

**SPECIALISTS OR COLLEAGUES: WHO DO AUDITORS LISTEN TO?**

A Dissertation

by

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## **ABSTRACT**

Despite the importance of specialists to the audit of significant accounting estimates, PCAOB inspection reports highlight instances where auditors discount advice received from a specialist. I examine when and why auditors discount a specialist's advice. I find that auditors discount a specialist's advice when it is evaluated at the same time as irrelevant advice from colleagues that consistently supports an alternate position. In doing so, auditors evaluate advice by applying a "consensus implies correctness" heuristic, instead of evaluating the advice's relevance. I also find that when auditors first evaluate only irrelevant colleagues' advice and then evaluate the specialist's advice, they change their assessments to align with the specialist's advice. Results suggest that separately evaluating the specialist's advice and colleagues' advice mitigates the effects of the consensus heuristic and discounting of the specialist's advice. My results should be of interest to the PCAOB and public accounting firms as they revise audit guidance to increase reliance on specialist advice.

## **DEDICATION**

To Crystal and Timothy

## **ACKNOWLEDGEMENTS**

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## INTRODUCTION

Professional guidance emphasizes the importance of using a specialist when evaluating a client's significant accounting policies and estimates (PCAOB 2003; IAASB 2013). Through consultation with a specialist, auditors receive advice on their client's position from the firm's designated subject-matter expert. Such advice should be the most relevant assessment of the client's situation. Regardless, Public Company Accounting Oversight Board (PCAOB) inspection reports identify cases in which auditors discount a specialist's advice, thereby contributing to client restatements and deficient audit quality control procedures (PCAOB 2008; PCAOB 2009; PCAOB 2010a; PCAOB 2012). Drawing on advice utilization theory and empirics, I examine when and why auditors discount a specialist's advice in the audit of significant accounting estimates.

I focus on how auditors integrate advice from a specialist with advice from colleagues. While auditors frequently consult with specialists during the audit of accounting estimates, this is not the only advice that auditors solicit. Auditors also consult with colleagues on important audit matters (Gibbins and Emby 1985; Danos et al. 1989). However, colleagues' advice may not be relevant if it is based on experience with clients that are not comparable to the client of the consulting auditor (Earley 2002; Ballou et al. 2004; Griffith et al. 2013). As such, when auditors consult both a specialist and colleagues, they often must integrate multiple pieces of advice that vary in relevance. This integration can be problematic when advice received from colleagues



contradicts the specialist's advice. I theorize that the level of consensus in colleagues' advice, combined with when the specialist's advice is evaluated, influences whether auditors rely on the specialist's advice or less-relevant colleagues' advice.

Advice that is in agreement is more influential than pieces of divergent advice. Budescu et al. (2003) find that perception of advice quality increases as advice consensus increases (see also Luan et al. 2004). Further, Harries et al. (2004) conclude that individuals apply a "consensus implies correctness" heuristic that subconsciously discounts advice that appears to be an outlier regardless of its relevance to the decision task. As such, inconsistent advice is discounted more heavily as consensus increases in the other pieces of advice. Following theory, I expect that auditors are less likely to rely on a specialist's advice if it appears to be an outlier in comparison to advice received from colleagues.

However, I also expect that when the specialist's advice is evaluated, relative to colleagues' advice, influences whether auditors rely on the specialist's advice. When advice from the specialist is evaluated at the same time as colleagues' advice, I expect that auditors will focus on the level of consensus across all pieces of advice rather than on the relevance of each piece of advice (Zhang et al. 2006). By focusing on consensus, inconsistent advice is more likely to appear to be an outlier in comparison to other pieces of advice. As such, when the specialist's advice is evaluated at the same time as colleagues' advice, I expect that the specialist's advice is discounted if it differs from colleagues' advice that consistently supports an alternate position.

Conversely, I expect that auditors are more likely to rely on a specialist's advice, regardless of whether it differs from colleagues' advice, when the specialist's advice is evaluated separately after colleagues' advice. When auditors first evaluate only advice from colleagues, the colleagues' advice is condensed into an overall assessment of whether the client's preferred position is reasonable based on colleagues' advice. When the specialist's advice is subsequently evaluated, I expect that auditors re-evaluate this previously-made assessment, rather than compare the specialist's advice to the level of consensus in colleagues' advice. In this setting, I expect that the specialist's advice has the ability to change the auditor's previous assessment because the specialist has more knowledge relevant to the consultation matter (Birnbaum and Stegner 1979; Harvey and Fischer 1997).<sup>1</sup>

I test my expectations with an experiment in which 103 Big Four audit seniors evaluate a client's goodwill impairment analysis. Participants assess whether the client in the case should be classified as an operating or financing company. This judgment determines the appropriateness of the client's valuation methodology and ultimately whether goodwill is potentially impaired. The client considers itself to be an operating company because this designation indicates that the company's goodwill is not impaired. The specialist's advice indicates that the client is a financing company and that goodwill is potentially impaired. I manipulate between participants the level of consensus in colleagues' advice. When there is high consensus among colleagues, their advice

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<sup>1</sup> As discussed in the 'Additional Tests of Advice Utilization' section, I perform a second experiment where the specialist's advice is evaluated separately before colleagues' advice. Results confirm the theoretical premise that separating the evaluation of the specialist's advice and colleagues' advice mitigates the biasing potential of consensus when advice is evaluated at the same time.

consistently supports a position that contradicts the specialist's advice. Importantly, the colleagues' advice is based on experience with clients that are not comparable to the client of the consulting auditor, making the colleagues' advice irrelevant to the consultation matter. I also manipulate between participants whether the specialist's advice is evaluated at the same time or after advice from colleagues.

Results indicate that, when the specialist's advice is evaluated at the same time as consistent advice from colleagues, auditors are significantly *less* likely to rely on the specialist's advice. More specifically, auditors are *less* likely to conclude that the client's goodwill is potentially impaired. As expected, auditors discount the specialist's advice when the specialist's advice is evaluated at the same time as advice from colleagues that consistently supports an alternate position.

Results also indicate that, when the specialist's advice is evaluated separately after evaluating colleagues' advice, auditors change their assessments, becoming significantly *more* likely to rely on the specialist's advice regardless of the level of consensus in colleagues' advice. In this setting, auditors are *more* likely to conclude that the client's goodwill is potentially impaired. As expected, when the auditor evaluates the specialist's advice, relative to colleague's advice, influences the auditor's reliance on the specialist's advice.

Despite the consultative nature of the audit profession, we know very little about how interactions within the audit firm affect professional judgment (Nelson and Tan 2005; Bobek et al. 2012). In practice, auditors consult with both specialists and colleagues on matters of audit importance. Prior studies have examined how judgment is

affected by consultation advice received from either a specialist or a colleague (e.g. Ng and Shankar 2010; Schaefer 2012; Kadous et al. 2013). While this literature has shown that each source influences auditor judgment, no research has studied how the auditor evaluates the two advice sources when they do not agree. I identify an unintended consequence of consultation with colleagues. Namely, my results provide evidence that auditors at times discount consultation advice received from the firm's specialist when it differs from colleagues' advice. This finding provides a behavioral explanation for survey evidence that auditors discount specialist advice that calls into question the reasonableness of the client's position (Griffith 2013).

