the Auditors

Siew H. Chan
Qian Song
Lee J. Yao*

The accounting profession has been inundated with lawsuits for years (Brandon and Mueller 2006; Lys and Watts 1994; Pacini, Hillison and Sinason 2000; Palmrose 1997). This problem was alleviated after the passage of the Private Securities Litigation Reform Act (1995) which reduced the auditors' legal liabilities to third parties, leading to a decline in the number of lawsuits against the auditors (Bellovary, Giacomino, and Akers 2006; Geiger and Raghundan 2002). However, the recent spate of high profile corporate scandals and subsequent enactment of the Sarbanes-Oxley Act (SOX) of 2002, Statement on Auditing Standard (SAS) No. 99, and other stringent regulations have led to another round of increase in liabilities and litigation risks for the auditors (Ashbaugh-Shaife, Collins, Kinney and LaFond 2008; Krishnan and Zhang 2005). While most recent studies have found empirical and theoretical support suggesting that auditors are faced with a more litigious environment (Ashbaugh-Shaife *et al.* 2008; Krishnan and Zhang 2005; Raghunandan and Rama 2007), limited research is available for promoting understanding of whether the changed environment influences jurors' evaluation of auditors' responsibility (Brandon and Mueller 2006). The urgency of this issue is apparent from enactment of new accounting regulations as a result of the accounting scandals which increase the auditors' litigation risks. Although a number of disputes involving auditors are settled before trial, the parties involved are likely to make decisions in the "shadow of the jury" (Brandon and Mueller 2006; Palmrose, 1991). The purpose of this study is to identify factors that influence jurors' responsibility attribution to the auditors. These factors include affect elicited from the scandalous

* Siew H. Chan and Qian Song are, respectively, both at Washington State University. Lee J. Yao is at Loyola University New Orleans.

corporate failures, perception of the auditors' role in fraud detection and loss sharing, and the jurors' risk attitude.

Affect was the key independent variable in this study and was measured via two questions. Participants responded to the two affect questions only after they had indicated their awareness of the recent corporate failures. This procedure was necessary to obtain an accurate assessment of affect in this study. Affect was predicted to influence the jurors' responsibility attribution to the auditors. The corporate scandals that occurred during the last decade brought tremendous losses to investors, generating a pervasive and long-lasting negative impact on the general public's perception of the corporate world. The negative affect that investors experienced as a result of the corporate scandals has undoubtedly tarnished the reputation of the audit profession and undermined the investors' confidence in the attest function. Further, affect may exert a long-term effect on individuals' judgment and decision-making (Kida and Smith 1995), and the negative affect may carry over to the courtroom where the responsibility of the defendant auditors is evaluated. This study measured the affect that the jurors experienced from the scandalous corporate failures and investigated how the affective feelings influenced the jurors' judgment and decision-making.

The mediating variable was the auditors' role in fraud detection and loss sharing. Three questions were used to derive a measure for this mediator. This study postulated that the relationship between affect and responsibility attribution to the auditors was mediated by the auditors' role in fraud detection and loss sharing. Prior studies indicated that juries tend to hold the auditors responsible for failure in uncovering fraud (Bonner, Palmrose and Young 1998; Carcello and Palmrose, 1994; Palmrose 1987). Kadous' (2000) explanation for this phenomenon was that jurors assessed higher standards of care when they learnt about the severe consequences

of failed fraud detection (such as failure of the client firm, loss of jobs by the client firm's employees, and widespread losses incurred by parties external to the litigation). Since the standards of care required of the auditors are vaguely defined, jurors may evaluate the auditors' *ex ante* performance based on their *ex post* knowledge of the consequences. The auditors might not be able to meet such standards *ex ante* by increasing audit quality to avoid liability (Kadous 2000). An *ex post* observer (i.e., a juror) has the tendency to overstate the probability that the defendant (i.e., the auditors) would have been able to predict an outcome before it occurred (Clarkson, Emby and Watt 2002). However, in their own defense, the auditors could argue that they had complied with the accounting regulation. The requirements prescribed by SAS No. 99 might attenuate the ambiguity associated with the auditors' role in fraud detection. These requirements are postulated to better assist jurors in their assessment of the auditors' responsibility in audit failure litigation. This study extends prior research by examining the impact of the auditors' role in fraud detection and loss sharing on the jurors' decision-making in light of the new regulations that specify the auditors' responsibility in fraud discovery. Since fraud is an intentional act and perpetrators engage in various strategies to conceal the fraud, it is difficult to detect a financial misstatement due to fraud (SAS No. 99). In consideration of this issue, the new regulations (e.g., SAS No. 99) suggest rather than mandate the auditors to plan and perform an effective audit to uncover fraud via strategies such as brainstorming and strategic reasoning, and audit procedures such as analytical procedures in planning. Even if the auditors comply with these suggestions stringently, they might still fail to detect fraud in some situations because not all audit procedures are effective in revealing creative concealment methods employed by the perpetrators. The resultant impact is increased exposure of the auditors to audit

failure litigation. When jurors believe that the auditors are responsible for uncovering fraud, they are likely to hold the auditors responsible for the investors' losses.

This study proposed that risk attitude, an individual difference factor, moderated the relationship between affect and responsibility attribution to the auditors. Although the literature is replete with risk attitude scales, a three-item risk attitude scale was developed to fit the context of the current study. The risk attitude scale was designed to fit the investment context of this study. This was consistent with the hypothetical case scenario which involved investment losses suffered by the plaintiff. Risk attitude is an individual difference factor that affects individuals' assessment of losses. Risk-seeking individuals believe that investors should accept the risks inherent in their investments and be prepared for the possibility of losses. Conversely, risk-averse individuals' preference for a safe return on their investments might lead them to empathize with investors who suffer losses. Hence, the jurors' risk attitude (risk-seeking versus risk-averse) towards investment losses was predicted to interact with affect to exert a significant impact on their responsibility attribution to the auditors.

In a laboratory setting, participants read a hypothetical audit failure case, responded to questions measuring the independent and dependent variables, and provided their demographic information. Consistent with the hypotheses, the structural equation model results indicated that the negative affect elicited from the corporate scandals was positively related to responsibility attribution to the auditors. That is, stronger negative affect led to a higher responsibility attribution to the auditors. Positive relationships were also reported between affect and the auditors' role in fraud detection and loss sharing, and between the auditors' role in fraud detection and loss sharing and responsibility attribution to the auditors. Importantly, the results showed that the link between affect and responsibility attribution to the auditors was fully

mediated by the auditors' role in fraud detection and loss sharing. This means that affect influenced responsibility attribution to the auditors through the mediating variable. The results also demonstrated that risk attitude interacted with affect to influence the jurors' responsibility attribution to the auditors.

