

The Effect of Partner Communications of Fraud Likelihood and Skeptical Orientation on Auditors' Professional Skepticism

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SUMMARY: We investigate the effect of partner communication on the level of professional skepticism in auditor judgments and actions within the context of the fraud brainstorming discussion meeting where the partner is of the view that there is a low likelihood of fraud. Across two studies, we examine the effect on professional skepticism of the partner's communication on the likelihood of fraud (making their own view known, making management's view known, or not making any view known) and the skeptical orientation being encouraged (outward orientation toward the veracity of management representations and/or inward toward the fallibility of the auditor's judgment processes). We find that auditors exhibit higher levels of professional skepticism when the partner expresses management's view, rather than their own view or no view, that there is a low likelihood of fraud. We also consider what causes these differences. Emphasizing an inward skeptical orientation was not found to be more effective in encouraging professional skepticism in audit judgments than emphasizing an outward skeptical orientation. Importantly, emphasizing both an inward and outward skeptical orientation was more effective in encouraging professional skepticism in audit actions than emphasizing only an outward orientation.

Keywords: professional skepticism; fraud; partner communication; inward versus outward orientation; trait skepticism.

INTRODUCTION

While the concept of professional skepticism has been part of auditing standards for decades, there is increasing recognition of both the importance of professional skepticism and deficiencies in the application of professional skepticism. First, the Center for Audit Quality's (CAQ 2010) report on *Deterring and Detecting Financial Reporting Fraud* identifies the development of techniques to enhance the application of professional skepticism as one of the four areas of critical effort. Similarly, the International Auditing and Assurance Standards Board (IAASB 2015, 7) refers to professional skepticism as "a fundamental concept and core to audit quality," and has included the appropriate application of professional skepticism as a key priority area in its 2015–2016 work plan. Second, internationally there has been criticism of auditors for failing to exercise sufficient professional skepticism in the conduct of their audits (Accounting and Corporate Regulatory Authority [ACRA] 2013; Canadian Public Accountability Board [CPAB] 2013; Financial Reporting Council [FRC] 2013; Public Company Accounting Oversight Board [PCAOB] 2013; Australian Securities & Investments Commission [ASIC] 2014; International Forum of Independent Audit Regulators [IFIAR] 2014, 2015). Numerous suggestions have been made on how auditing firms can enhance professional skepticism (Nelson 2009; CAQ 2010; Glover and Prawitt 2013; Hurtt, Brown-Liburd, Earley, and Krishnamoorthy 2013; Peecher, Solomon, and Trotman 2013; IAASB 2015; Westermann, Cohen, and Trompeter 2016). One such suggestion is exploring the role of communications of engagement partners and others in

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influencing the appropriate application of professional skepticism (IAASB 2015). We inform these deliberations by examining, in circumstances where the partner has a view that there is a low likelihood of material misstatement due to fraud, the effect on professional skepticism of what the partner states when communicating the outcomes of the fraud brainstorming session.

Audit engagements where fraud risks have been identified, but the partner's considered view is that the likelihood of fraud is low, are particularly at risk of insufficient levels of professional skepticism for two reasons. First, auditing standards require that an appropriately skeptical audit include recognition of the possible incidence of low probability high impact events including frauds. When partners express their view of a low likelihood of fraud, it may negatively impact the extent to which the audit team is sensitive and alert to new fraud signals that may be embedded in the evidence being evaluated (e.g., inconsistent or unusual events), and consequently the audit team may not exercise an appropriate level of professional skepticism. Second, the above setting is one where inspectors are likely to be especially critical of insufficient levels of professional skepticism if fraud does occur, or even if the inspectors judge the likelihood of fraud to be higher than the partner believed (IFIAR 2014).

The fraud brainstorming session is one consultation arrangement that has been suggested as an opportunity to enhance professional skepticism (Nelson 2009; CAQ 2010; Dennis and Johnstone 2015). At the fraud brainstorming discussion meeting, the partner has an opportunity to provide information that may impact the level of professional skepticism. The views of partners influence members of the audit team (see Hurtt et al. 2013; IAASB 2015), and partners have options about what information to communicate and when to communicate this information. Our primary research question is whether the level of professional skepticism is affected by what the partner communicates to the audit team in a situation where the partner believes there is a low likelihood of fraud, but potential frauds have been identified at the fraud brainstorming discussion meeting. First, we manipulate communications by the partner of information on the susceptibility of the financial statements to fraud (making their own view known, making management's view known, or not making any view known), which we refer to as partner attribution and label as partner view, management view, and no view, respectively. Second, we manipulate the orientation with which the partner communicates the importance of professional skepticism, that is, encouraging auditors to direct their skepticism outward toward the veracity of management representations and/or inward toward the veracity of the auditor's decision processes. Bell, Peecher, and Solomon (2005) and Peecher et al. (2013) outline the potential merit in adopting an inward skeptical orientation, and this second manipulation addresses the possible benefits of partners emphasizing an inward skeptical orientation. Understanding these effects is important, as partners need to be aware of the impact of their communications on the level of professional skepticism in the judgments and actions of their audit teams.

While there has been considerable experimental research in auditing on how different group structures affect the quantity and quality of output from the brainstorming sessions (Carpenter 2007; Hoffman and Zimelman 2009; Trotman, Simnett, and Khalifa 2009; Chen, Trotman, and Zhou 2015), none of this research has addressed the impact of partner communications on professional skepticism. Dennis and Johnstone (2015) examine how an audit partner-led intervention related to leadership behaviors in fraud brainstorming sessions improves some brainstorming processes (including increases in professional skepticism) and some brainstorming outcomes (including the number of fraud risks identified). Unlike previous research, we do not conduct a brainstorming session. Instead, we locate our study of professional skepticism at the point where members of the audit team are given the output of the previously held brainstorming session including a list of potential frauds.¹ Both SAS No. 99 (AICPA 2002) and ISA 240 (IAASB 2016b) have the expectation that not all members of the audit team will be present at the discussion.² In addition, ISA 315 (IAASB 2016c) notes that it is not always practical for all members of the audit team to be included in a single discussion, particularly in multi-location environments (ISA 315 para. A23). Auditing standards also give the partner discretion on what information is to be communicated to the team (AICPA 2002; IAASB 2016b), and it is this communication that we address. The output of the brainstorming session is important for professional skepticism, as one of the reasons auditing standards require engagement team members to hold the brainstorming session is to emphasize professional skepticism (CAQ 2010).

Our first independent variable, the partner's communication of the likelihood of fraud, was motivated by concerns raised by partners that communications indicating a view that there is a low likelihood of fraud at brainstorming sessions may adversely impact the level of professional skepticism exercised by their audit team. Partners face a decision on what to communicate to audit staff when they hold the view, notwithstanding the identification of potential frauds in the brainstorming session, that there is a low likelihood of fraud.³ In such a situation, partners are concerned that expressing their view may mean

¹ Brainstorming guidelines encourage an extensive and wide coverage of potential frauds, and previous audit research has generally not found the quantity of frauds listed to be associated with fraud likelihood assessments (see Trotman, Bauer, and Humphreys [2015] for a summary).

² SAS No. 99.17 (AICPA 2002) notes that "professional judgment should be used in determining which audit team members should be included in the discussion," and ISA 240.15 (IAASB 2016b) refers to "a determination by the engagement partner of which matters are to be communicated to those team members not involved in the discussion."

³ The original idea for this paper came from a discussion with a Big 4 partner concerning the partner's role in the brainstorming session. The partner was aware that his inputs were likely to affect the level of skepticism of his audit team on that engagement. He explicitly mentioned the difficulty of the situation where he thought the likelihood of fraud was low, even though there were potential fraud signals. His concern was the potential to lower the level of skepticism of auditors, with the result that the audit team would not exercise the appropriate level of professional skepticism required in the audit standards and expected by inspectors. Similar views were expressed by other partners as we developed our study.

that the audit team does not exercise an appropriate level of professional skepticism. Partners also have the option of not communicating a view or communicating management's view that there is a low likelihood of fraud. A potential benefit of expressing management's view that there is a low likelihood of fraud is that it may encourage auditors to focus more on evidence contradicting that view, i.e., evaluate evidence with an elevated level of professional skepticism. We label any differences between the partner expressing their own view and the partner expressing management's view as a partner attribution effect. Further, as discussed below, we include a no view condition in order to distinguish two complementary processes contributing to this partner attribution effect.

Our theoretical development of this independent variable emphasizes that the partner attribution effect can result from either a partner alignment effect and/or a review perspective effect contributing to the differences in professional skepticism when the partner varies what is communicated to the audit team. A partner alignment effect proposes that, with knowledge of the partner's view, auditors will consciously and/or subconsciously align their judgments with that view (Peecher 1996; Turner 2001; Wilks 2002). A review perspective effect proposes that, with knowledge of management's view, auditors find themselves in a review mindset, which affects the processing of evidence that contradicts management's view (Libby and Trotman 1993). By incorporating a condition in which the partner makes neither their own view nor management's view known, we are able to make a theoretical contribution by identifying the relative contribution to increased levels of professional skepticism of both the partner alignment and/or review perspective effects identified above. Such insights about the potential reasons why auditors become skeptical can be useful in developing new ways of enhancing professional skepticism in practice.