I also identify a way to increase auditor reliance on specialist advice by separating the auditor's evaluation of the specialist's advice and colleagues' advice. This finding should be of interest to the PCAOB as it contemplates how to revise professional guidance to address concerns identified in recent inspection reports that auditors do not always rely on specialist advice (PCAOB 2013). The results should also be of interest to public accounting firms as they revise their guidance to increase their auditors' reliance on advice from designated subject-matter experts.

## THEORY AND HYPOTHESES

With the increased use of fair-value measurements in financial statements, the valuation specialist's role has become increasingly important to the audit process (Barth 2006; Christensen et al. 2012). Valuation specialists are consulted on over eighty percent of audits to evaluate a wide range of financial statement accounts including financial instruments, goodwill and intangible assets, and pension and postretirement benefit liabilities (Cannon and Bedard 2013). The audit of these accounts requires significant professional judgment due to the high level of uncertainty inherent to the estimation processes (Christensen et al. 2012). Auditors also consult with colleagues on subjective matters of audit importance (Gibbins and Emby 1985; Danos et al. 1989). I examine how consultation with both a specialist and colleagues jointly affects professional judgment in the audit of significant accounting estimates.<sup>2</sup>

### **Consultation with Specialists and Colleagues**

A specialist is an audit firm's designated subject-matter expert on a methodology (e.g. valuation specialists) or technical accounting topic (e.g. national office partners). Such specialization helps auditors better identify risk factors and indicators of misstatement, and appropriately adjust planned audit procedures, when working within their area of expertise (Bedard and Biggs 1991; Bedard and Wright 1994; Owoso et al. 2002; Low 2004; Hammersley 2006). Further, auditors and investors view consultation

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<sup>2</sup> Prior research uses the term 'formal consultation' to describe the process through which an auditor receives advice from the audit firm's specialist, and 'informal consultation' to describe the process through which an auditor receives advice from colleagues (e.g. Ng and Shankar 2010; Schaefer 2012; Kadous et al. 2013).

with specialists as an indicator of higher audit quality (Christensen et al. 2013). As such, advice received from a specialist should be the most relevant advice for the consulting auditor's evaluation of the client's preferred position.

Specialists are consulted during the audit of significant accounting estimates to evaluate the reasonableness of the client's valuation methodology and related assumptions (Martin et al. 2006). However, despite the frequent use of specialists, the PCAOB's 2008 and 2009 inspection reports identified 227 deficiencies in the audit of accounting estimates (Griffith et al. 2013). Many of these deficiencies are in the audit of accounts directly related to the recent financial crisis (PCAOB 2010b). Of note, reports for two Big Four firms highlight instances where the audit team failed to resolve questions raised by the valuation specialist regarding the client's valuation methodology, or where the audit team accepted management's valuation despite indicators of impairment identified by the valuation specialist (PCAOB 2008; PCAOB 2009; PCAOB 2010a). Though specialists play an increasingly-important role on audits, communications from the PCAOB suggest that auditors sometimes discount valuation specialists' advice when evaluating the reasonableness of accounting estimates.<sup>3</sup>

In addition to specialists, auditors seek advice from colleagues on important audit matters (Gibbins and Emby 1985; Danos et al. 1989). Consultation with colleagues is generally thought to improve auditor judgment through the sharing of knowledge across

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<sup>3</sup> Research providing insight into when auditors rely on specialist advice is sparse. One study concludes that auditors are more likely to rely on a specialist's advice when the advice contains an explicit recommendation, but only if it is in contrast to a position strongly justified by the client (Ng and Shankar 2010). Prior research has not considered how another important source of advice, colleagues, influences an auditor's reliance on specialist advice.

engagements (Dirsmith and Covalleski 1985; Danos et al. 1989). Further, advice quality generally increases with the receipt of multiple pieces of advice (Ashton and Ashton 1985). However, the advisor's knowledge is not the only factor that determines with whom an auditor consults. Recent research finds that auditors are more likely to seek advice when the costs of consultation are lower (Schaefer 2012). To minimize these costs, auditors commonly seek advice from colleagues with whom they have close working relationships.

Advice from these colleagues may not always be relevant to the consulting auditor. The AICPA's Statement on Quality Control Standards emphasizes that effective consultation is only achieved when the consulted auditor has appropriate knowledge pertinent to the consultation (AICPA 2010). This knowledge includes an understanding of the accounting issue, industry practice, and client-specific factors (Danos et al. 1989).<sup>4</sup> In the audit of significant accounting estimates, colleagues' advice may be based on an incomplete assessment of the accounting issue due to the division of knowledge that exists between the audit firm's valuation specialist and members of the audit team (Martin et al. 2006; Bratten et al. 2013; Griffith et al. 2013). Further, auditors tend to underweight the importance of client-specific factors in comparing a client to its industry (Early 2002; Ballou et al. 2004). To the extent that colleagues' advice is not based on an appropriate understanding of the accounting issue, industry practice, and client-specific

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<sup>4</sup> The importance of client-specific knowledge is highlighted in archival research that concludes audit quality increases over time (Geiger and Raghunandan 2002; Johnson et al. 2002; Myers et al. 2003; Carcello and Nagy 2004). These studies posit that auditors gain client-specific knowledge through repeated interactions with the client. This knowledge helps auditors to better identify errors in the client's accounting system.

factors, colleagues' advice becomes less relevant. When this happens, colleagues' advice can contradict the specialist's advice.

### **Integrating Consultation Advice**

How the auditor integrates advice from a specialist and colleagues influences the auditor's assessment of the client's position. A generally effective integration strategy is to weigh each piece of advice by the relevance of the advice to the decision task (Budescu et al. 2003; Soll and Larrick 2009). In the context of consultation advice received from a specialist and colleagues, the specialist has the most relevant knowledge given the individual's designation as the firm's subject-matter expert. In contrast, each colleague has limited knowledge from personal experience, and the experience that they have may be with clients that differ substantially from the client of the consulting auditor. Given the substantial variation in knowledge between the specialist and colleagues, auditors should rely on the specialist's advice when it differs from colleagues' advice (Gigerenzer and Goldstein 1996).

However, I expect that the level of consensus in colleagues' advice, combined with when the specialist's advice is evaluated, influences whether the auditor relies on the specialist's advice or colleagues' advice. Consensus influences the perceived level of uncertainty surrounding a choice (Tanford and Penrod 1984; West and Broniarczyk 1988). As consensus increases, individuals are more likely to rely on advice, because consistency makes the advice appear to be of higher quality (Budescu et al. 2003; Luan et al. 2004; Bonaccio and Dalal 2006). Therefore, I expect that auditors perceive advice



received from colleagues to be of higher quality, regardless of its relevance, as the level of consensus increases in colleagues' advice.

