

The Influence of Expert Witnesses on Jurors' Decision-Making in an Accounting Context

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Introduction

This study examines the reaction of jurors who have no advanced accounting knowledge when they are asked to make decisions in a complex accounting context. A theoretical framework is proposed based on the cognitive model and on previous literature. This framework includes consideration of juror bias and pre-existing opinions, and the effects of an expert witness on juror decision-making related to financial statement reliability. It is the first test of juror decision-making in New Zealand related to accounting understanding. The main objective of this study is to understand the influence of expert witness testimony on the decisions of jurors in an accounting context. By achieving this objective, the importance of expert witnesses is highlighted.

The first motivation of this study is that jurors have a vital role to play in our society, and therefore a number of studies have been undertaken in relation to their functions. As stated by Hastie (1993), jury research offers the following benefits. First of all, people conduct studies of jurors and jury decisions to influence the law and to improve jury performance. Another reason for undertaking jury research is to inform lawyers. Attorneys can be provided with assistance in the form of original research and syntheses by social scientists. To understand the behavior of jurors is another form of motivation for social science research relevant to the topic. In furtherance, jury research leads to a better understanding of individual perceptions even when decisions are not jury-related, and also to understanding group behavior. Understanding the law and the functioning of the legal system also provides motivation for research on jurors.

Even though numerous studies regarding jurors have been undertaken, only a limited amount of jury research has been conducted with regard to the accounting context. It cannot be assumed that the findings discovered in overseas studies are going to be the same as those in New Zealand. Krafka et al., (2002) found that the single most frequent type of expert was an economist, accounting for eleven percent of all experts testifying in trials in America.

This study is based in New Zealand (using the New Zealand jury system and New Zealand accounting standards). The background of this survey is in the form of a case study. A hypothetical company by the name of *BioHealth* is the defendant, and the Serious Fraud Office (SFO) is prosecuting. This study puts the onus on the participation of New Zealand residents as jurors. Nearly ninety percent of the participants were native English-speaking New Zealanders. All the participants who were asked to perform the role of juror were lay persons. The participants were asked to complete questionnaires in which they were given comprehensive information about the hypothetical case. A total of ninety-eight participants were randomly distributed to one of four experimental conditions which provided different roles for expert witnesses. They were asked to respond to the same set of questions before and after the expert testimonies.

This report begins with background information about the qualifications of the jurors and the role of expert witnesses, and then presents an overview of the psychology of juror decision-making. Next is a discussion of the theoretical framework, followed by a literature review and hypothesis development. Thereafter, the report highlights the research design and method in regard to the experimental overview, participants, and variables. The report then provides results in terms of descriptive statistics aimed at testing the hypotheses. There is a discussion of the results and the limitations of the study.

Background Information

Qualifications of Jurors

According to section six of the New Zealand Juries Act 1981, every person who is currently registered as an elector in accordance with the Electoral Act 1993 is qualified and liable to serve as a juror. There are some exceptions regarding those previously convicted of crimes and those employed in positions dealing with the law.

The Role of the Accounting Expert as a Testifying Witness

Jurors need to understand a particular issue before they can arrive at any conclusion. Therefore, accounting experts are of great assistance to jurors in many cases. An accounting expert's professional experience, supplemented by his knowledge, skills, training, and education, provides a foundation for offering expert advice to jurors.

Overview of Psychology of Juror Decision-Making

Hastie (1993) and Devine et al., (2001) use different perspectives to summarize four basic models, namely the mathematical approach, the algebraic approach, the stochastic process, and the cognitive approach. However, the cognitive model is the most widely adopted approach, wherein jurors attempt to assemble the evidence into a coherently complete substance which is consistent with the facts of the case and which makes sense based on their existing knowledge (Devine et al., 2001).

Theoretical Framework

In this section, a theoretical framework is proposed for the basis of the hypothesized relationship between the expert witness and the jurors involved in decision-making. To date, there have been numerous studies about juror decision-making, but there are few which deal with the accounting context. The author proposes the cognitive model as the theoretical framework and the previous literature concerning juror bias and pre-existing opinion also is reviewed to examine the processes which take place within the decision-making framework.