The remainder of the paper is organized as follows. The next section presents the theoretical framework and hypotheses development. The following two sections explain the research method used to address the hypotheses and the statistical results respectively. Finally, the contributions of this study, its limitations, and suggestions for future research are discussed.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

The impact of affect on responsibility attribution to the auditors

The well-publicized scandals at the turn of the 21st century concerning prominent companies such as Enron, HealthSouth, WorldCom, etc. have undoubtedly shocked the financial markets and brought substantial losses to companies and investors (Yuan, Yuan, Deng and Yuan 2008). Despite these headline grapping catastrophic events, the frequency of financial scandals has not declined since the passage of SOX 2002 (Hogan, Rezaee, Riley and Velury 2008). Persistency of these scandalous incidents is expected to exert a negative affect influencing the public's perception of the corporate financial reporting process and the attest function.

Affect is an indispensable component of perceptions, and most perceptions or cognitions in the real world possess the characteristic of affect (Zajonc, Pietrmonaco, and Bargh 1982). Affect is a significant factor in human reasoning and behaviors (e.g., Forgas 1992; Forgas and Bower 1987; Forgas and George 2001). Affect is posited to play a critical role in various judgment and decision-making contexts in the real world (Adophs and Damasio 2001). Initial positive affect has been reported to bias individuals' recall pattern of numbers and influenced their final

financial choice (Kida and Smith 1995). Affect has also been demonstrated to influence attribution of causes of task performance (Forgas and George 2001). Specifically, individuals who experienced negative affect generated more critical explanations for the cause of performance while those with positive affect tend to offer more lenient reasons for the same performance. Further, previous studies indicated that affective responses dominated a person's memories when the cognitive load was high rather than low (Rose, Roberts and Rose 2004), affect influenced organizational spontaneity (George and Brief 1992), and affect had an effect on employees' performance in the organizations (George and Bettenhausen 1990).

Affect can also have a significant impact on the jurors' judgment and decision-making. In particular, jurors may take their affect into account when they evaluate the responsibility of the auditors in audit failure cases (Kadous 2001). However, the study by Kadous (2001) did not focus on the direct effect of affect on the jurors' responsibility attribution process. In addition, the study was conducted prior to the wave of corporate scandals. The current study proposes that the negative affect elicited from the scandalous corporate failures has extensive and long-lasting impact on the general public's mindset toward the corporate world. This study posits that the negative affect from the financial scandals can potentially intensify the carryover effects to future judgment and decisions of jurors in the courtroom. The following discussion facilitates understanding of this phenomenon. Affect is encoded in memory and has a long-term effect on individuals' judgment and decision-making (Kida and Smith 1995). That is, affect can be carried over from previous contexts or situations to subsequent or future situations (Loewenstein and Lerner 2003). For example, investors experienced negative affect after the disclosure of negative news by management and they perceived management to be less credible in a subsequent situation (Mercer 2005). In the current study, the negative affect associated with the publicity of

the scandalous corporate failures is elicited and carried over to audit failure litigation cases currently encountered by the jurors. This negative affect is expected to steer the jurors toward critical evaluation of the auditors' responsibility in audit failure litigation, leading to higher responsibility assessment against the auditors. The above discussion leads to the first hypothesis:

H1: Affect is positively related to responsibility attribution to the auditors.

The impact of affect on the auditors' role in fraud detection and loss sharing

The auditors' role in fraud detection and loss sharing is indeed pivotal in a litigious environment. Although SAS No. 99 reiterates the auditors' responsibility in fraud discovery, the standard seems to provide recommendations on what the auditors should do to detect fraud. This implies that SAS No. 99 does not delineate clearly the auditors' responsibility in fraud discovery and does not mandate that the auditors uncover fraud. This is a critical issue considering the waves of accounting and financial scandals uncovered during the past decade. Another major wave of scandals will undeniably devastate the current fragile economy and inundate the courtroom with lawsuits as investors attempt to seek relief from their losses. Despite the expanded regulation of the auditors' responsibility in fraud detection, individuals' perceptions of this responsibility might vary depending on their interpretations of the regulation. The auditors' role in fraud detection might be different from the requirements stipulated by the regulatory authorities. SAS No. 99 provides operational guidance for the auditors to consider the presence of fraud in a financial statement audit, and clarifies the auditors' present responsibility in planning and performing the audit to obtain reasonable assurance about whether the financial statements are free from fraud. However, many procedures on fraud detection in SAS No. 99 are suggested rather than required and this leaves room for different interpretations of the auditors' responsibility in fraud detection.

The affect elicited from the pervasive corporate scandals may significantly bias the jurors' interpretations of the auditors' responsibility in fraud detection. For example, previous affect studies suggested that individuals exhibited a mood-consistent bias (i.e., they selectively used mood-consistent associations) in their interpretation of ambiguous social information (Forgas and George 2001). This means that affect selectively exerted an influence on the availability of information that individuals relied upon to form judgments (Forgas and George 2001). Negative affect is expected to result in increased attention to negative information. Thus, jurors experiencing negative affect as a result of the corporate scandals may engage in critical evaluation of the auditors' role in fraud detection. They may associate this evaluation with their perception of the auditors' roles in sharing and insuring against the investors' losses in audit failure litigation. The following hypothesis examines this prediction:

H2: Affect is positively related to the auditors' role in fraud detection and loss sharing.

The impact of the auditors' role in fraud detection and loss sharing on responsibility attribution

The standard of care concept enhances understanding of the relationship between the auditors' role in fraud detection and loss sharing, and the jurors' responsibility attribution to the auditors. An auditor is held to a standard of care as to what other auditors would do in a similar situation in terms of use of judgment, care, skill, and diligence in an audit (Causey and Causey 1991). Jurors are posited to use the standard of care (i.e., the extent as to what other auditors would do to uncover the fraud) to determine whether an auditor is negligent (Kadous 2000). Thus, the auditors are deemed to be negligent if they fail to meet the standard of care. However, the auditing standards are ambiguous with respect to what standard of care truly entails (Kadous 2000), and this leaves considerable room for interpretation of this term. Jurors might use and apply different standards of care for the auditors across different situations. For example, one

study reported that jurors held the auditors to a significantly higher standard of care when the consequences of audit failure were high (Kadous 2000). The current study proposes that jurors may assign a high standard of care to the auditors when the auditors are perceived to have a high responsibility for uncovering fraud, and sharing and insuring against the investors' losses. Hence, jurors may empathize with investors who suffer losses and assess significant responsibility against the auditors when they fall short of the expected high standard of care. This prediction is investigated in the following hypothesis:

H3: The auditors' role in fraud detection and loss sharing is positively related to responsibility attribution to the auditors.