When the specialist's advice is evaluated at the same time as consistent advice from colleagues, auditors are likely to discount the specialist's advice if it appears to be an outlier in comparison to advice received from colleagues. If all the advice is considered simultaneously, individuals commonly rely on consensus to evaluate differences in opinion across advisors (Zhang et al. 2006). In doing so, they discount an outlying opinion through the application of a "consensus implies correctness" heuristic (Harries et al. 2004, Yaniv and Milyavsky 2007).<sup>5</sup> By focusing on consensus, rather than the relevance of advice, auditors applying this heuristic are more likely to unconsciously discount contradictory advice from the specialist as the level of consensus in colleagues' advice increases. As a result, if the client's position is supported by advice received from colleagues that conflicts with the specialist's advice, auditors are more likely to conclude that the client's position is reasonable as the level of consensus increases in colleagues' advice. Accordingly, I hypothesize:

H1: When the specialist's advice is evaluated at the same time as colleagues' advice, auditors are less likely to rely on specialist's advice that differs from colleagues' advice as the level of consensus increases in colleagues' advice.

Although I predict that the level of consensus in colleagues' advice can bias auditor judgment, I also expect that the bias can be mitigated by separating the auditor's

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<sup>5</sup> The strategy is consistent with studies of group decision making where individual views tend to conform to the group consensus (Nemeth 1986; Mackie et al. 1990). The strategy is a biologically-reinforced adaptive decision rule in social settings (Henrich and Boyd 1998).

evaluation of the specialist's advice and colleagues' advice. Individuals are more likely to evaluate advice based on its relevance to the decision if the task is restructured to focus the decision maker's assessment on the outcome rather than on the level of consensus across advisors (Zhang et al. 2006). Restructuring is accomplished when the auditor separately evaluates the client's preferred position in light of the colleagues' advice, and in light of the specialist's advice. By changing when the specialist's advice is evaluated relative to the colleague's advice, the auditor's focus shifts from the level of consensus to whether the advice received supports the client's position.

When the specialist's advice is evaluated separately after colleagues' advice, advice received from colleagues is first condensed into an overall assessment of whether the client's preferred position is reasonable based on the advice received. When the auditor evaluates the specialist's advice after the assessment made using colleague's advice, the auditor re-evaluates the previously-made assessment. In doing so, the specialist's advice is compared to the auditor's previous assessment based on the colleagues' advice, rather than to the level of consensus in colleagues' advice. This should help auditors recognize that the specialist has greater task-relevant knowledge. When individuals recognize differences in relevant knowledge, they place greater reliance on advice received from the more knowledgeable advisor (Birnbaum and Stegner 1979; Harvey and Fischer 1997). As such, I expect auditors to place greater reliance on the specialist's advice, regardless of consensus in colleagues' advice, when

the specialist's advice is evaluated separately after an evaluation made using colleagues' advice.<sup>6</sup> Accordingly, I hypothesize:

H2: When the specialist's advice is evaluated separately after an assessment made using colleagues' advice, auditors are more likely to rely on the specialist's advice regardless of the level of consensus in colleagues' advice.

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<sup>6</sup> This theory also predicts that auditors place greater reliance on the specialist's advice when it is evaluated separately before colleagues' advice, because they recognize in the second assessment that colleagues have less knowledge relevant to the consultation. Refer to the 'Additional Tests of Advice Utilization' section for an additional experiment testing this expectation.

## **RESEARCH METHOD**

### **Participants**

One hundred and three auditors attending one Big Four firm's senior auditor training participated in an experiment to test the hypothesized effects of advice from a specialist and colleagues on professional judgment. Audit seniors actively participate in the decision making process when a specialist is used to audit significant accounting estimates, and their assessments influence the judgments of managers and partners (Ricchiute 1999; Griffith 2013). Personnel from the firm that provided the participants noted that the case realistically portrayed the audit consultation process, and commented that audit seniors are frequently the primary point of contact between the specialist and the audit team.

### **Experimental Task**

Participants complete a case in which they evaluate a client's goodwill impairment analysis. At the start of the case, participants read a brief summary of the client's business and the impairment assessment process prescribed by Accounting Standards Codification (ASC) 350-20. The client (Rail Co.) is a railcar leasing company that also performs fleet management services and serves as a railcar broker for a few select customers. The guidance indicates that a potential impairment exists if the calculated fair value of the reporting unit with goodwill is less than its carrying value

(FASB 2011).<sup>7</sup> Based on the client's reporting structure, the entire company is considered one reporting unit. Client management has concluded that goodwill is not impaired based on an analysis of projected income and expenses. The auditor in the case sends the client's analysis to the firm's valuation specialist to review the client's methodology and assumptions.

When acknowledging receipt of the client's analysis, the specialist notes that the client used an unlevered discounted cash flow approach to determine fair value. He explains that there is also a levered approach, and that the two approaches differ in the treatment of debt financing costs and interest expense. Based on a quick sensitivity analysis, the specialist observes that goodwill would be potentially impaired, by an amount in excess of performance materiality, if the client used the levered approach. He indicates that operating companies (e.g. manufacturers and service providers) typically use an unlevered approach, while financing companies (e.g. banks and lenders) typically use a levered approach. As such, the assessment of whether the client should be classified as an operating or financing company determines the appropriateness of the client's valuation methodology and whether goodwill is potentially impaired.

The specialist emphasizes that the classification decision requires professional judgment because there is nothing in the firm's audit guidance or policies that directly informs the matter. Through subsequent discussions with the client's controller, the

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<sup>7</sup> Accounting standards indicate this quantitative analysis need only be performed if a qualitative assessment indicates that it is more likely than not that a potential impairment exists. Participants are told that the client has elected to bypass the qualitative assessment, regardless that no qualitative indicators of impairment exist, and proceed directly to the quantitative analysis as permitted by ASC 350-20-35B (FASB 2011).

auditor learns that management considers the client to be an operating company because they offer a full service lease option in which they maintain and repair the leased railcars. The controller acknowledges that only a few of their customers have elected the full service option, and indicates that they have one mechanic on call at a centrally-located rail yard to perform maintenance and repairs on these leases. Advice from the specialist and colleagues provides insight into the reasonableness of the controller's conclusion that the client is an operating company.

The specialist's advice is presented in the form of the following assessment contained in one of the auditor's conversations with the specialist:

Based on the provided information, I think that Rail Co. is a financing company.

The vast majority of the Company's revenue comes from one source: long-term leases. On most of the leases, Rail Co. has no responsibility to repair and maintain the railcars.

The specialist concludes that the client's operations are more consistent with those of a lender because the client's primary business is providing customers with a source of capital to obtain railcars. The specialist also notes that, because only a few customers have elected the full service lease option, the client has no involvement with most of the leased railcars after the lease is executed. Based on these observations, the specialist's advice is that the client should be classified as a financing company.

The auditor in the case also seeks advice from five colleagues to determine which methodology is used to assess impairment on other clients within the industry.

Colleagues' advice is presented in the form of notes that the auditor in the case took

during his consultation with colleagues (See Appendix A for a copy of the notes). Each piece of advice includes a brief description of the colleague's client and whether the client's reporting unit with goodwill is classified as an operating or financing company. Importantly, the colleagues' clients are not comparable to the client of the consulting auditor on aspects that the specialist indicates are relevant to the operating/financing assessment. For example, though the client of the first colleague is also a railcar leasing company, the colleague's client only offers full service leases. As such, the colleague's client is significantly more involved with the leased assets, which makes the operating company classification more appropriate for that company. These distinguishing factors decrease the relevance of the colleagues' advice to the consulting auditor's assessment of the client-preferred methodology.