Our second independent variable manipulates skeptical orientation, which refers to the direction with which auditors focus the doubt inherent in professional skepticism. Auditors are traditionally encouraged in auditing standards and professional pronouncements to adopt an outward orientation where focus is on the doubt with which management representations should be viewed, including the possibility of management manipulating the evidence. An alternative inward orientation has been proposed by Bell et al. (2005), in which auditors are encouraged to be skeptical of their own fallible judgments. Bell et al. (2005) suggest that inward directed skepticism includes auditors being self-critical in anticipation of arguments of others concerning the evidence they have or have not relied on. Peecher et al. (2013) develop an accountability framework for financial statement auditors and set out four potential changes aimed at improving audit quality and/or the quality of inspector evaluations. One such potential change is to encourage auditors to be skeptical of their own judgments. Their proposed research questions include under what circumstances will outward versus inward skeptical orientation be more effective and are combinations of inward and outward orientation more helpful under some circumstances (Peecher et al. 2013, 612). Finally, we include trait skepticism as a covariate, given suggestions that this individual characteristic affects the level of skepticism in judgments (see Hurtt et al. 2013).

We investigate the impact of partner attribution and skeptical orientation in two studies. In Study 1 we manipulate partner attribution across three levels (partner view, management view, and no view) and skeptical orientation across two levels (inward versus outward).⁴ We find increased levels of professional skepticism in audit judgments when the partner attributes the view of a low perceived likelihood of fraud to management (management view) rather than themselves (partner view), and this effect is consistent with a review perspective effect rather than the result of a partner alignment effect. Specifically, we find no significant differences in skeptical judgments between the partner view and the no view conditions (i.e., no partner alignment effect) but higher professional skepticism when management's view of a low likelihood of fraud is provided than when no view is provided (i.e., a review perspective effect). In addition, we find that encouraging an inward skeptical orientation, instead of an outward orientation, does not elevate the level of professional skepticism in audit judgments.

As the results in Study 1 show that encouraging an inward skeptical orientation does not elevate professional skepticism more than a traditional outward orientation, Study 2 extends Study 1 by examining whether an emphasis on an inward skeptical orientation, in addition to an outward skeptical orientation, enhances professional skepticism. While an outward orientation is presently incorporated in auditing standards for both judgments and actions (Nelson 2009), benefits of incorporating an inward orientation have been suggested (Bell et al. 2005; Peecher et al. 2013). Specifically in Study 2, there is no partner communication concerning the likelihood of material misstatement due to fraud and we compare the effects of outward orientation to a combination of outward plus inward orientation on the professional skepticism reflected in both audit judgments and audit actions. Study 2 results show that emphasizing an inward orientation in addition to an outward orientation does have an incremental benefit in encouraging professional skepticism in audit actions but not in audit judgments.

Our research makes a number of important contributions with regard to the effect on professional skepticism of what the partner communicates to audit staff on the susceptibility of financial statements to material misstatement due to fraud. First, an important consideration for partners is what information to provide to the audit team in a situation where their belief is that there

⁴ As discussed in our "Research Methods" section, this results in a 2 (partner view versus management view) \times 2 (inward versus outward orientation) + 1 (no view/outward orientation) design.

is a low likelihood of fraud. Some partners are concerned that expressing their own view that there is a low likelihood of fraud may result in auditors exercising an inappropriately low level of professional skepticism. We find that the level of professional skepticism of auditors does not decrease when the partner expresses their own view that there is a low likelihood of material misstatement due to fraud compared to when the partner does not express a view. This suggests that, at least in our context of potential frauds being identified in the brainstorming session, concerns about the potential negative effect on professional skepticism of partners expressing their view of a low likelihood of fraud may be unwarranted. Our findings further suggest an alternate communication that has the potential to elevate professional skepticism in these circumstances. Compared to when the partner expressed their own view or no view, expressing management's view that there is a low likelihood of fraud led to higher levels of professional skepticism. This result is consistent with a review effect (Libby and Trotman 1993) and provides partners with a more complete understanding of the impact of partner communications on professional skepticism, and with a further means by which to elevate professional skepticism where they perceive it to be appropriate.

Second, we provide insights on suggestions in the literature that an inward skeptical orientation may benefit auditors in helping them exercise a higher level of professional skepticism (Bell et al. 2005; Peecher et al. 2013), and whether combinations of inward and outward skeptical orientations are more helpful under some circumstances (Peecher et al. 2013). We find that communicating the importance of an inward skeptical orientation, either as an alternative, or in addition, to an outward skeptical orientation does not elevate professional skepticism beyond that evident when the partner communicates the importance of only an outward orientation. Significantly we find that communicating the importance of an inward skeptical orientation, in addition to an outward orientation, elevates the level of professional skepticism in audit actions beyond that evident when the importance of only an outward skeptical orientation is communicated. This is important given that prior research (Hammersley, Johnstone, and Kadous 2011) has shown that auditors struggle to take audit actions that exhibit an elevated level of professional skepticism.

HYPOTHESES DEVELOPMENT

We situate this investigation within the professional skepticism model proposed by Nelson (2009). Nelson's (2009) model highlights that skeptical judgments are made in light of evidential input, which, in turn, impacts skeptical actions and the evidential outcomes arising from those actions. Integrating prior literature, he notes how incentives, traits, knowledge, and audit experience and training impact both skeptical judgment and skeptical action (see also Hurr et al. 2013). In terms of this framework, our focus is on skeptical judgments and actions, and the impact thereon of incentives associated with what the partner communicates when reporting on the outcome of the fraud brainstorming session. In both studies we examine two audit judgments that relate to different aspects of professional skepticism emphasized in auditing standards, namely fraud susceptibility and evidence reliability. In Study 2, we include an audit action involving evidence selection.

The Effect of Partner Attribution on Skeptical Judgments

While research shows that auditors are not always sensitive to source credibility (see Maksymov 2015 for a review), in terms of variation in source credibility across client management versus auditors from within the firm, Hirst (1994) finds that evidence from client management is perceived by auditors to have less inferential value than evidence from another member of the audit firm. We expect, therefore, that auditors will exhibit greater levels of professional skepticism toward management's view, rather than the partner's view, that there is a low likelihood of fraud. As elaborated upon below, two effects contribute to this expected difference in professional skepticism, that is, a partner alignment effect (Peecher 1996; Turner 2001; Wilks 2002) and a review perspective effect (Libby and Trotman 1993). As both the partner alignment and review perspective effects predict different mechanisms by which partner attribution impacts professional skepticism, we subsequently compare the partner view and management view conditions with a no view condition in order to investigate the contribution of the partner alignment and review perspective effects to the differences in professional skepticism.

Prior research in psychology (Tetlock 1983, 1992; Lerner and Tetlock 1999) has shown that accountability pressures can lead to less effort and increased bias as individuals strategically align their views with the known (or readily inferred) beliefs and preferences of those to whom they are accountable. Research in accounting has supported this theory and shows that subordinates tend to agree with reviewers' and supervisors' views (Peecher 1996; Hoffman and Patton 1997; Turner 2001; Wilks 2002). Peecher (1996) finds that reviewer preferences affect both the level of skepticism in auditors' likelihood assessments and the weight auditors assign to client integrity when making such assessments. Such accountability effects are explained by Hoffman and Patton (1997) to be the result of auditors' tendency to shift their judgments based on what they expect to be defensible to their superiors. Turner (2001) finds that perceived reviewer preferences affect the extent of skepticism in evidence search. While the above discussion suggests that auditors tend to make judgments that strategically support the views of superiors, Wilks (2002) finds that this tendency is even more prominent because auditors unconsciously interpret evidence items as more consistent with the partner's view and this results in judgments more consistent with the partner's view.

These preferences toward agreement with the superior can be explained by auditors trying to enhance their reputations with superiors by stylizing the work done (Rich, Solomon, and Trotman 1997) and/or because auditors perceive partners to be experts with high levels of expertise and credibility and thus place greater reliance on the information provided by them (Hirst 1994; Kim and Harding 2016). Regardless of whether the effects in the above studies are caused by a change in effort and/or a subconscious bias in the interpretation of evidence, these studies would suggest that auditors exposed to a view from the partner of a low likelihood of fraud are likely to make judgments reflecting lower levels of professional skepticism than when no view is expressed (a partner alignment effect).

By comparison, participants who receive management's view of a low likelihood of fraud are likely to adopt a more critical attitude because auditing standards (AICPA 2002; IAASB 2016b) and professional literature (e.g., APB 2012), in discussing the application of professional skepticism, refer to the need for an auditor mindset "which rigorously questions and challenges management's assertions" (APB 2012, 12). Thus, providing management's view effectively puts the auditor in a similar situation to reviewing another's judgment. Libby and Trotman (1993) suggest that when a reviewer is informed of an initial decision-maker's judgment, it increases relative attention to, and memory for, subsequent evidence that is inconsistent with that initial judgment.