In the cognitive model, during the course of the trial, the jurors are engaged in an active, constructive, comprehension process in which they form a sense of the trial information by attempting to organize the information into a coherent mental representation (Pennington and Hastie, 1993). Generally speaking, the cognitive story model includes three components: (a) evidence evaluation through story construction, (b) representation of the decision alternatives by studying the verdict category attributes, and (c) making a decision by selecting the best-fitting verdict category through classification of the story. The expert witness statements affect the construction of the story in the minds of the jurors and influence their consequential decision-making. In the story construction stage, the psychological representation makes the relevant knowledge into a story form. The information includes: (a) case-specific information (e.g., statements made by witnesses); (b) knowledge about events similar in content to the disputed topic (e.g., knowledge about similar topics in the juror's community); and (c) generic expectations about what builds a complete story. If there is more than one story structured by a juror, one of the stories usually will be considered as more acceptable than the others.

Literature Review and Hypotheses Development

General Reaction of Jurors to Expert Witnesses

The most important component, which provides the most comprehensive and accurate information for jury decision-making, is the statements of witnesses. Consequently, the methodology of presenting expert witness statements in a sound format can enhance understanding ability. Further, it helps ordinary people make decisions in an unbiased manner.

Research on confirmation bias has, for a long time, acknowledged a primacy effect whereby individuals form their opinions early in the decision-making process and then evaluate new information in a way that is favorable to those initial opinions (Anderson and Jacobson, 1965; Nisbett and Ross, 1980). Similarly, research related to belief persistence has suggested that, when an opinion has been formed, it can be very resistant to change, even when it is shown to be incorrect (Rhine and Severance, 1970; Ross and Lepper, 1980; Ross, Lepper, and Hubbard, 1975).

Ivkovic and Hans (2003) also suggest that most jurors express some reservations about experts at the outset, rather than accepting expert assertions uncritically, as is often supposed. Also, there might be bias in a juror's mind even when expert statements have been presented. The decision-makers may be more likely to view new ambiguous information in conformity with previous beliefs or opinions. They are more likely to dismiss information which does not validate their initial opinions (Ross and Anderson, 1982).

Zuwerink and Devine (1996) also found that when people held pre-existing opinions that were important to the case, their resistance to persuasion was both effective and cognitive. Resistance was mediated by the participant's feelings of irritation as well as by cognitive elaboration. The notion of pre-decision bias or distortion allows a more precise conceptualization of these general processes within the decision-making context. Taken together, this explanation of juror bias and pre-existing opinion, and the cognitive model suggest that jurors may actually start with bias and pre-existing opinion in any situation in which they are involved. However, during the trial process, they will construct a story from new information that is given

by the witnesses. Therefore, the expert witness should have some influence on their decision-making, but whether their final decision on the case will be changed depends on how convincing the testimony might be. In the following section, the proposed framework is discussed to develop testable hypotheses.

The Influence of the Expert Witness on Juror Decision-Making

From the role of the expert witness, as mentioned in background information section, and in accordance with the theoretical framework, it seems that the expert witness should have some influence on juror decision-making, as jurors are lay persons with no specific expert knowledge, yet they are routinely placed in situations in which they need to critically evaluate complex expert testimony. Jurors are subjected not just to the testimony of a single expert, but rather to opposing experts for the prosecution and defense. Prior literature suggests that the expert witness plays an important role in trials. Crumbley and Russell (2004) suggested that the expert witnesses must be well prepared, as juries and judges often have little knowledge about audits, financial statement analyses, and other accounting-related matters. Besides, the expert witnesses must be competent and have professional certifications, experience, and academic training. Sanchez and Zhang (2012) examined the role of expert witnesses in cases related to accounting fraud. They reviewed tax fraud in two firms (i.e., Enron and HealthSouth) and found that the expert witnesses played a significant role for both the defendant and the prosecution to testify accounting treatments and compensation issues.