The mediating role of the auditors' role in fraud detection and loss sharing

Previous studies (Forgas and George 2001; Moylan 2000) appeared to focus on the direct effect of affect on responsibility attribution; subsequently, the effect of potential mediators in the relationship between affect and responsibility attribution has received little attention. The previous discussion leading to the first three hypotheses indicates a direct link between affect and responsibility attribution to the auditors (hypothesis 1) as well as an indirect link between these two variables through the auditors' role in fraud detection and loss sharing (hypotheses 2 and 3). This suggests that the auditors' role in fraud detection and loss sharing is a mediator in the relationship between affect and the jurors' responsibility attribution to the auditors. Thus,

H4: The auditors' role in fraud detection and loss sharing mediates the relationship between affect and responsibility attribution to the auditors.

The moderating role of risk attitude

Risk attitude is a personality trait that determines the extent of individuals' pursuit of and tolerance for risk (Fellner and Maciejovsky 2007). Individuals' risk attitude is expected to influence their judgment and decision-making in a variety of contexts (Fellner and Maciejovsky

2007; Weber and Milliman 1997). *Ceteris paribus*, relative to risk-seeking individuals, risk-averse individuals are less willing to undertake risky activities. Since a certain amount of risk is inherent in almost all investments in the capital markets, it is imperative that researchers understand how the underlying risk attitude of individuals might influence their judgment and decision-making. In particular, individuals allocate their resources to investment options or choose their portfolio according to their risk attitudes (Krahnhen, Rieck and Theissen 1997). Risk-averse individuals are postulated to value security and possess a desire to avoid large amounts of potential losses. These individuals are likely to experience negative affect and become empathetic toward investors who suffer losses; consequently, they attribute a higher responsibility to the auditors for the investors' losses. In contrast, risk-seeking individuals are willing to undertake risky choices for the sake of significant potential gains and they may also prepare themselves psychologically for considerable potential losses. Hence, risk-seeking individuals' tolerance for risk and their quest for excitement and thrill in risky choices may increase the extent of their receptiveness toward investment losses. These individuals are less likely to experience negative affect and exhibit empathetic feelings toward investors who suffer losses; subsequently, the extent of their responsibility attribution to the auditors in audit failure litigation is attenuated.

The risk attitude of jurors towards the risks inherent in investments affects their process of responsibility attribution (Sosis 1974) and subsequent judgment and decision on the auditors' responsibility in audit failure litigation. Risk-averse individuals who value security may empathize with investors who prefer a safe return on their investments (Lopes 1997). Thus, risk-averse jurors may empathize with investors and hold the auditors responsible for the investors' losses. In contrast, risk-seeking jurors may believe that individuals who prefer high yields should

bear the risks associated with their investments and be responsible for their own losses. This suggests that risk-seeking jurors may consider the auditors to be less responsible for the investors' losses in audit failure litigation.

The above discussion suggests that risk attitude might interact with affect to exert an influence on jurors' responsibility attribution to the auditors. In particular, risk attitude is predicted to moderate the relationship between affect and responsibility attribution to the auditors. Jurors who experience negative affect are likely to be harsher in their evaluation of the auditors' responsibility in audit failure litigation. The extent of this harsh evaluation might be attenuated in situations where the jurors are risk-seeking; subsequently, they exhibit increased understanding of and receptiveness towards investment losses. However, the empathetic feelings that risk-averse jurors may possess toward investors who suffer losses and their experience of negative affect associated with an audit failure are likely to be exacerbated in the event of an audit failure; consequently, these jurors' evaluation of the auditors' responsibility is increased. Thus, the jurors' risk attitude is a critical moderating variable in the effect of affect on the jurors' responsibility attribution to the auditors. Finally,

H5: Risk attitude moderates the relationship between affect and responsibility attribution to the auditors.

The research model is presented in Figure 1 (please see Figure 1).

METHOD

Procedures

One of the authors approached town officials for help in recruiting participants for this study. Residents at these towns were a representative sample of the jury population because they came from all walks of life. The town officials contacted several groups of individuals to

encourage them to participate in the study. Potential participants were informed of the incentive payment of \$15. The study was conducted over a three-week period and one of the authors administered the study at conference rooms located in the towns. Each session lasted for about 45 minutes. Participants were given an information sheet containing the instructions for the study. This information sheet explained a juror's responsibilities in a professional liability case. Participants were asked to assume the role of a juror in the hypothetical case. They were told that their opinions on the case would not affect their payment. After they finished reading the instructions, they read the case material, responded to several questions pertaining to the independent and dependent variables, and provided their demographic information. At the end of the session, participants received their incentive payment of \$15.

Participants

A total of 220 (125 males and 94 females¹) participated in the study. All participants were at least 18 years of age and were eligible to serve as jurors². Their ages ranged from 18 to 77 and the mean was 34. The participants' educational background and personal annual incomes varied widely. About 53 percent had owned stock previously and 44 percent indicated that they owned stock at the time of this study.

Case Materials

This study adapted the case materials of Lowe, Reckers, and Whitecotton (2002). This instrument was pretested with colleagues and students at a university in the northeast. Participants read materials on a hypothetical audit failure case. These included a description of the objectives of an audit and the auditor's responsibility in assessing risk factors, and background information on the audit client and audit firm. The case discussed discovery of

¹ The gender of one participant was unknown.

² Participants were not asked if they had previously served as jurors.

management fraud after issuance of the financial statements and an unqualified audit opinion. Subsequently, an investment company that invested five percent of its assets in the audit client brought a lawsuit against the audit firm. The investment company and the audit firm presented arguments in support of their respective case. Then, participants responded to several questions pertaining to the independent and dependent variables, and provided their demographic information.