The theoretical basis for Libby and Trotman's (1993) prediction is the impression formation literature in psychology (Hastie and Kumar 1979; Srull 1981; Srull, Lichtenstein, and Rothbart 1985; Bodenhausen 1988). This literature suggests that initial categorization impacts the expectations held for subsequent information received and these expectations influence the processing of that information. Where information is consistent with expectations, it is encoded within the stereotypical characteristics held for those in the category. Information that is inconsistent with expectations is not only more salient, but also requires more extensive processing such that it is recalled with greater accuracy. In the present study the initial judgment is provided by management. As auditing standards suggest a critical attitude to management assertions (IAASB 2016b; AICPA 2002), auditors are likely to be alert to evidence inconsistent with management's views. Given the link between fraud hypothesis generation and fraud risk assessments (Hammersley 2011), potential frauds identified in the brainstorming session are likely to suggest the possibility that fraud risk might be higher than that suggested by management.⁵ The inconsistency between the presence of potential frauds and management's view that there is a low likelihood of fraud is expected to increase the attention to those potential frauds and lead to judgments that reflect greater levels of professional skepticism than if no view is expressed (a review perspective effect).

Considered together, these above effects lead us to anticipate that the judgments of auditors who have been informed by the partner of a view that there is a low likelihood of fraud will reflect greater levels of professional skepticism when that view is expressed as a management view rather than a partner view.

H1: Auditors informed by the partner of a view that there is a low likelihood of fraud make judgments reflecting greater levels of professional skepticism when the view is attributed by the partner to client management (management view condition) rather than themselves (partner view condition).

In developing H1, we highlight that the partner attribution effect is derived from a partner alignment effect (e.g., Peecher 1996) and a review perspective effect (e.g., Libby and Trotman 1993). We examine the contribution of each to the partner attribution effect. To address these component effects, we compare the level of professional skepticism in judgments between both the partner view and management view conditions to the no view condition.⁶ Compared to the no view condition, both the partner view and management view conditions are given the view of a low likelihood of fraud, with the difference between these two conditions being whom the view is attributed to.

The partner alignment effect suggests that audit judgments will be biased toward the known view of the partner. Given the partner's view is that there is a low likelihood of fraud, greater professional skepticism will be reflected in the judgments of those auditors not made aware of any view compared to those auditors informed of the partner's view that there is a low likelihood of fraud.

H2: Auditors informed of the partner's view of a low likelihood of fraud (partner view condition) make judgments reflecting lower levels of professional skepticism than those auditors not made aware of any view (no view condition).

The review perspective effect is based on the theoretical development in Libby and Trotman (1993), suggesting that if auditors are informed by the partner of management's view that there is a low likelihood of fraud, then they will pay more

⁵ One factor that is likely to affect the extent of the inconsistency is how the participants interpret the riskiness of the potential frauds. If participants interpret these potential fraud risks as very low risk, then this would decrease the level of inconsistency.

⁶ As we discuss in the "Research Methods" section, outward orientation is held constant in the no view condition.

attention to the potential frauds that are inconsistent with management's view of a low likelihood of fraud. As a result, there will be more professional skepticism reflected in the judgments of auditors made aware of management's view of a low likelihood of fraud than in the judgments of auditors not made aware of any view.

H3: Auditors informed of management's view of a low likelihood of fraud (management view condition) make judgments reflecting higher levels of professional skepticism than those auditors not made aware of any view (no view condition).

Skeptical Orientation

Traditionally, auditors have been encouraged to focus their skepticism outward toward the veracity of management representations. This outward orientation emphasizes the doubt with which management's representations should be viewed. As an alternative, [Bell et al. \(2005\)](#), in developing their model for evidence evaluation, note that there are audit quality benefits of directing skepticism inward toward auditors' own fallible judgments. This inward orientation "involves auditors being pre-emptively self-critical in anticipation of various arguments that others could bring against their beliefs or the evidential base they have or have not relied upon to form such beliefs" ([Bell et al. 2005](#), 34). This inward focus, which directs attention to a broader range of circumstances that may underlie the financial statements presented by management, including the possibility that they are an artifact of financial statement fraud, distributes likelihood assessments across a greater number of possible scenarios ([Dougherty, Gettys, and Thomas 1997](#)). This increases beliefs as to the likelihood of financial statement fraud, and encourages more skeptical judgments and actions that reflect this possibility.

Pre-emptive self-criticism, as a response to accountability pressure ([Tetlock 1983](#); [Tetlock, Skitka, and Boettger 1989](#)) may also make salient the personal risks to reputation and status of trusting management and failing to consider potential alternate explanations that others may raise ([Lewicki, Tomlinson, and Gillespie 2006](#)). This concern may elevate professional skepticism by way of increased use of nonroutine processing strategies ([Schul, Mayo, and Burnstein 2008](#)) and an increased focus on information discounting, rather than supporting, a proposition ([Mayo, Alfasi, and Schwartz 2014](#)).

While there are potential benefits of encouraging an inward skeptical orientation, the relative merit of an inward skeptical orientation, with reference to the currently emphasized outward skeptical orientation, is unclear. Focusing on industry specialists, [Grenier \(2016\)](#) examines the relative effectiveness in elevating professional skepticism of prompts directing skepticism outward versus inward. Comparing auditors prompted to direct skepticism outward toward evidence versus inward toward judgment, he finds no difference in the number of self-generated fraud explanations potentially accounting for an unexpected fluctuation, the probability assigned to those fraud explanations, and the assessed risk of material misstatement. [Grenier \(2016\)](#) does, however, find that industry specialists prompted to be inwardly skeptical assigned a greater likelihood to the possibility that an as-yet-unidentified explanation might account for an unexpected fluctuation.

As the effect of encouraging an inward versus outward skeptical orientation is likely to be task dependent ([Grenier 2016](#)), we examine the relative merits of an inward compared to outward skeptical orientation across different judgment tasks. Our two judgments (i.e., fraud susceptibility and evidence reliability) vary in the breadth and nature of the target toward which a skeptical mindset is being directed. Fraud susceptibility targets the potential for material misstatement arising from specified frauds, and evidence reliability directs the skeptical mindset toward the utility of audit evidence in substantiating a management representation.

RQ1: Does the level of professional skepticism reflected in audit judgments vary across auditors encouraged to adopt an outward versus an inward skeptical orientation? Do these differences vary with the type of judgment?

Communicating the importance of professional skepticism by emphasizing an outward or inward skeptical orientation directs the doubt underlying professional skepticism toward, respectively, the veracity of management's representations and the veracity of the auditor's judgment process. These different processes may be complementary such that emphasizing both may be more effective than emphasizing only an outward orientation. For example, the increased doubt in management representations associated with an outward orientation may be further amplified, as an inward orientation encourages caution with regard to what information is relied upon when making judgments.

RQ2: Does the level of professional skepticism reflected in audit judgments vary across auditors encouraged to adopt an inward plus outward skeptical orientation versus an outward skeptical orientation? Do these differences vary with the type of judgment?

[Hammersley \(2011\)](#) concludes that increased fraud risk assessments are necessary, but not sufficient, to ensure greater effectiveness in detecting fraud. [Hammersley et al. \(2011\)](#) show that auditors tend to propose audit program modifications that

are not effective in detecting financial statement fraud. We consider the situation where participants choose evidence from a provided list. We examine whether encouraging an inward skeptical orientation, in addition to an outward orientation, results in higher levels of professional skepticism in audit actions than when only an outward orientation is encouraged.

RQ3: Does the level of professional skepticism reflected in audit actions vary across auditors encouraged to adopt an outward versus an outward plus inward skeptical orientation?

We test our hypotheses and examine the research questions in two related studies. Study 1 tests H1 to H3 and informs RQ1. Study 2 informs RQ2 and RQ3.

STUDY 1

Research Methods

Participants

Participants were arranged by the Center for Audit Quality. Eighty-eight participants from the U.S. offices of all of the Big 4 firms participated in Study 1: 24, 18, 15, and 31 from the four firms, respectively. For the latter firm, the experiment was completed in two different sittings; 21 participants and 10 participants, in different locations. For all other firms the experiment was completed in one sitting at an office of the firm. The same researcher attended each sitting of the experiment. Mean audit experience was 51.99 months. There were 18 managers (mean experience 73.06 months) and 70 seniors (mean experience 46.57 months) in our sample.⁷ Participants were randomly allocated to the between-subjects treatments. All of the participants completed the experiment within one hour.

Research Design

Our analysis employs a 2 (partner attribution) \times 2 (skeptical orientation) + 1 (no view/outward orientation) design for each of our two judgments: fraud susceptibility and evidence reliability. First, we describe our 2 \times 2 design and then discuss the “+ 1” condition. Partner attribution was manipulated between subjects across two levels; the partner attributes the view that there is a low likelihood of fraud to themselves (partner view) or management (management view). This manipulation was under a heading “Susceptibility of the Entity’s Financial Statements to Material Misstatement Due to Fraud.” The partner view version stated, “the partner noted their view that for this client there is a relatively low likelihood of there being a material misstatement due to fraud.” The management view version stated, “the partner noted the assurances of the client’s senior management that there is a relatively low likelihood of there being a material misstatement due to fraud.”