Gross and Syverud (1991) in their study reported that eighty-six percent of the 529 trials examined utilized expert testimony. The question is how well jurors are able to understand expert testimony (Ivkovic and Hans, 2003). The majority of jurors accept the fact that expert testimony is crucial to the outcome of their cases (Champagne et al., 1992). From the literature review above, it seems that expert witnesses have a vital effect on juror decision-making. Thus, the first hypothesis of this study is

H1: The expert witness has a significant influence on juror decision-making in relation to financial statement reliability.

Expert Witnesses and Juror Decision-Making

As seen from the literature in the previous section, jurors may have bias and pre-existing opinions related to disputes. Does this apply to financial matters too? Buckless and Peace (1993) found that jurors were more likely to rule against a CPA firm when professional standards were offered in defense, and less likely to rule against it when governmental standards of performance were offered in defense. In addition, when the judge instructed the jurors that compliance with the standard was the only appropriate criterion for evaluating performance, jurors were more likely to accept those standards as a defense, whether they were governmental or professional standards. In most accounting situations, the defendants are private parties such as companies or management, whereas the prosecution is likely to be a government organization, such as a regulator or fraud investigator.

Schuller and Vidmar (1992) found that expert evidence altered jurors' evaluations of the defendant's perceptions and resulted in greater leniency in their verdicts. However, their study focused on cases involving battered women. The effect on accounting cases is still uncertain. When these views are combined, one might conclude that jurors are more likely to change their decision about the defendant's being guilty when they get information from an expert witness about the defendant. Thus, the second hypothesis related to the accounting context is as follows:

H2: A defense expert witness has more influence than a prosecution expert witness on juror decision-making in relation to financial statement reliability.

Research Design and Method (R&D)

Experimental Overview

The background of this study is presented in the form of a case study. The case is based on New Zealand jurisdiction and New Zealand Accounting Standards. All participants were asked to perform the role of being a juror in a dispute about the accounting treatment of R&D projects. The dispute is between a hypothetical company by the name of *BioHealth* (the defendant) and the Serious Fraud Office (SFO), the prosecutor. Questionnaires were randomly distributed to ninety-eight qualified jurors according to the New Zealand Juries Act 1981 and the Electoral Act 1993. More than ninety percent of the participants were New Zealanders who were native English speakers. Each participant was given one of the four

experimental conditions with varying roles for the expert witnesses. They were asked to respond to the same set of questions before and after the expert testimony.

Experimental Design and Participants

The participants were randomly distributed to one of the four experimental conditions shown in Table 1 below. The order also was varied as to whether the defense or prosecution expert testimony was heard first.

Table 1: Experimental Conditions

Parties in Dispute	Role of Expert Witness			
Defendant	Auditor	CEO	Auditor	CEO
Prosecution	Auditor	Auditor	CEO	CEO
	Group 1	Group 2	Group 3	Group 4

All participants in the experiment received detailed information about a hypothetical company called *BioHealth* and were asked to vote for a verdict in a dispute about the accounting treatment of Research and Development projects. The dispute was based on an actual case (*Goldman*), a New Zealand Inland Revenue Department public discussion document (November 2000) and the New Zealand Accounting Standards (FRS-13). Background information, such as company background, the concept of the accounting treatments of R&D projects, the prosecution argument, and the defense argument, was held constant across the experimental conditions, since the main objective was to investigate the effect of the expert witnesses on juror decision-making, not the statements themselves. The research instrument was randomly distributed to ninety-eight qualified jurors according to the New Zealand Juries Act 1981 and the Electoral Act 1993. All participants were asked to respond to the same set of questions before and after they had heard the expert testimonies. All responses were anonymous and confidential. Participants were asked to undertake individual reading and decision-making, and a simple and basic form of language was used in the research instrument to ensure that no participants would have any difficulty in completing the tasks due to lack of understanding.

Independent Variables

The objects of interest in this experimental study are the presence of expert witnesses and the parties for which they are appearing. The author provided the information about who the witnesses were (auditors or CEOs), and which party they represented (prosecution or defense) in the various scenarios mentioned in Table 1. In this situation, the expert witness was an auditor because the dispute is in an accounting context. The subject had to decide whether the witness had sufficient expertise and whether he or she could be relied upon or not.