Independent Variable

Affect, the key independent variable in this study, was elicited from the participants' awareness of and reaction to the corporate scandals. The participants' subsequent decision-making concerning a hypothetical audit failure case was predicted to be influenced by the carryover effect of their affective reaction to the scandalous events. The affect construct consisted of the following two questions: (1) whether the recent corporate failures had an impact on the participants' responses to the questions about the hypothetical case, and (2) whether they would respond to the questions differently if the corporate failures had not occurred. These questions were measured on a 7-point Likert scale with 1=not at all and 7=to a great extent. Participants answered these questions only after they had indicated their awareness of the corporate failures. This procedure was necessary for ensuring accurate assessment of the participants' affect elicited from the corporate failures. Participants who were not aware of the corporate failures were excluded from analysis³ because their lack of knowledge of the corporate scandals increased the difficulty in accurate assessment of their affective reaction to the hypothetical case in this study.

Using the Maximum Likelihood Method, an exploratory factor analysis conducted on the two affect questions yielded one factor with an Eigenvalue greater than 1, and this factor

³ This procedure led to 164 usable responses for the hypotheses tests.

accounted for 86 percent of the variance. According to the Henry Kaiser's rule, the number of factors required for explaining the construct equals to the number of Eigenvalues greater than 1. The factor loadings for the two items were sufficiently high at 0.869 and 0.510 respectively. The Cronbach's alpha for these items was 0.829. Thus, the affect construct can be reliably measured by these questions.

Mediating Variable

The auditors' role in fraud detection and loss sharing acted as the mediator in the relationship between affect and responsibility attribution to the auditors. The mediating variable consisted of three questions on whether the auditors should (1) actively search for fraud, no matter how small; (2) share in the shareholders' losses in bad times because they make plenty of money in good times; and (3) insure against the losses of large shareholders. These questions were measured on a 7-point Likert scale with 1=strongly agree and 7=strongly disagree. The exploratory factor analysis results demonstrated that one factor (Eigenvalue greater than 1) accounted for 50 percent of the variance and this was sufficient for explaining the construct of the auditors' role in fraud detection and loss sharing. The factor loadings for these items were 0.481, 0.570, and 0.404 respectively. The Cronbach's alpha of 0.700 suggested a sufficiently high degree of internal consistency for the items in the construct.

Moderating Variable

This study proposed that risk attitude moderated the impact of affect on responsibility attribution to the auditors. Three questions were used to evaluate the participants' risk attitude. Participants were asked to indicate their preferences for specific bets with different amounts and probabilities of winning the specified amounts. All the bets for each question had the same expected outcome. For example, an eight percent chance of winning \$1,000 had the same

expected outcome as a ten percent chance of winning \$800. Participants who selected the first option (i.e., eight percent chance of winning \$1,000) were considered to be more risk-seeking than those who selected the second option (i.e., 10 percent chance of winning \$800). Each item had four options with different amounts and probabilities of winning specific amounts.

Since risk attitude is a function of individual characteristics and context factors (Bromiley and Curley 1992), a stable measurement of individual differences should take into account the context differences of studies (Weber, Blais and Betz 2002). Additionally, Weber *et al.* (2002) classified the measurement items in their risk attitude scale as ethical, gambling, health/safety, and other domains. This suggests that the extent of a person's willingness to undertake risk (i.e., risk attitude) may be domain-specific. Therefore, an appropriate risk attitude scale that fits the specific context of a study should be used to provide additional insight into the findings.

The hypothetical case and questions used in the current study were in the investment domain. Hence, three items were developed to facilitate appropriate measurement of the participants' risk attitude in this study. These items were improved based on the comments received from colleagues and pilot test results from undergraduate students at a research university. An exploratory factor analysis of the pilot test data indicated good reliability and validity of the items, and these items loaded well on one construct. The confirmatory factor analysis in the current study also suggested a good model fit for the one-factor construct (CFI=1.000, RMSEA=0.000, SRER=0.000). The factor loadings for these items were 0.687, 0.781, and 0.700 respectively. The Cronbach's alpha for the three items assessing the individuals' risk attitude was 0.795.

Dependent Variable

The dependent variable was the jurors' responsibility attribution to the auditors. This variable was measured via the jurors' assessment of the auditors' responsibility for the investors' losses.

RESULTS

The participants' demographics (e.g., age, gender, educational background, personal annual income, previous stock ownership, and current stock ownership) did not have an impact on their responsibility attribution. Previous juror studies have revealed inconsistent findings on the impact of the jurors' demographic variables on their judgment and decision-making. For example, one study conducted interviews with a large sample of jurors but did not find any statistically significant effect of any of the demographic variables on the jurors' judgment and decision-making (Vinson 1986). However, a study by Buckless and Peace (1993) showed that age and education had a significant impact on the jurors' decisions. Specifically, younger jurors and those with a higher level of education were more likely to decide against the auditors. However, the results from the Buckless and Peace study might be case specific. That is, it is difficult to predict the effects of demographic variables on the dependent variables because demographic factors tend to correlate with the specifics of a case (Boyll 1991). Additionally, random selection of jurors might attenuate the effects of demographic differences on their judgment and decision-making. Thus, the insignificant effect of demographic variables on the jurors' responsibility attribution to the auditors in the current study was consistent with the findings of most previous studies.

Hypotheses Tests and Mediation Analysis

The structural equation model (SEM) technique was used to test hypotheses 1 through 4. Affect and the auditors' role in fraud detection and loss sharing were two latent constructs measured by multiple questions. Responsibility attribution to the auditors was a manifest construct measured directly by a single question. SEM allows for simultaneous testing of both the measurement model (the links between the latent constructs and the measures of these constructs) and the structural model (the links among the constructs) (Freeze and Raschke 2007). Hence, SEM is particularly useful when the theoretical model involves relationships among the latent constructs, and the relationships between the latent constructs and the measures of these constructs (Edwards and Bagozzi 2000).

First, Mplus software was used to test the measurement model comprising the two latent constructs and their measures. The model had an excellent global model fit (CFI=1.000, RMSEA=0.000, SRMR=0.026). As shown in Figure 1, the factor loadings of affect and the auditors' role in fraud detection and loss sharing were sufficiently high. These results demonstrated a reliable measurement model and assured the quality of subsequent structural equation models. Second, the theoretical relationships predicted in hypotheses 1 to 3 were tested in separate structural equation models. As presented in Table 1, all the models had good global model fits. The results of these models were illustrated in Figure 2. Hypothesis 1 suggested a positive relationship between affect and responsibility attribution to the auditors. The first SEM (SEM1) consisting of the latent construct (affect) and its measures and the manifest dependent variable (responsibility attribution) was conducted and the coefficient (0.269) of the link from

affect to responsibility attribution was significant at $p=0.007$. Therefore, hypothesis 1 was supported.