Skeptical orientation was manipulated between subjects across two levels: outward or inward. This manipulation was under the heading of “Importance of Professional Skepticism” with the wording based on extracts from [Bell et al. \(2005\)](#). Under this heading, participants were informed that (emphasis not in the materials provided to participants):

It is important to maintain a proper state of mind throughout the audit regarding the potential for material misstatement due to fraud including maintaining a questioning mind *as to the accuracy of management representations*. We should anticipate the possibility that if fraud is present, *management may go to great lengths to conceal the fraud*. (outward orientation)

or

It is important to maintain a proper state of mind throughout the audit regarding the potential for material misstatement due to fraud including maintaining a questioning mind *as to the justifiability of the audit conclusions we reach*. We should anticipate the possibility that if fraud is present, *others may be critical of our judgments and the evidence we have or have not relied upon*. (inward orientation)

In addition, we also included a “no view” condition in which participants were informed that “the partner made no comment for this client as to the likelihood of there being a material misstatement due to fraud.” This condition is included to examine the extent to which partner attribution and/or review perspective effects underlie the impact of partner attribution (i.e., H2 and H3). As we knew in advance the maximum number of participants available for our experiment, we decided against a

⁷ Because of firm policy a number of participants from one of the firms did not indicate their years of experience. This firm subsequently provided the mean experience for the seniors and managers who completed the materials. Consequently, we could calculate mean experience across the experiment, but not for each of our five conditions.

TABLE 1
List of Potential Frauds from the Brainstorming Session

Potential Fraud

1. Management may have created fictitious sales.
2. Costs not directly incurred in the purchase of new domestic stores may have been incorrectly capitalized.
3. Costs not directly associated with the new loan may have been incorrectly capitalized.
4. Management may have knowingly breached packaging and waste regulations but not recognized the liability and associated expense.
5. Management may have recognized nonexistent inventory with a consequential understatement of cost of goods sold.
6. The sales return provisions for both retail and wholesale customers may be understated by management.
7. The estimated useful life of fixtures and fittings may have been unjustifiably increased to reduce depreciation expense.
8. Management may have unjustifiably understated the allowance for doubtful debts.
9. Management may have overstated the market value of inventory in order to avoid the need to write down inventory to below cost.
10. Management may have inappropriately recognized concession stand revenue before it had been earned.
11. Management may have delayed the recognition of current year's expenses by overstating prepayments.
12. Management may have falsely recognized non-cash sales that have not occurred and then reversed after year end as "returns" (as the company has a faulty goods return policy).

Participants were presented with fraud brainstorming notes (summary of the brainstorming session) including 12 possible frauds (six possible frauds in Study 2) described as being identified by members of the brainstorming session. Six of the frauds were derived from the answer to the Big 4 training case upon which our materials were based (Potential Frauds 1 to 6). The remaining six frauds were identified by participants using almost identical materials in Trotman et al. (2009) (Potential Frauds 7 to 12).

full factorial model. We did not expect this difference to be conditional on skeptical orientation and, therefore, outward orientation is held constant in the no view condition as it is the form of orientation referred to in auditing standards.

Following earlier suggestions of the importance of examining task effects (Abdolmohammadi and Wright 1987; Ashton 1990; Trotman 2005), we examine our hypotheses and research question across two judgments: fraud susceptibility and evidence reliability. Participants were asked to assess the likelihood of material misstatement due to the frauds listed in the fraud brainstorming summary notes, and the perceived support that the evidence provides for management's account of a larger than expected increase in the gross profit margin.

Case Material and Procedures

The case material was an abbreviated version of that used in Trotman et al. (2009), which was based on an actual training case used by a Big 4 firm. The case includes potential frauds arising from the brainstorming session that are plausible, but for which the partner holds the view that there is a low likelihood of material misstatement due to fraud. Notwithstanding this view, auditors are required to exercise an appropriate level of professional skepticism in the conduct of the audit. All case materials were submitted to the CAQ and sent to each of the participating firms. After minor modifications, all four firms gave permission for the experiment to be conducted.

The participants first read an abbreviated version of the "Understanding the Entity" document. They were told that they were unable to attend the planning meeting for this audit, and were provided with the following information: a background document that described the entity's business (including legal and operating structure, objectives and strategies, customers, suppliers, employees, compensation, investments, financing, litigation, and claims); the "Entity's Industry and Environment" document, which included the industry, legal, and regulatory environment; and the "Entity's Accounting Policies and Practices," which included critical accounting policies and an analysis of the entity's financial performance, including key ratios. Participants were asked to spend ten minutes familiarizing themselves with this material.

Participants were provided with three envelopes, asked to open Envelope 1, and instructed not to open Envelopes 2 and 3 until requested to do so. In Envelope 1 participants were informed that, in accordance with SAS No. 99, a brainstorming session was conducted in order to discuss how and where the entity's financial statements might be susceptible to a material misstatement due to fraud. The outcome of this brainstorming session is a page of "brainstorming notes."

The "brainstorming notes" document contained our manipulations of partner attribution and skeptical orientation. The brainstorming notes also contained a list of 12 possible frauds identified by the audit team at the brainstorming session. Six of these frauds were derived from the answer to the case provided by the Big 4 firm and six from the frauds identified by participants in Trotman et al. (2009). The 12 frauds are listed in Table 1. These potential frauds were placed in random order (constrained by the requirement of having three Big 4 frauds in each of the first and second six frauds presented). Half the

TABLE 2
List of Dependent Variables and Their Measurement

Panel A: Audit Judgment Tasks—Study 1 and Study 2

Label	Description	Measures
1. Fraud Susceptibility	Perceived likelihood of material misstatement due to frauds listed in the fraud brainstorming notes.	Mean response on a nine-point scale eliciting the perceived likelihood of material misstatement due to each of the 12 potential frauds listed in Table 1 (Study 1) or each of the six potential Big 4 frauds (Study 2).
2. Evidence Reliability	Perceived support provided by evidence that an audit assistant had collected to test management's explanation of a larger than expected increase in the gross profit margin.	Nine-point scale eliciting the perceived support for management's explanation provided by the evidence collected by the audit assistant.

Panel B: Audit Action Task—Study 2

Label	Description	Measures
1. Evidence Set Quality	The five audit procedures selected from a list of 15 addressing four aspects of a management representation (and varying in terms of whether they involve collecting internal or external evidence).	Count of how many of the four aspects of the financial controller's representation are covered by the audit procedures selected. The relative focus on external versus internal evidence items.

participants received this random order while the other half received a centered reversal of this order with a view to avoiding any primacy or recency effects.⁸ Participants were requested to spend ten minutes familiarizing themselves with the contents of the brainstorming session notes and answering the manipulation reinforcement questions.

The manipulation reinforcement questions asked the participants to complete three open-ended sentences relating to the manipulations contained in the brainstorming notes. Two questions referred to skeptical orientation, and one referred to the partner's statement on the susceptibility of the entity's financial statements to material misstatements due to fraud. The aim was to ensure participants accurately read the material containing the manipulations and to reinforce their contents. Having participants complete open-ended questions minimizes the possibility of demand effects by not revealing the other conditions. The answers to these three questions were checked by the author administering the experiment before participants moved on to the next stage. In only three cases did a participant fail to answer all three questions correctly, and when this was pointed out, they answered the question correctly after rereading the relevant information.⁹

Participants were then asked to open the second envelope, which contained information to make fraud susceptibility and evidence reliability judgments, both of which are discussed below under "Dependent Variables." Participants were guided in the amount of time they should spend on each part of the materials. Participants were requested not to amend any of their earlier responses after moving on to a subsequent part. After completing all of the parts contained in the second envelope, this and all previous material were collected. Participants were then requested to open the final envelope, which contained questions eliciting demographic data, manipulation checks, and the [Hurt \(2010\)](#) trait skepticism scale questions.

Dependent Variables

Professional skepticism manifests itself in different ways throughout the audit ([AICPA 2002](#); [IAASB 2016b](#)), and we investigate manifestations as they relate to perceptions of fraud susceptibility and evidence reliability (see Table 2, Panel A).

⁸ In a centered reversal, the two items appearing in the middle (first and last) in the original order become the first and last (middle two) items in the revised presentation order (with items in between re-ordered accordingly).

⁹ In answering the manipulation reinforcement questions, most participants provided the wording in the brainstorming session notes verbatim, or very close to verbatim. A small number of participants answered correctly, but paraphrased what was presented in the brainstorming session notes. With the exception that the relationship between trait skepticism and the level of skepticism reflected in judgments as to evidence reliability was significant at $p < 0.10$ (rather than $p < 0.05$), there were no changes to our statistical inferences when we excluded responses from the three participants who failed to answer the three manipulation reinforcement questions at their first attempt.

Our first judgment task addresses the perceived susceptibility of the financial statements to material misstatement arising from each of the 12 frauds noted in the fraud brainstorming notes.¹⁰ For each of the 12 frauds, participants responded on a nine-point scale anchored by 1 = not at all susceptible and 9 = very highly susceptible. For each participant, we calculate the mean response across the 12 frauds. Risk assessments are an audit judgment critical to professional skepticism (Nelson 2009, 13), with higher risk assessment judgments for potential frauds suggesting an increased likelihood that evidence will be evaluated in light of the possibility that it is consistent with the occurrence of the fraud.

Our second judgment task is focused on perceived evidence reliability. Participants are informed that the financial controller has explained that a larger than expected increase in the gross profit margin is the result of increased customer satisfaction resulting in a greater number of higher profit margin products being sold toward the end of the year. Participants are told that the audit assistant has compared sales to gross profit margin on a month-by-month basis for each product line and has ascertained that the numbers are consistent with the controller's explanation. Auditing standards (SAS No. 99, AICPA 2002; ISA 200, IAASB 2016a; ISA 240, IAASB 2016b) note that professional skepticism involves a critical evaluation of the reliability of audit evidence. Participants assess the extent to which this evidence supports the controller's explanation by responding on a nine-point scale anchored by 1 = extremely weak support for the controller's explanation and 9 = extremely strong support for the controller's explanation. The more skeptical the auditor is of the controller's explanation, the greater will be the scrutiny directed toward the evidence related to this explanation. Greater levels of professional skepticism are, therefore, reflected in the participant assessing lower levels of support provided by this evidence. We transform this score by subtracting it from ten such that the reported score increases with increases in the level of professional skepticism in the judgment.