I pilot tested the experimental materials with undergraduate and doctoral students at a large public university. Personnel from the Big Four firm that provided participants reviewed the case to ensure the task was appropriate for audit seniors and that terminology was firm specific. I randomly assigned participants to the four between-participant treatments discussed in the following section. At the beginning of the experimental session, a proctor read a script that briefly described the participant's task and distributed envelopes with instructions, the informed consent, two packets of case materials, and a packet of debriefing questions including experimental checks and demographic questions. The proctor monitored the experiment and collected the envelopes as participants finished. Participants completed the materials in about 30-45 minutes.

## Manipulated Factors and Response Variables

To test my hypotheses, I manipulate two factors between participants using a 2 x 2 research design. The first manipulated factor is the level of consensus in colleagues' advice ('Consensus'). Half the participants receive *consistent* advice indicating that all five of the colleagues' clients were classified as operating companies, and that the clients used unlevered discounted cash flows in their impairment analyses. The remaining participants receive *mixed* advice indicating that two of the five colleagues' clients were classified as financing companies, and that these clients used levered discounted cash flows in their impairment analyses. The two clients that are classified as financing companies in the mixed advice treatment are identical to the operating companies that they replaced in the consistent advice treatment. As shown in Appendix A, I only change two words in the description of each client to indicate that they are "financing" (instead of "operating") companies that used "levered" (instead of "unlevered") discounted cash flows in their impairment analyses. All other information about the colleagues' clients remains consistent across treatments.<sup>8</sup>

I also manipulate when the specialist's advice is received in relation to colleagues' advice across two assessments of the client ('Timing'). Figure 1 provides an overview of the experimental design. H1 and H2 predict that auditors evaluate the specialist's advice differently based on the level of consensus in colleagues' advice and whether the specialist's advice is evaluated at the same time as (*with*) colleagues' advice,

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<sup>8</sup> Each of these companies has leasing activity that is consistent with a financing company since they are not actively involved with the leased assets. However, each company also earns a substantial portion of their revenue from other operating-type activities.



or separately *after* evaluating colleagues' advice. To test these hypotheses, I ask participants to evaluate the client's position immediately following receipt of colleagues' advice (the first assessment), and at the end of the case (the second assessment).<sup>9</sup> Half the participants receive the specialist's advice immediately preceding colleagues' advice (Figure 1 Panel A). For participants in this treatment, the specialist's advice is evaluated at the same time as colleagues' advice during the first assessment. I use these participants' responses to test H1. The remaining participants receive the specialist's advice after making a first assessment using only colleagues' advice. For participants in this treatment, the specialist's advice is evaluated separately during the second assessment (Figure 1 Panel B). I use these participants' responses to test H2.

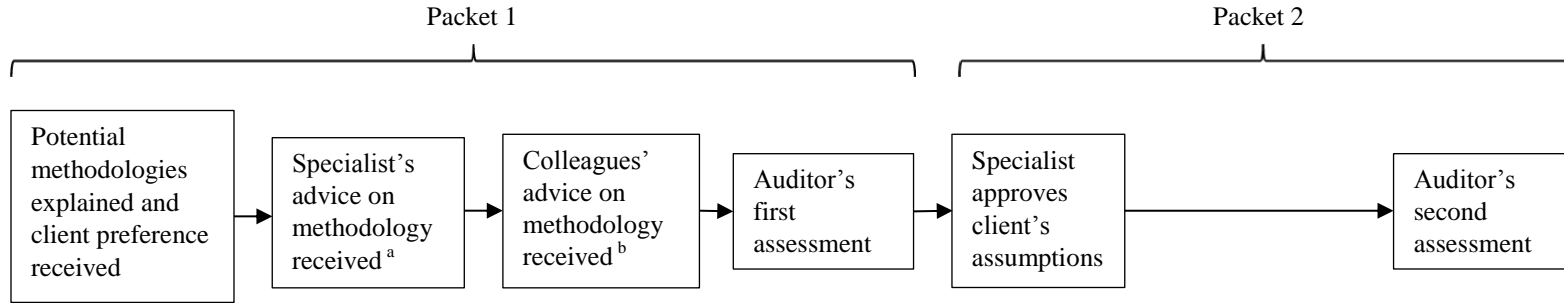
During each assessment, I ask participants to evaluate whether the auditor in the case should conclude that the client is an operating company. This judgment determines whether the client's valuation methodology is appropriate, and whether the client's goodwill is potentially impaired. Responses are measured on 11-point scales with anchors of 'No' (0) and 'Yes' (10). Following the first assessment, I ask participants how certain they are of the assessment just made about the client, measured with scale anchors of 'Not Certain' (0) and 'Very Certain' (10). In the debriefing questions, I ask participants to indicate how influential the client's assessment was on their evaluation of whether the client was an operating company, measured with scale anchors of 'Not Influential' (0) and 'Very Influential' (10).

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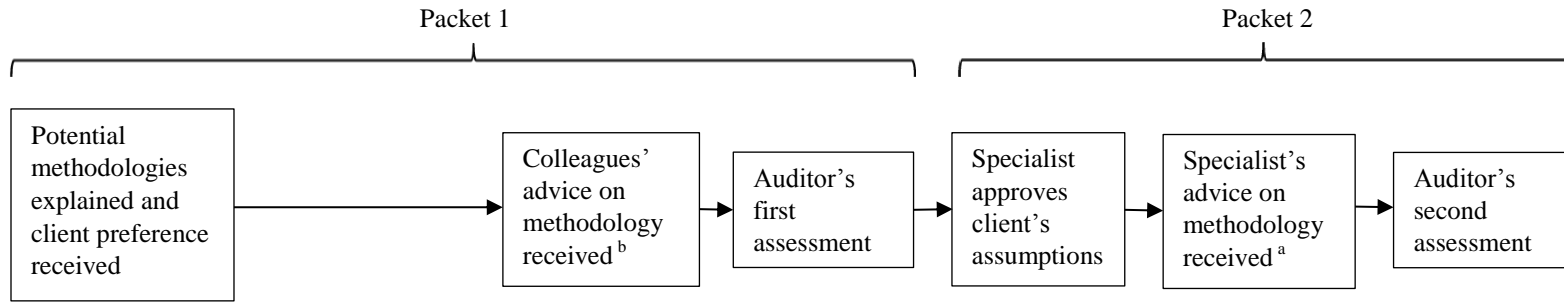
<sup>9</sup> I control participants' access to advice at each assessment by separating the case into two packets. For all treatments, the specialist approves the client's assumptions (e.g. the discount rate) in the second packet.

**Figure 1. Experimental Design**

Panel A. Specialist’s advice evaluated at the same time as colleagues’ advice



Panel B. Specialist’s advice evaluated separately after colleagues’ advice



At both assessments, participants evaluate whether the auditor in the case should conclude that the client is an operating company. This judgment determines whether the client’s valuation methodology is appropriate, and ultimately whether the client’s goodwill is potentially impaired.