Hypothesis 2 stated that affect was positively related to the auditors' role in fraud detection and loss sharing. The second SEM (SEM2) comprising these two latent constructs and their measures was conducted to test this relationship. The significant coefficient (0.603, $p=0.000$) provided support for the incremental effect of affect on the auditors' role in fraud detection and loss sharing. Thus, the results supported hypothesis 2. Hypothesis 3 posited that higher responsibility would be attributed to the auditors when perception of the auditors' role in fraud detection and loss sharing was high. This hypothesis was supported by the significant coefficient (0.591, $p=0.002$) results from the third SEM (SEM3) comprising the related latent construct and its measures (i.e., the auditors' role in fraud detection and loss sharing) and the manifest construct (i.e., responsibility attribution).

Hypotheses 4 proposed that the auditors' role in fraud detection and loss sharing mediated the relationship between affect and responsibility attribution to the auditors. According to Baron and Kenney (1986), a four-step approach involving a series of regression analyses is required for testing the mediator. First, a significant correlation between affect (i.e., independent variable) and responsibility attribution to the auditors (i.e., dependent variable) is necessary for suggesting the possibility that an effect might be mediated by some variables. Second, the link between affect and the auditors' role in fraud detection and loss sharing (i.e., the mediator) should be significant. Third, the auditors' role in fraud detection and loss sharing needs to exert a significant impact on responsibility attribution to the auditors. Fourth, when affect and the auditors' role in fraud detection and loss sharing are both included in the regression equation, the previously significant link between affect and responsibility attribution to the auditors should be

no longer significant with the coefficient approaching zero (i.e., full mediation) or remains significant with the coefficient significantly reduced but not close to zero (i.e., partial mediation). Kenny (2009) stated that a SEM (instead of multiple regressions) should be performed to test the mediator when the theoretical model includes latent constructs. Thus, SEM was used in the current study to test for the effects of the mediator.

Hypotheses 1 to 3 pertained to the first three steps for testing for the presence of the mediator. The results indicated reliable relationships between (1) affect and responsibility attribution to the auditors (hypothesis 1), (2) affect and the auditors' role in fraud detection and loss sharing (hypothesis 2), and (3) the auditors' role in fraud detection and loss sharing and responsibility attribution to the auditors (hypothesis 3). The fourth SEM (SEM4), comprising the two latent constructs and their measures, and the manifest construct (i.e., responsibility attribution), was conducted to test for the presence of the mediator. As Table 1 indicated, this model had a good global model fit. The results in Figure 2 showed that the link from affect to responsibility attribution to the auditors was no longer significant (coefficient=0.080, $p=0.635$), while the links predicted in hypotheses 2 and 3 remained significant. The indirect effect (i.e., the mediation effect) was 0.356 and the p -value was 0.043. Therefore, the auditors' role in fraud detection and loss sharing fully mediated the relationship between affect and responsibility attribution to the auditors. These results provided support for hypothesis 4 (Please see Table 1 and Figure 2).

Hypothesis 5 posited that risk attitude moderated the effect of affect on responsibility attribution to the auditors. The moderating role of risk attitude was examined via the interaction effect of affect and risk attitude on responsibility attribution to the auditors. A factorial analysis of variance (ANOVA) was performed to test this moderating effect. Unlike SEM, ANOVA

cannot directly test the theoretical relationship between the latent constructs (i.e., affect and risk attitude) by including the latent constructs and their measures in the same model. As discussed in the method section, the measures for affect (exploratory factor analysis) and risk attitude (exploratory and confirmatory factor analyses) were reliable and the factor loadings of these measures were sufficiently high. Thus, the composite scores (i.e., the average of the measures) of affect and risk attitude were used in the ANOVA for testing hypothesis 5. The ANOVA results (Figure 2) showed a significant interaction effect of affect and risk attitude ($F= 1.955, p=0.010$) on responsibility attribution to the auditors. In particular, risk-seeking (risk-averse) attitude mitigated (enhanced) the correlation between affect and responsibility attribution to the auditors. Thus, hypothesis 5 was supported.

DISCUSSION

This study identified and examined factors that influenced responsibility attribution to the auditors in audit failure litigation. These factors included affect, the auditors' role in fraud detection and loss sharing, and the jurors' risk attitude. Affect is an enduring factor that has a significant effect on individuals' judgment and decision-making in a variety of contexts (Forgas and George 2001). The scandalous corporate failures at the turn of the 21st century elicited negative affective reactions (such as anger, worry, anxiety, sadness, etc.) toward the corporate world, leading to increased empathy for investors who suffer losses in the capital markets. This negative affect is posited to influence the jurors' judgment and decision-making in the courtroom. The current study attempted to provide an accurate measure of affect by requiring the participants to respond to the two affect questions only after they had indicated their awareness of corporate failures such as Enron, WorldCom, etc. The results suggested that the jurors' affective feelings increased their responsibility attribution to the auditors. To increase the

possibility of an equitable decision in the courtroom, strategies can be designed to increase the jurors' awareness of the negative affect that they may bring to bear on a litigation case that they are currently deliberating on.

This study also demonstrated that the auditors' role in fraud detection and loss sharing mediated the impact of affect on the jurors' responsibility evaluation of the auditors. These findings can help the audit profession better understand the jurors' perception of their role and the attendant impact on their evaluation of the auditors' responsibility in audit failure lawsuits. In particular, investors are likely to succeed in recovering their losses from the auditors when the jurors perceive the auditors' role in fraud detection and loss sharing to be high.

Finally, the results showed that the jurors' risk attitude, an individual difference factor, interacted with affect to impact their responsibility assessment of the auditors. In particular, compared to risk-averse jurors, risk-seeking jurors were more tolerant of the risks inherent in investments; subsequently, they assessed less responsibility against the auditors. Increased understanding of the jurors' risk attitude toward investment losses can facilitate the auditors' preparation for their case in the courtroom. For example, the interviews conducted during pretrial selection of jurors can provide some insight into the underlying risk attitude of potential jurors. Specifically, risk-seeking jurors may be receptive toward the argument that investors should bear the risks of investments and should therefore be responsible for their own losses.