Control Variable

Nelson's (2009) model recognizes that personality traits, such as trait skepticism, can affect skeptical judgments. Consequently, we measure trait skepticism using the Hurr (2010) scale; and in examining our hypotheses and research questions, we treat trait skepticism as a control variable.

Results

Manipulation check questions were administered at the end of the study for each of our independent variables, with all but 13 participants answering both these questions correctly. As participants had already successfully completed a reinforcement question earlier (described in the "Research Methods" section), we included all participants in the analysis.^{11,12} There were no statistically significant differences in the Hurr (2010) scale score across the five conditions ($F = 1.041$; $p = 0.391$).¹³

Descriptive statistics for each of our judgment tasks across partner attribution and skeptical orientation conditions are reported in Table 3.^{14,15} We first analyze our data for each of the two judgments in a 2×2 ANCOVA with trait skepticism included as a covariate (reported in Table 4). We then compare our "+ 1" condition to the two other outward orientation conditions to test H2 and H3.

¹⁰ Prior to making fraud susceptibility judgments, we asked participants to indicate the extent to which they agreed or disagreed with the statement that "There is no material misstatement in the financial statements of Beta Inc. due to error or fraud." Responses were provided on a nine-point Likert scale anchored by 1 = "Strongly agree with the statement" and 9 = "Strongly disagree with the statement." We do not discuss this variable when testing our hypotheses and research questions, as it includes a judgment on both fraud and error combined and our focus is on skepticism reflected in judgments as to fraud only. Professional skepticism is most often discussed with reference to the identification of fraud, and our fraud brainstorming discussion is explicitly focused on material misstatement due to fraud. To the extent that our partner communications have a lesser effect on assessments of the likelihood of material misstatement due to error than fraud, eliciting a joint likelihood assessment will dilute the effect of interest, that is, the likelihood of material misstatement due to fraud. We analyze this variable in a 2×2 ANCOVA and find, potentially on account of the inclusion of the error likelihood assessments, that partner attribution is not significant at conventional levels ($F = 1.555$; $p = 0.109$, one-tailed). We further find that those encouraged to adopt an outward skeptical orientation disagree with the statement more than is the case for those encouraged to adopt an inward skeptical orientation ($F = 4.939$; $p = 0.030$).

¹¹ Unless otherwise noted, two-tailed significance levels are reported. On account of directional predictions, one-tailed significance levels are reported for H1 and H3. As the result was in the opposite direction of the prediction, two-tailed significance levels are reported for H2.

¹² The distribution of manipulation check failures was as follows: partner attribution/inward = 3; management attribution/inward = 3; partner attribution/outward = 1; management attribution/outward = 4; no attribution/outward = 2. Chi-squared tests of proportions indicate that there is no difference in the proportion of participants failing the partner attribution manipulation ($\chi^2 = 1.262$; $p = 0.532$) or skeptical orientation manipulation ($\chi^2 = 0.364$; $p = 0.547$). When excluding these 13 participants, inferential statistics were as follows: Fraud Susceptibility H1: $F = 3.086$, $p = 0.043$, one-tailed; H2: $F = 0.001$, $p = 0.975$; H3: $F = 3.070$, $p = 0.044$, one-tailed; RQ1: $F = 0.127$, $p = 0.723$. Evidence Reliability H1: $F = 2.020$, $p = 0.081$, one-tailed; H2: $F = 0.388$, $p = 0.537$; H3: $F = 31.631$, $p = 0.104$, one-tailed; RQ1: $F = 0.501$, $p = 0.482$.

¹³ We discuss the results as they relate to the relationship between trait skepticism and state skepticism later in the paper for Studies 1 and 2 together.

¹⁴ Across all 88 participants the mean fraud susceptibility was 5.87. This result is consistent with other research employing similar materials (e.g., Chen et al. 2015) and the infrequency with which auditors encounter fraud (e.g., Hammersley 2011).

¹⁵ We do not find a difference in fraud susceptibility assessments across the 12 potential frauds for each participant ($F = 1.104$; $p = 0.355$).

TABLE 3
Descriptive Statistics
Study 1

Panel A: Fraud Susceptibility^a

	Partner Attribution of a Low Likelihood of Fraud ^c								
	Partner's View			Management's View			No View		
	Mean	S.D.	Range	Mean	S.D.	Range	Mean	S.D.	Range
Skeptical Orientation ^d									
Inward	5.72	0.971 (n = 17)	3.9–7.8	6.18	1.073 (n = 17)	4.4–8.4			
Outward	5.62	0.966 (n = 18)	3.8–7.8	6.29	1.034 (n = 18)	5.2–8.6	5.54	0.881 (n = 18)	4.2–8.0

Panel B: Evidence Reliability^b

	Partner Attribution of a Low Likelihood of Fraud ^c								
	Partner's View			Management's View			No View		
	Mean	S.D.	Range	Mean	S.D.	Range	Mean	S.D.	Range
Skeptical Orientation ^d									
Inward	5.47	1.807 (n = 17)	3–9	6.06	1.519 (n = 17)	3–8			
Outward	5.83	1.855 (n = 18)	3–9	6.17	1.465 (n = 18)	3–8	5.28	1.406 (n = 18)	3–8

^a Fraud susceptibility (i.e., the susceptibility of the financial statements to material misstatement due to fraud) was measured as the mean susceptibility assessment across each of the 12 potential frauds from the brainstorming session. For each of the 12 frauds, participants responded on a nine-point scale anchored by 1 = not at all susceptible and 9 = very highly susceptible. Mean scores increase with greater levels of skepticism in the judgment.

^b Evidence reliability was measured as the assessed support for a management explanation provided by evidence that an audit assistant had collected. Participants responded on a nine-point scale anchored by 1 = extremely weak support for the controller's explanation and 9 = extremely strong support for the controller's explanation. Responses are subtracted from ten such that higher scores indicate greater levels of skepticism in the judgment.

^c Partner attribution was manipulated across three levels with the partner either expressing their own view of a low likelihood of fraud (partner's view), expressing management's view of a low likelihood of fraud (management's view), or expressing no view (no view).

^d Skeptical orientation was manipulated across two levels with the partner emphasizing either an outward orientation focused on the veracity of management's representations (outward) or an inward orientation focused on the veracity of the auditor's decision processes (inward).

The Impact of Partner Attribution on Skeptical Judgments

H1 proposes that auditors who are informed by the partner that there is a low likelihood of fraud make judgments reflecting higher levels of professional skepticism when the partner attributes that view to client management rather than themselves. Our results support this hypothesis. Table 4 documents that partner attribution is significant for both fraud susceptibility ($F = 4.862$; $p = 0.016$, one-tailed) and evidence reliability ($F = 2.129$; $p = 0.075$, one-tailed). Cell means reported in Table 3 show that participants given the partner's view that there is a low likelihood of fraud had lower levels of professional skepticism in their judgments than those given management's view.

We test H2 and H3 for the two skeptical judgments across variation in partner attribution (partner view, management view, and no view), holding constant an outward skeptical orientation. The planned contrasts reported in Table 5 show that H3, but not H2, is supported. We find that those advised of management's view that there is a low likelihood of fraud exhibited more professional skepticism than those receiving no view for both the fraud susceptibility ($F = 4.575$; $p = 0.019$, one-tailed) and evidence reliability ($F = 2.894$; $p = 0.048$, one-tailed) judgments, thus supporting H3. We further find that there is no statistically significant difference between those receiving no view and those advised of the partner view that there was a low likelihood of fraud for either the fraud susceptibility ($F = 0.002$; $p = 0.962$) or evidence reliability ($F = 1.186$; $p = 0.282$) judgments, thus H2 is not supported. These results are consistent with a review perspective effect but not a partner alignment effect.

We note that the partner view and management view conditions differ from the no view condition on both the expression of the view itself and who holds the view that there is a low likelihood of fraud. However, given that the mean levels of

TABLE 4
Study 1 Inferential Statistics
Judgments

<u>Analysis of Covariance</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Fraud Susceptibility ^a					
Source					
Skeptical Orientation	0.032	1	0.032	0.032	0.859
Partner Attribution	4.977	1	4.977	4.862	0.016*
Interaction	0.298	1	0.298	0.291	0.591
Trait Skepticism	1.030	1	1.030	1.006	0.320
Error	66.535	65	1.024		
Evidence Reliability ^b					
Source					
Skeptical Orientation	0.182	1	0.182	0.069	0.794
Partner Attribution	5.633	1	5.633	2.129	0.075*
Interaction	0.816	1	0.816	0.309	0.580
Trait Skepticism	12.190	1	12.190	4.607	0.036
Error	171.986	65	2.646		

* One-tailed significance.

^a Fraud susceptibility (i.e., the susceptibility of the financial statements to material misstatement due to fraud) was measured as the mean susceptibility assessment across each of the 12 potential frauds from the brainstorming session. For each of the 12 frauds, participants responded on a nine-point scale anchored by 1 = not at all susceptible and 9 = very highly susceptible. Mean scores increase with greater levels of skepticism in the judgment.

