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How Does "Fit" Versus "Non-fit" Affect Audits of Estimates?
The Compatibility Between Focus and Mindset

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An abstract of
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Abstract

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The Compatibility Between Focus and Mindset
By Bright (Yue) Hong

Auditors frequently fail to critically evaluate management's accounting estimates, jeopardizing financial reporting quality (PCAOB 2017). I propose that one way to potentially improve audits of estimates is to align an auditor's focus (prevention/promotion) and mindset (concrete/abstract) in a compatible way. I predict that judgment quality will be higher when the focus and mindset fit versus do not fit each other, but I find the opposite. To reconcile my results with the typical findings in non-judgment tasks that performance is higher under fit versus non-fit, I develop a new prediction. I propose that whether judgment quality is higher under fit versus non-fit depends on a third factor: auditors' willingness to engage in the judgment task before receiving any manipulations. I find that for auditors who are initially less engaged, judgment quality is higher under fit versus non-fit, consistent with the typical findings in non-judgment tasks. However, for auditors who are initially more engaged, judgment quality is higher under non-fit versus fit, consistent with my main results. My study suggests that how "fit" versus "non-fit" affects performance is more complex than previously thought. My study implies that firms should consider auditors' initial willingness to engage in the judgment task when using fit and non-fit to improve audits of estimates.

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Acknowledgement

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I. Introduction

Accounting estimates are pervasive in financial statements, taking a variety of forms such as the allowance for doubtful accounts, inventory reserves, impairments of fixed assets, and fair value measurements. Estimates warrant an auditor's special attention because they are often a key component of financial statements and they are prone to manipulation. The subjectivity inherent in the estimation process provides an opportunity for earnings management (e.g., Dechow, Myers, and Shakespeare 2010; Ramanna and Watts 2012), increasing the risk of a material misstatement. Despite the risk associated with estimates, auditors frequently fail to critically evaluate management assertions related to estimates, overlooking issues that contradict management assertions and allowing management bias in financial statements (Griffith, Hammersley, Kadous, and Young 2015a; Griffith, Hammersley, and Kadous 2015b). This audit deficiency is among the top problems noted by regulators and it has recurred over the past ten years (PCAOB 2010; 2017; IFIAR 2017).

In this study, I propose a possible cause for this audit deficiency, and I provide a potential solution to improve audits of estimates. Specifically, I examine the role of the compatibility between an auditor's focus (prevention versus promotion) and mindset (concrete versus abstract) in auditors' evaluation of estimates. I argue that the conflict between an auditor's focus and mindset can create an experience of "non-fit" that could inadvertently contribute to the deficiencies in auditing estimates. I propose that by aligning the focus and mindset in a compatible way, the experience of "fit" can improve audits of estimates compared to the experience of non-fit.

Factors within the auditing environment can induce auditors to adopt a prevention focus or a promotion focus for their work. Regulatory focus theory (Higgins 1997; 1998) asserts that when decision makers are reminded of their duties and obligations, they become sensitive to the presence and absence of negative outcomes and they adopt a prevention focus. In the audit setting, an

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upcoming inspection, a potential lawsuit, a report of audit deficiencies, or a statement of audit opinions can remind auditors of their duties and obligations at work and cause them to adopt a prevention focus. By contrast, when decision makers are reminded of their hopes and aspirations, they become sensitive to the presence and absence of positive outcomes and they adopt a promotion focus. For example, an emphasis on learning and improvement, recognition for doing quality work, or an opportunity for career growth can remind auditors of their hopes and aspirations at work and cause them to adopt a promotion focus.

Auditors can also approach their work with different mindsets. Construal level theory (Trope, Liberman, and Wakslak 2007) asserts that when decision makers are prompted to focus on the execution aspect of a task, they adopt a concrete mindset that facilitates attention to detail. In the audit setting, a detail-oriented reviewer, a tight deadline, or a checklist of audit procedures can prompt auditors to focus on the execution aspects of their work and adopt a concrete mindset. By contrast, when decision makers are prompted to focus on the higher-level purpose of a task, they adopt an abstract mindset that facilitates big-picture thinking. For example, an explanation of why a task is done, a planning meeting that sets the objectives of an audit, or a training session on professional values can prompt auditors to focus on the purpose of their work and adopt an abstract mindset.

Prior research suggests that a concrete mindset is compatible with a prevention focus and that an abstract mindset is compatible with a promotion focus (Lee, Keller, and Sternthal 2009; Förster and Higgins 2005). Specifically, focusing on the execution aspect of a task helps decision makers attend to details and avoid mistakes, allowing them to meet their duties and obligations. On the other hand, focusing on the higher-level purpose of a task helps decision makers see the big picture, allowing them to recognize and seize every opportunity that can be used to achieve

their hopes and aspirations. The compatibility between focus and mindset can create an experience of "fit" (Lee et al. 2009; Förster and Higgins 2005). The experience of fit can make decision makers "feel right" about performing the task at hand, increasing their motivation and effort for the task (Higgins 2000; 2005). Therefore, I predict that auditors who experience fit (versus non-fit) will be more motivated to exert effort in auditing estimates and make higher quality judgments.