<sup>a</sup> = The specialist’s advice indicates that the client is a financing company and that the client’s goodwill is potentially impaired.

<sup>b</sup> = Colleagues’ advice provides either a consistent or mixed indication of whether the client-preferred operating-company valuation methodology is used on their clients. Under the operating-company methodology, the client’s goodwill is not impaired.

## RESULTS

Table 1 presents the participant profile. After eliminating four participants who did not complete the case, the final sample includes 103 auditors. The auditors participating in the study averaged 2.6 years of audit experience and worked on about four clients annually. These auditors reported involvement with specialists on about seven audits, and that they sought advice from colleagues on about seven audits. Auditors indicated that they had performed audit procedures to test goodwill for impairment on about two audits. They assessed moderate familiarity with testing a client's goodwill for impairment, rating familiarity at 5.09 on an 11-point scale with anchors of 'Not Familiar' (0) and 'Very Familiar' (10).<sup>10</sup> However, auditors assessed understanding of the case materials relatively high, 7.47 on an 11-point scale with anchors of 'Not Well' (0) and 'Very Well' (10). None of the auditor demographics or assessments differ across treatment groups ( $p > 0.10$ ). It appears that auditors participating in this study had experience evaluating advice from specialists and colleagues. Further, they appear to have understood the case materials.

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<sup>10</sup> This mid-scale rating is consistent with concerns identified in practitioner interviews that some auditors have only limited knowledge of the professional guidance and valuation methodologies required to audit significant accounting estimates (Griffith et al. 2013). No specific knowledge of professional guidance or valuation methodologies was required to complete the case.

**Table 1.** Participant Profile

Number of auditor participants <sup>a</sup>	103	
	<u>Mean</u>	<u>Std. Dev.</u>
Months of audit experience	31.66	12.07
Number of audit clients per year	4.25	1.93
Number of audits involving a specialist	6.64	3.11
Number of times sought advice from colleagues	7.24	3.03
Number of times involved with testing goodwill for impairment	1.83	1.75
Familiarity with testing goodwill for impairment	5.09	2.60
Understanding of case materials	7.47	1.71

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Self-assessments are made on 11-point scales with 10 (0) representing a high (low) level of familiarity and understanding.

<sup>a</sup> = Auditor demographics and self-assessments do not vary across treatments ( $p > 0.10$ ).

Experimental checks are assessed using 11-point scales with anchors of ‘No’ (0) and ‘Yes’ (10). For the consistent versus mixed advice manipulation check, I ask participants to evaluate whether all five of the consulting auditor’s colleagues indicated that their clients are classified as operating companies. Average responses are 8.88 and 1.16 on the correct ends of the scale for participants in the consistent and mixed advice treatments, respectively ( $p < 0.01$ ). I also ask participants to evaluate whether the materials indicated that the client’s goodwill would not be impaired if the client was classified as an operating company, but that it would be potentially impaired if the client was classified as a financing company. An average response of 9.52, that did not vary across treatment groups ( $p = 0.57$ ), confirms that participants understood the implication of the operating versus financing classification. Auditors participating in this study recognized the manipulation and understood the key facet of the experimental task.

### **Hypothesis Tests**

H1 predicts that, when the specialist’s advice is evaluated at the same time as colleagues’ advice, auditors are less likely to rely on specialist’s advice that differs from colleagues’ advice as the level of consensus increases in colleagues’ advice. I test my hypotheses using planned contrasts from a repeated measures analysis of variance (ANOVA).<sup>11</sup> As hypothesized, I find that auditors are less likely to assess the client’s position in a manner consistent with the specialist’s advice when auditors evaluate the

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<sup>11</sup> For completeness, the repeated measures ANOVA results are presented in Table 3. I rely on planned contrasts to test my hypotheses, because traditional ANOVA allocates much of the variance to the main effects and disordinal (cross-over) interactions across the two between-participant factors and the repeated measure (Howell 2010). As such, contrast coding provides greater statistical power to test the hypothesized effects (Buckless and Ravenscroft 1990).

specialist's advice at the same time as colleagues' advice that consistently supports an alternate position. This finding holds across both the first and second assessments (5.33, 5.17 versus 3.73, 3.92, one-tailed  $p = 0.03$ , Table 2).<sup>12</sup> In support of H1, I find that auditors evaluating the specialist's advice at the same time as colleagues' advice are less likely to rely on specialist's advice that differs from consistent advice received from colleagues.

H2 predicts that, when the specialist's advice is separately evaluated after colleagues' advice, auditors are more likely to rely on the specialist's advice regardless of the level of consensus in colleagues' advice. I find that when auditors evaluate colleagues' advice and then separately evaluate the specialist's advice, they significantly change their first assessments and respond in a manner consistent with the specialist's advice during the second assessment (6.41, 5.57 versus 4.11, 3.69, one-tailed  $p < 0.01$ , Table 2).<sup>13</sup> In support of H2, I find that auditors are more likely to rely on the specialist's advice, regardless of whether receiving consistent or mixed advice from colleagues, when the specialist's advice is evaluated separately after first making an assessment based on colleagues' advice.

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<sup>12</sup> I observe no difference in variation between the two levels of consensus in colleagues' advice across the first and second assessments (5.33 – 3.73 versus 5.17 – 3.92, two-tailed  $p = 0.61$ , untabulated). No evidence exists that these auditors revised their first assessments when making their second assessments.

<sup>13</sup> I observe no difference in variation between the first and second assessments across the two level of consensus in colleagues' advice (6.41 – 4.11 versus 5.57 – 3.69, two tailed  $p = 0.55$ , untabulated). No evidence exists that the receipt of consistent versus mixed colleagues' advice affected these auditors' revisions to their first assessments.

**Table 2.** Auditor Reliance on Specialist and Colleague Advice

Panel A. Descriptive statistics

	Specialist's Advice <i>With</i> Colleagues' Advice	Specialist's Advice <i>After</i> Colleagues' Advice
<i>First Assessment</i>		
	Specialist's Advice & Colleagues' Advice	Colleagues' Advice
<i>Consistent</i> Colleagues' Advice	5.33 (3.02) n = 24	6.41 (2.50) n = 27
<i>Mixed</i> Colleagues' Advice	3.73 (3.09) n = 26	5.57 (3.15) n = 26
<i>Second Assessment</i>		
	No New Advice	Specialist's Advice
<i>Consistent</i> Colleagues' Advice	5.17 (3.19) n = 24	4.11 (2.33) n = 27
<i>Mixed</i> Colleagues' Advice	3.92 (3.02) n = 26	3.69 (3.07) n = 26