^b Evidence reliability was measured as the assessed support for a management explanation provided by evidence that an audit assistant had collected. Participants responded on a nine-point scale anchored by 1 = extremely weak support for the controller's explanation and 9 = extremely strong support for the controller's explanation. Responses are subtracted from ten such that higher scores indicate greater levels of skepticism in the judgment.

We report the results of a 2×2 ANCOVA for each of the two judgment types. The fraud brainstorming notes manipulated partner attribution of a low perceived likelihood of material misstatement due to fraud (partner's view, management's view) and skeptical orientation (outward orientation focused on the veracity of management's representations, inward orientation focused on the veracity of the auditor's decision processes). The dependent variable was the level of skepticism reflected in judgments as to fraud susceptibility and evidence reliability. Trait skepticism measured with the [Hurt \(2010\)](#) scale was included as a covariate.

TABLE 5
Hypotheses Tests

	<u>Hypothesis</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Fraud Susceptibility ^a						
Contrast						
	Partner's View versus No View	H2	0.002	1	0.002	0.962
	Management's View versus No View	H3	4.248	1	4.248	0.019*
Evidence Reliability ^b						
Contrast						
	Partner's View versus No View	H2	3.043	1	3.043	0.282
	Management's View versus No View	H3	7.424	1	7.424	0.048*

* One-tailed significance.

^a Fraud susceptibility (i.e., the susceptibility of the financial statements to material misstatement due to fraud) was measured as the mean susceptibility assessment across each of the 12 potential frauds from the brainstorming session. For each of the 12 frauds, participants responded on a nine-point scale anchored by 1 = not at all susceptible and 9 = very highly susceptible. Mean scores increase with greater levels of skepticism in the judgment.

^b Evidence reliability was measured as the assessed support for a management explanation provided by evidence that an audit assistant had collected. Participants responded on a nine-point scale anchored by 1 = extremely weak support for the controller's explanation and 9 = extremely strong support for the controller's explanation. Responses are subtracted from ten such that higher scores indicate greater levels of skepticism in the judgment.

We report the result of planned contrasts within a 3×1 ANCOVA for each of the two judgment types. The fraud brainstorming notes manipulated partner attribution of a low perceived likelihood of material misstatement due to fraud (partner's view, management's view, no view). The dependent variable was the level of skepticism reflected in judgments as to fraud susceptibility and evidence reliability. Trait skepticism measured with the [Hurt \(2010\)](#) scale was included as a covariate.

professional skepticism for both judgments are higher for both the partner view and management view conditions than the no view condition (see Table 3), this suggests that it is not the “view” itself but the source of the view that is explaining the results. Specifically, if auditors are given information from a credible source that there is a low likelihood of material misstatement due to fraud, then we expect the level of professional skepticism to fall, such that the level of skepticism exercised by auditors in our partner view and management view would be lower than the no view condition. This was not the case, and our data are consistent with the conclusion that it is the source of the view (i.e., review perspective effect), rather than the view itself, explaining the results.

Skeptical Orientation

RQ1 focuses on whether the level of professional skepticism reflected in judgments varies across auditors in the outward versus inward skeptical orientation conditions. The main effect for skeptical orientation is not significant in either the fraud susceptibility judgment ($F = 0.032$; $p = 0.859$) or the evidence reliability judgment ($F = 0.069$; $p = 0.794$) (Table 4). RQ1 is, therefore, answered in the negative. Emphasizing an inward skeptical orientation did not result in higher levels of professional skepticism in audit judgments than emphasizing an outward skeptical orientation.¹⁶

STUDY 2

Our results in Study 1 show that encouraging an inward skeptical orientation does not elevate professional skepticism more than when a traditional outward orientation is encouraged. An inward skeptical orientation may, however, be effective in elevating professional skepticism when employed in addition to, rather than as a substitute for, the currently emphasized outward skeptical orientation. Emphasis in the inward orientation is on the judgments made by auditors, whereas the emphasis in the outward orientation is on the judgments made by management. The nonsignificant result in Study 1 may also be due to the skeptical orientation effect being dominated by the partner attribution. In Study 2, we examine, absent of any effects of partner attribution, whether the encouragement of an inward skeptical orientation in addition to, rather than as a substitute for, a traditional outward orientation elevates professional skepticism reflected in both audit judgments and actions. Thus, Study 2 specifically addresses the suggestions for augmenting the outward orientation with an inward orientation (Peecher et al. 2013).

Research Methods

Thirty-four participants from the Australian office of one Big 4 firm served as participants in Study 2 (seven managers with a mean experience of 66.29 months, 26 seniors with a mean experience of 33.35 months, and one participant with unknown experience). All participants completed the experiment at the firm’s office within one hour and were given an A\$50 (approximately US\$35) department store gift card.¹⁷

Study 2 employs a 2 (skeptical orientation) \times 1 design. The two levels of skeptical orientation are outward orientation and outward plus inward orientation. Participants were told of the importance to maintain a proper state of mind throughout the audit regarding the potential for material misstatement due to fraud, including maintaining a questioning mind as to the accuracy of management representations (outward orientation) or the accuracy of management representations and the fallibility of the audit judgments made (outward plus inward orientation).¹⁸

We employ the same methodology as that used in Study 1 with the following exceptions. First, nothing is said by the partner concerning the likelihood of material misstatement due to fraud. Second, in the fraud brainstorming discussion notes, we listed only six of the 12 potential frauds used in Study 1.¹⁹ We did this in order to reduce the length of the case. Our measure of fraud susceptibility is, therefore, based on these six potential frauds. Third, we introduced a measure of skeptical action.

¹⁶ With one exception, excluding trait skepticism from the analyses does not change any of our inferences. As documented in Table 4, trait skepticism is associated with the level of skepticism reflected in audit judgments as to evidence reliability ($F = 4.607$; $p = 0.036$). Reflecting the variability in state skepticism explained by trait skepticism for this judgment, we find that when trait skepticism is excluded from the analysis, the main effect for partner attribution is no longer marginally significant for the evidence reliability judgment ($F = 1.330$; $p = 0.127$, one-tailed) but remains significant for the fraud susceptibility judgment ($F = 5.565$; $p = 0.011$, one-tailed). Our inferences are unchanged when the firm from which participants were drawn and the experimental session were included in the analyses, and neither is significant.

¹⁷ This practice is common in a number of countries, including Australia, as ethical requirements in these countries require that the participants volunteer to participate, and audit partners suggest that the auditors are more likely to volunteer when the time they give to participate in the study is recognized with a small payment. It is felt that a small payment encourages participants to be more attentive to the experimental materials than would be the case without such a payment. As the payment is the same for all conditions, regardless of performance, the payment is unlikely to have different effects across conditions.

¹⁸ Two participants did not correctly answer the manipulation reinforcement question at their first attempt. Our statistical inferences are unchanged when we exclude these two participants from the analysis.

¹⁹ The six frauds were those derived from the answer to the Big 4 training case upon which our materials were based (see Table 1).

TABLE 6
List of Audit Procedures
Study 2

Core Elements to the Explanation

Target [A] The new fashion items have a higher selling price

1. Examine sales invoices comparing the selling price of new fashion items to that of existing lines. (internal)
2. Review sales revenue relative to sales volume month-by-month for the last two years. (internal)
3. Visit retail stores and examine selling price of new fashion items relative to older lines. (external)
4. Review fashion periodicals for evidence on pricing of the new fashion items. (external)

Target [B] There were larger orders of the new fashion line items later in the year

1. Compare order size by customer to the corresponding period in the previous year. (internal)
2. Compare actual sales volume to sales forecast data for the final quarter. (internal)
3. Confirm large orders in the last quarter with customers. (external)
4. Examine industry data on retail sales for the fashion clothing sector. (external)

Reason Underlying the Explanation

Target [C] New fashion items were well received with an increase in customer satisfaction

1. Make enquiries of the marketing director with reference to their perception of consumer demand for the new fashion items. (internal)
2. Review balanced scorecard data for customer satisfaction results. (internal)
3. Make enquiries of retail store staff with reference to their perception of consumer demand for the new fashion items. (external)
4. Study the most recent customer satisfaction survey results compiled by a well-respected market research company for product ranges in the fashion industry. (external)

Other Fraud-Related Explanations Not Directly Related to Management's Explanation

Target [D]

1. The increased sales are fictitious. Trace sales of new fashion items in the final quarter to evidence that the items have been shipped. (internal)
2. Sales are genuine, but COGS is understated thereby inflating gross profit margin. Review inventory turnover (COGS/Inventory) ratios by product month-by-month for the last year. (internal)
3. Management has understated the sales return provision. Compare sales returns relative to sales in the first month of the new year to the corresponding period in the previous year. (internal)

The financial controller explained a larger than expected increase in the gross profit margin by noting that increased customer satisfaction resulted in higher selling prices and larger orders later in the year. We identified four procedural targets toward which the auditor's attention should be directed in order to effectively assess the controller's representation. Two targets related to the core elements of the controller's explanation ([A] and [B]), one related to the reasons underlying the explanation ([C]), and one related to alternate fraud-related explanations not directly related to the controller's explanation ([D]). Under Targets [A], [B], and [C], we list two procedures for which evidence from internal sources would be collected and two procedures for which evidence from external sources would be collected. For Target [D], we list three procedures for which internal evidence would be collected. Participants selected five procedures from the 15 listed.