Dependent Variables

The dependent variables consisted of the juror decision-making regarding financial statement reliability and the appropriateness of the accounting treatment for R&D. The same set of questions was presented twice. The first set was presented before the expert testimony was introduced, and the second set was presented after the expert testimony had been introduced. The participants were asked to evaluate the reliability of the financial statements by ranking it from “not reliable at all” (0) to “extremely reliable” (10). Also, participants were asked to rate the appropriateness of the accounting treatment for R&D projects from “not appropriate at all” (0) to “completely appropriate” (10).

Control Variables

The author controlled for other variables that might affect the relationships between the presence of expert testimony and juror decision-making. Many studies have found that other factors might impact juror decision-making. Several researchers have discovered that jurors are likely to use peripheral cues in deciding on the persuasiveness of an expert’s testimony, because jurors are dealing with experts who present conflicting, highly complex technical evidence that may be beyond the capability of the average person to understand. The peripheral cues which are used by jurors are the experts’ credentials and the personal characteristics of the experts. Also, the higher the quality of the arguments that are presented in testimony, the greater the persuasive impact that is likely to be made (Leippe and Elkin, 1987; Petty, Cacioppo, and Goldman, 1981). Therefore, those factors were controlled by providing the same background description of the hypothetical company, the concept of the research and development projects, the defense argument, and the prosecution argument for each scenario.

Similar background for the expert witnesses (i.e., common name, education background, experience) and the expert witness statements across the experimental conditions were provided.

Results

Hypothesis Testing

The Influence of an Expert Witness on Juror Decision-Making

The Paired Samples statistical results in Table 2 show that the presence of an expert witness had a significant influence on juror decision-making. When an expert witness was introduced, for either defense or prosecution, the jurors considered that the financial statements were more reliable (Group 1, Mean and (SD) for RELIA_B4 and RELIA_AF were 4.67 (2.239) and 5.67 (2.078) respectively, t-value = -2.181). By contrast, when the witnesses were not experts, the jurors considered that the financial statements were less reliable (Group 4, Mean and (SD) for RELIA_B4 and RELIA_AF were 5.36 (2.196) and 4.88 (2.369) respectively, t-value = 1.853). This result can be explained by suggesting that the non-expert witnesses were not able to provide useful information, and, therefore, the jurors made their own judgments without influence from those witnesses. This explanation is consistent with Brekke and Borgida (1988), who suggest that jurors may resolve the issue of two conflicting testimonies by ignoring both of them (and resorting to their prior beliefs) or by accepting the one that supports their prior beliefs when no expert testimony has been presented.

For Group 2 and Group 3, which received only one expert testimony (the other was from a CEO, who was not an expert), there was no change in their judgment (Group 2, Mean and (SD) for RELIA_B4 and RELIA_AF were 4.48 (2.648) and 4.48 (2.535) respectively, t-value = 0.000, Group 3, Mean and (SD) for RELIA_B4 and RELIA_AF were 5.46 (2.340) and 5.46 (2.303) respectively, t-value = 0.000). This result may be due to the jurors’ perception that there was strong credibility for the expert witness (auditor) and weak credibility for the non-expert witness (CEO). Overall, the results generally suggested that the jurors were more likely to adjust their decisions when the witnesses were experts. This finding is consistent with the hypothesis.

**Table 2: Juror Decisions in Regard to Financial Statement Reliability Before and After Expert Testimony
by Group**

	Group 1 n = 24 Mean (SD)	Group 2 n = 25 Mean (SD)	Group 3 n = 24 Mean (SD)	Group 4 n = 25 Mean (SD)
RELIA_B4	4.67 (2.239)	4.48 (2.648)	5.46 (2.340)	5.36 (2.196)
RELIA_AF	5.67 (2.078)	4.48 (2.535)	5.46 (2.303)	4.88 (2.369)
Differences	-1.00 (2.246)	0.00 (1.780)	0.00 (1.445)	0.48 (1.295)
t-value	-2.181	0.000	0.000	1.853

RELIA_B4 Jurors’ decisions on financial statement reliability before expert testimony, measured on a 0–10 scale where higher values indicate greater reliability.