**Table 2.** continuedPanel B. Planned contrasts<sup>a</sup>

			<u>t-stat</u>	<u>Sig.</u>
H1	$(\mu_{c,w,1} + \mu_{c,w,2}) -$ $(\mu_{m,w,1} + \mu_{m,w,2})$	$(5.33 + 5.17) -$ $(3.73 + 3.92)$	1.90	0.03**
H2	$(\mu_{c,a,1} + \mu_{m,a,1}) -$ $(\mu_{c,a,2} + \mu_{m,a,2})$	$(6.41 + 5.57) -$ $(4.11 + 3.69)$	6.11	<0.01***
–	$(\mu_{c,w,1} + \mu_{c,a,1} + \mu_{m,a,1}) -$ $3 \times \mu_{m,w,1}$	$(5.33 + 6.41 + 5.57) -$ $3 \times 3.73$	3.07	<0.01***
–	$(\mu_{c,a,2} + \mu_{m,a,2} + \mu_{m,w,2}) -$ $3 \times \mu_{c,w,2}$	$(4.11 + 3.69 + 3.92) -$ $3 \times 5.17$	1.84	0.03**

Mean (standard deviation) reported for auditors' two assessments of whether the client is an operating company (goodwill is not potentially impaired), measured on an 11-point scale anchored by 'No' (0) and 'Yes' (10). The specialist's advice indicates that the client is a financing company (goodwill is potentially impaired). Colleagues' advice provides either a consistent or mixed indication that the client is an operating company (goodwill is not impaired). The specialist's advice is evaluated either at the same time as (with) colleagues' advice, or separately after first making an assessment using only colleagues' advice.

<sup>a</sup> = Planned contrasts from a repeated measures ANOVA are used to test hypotheses and validate theory.  $\mu_{C,T,A}$  denotes the cells used in the planned contrasts. C indicates whether the auditor received consistent (c) or mixed (m) colleagues' advice, T indicates whether the auditor evaluated the specialist's advice with (w) or after (a) colleagues' advice, and A indicates responses to the first (1) or second (2) assessment. Due to the directional nature of the hypotheses, \*, \*\*, \*\*\* denotes one-tailed significance at the 10%, 5%, and 1% levels, respectively.



**Table 3.** Repeated Measures Analysis of Variance

<u>Source</u> <sup>a</sup>	<u>MS</u>	<u>df</u>	<u>F-stat</u>	<u>Sig.</u>
<i>Between-Subjects Effects</i>				
Consensus	53.89	1	3.84	0.05*
Timing	8.58	1	0.61	0.44
Consensus*Timing	8.19	1	0.58	0.45
Residual	14.04	99		
<i>Within-Subjects Effects</i>				
Assessment	55.47	1	17.90	<0.01***
Assessment*Consensus	1.91	1	0.62	0.43
Assessment*Timing	56.85	1	18.34	<0.01***
Assessment*Consensus*Timing	0.01	1	0.00	0.96
Residual	3.01	99		

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Responses from participants' two assessments of whether the client is an operating company (goodwill is not potentially impaired) are analyzed using repeated measures ANOVA. \*, \*\*, \*\*\* denotes two-tailed significance at the 10%, 5%, and 1% levels, respectively.

<sup>a</sup> = 'Consensus' is a variable indicating whether the participant received consistent or mixed advice from colleagues. 'Timing' is a variable indicating whether the participant evaluated the specialist's advice at the same time as (with) or separately after colleagues' advice. 'Assessment,' the repeated measure, denotes each of the two participant assessments.

Refer to Table 2 for additional information on the two between-subjects manipulations and the repeated measure.

## Verification of Theory

The theory underlying H1 predicts that, when both the specialist's advice and colleagues' advice is evaluated at the same time, auditors discount the specialist's advice if it conflicts with advice from colleagues that consistently supports an alternate position. I expect an ordinal interaction in the auditors' *first* assessments if the specialist's advice is discounted. Auditors evaluating the specialist's advice at the same time as consistent advice from colleagues should respond similarly to auditors evaluating only colleagues' advice. However, these auditors' assessments should differ from those of auditors evaluating the specialist's advice at the same time as mixed advice from colleagues. Participant responses from the auditors' first assessment support this expectation (Figure 2 Panel A and Table 2 Panel A). Auditors evaluating the specialist's advice at the same time as consistent colleagues' advice and auditors evaluating only colleagues' advice make assessments that differ from auditors who evaluate the specialist's advice at the same time as mixed colleagues' advice (5.33, 6.41, 5.47 versus 3.73, one-tailed  $p < 0.01$ ; Table 2 Panel B).<sup>14</sup> As theorized, when the specialist's advice conflicts with consistent colleagues' advice, auditors discount the specialist's advice if they evaluate both sources of advice at the same time.

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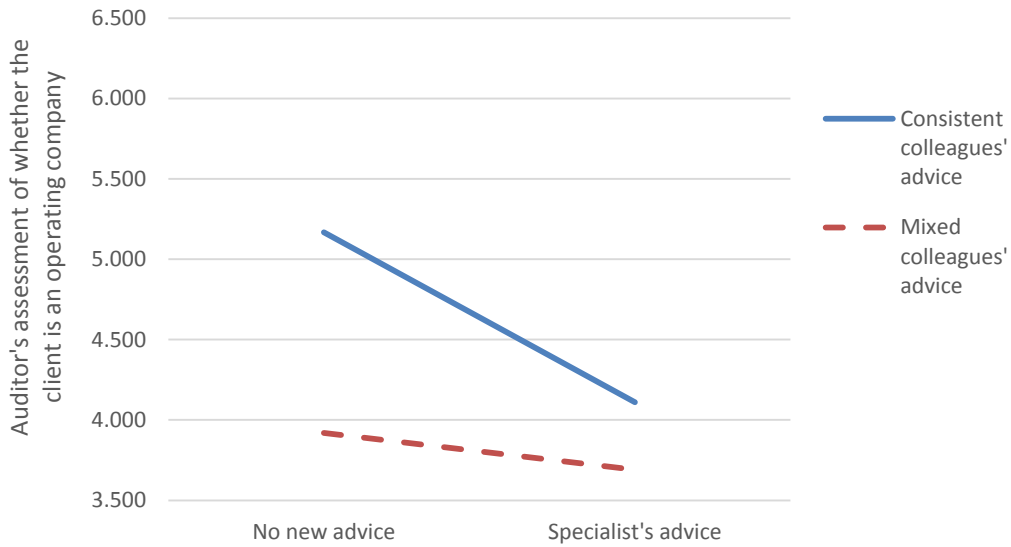
<sup>14</sup> I observe no difference across the assessments of auditors evaluating the specialist's advice at the same time as consistent colleagues' advice and auditors evaluating only colleagues' advice (5.33, 6.41, 5.57, two-tailed  $p = 0.38$ , untabulated).

**Figure 2. Auditor Reliance on Specialist and Colleague Advice**

**Panel A. Auditor's first assessment**



**Panel B. Auditor's second assessment**



Participants make two assessments of whether the auditor in the case should conclude that the client is an operating company (goodwill is not potentially impaired), measured on an 11-point scale anchored by 'No' (0) and 'Yes' (10). The specialist's advice is evaluated during the first assessment at the same time as colleagues' advice, or separately during the second assessment after first making an assessment using only colleagues' advice. Figure 1 provides an overview of the experimental design. Refer to Table 2 for descriptive statistics of participant responses at each assessment.