Hurt et al. (2013, 47) note that "skeptical action occurs when an auditor changes his/her behavior based on the skeptical judgment."

In our materials in Study 1, participants were informed that the financial controller had explained a larger than expected increase in the gross profit margin in terms of increased customer satisfaction resulting in higher selling prices and larger orders later in the year. For Study 2, we identify three procedural targets toward which attention should be directed in order to assess the veracity of the financial controller's explanation and to increase the likelihood of identifying fraud should it be present: the two core elements of the explanation (the new fashion items have a higher selling price [Target A] and there were larger orders of the new fashion items later in the year [Target B]) and why the circumstances outlined in the controller's explanation occurred (new fashion items were well received with an increase in customer satisfaction [Target C]). In consultation with practicing auditors and colleagues, we select four procedures addressing each target. Two of the procedures involve the collection of internal evidence and two involve the collection of external evidence, the latter being less susceptible to management interference (Bell et al. 2005). In addition, we have a fourth target [Target D] addressing three alternate fraud-related explanations not directly related to management's explanation (fictitious sales; sales are genuine but COGS is understated thereby inflating gross profit margin; understated sales return provision) and include one procedure, based on internal evidence, for each of the three alternate explanations. The 15 procedures listed in Table 6 were presented in one of two randomly determined orders.

TABLE 7
Study 2 Descriptive and Inferential Statistics
Judgments

Panel A: Descriptive Statistics

	Skeptical Orientation	
	Outward (n = 16)	Outward + Inward (n = 18)
Fraud Susceptibility ^a		
Mean	6.42	6.06
Standard Deviation	1.11	1.27
Evidence Reliability ^b		
Mean	4.50	4.61
Standard Deviation	1.99	1.88

Panel B: Analysis of Covariance

	SS	df	MS	F	p
Fraud Susceptibility ^a					
Source					
Skeptical Orientation	0.479	1	0.479	0.337	0.560
Trait Skepticism	2.075	1	2.075	1.463	0.236
Error	43.981	31	1.419		
Evidence Reliability ^b					
Source					
Skeptical Orientation	0.001	1	0.001	0.001	0.997
Trait Skepticism	1.800	1	1.800	0.479	0.494
Error	116.478	31	3.757		

^a Fraud susceptibility (i.e., the susceptibility of the financial statements to material misstatement due to fraud) was measured as the mean susceptibility assessment across each of the six potential frauds from the brainstorming session (see Potential Frauds 1 to 6 in Table 1). For each of the six frauds, participants responded on a nine-point scale anchored by 1 = not at all susceptible and 9 = very highly susceptible. Mean scores increase with greater levels of skepticism in the judgment.

^b Evidence reliability was measured as the assessed support for a management explanation provided by evidence that an audit assistant had collected. Participants responded on a nine-point scale anchored by 1 = extremely weak support for the controller's explanation and 9 = extremely strong support for the controller's explanation. Responses are subtracted from ten such that higher scores indicate greater levels of skepticism in the judgment. We report the results of a 2×1 ANCOVA for each of the two judgment types (Panel B). The fraud brainstorming notes manipulated skeptical orientation (outward orientation focused on the veracity of management's representations, outward plus inward orientation focused on both the veracity of management's representations and the veracity of the auditor's decisions processes). The dependent variable was the level of skepticism reflected in judgments as to fraud susceptibility and evidence reliability. Trait skepticism measured with the [Hurt \(2010\)](#) scale was included as a covariate.

We consider skeptical actions by asking participants to assume that they are only able to perform five of the procedures listed (and that each procedure requires the same amount of resources). We asked that they indicate which five procedures they would select and to allocate 100 points across the procedures selected.

Results

The Impact of Skeptical Orientation on Skeptical Judgments

Descriptive statistics for our judgment dependent variables across skeptical orientation conditions are reported in Table 7, Panel A. We analyze our data in a 2×1 ANCOVA (with trait skepticism as a covariate) for both judgments (Table 7, Panel B).²⁰ The main effect for skeptical orientation was not significant for either fraud susceptibility ($F = 0.337$; $p = 0.560$) or evidence reliability ($F = 0.001$; $p = 0.997$). RQ2 is, therefore, answered in the negative. We find that the level of professional

²⁰ There were no differences in trait skepticism across the two skeptical orientation conditions ($t = 1.335$; $p = 0.191$).

skepticism reflected in audit judgments does not vary across auditors encouraged to adopt an inward plus outward skeptical orientation compared to only an outward skeptical orientation.²¹

The Impact of Skeptical Orientation on Skeptical Actions

Table 8 reports the procedures selected by each of the 34 participants.²² The top row of Table 8 refers to the four targets toward which the procedures are directed: the new fashion items have a higher selling price [A], there were larger orders of the new fashion line items later in the year [B], new fashion items were well received with an increase in customer satisfaction [C], and other fraud-related explanations not directly related to management's explanation [D]. Panel A refers to the outward skeptical orientation and Panel B refers to outward plus inward skeptical orientation. Each row represents a single participant with cells marked "X" indicating the five procedures selected.

One way in which auditor actions can vary in terms of professional skepticism is in the breadth of issues covered by the audit procedures selected. Auditors exercising greater levels of professional skepticism should select procedures that more broadly test the veracity of the controller's explanation. We construct a breadth score ranging from 2 to 4 by identifying how many of the four targets were addressed by the five procedures selected. This breadth score increases with increases in the level of professional skepticism and is reported on the right side of Table 8. We find that the outward plus inward orientation condition had a higher breadth score (mean = 3.38) than the outward orientation condition (mean = 3.00) ($t = 2.555$; $p = 0.016$).

A further way in which auditor actions can vary is by the selection of procedures that are within or outside management's control (Bell et al. 2005). In general, internal evidence is within management's control and external evidence is likely to be outside management's control, suggesting that elevated levels of professional skepticism are reflected in actions that focus on external evidence rather than internal evidence (Bell et al. 2005). In this regard, we determined the percentage of evidence items selected with reference to Targets [A], [B], and [C] that were external evidence items, and report this for each participant in the final column of Table 8. We find that those encouraged to adopt an outward plus inward skeptical orientation selected a greater percentage of external evidence items (mean = 54.17 percent) than those encouraged to adopt only an outward skeptical orientation (mean = 35.93 percent) ($t = 2.014$; $p = 0.052$).²³ RQ3 is, therefore, answered in the affirmative. That is, those auditors encouraged to be both inwardly and outwardly skeptical selected procedures that more broadly examine management's representations and increase the comparative emphasis on external evidence when selecting procedures to address management's representations.

THE EFFECT OF TRAIT SKEPTICISM

Trait skepticism is a personality characteristic that auditors bring to a decision setting, independent of engagement circumstances (Nelson 2009; Hurr 2010). We consider whether trait skepticism impacts the level of skepticism reflected in the audit judgments we investigate (i.e., state skepticism). Table 4 shows that, in Study 1, the relationship between trait skepticism and state skepticism was dependent on the type of judgment, with no significant effect for fraud susceptibility judgments ($F = 1.006$; $p = 0.320$), but there was a positive association between trait skepticism and the level of skepticism reflected in judgments as to evidence reliability ($F = 4.607$; $p = 0.036$). Table 7, however, shows that this was not the case in Study 2 ($F = 1.463$, $p = 0.236$; $F = 0.479$; $p = 0.494$, respectively).²⁴ While there is some evidence in the literature of a relationship between trait skepticism and state skepticism (see Hurr et al. 2013 for a review), we find only limited evidence of a relationship in terms of the judgments and actions we study. We suggest that the relationship between trait and state skepticism may be task dependent.

²¹ Trait skepticism was not significant when analyzing either fraud susceptibility or evidence reliability, and excluding trait skepticism from the analyses did not change any of our inferences. Similarly, our inferences were unchanged when experience, which was not significant, was included in our analyses.

²² No participant assigned less than ten points to any of the procedures selected, suggesting that participants selected procedures that they perceived to be effective.

²³ We do not find a difference in the number of other fraud-related explanations not directly related to management's explanation (i.e., Target [D]) selected across those encouraged to adopt an inward plus outward skeptical orientation (mean = 1.67) compared to those encouraged to adopt an outward skeptical orientation (mean = 1.81) ($t = 0.592$; $p = 0.558$).

²⁴ To analyze the effects of trait skepticism further, we examine the individual components of trait skepticism and the potential relationship they may have with state skepticism. Underlying the Hurr (2010) scale are six dimensions: a questioning mind, a suspension of judgment, a search for knowledge, interpersonal understanding, self-esteem, and autonomy. We find that none of these dimensions are associated with state skepticism in either Study 1 or Study 2 (all $p > 0.100$).