Suggestions for Future Research

This study has some limitations. One limitation of this study is the assumption of negative affect associated with the corporate failures and use of a two-item scale for the affect construct. Additional work is needed to provide empirical evidence on whether the scandalous corporate scandals elicit negative affect that carries over to judgment and decision-making in the

courtroom. Researchers can also use existing affect scales or develop a more comprehensive affect scale to tailor to the specific contexts of their studies to provide additional insight into their findings. Another possible limitation of this study pertains to the three-item risk attitude scale. Although a number of scales are available for measuring individuals' risk attitude, the current study developed a three-item scale to measure the jurors' risk attitude. Use of this scale has an advantage over the existing scales because the items were specifically designed to assess the jurors' risk attitude toward different investment options with different probabilities of winning specified amounts in each bet. These items provided an accurate measure of the jurors' underlying risk attitude and enhanced understanding of how this individual difference factor influenced the jurors' assessment of the auditors' responsibility for failure to uncover fraud. Future research can use existing risk attitude scales and examine whether the results are consistent with the findings of this study.

The auditors' role in fraud detection and loss sharing construct may need further improvement. One of the questions in this construct pertained to the auditors' role in fraud detection and the remaining two questions focused on the perception that the auditors should share and act as insurers against the investors' losses. Since these items loaded well on one factor, they were sufficient for explaining the auditors' role in fraud detection and loss sharing construct. The results seemed to make intuitive sense because the auditors were likely to be asked to pay for the investors' losses when they were perceived to have the responsibility to detect fraud but they fell short of that expectation. This might explain the high correlations and loadings of the three items comprising the auditors' role for fraud detection and loss sharing construct. Future research can develop additional items and conduct exploratory and confirmatory factor analyzes to examine whether these items load on different constructs. Future

work can use the new construct/s to provide additional insights into the findings. In addition, researchers can assess the potential repercussions of different perceptions of the auditors' role in fraud detection and loss sharing (i.e., expectation gap). New regulation may need to be designed to narrow the expectation gap among jurors, financial statement users, the audit profession, etc. on the auditors' responsibility in fraud discovery. This might increase the likelihood of jurors walking into the courtroom with an objective attitude and judgment, leading to increased devotion of effort into understanding how the professional standards can guide the auditors in delivering effective audits for uncovering fraudulent acts that misstate financial statements.

The findings of this study also have important implications for potential jurors. The auditors' role in fraud detection is likely to vary in accordance with the jurors' interpretation of the current regulations and guidance which subsequently affect the jurors' responsibility attribution to the auditors in audit failure litigation. However, the auditors can help the jurors understand that the current regulations or standards do not mandate the auditors to discover fraud due to the intentional nature of fraud, ingenious concealment strategies undertaken to disguise the fraudulent act, and difficulties in designing effective audit procedures that uncover well-concealed fraud risks (SAS No. 99). Thus, it is imperative for researchers to educate jurors about the auditors' responsibility in fraud detection. That is, the auditors should not be held responsible for all audit failure cases solely on the basis of the perception that they have the responsibility to uncover all fraudulent acts in their audit work.

Further, future work can explore whether the jurors might assess punitive damages to send a signal to the audit profession on the need to maintain a high level of integrity. This might be an effective deterrence measure for increasing the ethical values of the audit profession and the public's confidence in corporate financial reporting and the attest function. Additional work is

also needed to identify the impact of other individual characteristics (e.g., level of conservatism, ethical values, beliefs, etc.) on the jurors' evaluation of the auditors' responsibility in audit failure litigation.

Figure 1: Research Model

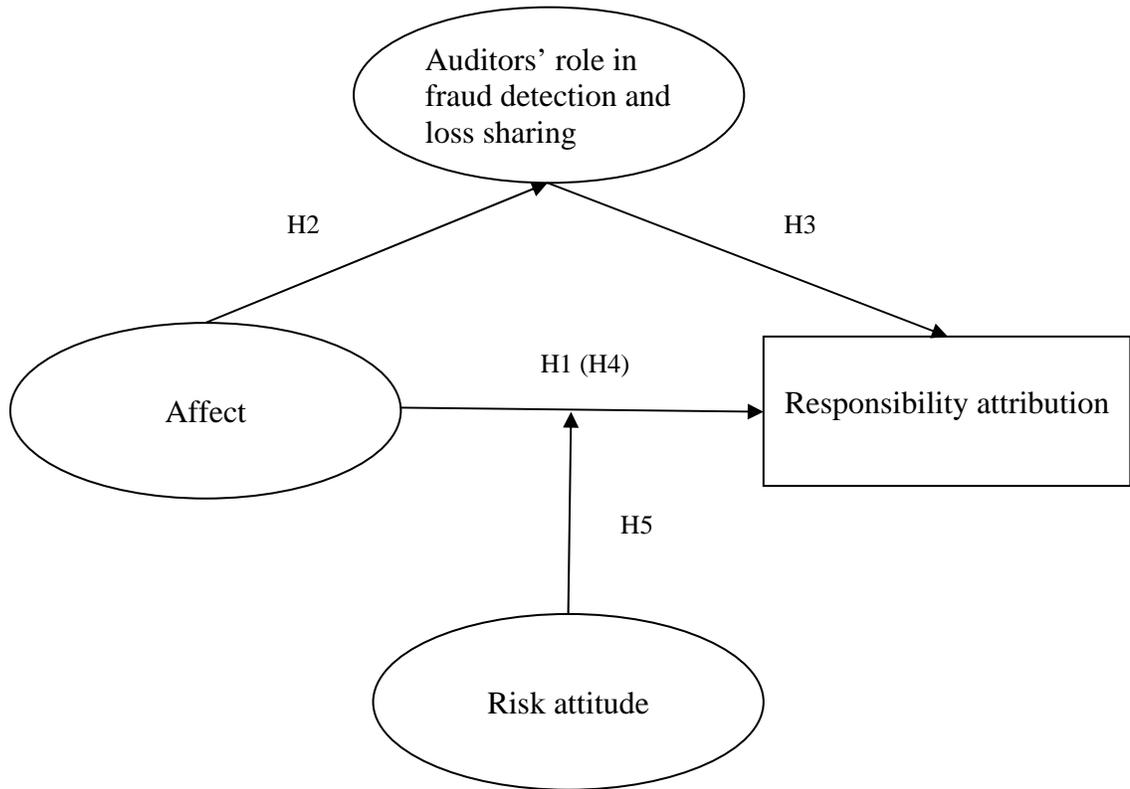
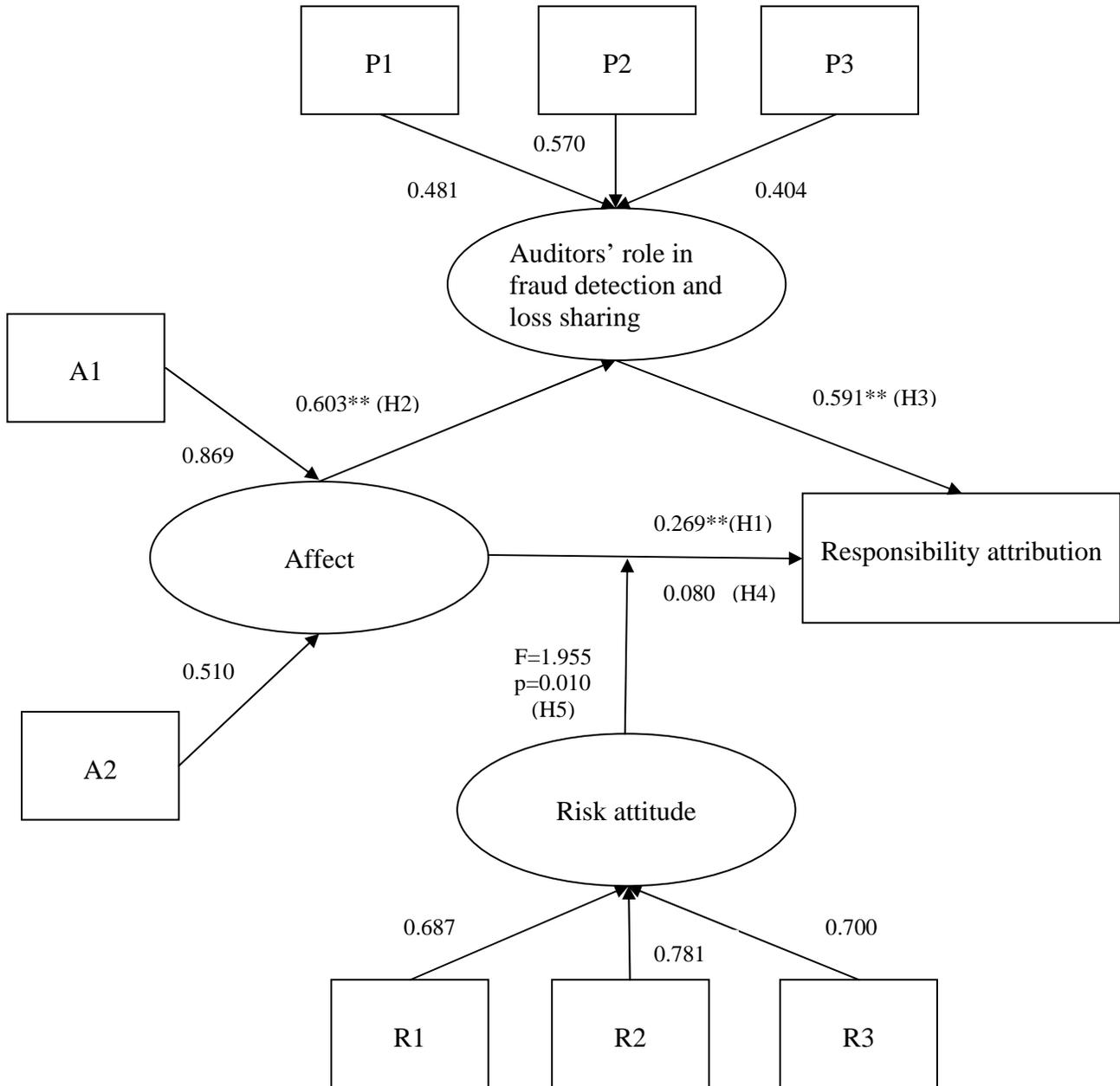