RELIA_AF Jurors’ decisions on financial statement reliability after expert testimony, measured on a 0–10 scale where higher values indicate greater reliability.

Group 1 Defendant witness is Auditor and prosecution witness is Auditor.

- Group 2 Defendant witness is CEO and prosecution witness is Auditor.
- Group 3 Defendant witness is Auditor and prosecution witness is CEO.
- Group 4 Defendant witness is CEO and prosecution witness is CEO.

Party Represented by Expert Witness and Effect on Juror Decision-Making

A linear regression was conducted to test the correlation between the party for which the expert witness appeared and the effect on juror decision-making in relation to financial statement reliability (H2). The results in Table 3 indicate that the expert witness for the defense had a more significant impact on juror decision-making in relation to financial statement reliability than the expert witness for the prosecution ($t = 1.880$ for defense expert, $t = -0.217$ for prosecution expert, which was not significant). Moreover, the coefficient between Def_Exp and RELIA_AF was 0.189, which suggests that jurors considered that the financial statements were more reliable when they were presented as expert testimony for the defense. These results support the theoretical framework and are consistent with the hypothesis of this study.

Table 3: Effect of Def_Exp and Pl_Exp on RELIA_AF

Variables	Beta	t	Sig.
Def_Exp	0.189	1.880	0.063
Pl_Exp	-0.022	-0.217	0.828

Def_Exp The expert witness appears for the defendant.

Pl_Exp The expert witness appears for the prosecution.

RELIA_AF Jurors' decisions on financial statement reliability after hearing expert testimony, measured on a 0–10 scale where higher values indicate greater reliability.

Discussion

This study examined the influence of expert witness testimony on the decisions of the jurors in an accounting context. Specifically, the focus was on the effects of expert witness testimony on juror decision-making regarding financial statement reliability. Studies about jurors and jury decision-making can offer many benefits, such as suggesting changes in the law to improve jury performance, offering information to lawyers, understanding the behavior of juries, forming a better understanding of individual perceptions regarding decision-making in non-jury situations, and understanding group behavior and the functioning of the legal system (Hastie, 1993). Further, only limited jury research has previously been conducted in the accounting context. The cognitive model was used, and juror bias and pre-existing opinion were considered, together with an examination of the prior literature, in order to understand the processes involved in juror decision-making. It is hoped that this research will guide further research and contribute to an understanding of relevant testimony for accounting cases.

The questionnaires were randomly distributed to ninety-eight qualified jurors in New Zealand. They were given one of four different experimental conditions, each of which varied the role of the expert witnesses (auditor or CEO) and the parties which they were representing (defense or prosecution). The results suggest that expert witnesses have a significant influence on juror decision-making in relation to financial statement reliability. Specifically, an expert witness has more influence on juror decision-making when appearing for the defense.

There were some limitations to this study. At the outset, the participants involved in the study were not actual jurors; they were just ordinary citizens who were qualified to be jurors. Prior studies involved with juror decision-making included actual jurors who were involved in a real decision-making process. This study restricted the definition of juror to a layman. Such people use their abilities to arrive at a decision, without any prior experience. The jurors' decision-making skills in this study may have relied to some extent on their insights and on perceptions which they may have acquired from movies or other forms of entertainment. To some degree, this process may limit the strength of validity of the study with regard to juror decision-making. The background of research involving juror decision-making is enormously diverse, and factual statements are relied upon in this research. In addition to hearing those statements, jurors perceive information by various

means. The jurors may perceive information through listening to the testimony of experts. In such circumstances, considerable importance may be given to the expressions, gestures and approach adopted by those experts. Here the abovementioned variables relating to the experts' expressions, gestures, and approach could not be controlled, and therefore the author can only assume that the effect of such variables is negligible, it is identical for both parties.

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