TABLE 8
Evidential Procedures Selected by Participants

Panel A: Outward Skeptical Orientation (n = 16)

Target ^a	[A]				[B]				[C]				[D]			Breadth Score ^b	Percent Ext. ^c			
	Int.		Ext.		Int.		Ext.		Int.		Ext.		Int.							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3					
X = Procedure Selections					X							X				X	X		3	66.7
		X						X							X	X	X	3	50.0	
	X	X										X				X	X	3	33.3	
	X				X	X										X	X	3	0.0	
		X		X	X			X								X		3	50.0	
	X	X										X	X		X	X		3	33.3	
	X	X								X		X					X	3	25.0	
		X						X	X							X	X	3	66.7	
	X	X													X	X	X	2	0.0	
		X		X				X	X								X	3	75.0	
		X			X			X							X	X		3	33.3	
	X	X	X						X							X		3	25.0	
	X	X						X	X						X			3	50.0	
		X			X			X							X		X	3	33.3	
	X					X						X			X		X	4	33.3	
Mean:																3.00	35.93			

Panel B: Outward + Inward Skeptical Orientation (n = 18)

Target ^a	[A]				[B]				[C]				[D]			Breadth Score ^b	Percent Ext. ^c		
	Int.		Ext.		Int.		Ext.		Int.		Ext.		Int.						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3				
X = Procedure Selections		X							X				X	X	X	3	0.0		
		X				X		X	X						X	4	25.0		
	X		X				X						X	X		3	66.7		
	X				X		X				X			X		4	50.0		
		X					X	X					X		X	3	66.7		
	X	X						X	X				X		X	3	100.0		
	X	X			X	X							X		X	3	33.3		
	X	X						X	X				X		X	3	33.3		
		X	X				X					X				X	X	4	25.0
		X					X	X							X	4	100.0		
	X	X	X		X						X					3	66.7		
		X					X	X					X	X		3	100.0		
		X					X	X					X		X	3	66.7		
	X	X					X		X					X	X	4	25.0		
		X					X	X						X	X	3	66.7		
	X		X					X	X						X	4	50.0		
Mean:																3.38	54.17		

^a Target refers to the element of the controller's representation toward which the evidential procedures were directed:

(continued on next page)

TABLE 8 (continued)

[A] The new fashion items have a higher selling price.

[B] There were larger orders of the new fashion line items later in the year.

[C] New fashion items were well received with an increase in customer satisfaction.

[D] Other fraud-related explanations not directly related to management's explanation.

^b Breadth is measured as the count of how many of the four targets were addressed by the five evidence items selected.

^c Percentage of external evidence (Percent Ext.) is measured as the percentage of evidence items selected with reference to Targets [A], [B], and [C] that are external evidence items.

In response to the financial controller's explanation that a larger than expected increase in the gross profit margin was due to increased customer satisfaction resulting in higher selling prices and larger orders later in the year, participants selected five audit procedures from a list of 15 procedures. Each row represents a single participants with cells marked "X" indicating the five procedures selected. The procedures varied across four aspects of the controller's explanation and whether they involved the collection and examination of internal (Int.) or external (Ext.) evidence. Of the four aspects of the controller's explanation, two related to the core elements of the explanation (Targets [A] and [B]), one related to the circumstances that would allow for the explanation (Target [C]), and one related to alternate fraud-related explanations not directly related to the controller's explanation.

CONCLUSIONS

It is important that audit partners understand the likely implications for professional skepticism of their communications in the fraud brainstorming session as partners need to make decisions about what information to communicate and when to communicate this information. Our findings contribute to a more complete understanding of the effect of these different communications on professional skepticism. We find that the level of professional skepticism in judgments is higher when the partner communicates management's view that there is a low likelihood of fraud compared to when the partner communicates their own view that there is a low likelihood of fraud. Moreover, we find that this effect arises from increases in professional skepticism associated with the partner making management's view known, rather than decreases in professional skepticism associated with the partner making their own view known. While we would not anticipate partners expressing management's view on all occasions, it represents an additional option available to partners in circumstances where they feel it is appropriate. We further find that a partner communicating their own view that there is a low likelihood of fraud does not lead to a decrease in the level of professional skepticism being exercised. While it might be anticipated, on the basis of prior research, that a partner expressing their own view of a low likelihood of fraud would have resulted in lower levels of professional skepticism, and partners have expressed to us their concern with regard to making their own view known, our findings suggest that this concern may be unwarranted, at least in a setting where potential frauds have been identified in the brainstorming session.

The above result is different from that reported in some previous social psychology and auditing research, which suggests that the partner giving their own view would result in a partner alignment effect (Tetlock 1983; Peecher 1996; Wilks 2002). One explanation is that when faced with multiple accountabilities (Bagley 2010), including regulators and inspectors who have warned of the need to maintain an appropriate level of professional skepticism, the influence of the partner's view may not be as pronounced, especially when that view may encourage a lower level of professional skepticism. Given that auditors only rarely experience fraud (Hammersley 2011), their default position may be that there is a low likelihood of material misstatement due to fraud. We suggest that if this is the case, then a partner expressing their view that there is a low likelihood of fraud is likely to validate the auditor's default position, but will not, due to these multiple accountabilities, lead to lower levels of professional skepticism.

Another potential reason for our results being different from the above research is that there are major design differences between previous research and our study. First, unlike previous research where participants were held accountable to the superior whose view was made known (Peecher 1996; Turner 2001),²⁵ we introduced no such explicit accountability requirement in our study. Accountability to the partner whose view is made known may increase the extent to which the subordinate's judgments and actions are aligned with that view. Second, in previous studies (Peecher 1996; Turner 2001; Wilks 2002) the communication was always from the partner but the message was manipulated, whereas in our study the source of the view was manipulated. Third, in previous studies the opinion of the partner was much more forceful. To illustrate, the Wilks (2002) description included "The engagement partner on this audit expressed numerous times his concern that audit team members in both prior years had been insufficiently [overly] sensitive to evidence suggesting going concern issues"; and the Peecher (1996) description included "The firm is concerned about the way our professionals perform analytical procedures . . . undertake, without adequate justification, costly investigations . . . not fully utilize the client's insight." Further, both Peecher (1996) and Wilks (2002) included steps to heighten the auditor's awareness of the partner's concern by asking participants to list and rank reasons related to that concern. Thus, in previous studies the audit partner has a very strong view, uses strong language, and is critical of auditors in the past that have taken certain approaches. In our study, the partner's statement is not put

²⁵ For example, in Peecher (1996) auditors printed their name on the research instrument and were provided with information in post-experiment follow-up procedures related to the forwarding of performance summaries and a sample of individual responses to home office audit partners.

as strongly and there is no criticism of past audit actions. Our different results from some previous accountability studies suggest the need for future research on partner communications to consider such factors as the strength and the tone of the communication, as well as the extent and type of accountability (see [Peecher et al. 2013](#)).

The importance of encouraging auditors to be skeptical of their own judgment processes (inward orientation) has been suggested as a means of increasing professional skepticism and audit quality ([Bell et al. 2005](#); [Peecher et al. 2013](#)). Consistent with [Grenier \(2016\)](#), but with reference to different skeptical judgements, we find that emphasizing an inward skeptical orientation instead of an outward orientation does not increase the level of professional skepticism in audit judgments.

We also extend this research to address the question of whether combinations of inward and outward skeptical orientation are beneficial under some circumstances ([Peecher et al. 2013](#)). We find that while communicating the importance of professional skepticism by encouraging the application of both an outward and inward skeptical orientation does not result in higher levels of professional skepticism in audit judgments, it does elevate the level of professional skepticism in audit actions; auditors in the inward plus outward condition selected audit procedures that more broadly covered the components of management's representation and focused more on evidence that is less subject to management interference, namely external evidence. This is important because prior research highlights that while auditors may be able to make more skeptical judgments, the actions that they take (e.g., the evidence collected) in response to this elevated level of professional skepticism are often ineffective ([Hammersley et al. 2011](#)). Our findings suggest that encouraging auditors to question their own fallible judgments may help them meet expectations for an elevated level of professional skepticism in their audit actions.

Our results have three major implications for audit firms in the communication of fraud brainstorming outcomes. First, our results show that while partners have expressed concern about providing their own view that the likelihood of material misstatement due to fraud is low, this will not necessarily lead to lower levels of professional skepticism than would be the case if the partner did not provide their view. Second, in situations where both the audit partner and management believe there is a low likelihood of fraud, there are potential benefits of providing management's view rather than providing the partner's view, or no view if the aim is to increase or maintain the level of professional skepticism.²⁶ Third, when communicating the fraud brainstorming outcomes, there are potential benefits of encouraging auditors to adopt both an inward and outward skeptical orientation, as our results show that it increased the level of professional skepticism in audit actions.

Our conclusions are subject to a number of limitations that, in turn, highlight opportunities for future research. First, we used three different partner attribution conditions, but many others are possible and may be beneficial. For example, a partner could ask all participants to provide their initial view and then respond with some form of a summary including their own perspective. It would also be useful for future research to investigate how management's view can be made known to the audit team, and whether this affects the level of professional skepticism being exercised. Second, our partner attribution conditions provide information on whose view was provided but not the basis on which the partner or management came to their view. Future research could usefully investigate whether being aware of the basis on which management and/or the partner came to their view impacts the extent to which partner attribution of a low likelihood of material misstatement due to fraud effects professional skepticism. Third, our results for the partner attribution effect may differ for less experienced team members, for example, first year staff auditors. Future research could consider how the experience level of audit team members and the strength of the view of the audit partner interact. Fourth, there are many different ways in which inward and outward skepticism can be operationalized. Future research is needed to further address the type of tasks/situations where one or a combination of these forms of skepticism lead to improved performance. For example, auditors may perceive inward-orientated skepticism as a threat to their ego ([Zimbelman 2014](#)) and such ego threats may vary across a range of task and environmental factors.

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²⁶ We note that this attribution would only be ethical if this was, in fact, management's view.

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