Figure 2: Results of Hypotheses



1. Latent variables (i.e., affect and the auditors' role in fraud detection and loss sharing) were represented by circles and the manifest variables were represented by rectangles.
2. A1 and A2 denoted the two measures (manifest variables) of affect.
3. P1, P2, and P3 denoted the three measures (manifest variables) of the auditors' role in fraud detection and loss sharing.
4. R1, R2, and R3 denoted the three measures (manifest variables) of risk attitude.
5. The Structural Equation Model was used to test hypotheses 1 to 4. The significant path coefficients were represented by ** (i.e., $p=0.000$), providing support for hypotheses 1 to 3. The insignificant path coefficient for the link between affect and responsibility attribution in the presence of the mediator demonstrated the full mediation effect of the auditors' role in fraud detection and loss sharing in the relationship between affect and responsibility attribution; therefore, hypothesis 4 was supported.
6. ANOVA was used to test hypothesis 5. The p-value was significant at 0.010, providing support for hypothesis 5.

Table 1: Model Fit

Model	CFI (Comparative Fit Index)	RMSEA (Root Mean Square Error Of Approximation)	SRMR (Standardized Root Mean Square Residual)
Measurement model	1.000	0.000	0.026
SEM1	1.000	0.000	0.000
SEM2	1.000	0.000	0.026
SEM3	0.963	0.060	0.040
SEM4	0.973	0.047	0.036

Note: The model fit was considered to be excellent if $CFI > 0.950$, $RMSEA < 0.06$ and $SRMR < 0.06$.

REFERENCES

- Adolphs, R., and A. R. Damasio. 2001. The interaction of affect and cognition: A neurobiological perspective. In J. P. Forgas (Ed.), *The Handbook of Affect and Social Cognition* (pp. 27-49). Mahwah, NJ: Erlbaum.
- Ashbaugh-Skaife, H., D. Collins, W. Kinney, and R. LaFond. 2008. The effect of SOX internal control deficiencies and their remediation on accrual quality. *The Accounting Review* 83(1): 217-250.
- Baron, R. M., and D. A., Kenny. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology* 51: 1173-1182.
- Bellovary, J. L., D. E. Giacomino, and M. D. Akers. 2006. Weighing the public interest is the going concern opinion still relevant? *The CPA Journal* (January): 16.
- Bonner, S. E., Z-V. Palmrose, and S. M. Young. 1998. Fraud type and auditor litigation: An analysis of SEC accounting and auditing enforcement releases. *The Accounting Review* 73(4): 503-532.
- Boyll, J. R. 1991. Psychological, cognitive, personality and interpersonal factors in jury verdicts. *Law and Psychology Review* 15(Spring): 163-168.
- Brandon, D. M., and J. M. Mueller. 2006. The influence of client importance on juror evaluations of auditor liability. *Behavioral Research in Accounting* 18:1-18.
- Bromiley, P., and S. Curley. 1992. Individual differences in risk taking. In *Risk-taking Behavior*. Yates J.F. (Ed.), New York: John Wiley.
- Buckless, F. A., and R. L. Peace. 1993. The influence of the source of professional standards on juror decision making. *The Accounting Review* 68(1): 164-175.
- Carcello, J. V., and Z-V Palmrose. 1994. Auditor litigation and modified reporting on bankrupt clients. *Journal of Accounting Research* 32(Supplement): 1-30.
- Causey, D. Y., Jr., and S. A. Causey. 1991. *Duties and liabilities of public accountants* (4th edition). Mississippi State, MS: Accountant's Press.
- Clarkson, P. M., C. Emby, and V. W-S Watt. 2002. Debiasing the outcome effect: The role of instructions in an audit litigation setting. *Auditing: A Journal of Practice & Theory* 21(2): 7-20.
- Edwards, J. R., and R. P. Bagozzi. 2000. On the nature and direction of relationships between constructs and measures. *Psychological Methods* 5(2): 155-174.