H2 predicts that separating the auditor's evaluation of the specialist's advice and colleagues' advice mitigates the discounting of the specialist's advice observed when auditors evaluate the specialist's advice at the same time as advice from colleagues that consistently supports an alternate position. I expect a different ordinal interaction in the auditors' *second* assessments if discounting of the specialist's advice is mitigated. Auditors evaluating the specialist's advice separately after colleagues' advice should respond similarly to auditors evaluating the specialist's advice at the same time as mixed advice from colleagues. However, these auditors' assessments should differ from those of auditors evaluating the specialist's advice at the same time as consistent advice from colleagues. Participant responses from the auditors' second assessment support this expectation (Figure 2 Panel B and Table 2 Panel A). Auditors evaluating the specialist's advice separately after either consistent or mixed advice from colleagues and auditors who evaluate the specialist's advice at the same time as mixed advice from colleagues make assessments that differ from auditors evaluating the specialist's advice at the same time as consistent advice from colleagues (4.11, 3.69, 3.92 versus 5.17, one-tailed  $p = 0.03$ , Table 2 Panel B).<sup>15</sup> As theorized, evaluating the specialist's advice separately after colleagues' advice mitigates the discounting of the specialist's advice.

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<sup>15</sup> I observe no difference across the assessments of auditors evaluating the specialist's advice separately after colleagues' advice and auditors evaluating the specialist's advice at the same time as mixed colleagues' advice (4.11, 3.69, 3.92, two-tailed  $p = 0.86$ , untabulated).

## **Robustness Checks**

Prior research suggests that auditors are less likely to rely on advice when the advice contradicts a client-preferred position, and when they are more confident in their initial assessment (Bonaccio and Dalal 2006; Yaniv and Milyavsky 2007; Ng and Shankar 2010). As such, auditors evaluating the specialist's advice at the same time as consistent advice received from colleagues may discount the specialist's advice to curry favor with management. Further, auditors evaluating the specialist's advice separately after colleagues' advice may revise their first assessment because they were not confident in their initial assessment. To rule out these alternative explanations, I ask participants to assess the importance of the client's preference on their evaluation of whether the client is an operating company, and how confident they were in their initial assessment. I find no significant differences across treatment groups for either measure ( $p > 0.10$ , Table 4) and including the measures as covariates does not change the tabulated results. Neither client-preference nor auditor confidence appear to explain the hypothesized findings.

**Table 4.** Assessments of Certainty and Client Preference

Panel A. Certainty in first assessment

	Specialist's Advice <i>With</i> Colleagues' Advice	Specialist's Advice <i>After</i> Colleagues' Advice
<i>Consistent</i> Colleagues' Advice	6.12 (2.38) n = 24	6.63 (2.26) n = 27
<i>Mixed</i> Colleagues' Advice	6.38 (2.42) n = 26	7.00 (2.26) n = 26

	<u>MS</u>	<u>df</u>	<u>F-stat</u>	<u>Sig.</u>
Consensus	2.55	1	0.47	0.49
Timing	8.06	1	1.49	0.23
Consensus*Timing	0.08	1	0.01	0.90
Residual	5.42	99		

**Table 4.** continued

Panel B. Influence of client preference

	Specialist's Advice <i>With</i> Colleagues' Advice	Specialist's Advice <i>After</i> Colleagues' Advice
<i>Consistent</i> Colleagues' Advice	4.38 (2.84) n = 24	3.85 (2.78) n = 27
<i>Mixed</i> Colleagues' Advice	4.39 (2.61) n = 26	5.19 (2.80) n = 26

	<u>MS</u>	<u>df</u>	<u>F-stat</u>	<u>Sig.</u>
Consensus	11.71	1	1.54	0.21
Timing	0.52	1	0.07	0.79
Consensus*Timing	11.38	1	1.50	0.22
Residual	7.61	99		

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After the first assessment, participants evaluated how certain they were in the assessment just made about the client, measured on an 11-point scale anchored by 'Not Certain' (0) and 'Very Certain' (10). At the end of the case, participants evaluated how influential the client's assessment was on their evaluation of whether the client was an operating company, measured on an 11-point scale anchored by 'Not Influential' (0) and 'Very Influential' (10). Participant responses are analyzed using ANOVA. \*, \*\*, \*\*\* denotes two-tailed significance at the 10%, 5%, and 1% levels, respectively. Between-participant manipulations are defined in Table 3.

### **Additional Tests of Advice Utilization**

My primary analysis indicates that auditors are more likely to rely on the specialist's advice when it is evaluated separately after evaluating colleagues' advice. This setting occurs naturally in the audit environment when the specialist raises concerns early in the audit process but does not conclude on the issue until completing his or her review of the client's analysis. Though I theorize that these results are attributable to a shift in focus from consensus to the relevance of advice, one may argue that auditors evaluating the specialist's advice after colleagues' advice placed greater reliance on the last piece of advice received, a recency phenomenon. In addition, this design choice imposes a constraint on the timing of when the specialist's advice is received that is beyond the control of the auditor.

To address these concerns, I conduct a second experiment using 117 graduate students enrolled at a large public university. Their average age was 22, all had taken at least one auditing class, and about 94% of them had been on an audit internship. I employ a 3 x 1 experimental design in which participants evaluate the specialist's advice before, at the same time as, or after the consistent advice from colleagues that conflicts with the specialist's advice. For this analysis, I am primarily concerned with participants' second assessments, which are made with the knowledge of both the specialist's advice and colleagues' advice. The responses of participants evaluating the specialist's advice at the same time as and after colleagues' advice replicate the findings in my primary analysis (6.63 vs. 4.87, one-tailed  $p < 0.01$ , Table 5). I also find that participants evaluating the specialist's advice separately before colleagues' advice are



more likely to rely on the specialist's advice than are participants evaluating the specialist's advice at the same time as colleagues' advice (5.46 vs. 6.63, one-tailed  $p = 0.03$ , Table 5). Further, I observe no significant difference across the responses of auditors evaluating the specialist's advice before or after colleagues' advice (5.46 vs. 4.87 two-tailed  $p = 0.35$ , untabulated). I do observe that participants who evaluate the specialist's advice separately before colleagues' advice significantly revise their first assessments upon receipt of advice from colleagues that consistently supports an alternate position (2.92 vs. 5.46, two-tailed  $p < 0.01$ , untabulated). Regardless of whether the change is due to recency or the perceived relevance of the colleagues' advice, these participants' second assessments are more consistent with the specialist's advice than those of participants who evaluated both sources of advice at the same time, and are not statistically different from those of participants who evaluated the specialist's advice separately after colleagues' advice. Consistent with my theory, these results suggest that auditors are more likely to rely on the specialist's advice when it is evaluated separately, regardless of whether it is received before or after colleagues' advice.