- Fellner, G., and B. Maciejovsky. 2007. Risk attitude and market behavior: Evidence from experimental asset markets. *Journal of Economic Psychology* 28: 338-350.
- Forgas, J. P., and G. H. Bower. 1987. Mood effects on person-perception judgments. *Journal of Personality and Social Psychology* 53: 53-60.
- Forgas, J. P. 1992. On bad mood and peculiar people: Affect and person typicality in impression formation. *Journal of Personality and Social Psychology* 62: 863-875.
- Forgas, J., and J. M. George. 2001. Affective influences on judgments and behavior in organizations: An information processing perspective. *Organizational Behavior and Human Decision Processes* 86(1): 3-34.
- Freeze, R. D., and R. L. Raschke. 2007. An assessment of formative and reflective constructs in IS research. *15th European Conference on Information Systems*: 1481-1492.
- Geiger, M. A. and K. Raghunandan. 2002. Going-concern opinions in the "new" legal environment. *Accounting Horizons* 16: 17-26.
- George, J. M., and K. Bettenhausen. 1990. Understanding prosocial behavior, sales performance, and turnover: A group level analysis in a service context. *Journal of Applied Psychology* 75: 698-709.
- George, J. M., and A. P. Brief. 1992. Feeling good-doing good: A conceptual analysis of the mood at work: Organizational relationship. *Psychological Bulletin* 112: 310-329.
- Hogan, C. E., Z. Rezaee, R. A. Riley, and U. K. Velury. 2008. Financial statement fraud: Insights from the academic literature. *Auditing: A Journal of Practice & Theory* 27: 231-252.
- Kadous, K. 2000. The effects of audit quality and consequence severity on juror evaluations of auditor responsibility for plaintiff losses. *The Accounting Review* 75(3): 327-341.
- Kadous, K. 2001. Improving jurors' evaluations of auditors in negligence cases. *Contemporary Accounting Research* 18(3): 425-444.
- Kenny, D. A. 2009. <http://davidakenny.net/cm/mediate.htm>.
- Kida, T., and J. Smith. 1995. The encoding and retrieval of numerical data for decision making in accounting contexts: Model development. *Accounting, Organizations and Society* 20 (7/8): 585-610.
- Krahnen, J. P., C. Rieck, and E. Theissen. 1997. Inferring risk attitude from certainty equivalents: Some lessons from an experimental study. *Journal of Economic Psychology* 18: 469-486.
- Krishnan, J. and Y. Zhang. 2005. Auditor litigation risk and corporate disclosure of quarterly review report. *Auditing: A Journal of Practice and Theory* 24: 115-138.

- Loewenstein, G., and J. S. Lerner. 2003. The role of affect in decision making. In R. Davidson, K. Scherer, & H. Goldsmith (Eds.), *Handbook of Affective Science* (pp. 619-642). New York: Oxford University Press.
- Lopes, L. L. 1997. *Between Hope and Fear: The Psychology of Risk*. In W. M. Goldstein and R. M. Hogarth (Eds.), *Research on Judgment Decision Making: Currents, Connections, and Controversies* (pp. 681-720). Cambridge University Press.
- Lowe, D. J., P. M. J. Reckers, and S. M. Whitecotton. 2002. The effects of decision aid use and reliability on jurors' evaluations of auditor liability. *The Accounting Review* 77(1): 185-202.
- Lys, T. and R. L. Watts. 1994. Lawsuits against auditors. *Journal of Accounting Research* 32 (Supplement): 65-93.
- Mercer, M. 2005. The fleeting effects of disclosure forthcomingness on management's reporting credibility. *The Accounting Review* 80 (2): 723-744.
- Moylan, S. 2000. Mood effects on performance appraisal judgments. Unpublished Ph.D. thesis, University of New South Wales, Sydney, Australia.
- Pacini, C. W. Hillison, and D. Sinason. 2000. Three's a crowd: An examination of state statutes and court decisions that narrow accountant liability to third parties for negligence. *Advances in Accounting* 17: 151-186.
- Palmrose, Z-V. 1987. Litigation and independent auditors: The role of business failures and management fraud. *Auditing: A Journal of Practice and Theory* 6(2): 90-103.
- _____. 1991. Trial of legal disputes involving independent auditors. *Journal of Accounting Research* 29: 149-185.
- Raghunandan, K. and D. V. Rama. 2007. Determinants of audit committee diligence. *Accounting Horizon* 21(3): 265-279.
- Rose, J. M., F. D. Roberts, and A. M. Rose. 2004. Affective responses to financial data and multimedia: the effects of information load and cognitive load. *International Journal of Accounting Information Systems* 5: 5-24.
- Sosis, R. H. 1974. Internal-external control and the perception of responsibility of another for an accident. *Journal of Personality and Social Psychology* 30 (3): 393-399.
- Vinson, D. E. 1986. *Jury Trials: The Psychology of Winning Strategy*. Charlottesville, VA: Michie Company.
- Weber, E. U., A-R. Blais, and N. E. Betz. 2002. A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making* 15: 263-290.

Weber, E. U., and R. Milliman. 1997. Perceived risk attitudes: Relating risk perception to risky choice. *Management Science* 43: 122-143.

Zajonc, R. B., P. Pietrmonaco, and J. Bargh. 1982. Independence and Interaction of Affect and Cognition, in Clark, M. S. and Fiske, S. T. (eds), *Affect and Cognition: The Seventeenth Annual Carnegie Symposium on Cognition*, pp. 211-227 @ BUdale, NJ: Lawrence Erlbaum Associates.

Yuan, J., C. Yuan, X. Deng, and C. Yuan. 2008. *The effects of manager compensation and market competition on financial fraud in public companies: An empirical study in China*. *International Journal of Management* 25(2): 322-335.