**Table 5.** Additional Tests of Advice Utilization

Panel A. Descriptive statistics

	Specialist's Advice <i>Before</i> Colleagues' Advice	Specialist's Advice <i>With</i> Colleagues' Advice	Specialist's Advice <i>After</i> Colleagues' Advice
<i>First Assessment</i>			
	Specialist's Advice	Specialist's Advice & Colleagues' Advice	Colleagues' Advice
<i>Consistent</i> Colleagues' Advice	2.92 (2.37) n = 39	6.18 (2.53) n = 38	7.03 (2.93) n = 39
<i>Second Assessment</i>			
	Colleagues' Advice	No New Advice	Specialist's Advice
<i>Consistent</i> Colleagues' Advice	5.46 (3.21) n = 39	6.63 (2.33) n = 38	4.87 (3.08) n = 39

Panel B. Planned contrasts<sup>a</sup>

		t-stat	Sig.
$\mu_{w,2} - \mu_{a,2}$	6.63 – 4.87	2.79	<0.01***
$\mu_{b,2} - \mu_{w,2}$	5.46 – 6.63	1.86	0.03**

Mean (standard deviation) reported for auditors' two assessments of whether the client is an operating company (goodwill is not impaired), measured on an 11-point scale anchored by 'No' (0) and 'Yes' (10). The specialist's advice indicates that the client is a financing company (goodwill is potentially impaired). Colleagues' advice provides a consistent indication that the client is an operating company (goodwill is not potentially impaired). The specialist's advice is evaluated separately before colleagues' advice, at the same time as (with) colleagues' advice, or separately after colleagues' advice.

<sup>a</sup> = Planned contrasts from a repeated measures ANOVA are used to validate theory.  $\mu_{T,A}$  denotes the cells used in the planned contrasts. T indicates whether the auditor evaluated the specialist's advice before (b), with (w), or after (a) colleagues' advice. A indicates responses to the first (1) or second (2) assessment. Due to the directional nature of the hypotheses, \*, \*\*, \*\*\* denotes one-tailed significance at the 10%, 5%, and 1% levels, respectively.

## SUMMARY AND CONCLUSIONS

I examine how the evaluation of advice received from a specialist and colleagues affects an auditor's professional judgment. Consistent with application of the "consensus implies correctness" heuristic, I find that auditors discount a specialist's advice when it is evaluated at the same time as advice from colleagues that consistently supports an alternative position. In doing so, these auditors respond similarly to auditors who only evaluate advice from colleagues. Importantly, the experiences on which the colleagues' advice is based are with clients that are not comparable to the client of the consulting auditor. As such, these auditors place greater reliance on irrelevant advice from colleagues than on advice received from the firm's designated subject-matter expert. This finding is troublesome given the PCAOB's expectation that auditors should rely on advice received from a specialist "unless the auditor's procedures lead him or her to believe the findings are unreasonable in the circumstances" (PCAOB 2003 ¶12).

I also examine whether separating the auditor's evaluation of the specialist's advice and colleagues' advice increases reliance on the specialist's advice. I theorize that auditors will evaluate advice based on relevance, rather than consensus, when the specialist's advice is evaluated separately from colleagues' advice. I find that auditors who evaluate the specialist's advice separately after colleagues' advice significantly change their initial assessments. These auditors rely on the specialist's advice regardless of the level of consensus in advice received from colleagues. In a second experiment, I provide evidence that reliance on the specialist's advice is also higher when the

specialist's advice is evaluated separately before colleagues' advice. In sum, evaluating the specialist's advice separately mitigates the observed discounting of the specialist's advice that can occur when the specialist's advice is evaluated at the same time as colleagues' advice.

My study is subject to several limitations. First, the participants in the study are audit seniors from one Big Four public accounting firm, so my results are specific to audit seniors and potentially specific to the firm that provided the participants. In addition, practitioners describe an iterative consultation process in which there are numerous discussions between the specialist and the audit team (Griffith 2013). These discussions are necessarily restricted in this study due to time limits on access to participants. Finally, my case materials involve the evaluation of consultation advice related to a client's goodwill impairment analysis. My results may not generalize to consultation advice received on other matters, such as on the acceptability of a client's accounting policy. I encourage future research to examine the auditor's evaluation of a specialist's advice and colleagues' advice in other types of consultation.

I also note that audit partners and managers are heavily involved in the audit of significant accounting estimates. As such, the audit senior's assessment made in the case would be subject to review by other members of the audit team. I do not capture these effects of the audit team environment. However, audit seniors' initial judgments have been shown to influence reviewing auditors' judgments (Ricchiute 1999). Further, interviews with practitioners confirm that seniors are typically the primary point of contact between the specialist and the audit team, and that these seniors are actively

involved in the decision-making process when a specialist is used to audit an accounting estimate. Future research could examine how other members of the audit team evaluate consultation advice received from a specialist and colleagues.

Consultation is generally thought to improve professional judgment through the sharing of knowledge across audit professionals. I identify an unintended consequence of consultation with colleagues whereby auditors discount advice received from the firm's specialist. This discounting undermines the resources that public accounting firms devote to providing the best advice through consultation with the firm's designated subject-matter experts. My findings also provide a behavioral explanation for deficiencies reported by the PCAOB in which auditors discount specialist advice. However, I also identify a way to increase auditor reliance on specialist advice that mitigates the observed discounting by separating when the auditor evaluates the specialist's advice and colleagues' advice. As such, my study provides insight for public accounting firms and the PCAOB on how to improve the use of consultation resources and minimize consultation-related audit deficiencies.

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## APPENDIX A

### Colleagues' Advice

#### Chris Baltz – Rolling Stock audit

All of Rolling Stock's revenue is from long-term railcar leases. All leases are full service. Rolling Stock employs mechanics full-time in many rail yards across the US. Chris considers Rolling Stock's reporting unit with goodwill to be an operating company. Rolling Stock used unlevered discounted cash flows in its goodwill impairment analysis.

#### Eric Althoff – Airfreight audit

About half of Airfreight's revenue is from long-term cargo aircraft leases. No service option is available. A division performs maintenance for cargo planes, including some planes that Airfreight leases. Eric considers Airfreight's reporting unit with goodwill to be an operating (a financing) company. Airfreight used unlevered (levered) discounted cash flows in its goodwill impairment analysis.

#### Landon Moore – Trailer Co. audit

Most of Trailer's revenue is from long-term 18-wheeler cargo trailer leases. Two-thirds are full service. Trailer employs many mechanics in garages across the US interstate system. Landon considers Trailer's reporting unit with goodwill to be an operating company. Trailer used unlevered discounted cash flows in its goodwill impairment analysis.

#### Jeremiah Schulte – Seabox audit

Half of Seabox's revenue is from long-term sea container leases. Containers require minimal service. A division performs warehouse and loading/unloading services at a large port on the Atlantic seaboard. Jeremiah considers Seabox's reporting unit with goodwill to be an operating (a financing) company. Seabox used unlevered (levered) discounted cash flows in its goodwill impairment analysis.

#### Dan Finn – Track, Inc. audit

Two-thirds of Track's revenue comes from long-term rail car leases. Half are full service. Track employs mechanics full-time in major rail yards across the US, and rebuilds third-party railcars. Dan considers Track's reporting unit with goodwill to be an operating company. Track used unlevered discounted cash flows in its goodwill impairment analysis.

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Participants receiving consistent (mixed) advice from colleagues were told that the second and fourth colleagues indicated that their client's reporting unit with goodwill was classified as an operating (financing) company, and that an unlevered (levered) discounted cash flow approach was used in the goodwill impairment analysis.