I use a 2 (focus) x 2 (mindset) between-participants experiment to test my prediction. Two hundred sixteen senior-level auditors assessed the discount rate used for valuing an asset, using a case adapted from prior research (Kadous, Leiby, and Peecher 2013). The client prefers to use a lower rate, which results in a higher fair value estimate of the asset. The case contains seeded issues that contradict the client's justifications for using a lower rate. Identifying the seeded issues requires cognitive effort. The more seeded issues auditors identify, the more likely auditors will realize that a higher rate is necessary. I manipulate auditors' mindset and focus before auditors receive information about the discount rate. I consider auditors to be in a "fit" condition if they are prompted to adopt 1) a concrete mindset *and* a prevention focus or 2) an abstract mindset *and* a promotion focus. I consider auditors to be in a "non-fit" condition if they are prompted to adopt 1) a concrete mindset *and* a promotion focus or 2) an abstract mindset *and* a prevention focus.

I expect that auditors in the fit condition are more likely to reject the client's rate because they will identify more seeded issues than those in the non-fit condition, but I find the opposite. This is surprising because prior research provides strong evidence in non-judgment tasks that fit typically improves performance compared to non-fit (Higgins 2000; 2005; Lee et al. 2009). To reconcile my results with prior research, I propose a new prediction based on indirect evidence from psychology (e.g., Vaughn, Malik, Schwartz, Petkova, and Trudeau 2006a; Avnet, Laufer, and Higgins 2013), and I conduct additional tests of the new prediction.

I predict that how fit versus non-fit affects judgment quality depends on auditors' willingness to engage in the judgment task *before* receiving any manipulations. Specifically, I argue that when auditors are initially less engaged to perform the task, they are implicitly evaluating "Do I want to perform this task?" Fit makes auditors "feel right" about *performing the task,* increasing their task motivation and effort. Therefore, judgment quality is higher under fit versus non-fit when auditors are initially less engaged. However, when auditors are initially more engaged to perform the task, I argue that auditors are implicitly evaluating "Am I making a quality judgment?" Fit makes auditors "feel right" about their *judgment*, thus making auditors complacent about their performance and encouraging them to stop exerting effort. Non-fit, on the other hand, suggests to auditors that they are not making quality judgments. As a result, the initially more engaged auditors are likely to exert additional effort to close the performance gap because they care about making quality judgments. Therefore, judgment quality is higher under non-fit versus fit when auditors are initially more engaged.

To test this idea, I infer auditors' initial willingness to engage in the task using their performance on task engagement checks placed before any manipulations. I consider auditors to be initially less engaged if they fail the checks and more engaged if they pass them. Auditors do not receive any feedback on their performance. Results largely support the new prediction. For auditors who are initially less engaged (18% of the sample), those in the fit condition identify marginally more seeded issues and require a higher discount rate than those in the non-fit condition, consistent with the typical findings in non-judgment tasks that performance is higher under fit versus non-fit. On the other hand, for auditors who are initially more engaged (82% of the sample), those in the non-fit condition identify more seeded issues and are more likely to reject the client's

rate than those in the fit condition. This latter effect drives the overall result that judgment quality is higher under non-fit versus fit.

My study makes several contributions. First, prior research offers several explanations for the continued deficiencies observed in audits of estimates (e.g., Cannon and Bedard 2016; Griffith et al. 2015b). One explanation that has not been considered is the compatibility among factors within the auditing environment, for example, the compatibility among the actions that regulators or accounting firms take to improve audit quality. My study suggests that the non-fit among these actions could inadvertently impair audit quality when auditors are initially less engaged to perform a judgment task, for example, when they are depleted, as during busy season (e.g., Hurley 2015), short on time (e.g., Mocadlo 2016), or motivated to please clients (Kadous, Kennedy, and Peecher 2003).

Specifically, to improve audit quality, regulators 1) punish auditors for incurring audit deficiencies (Peecher, Solomon, and Trotman 2013) *and* 2) emphasize an auditor's role in protecting the public interest (AICPA 2016; PCAOB 2013; SEC 2002). These two actions can cause a sense of non-fit because penalties can cause decision makers to adopt a *prevention* focus (e.g., Shah, Higgins, and Friedman 1998), and protecting the public interest highlights the *abstract* purpose of performing an audit. On the other hand, accounting firms 1) reward auditors for performing high-quality audits (e.g., KPMG 2016; Deloitte 2017) *and* 2) emphasize attention to detail in training and recruiting (PwC 2018; EY 2018). These two actions can also cause a sense of non-fit because rewards can cause decision makers to adopt a *promotion* focus (e.g., Shah et al. 1998), and attention to detail emphasizes a *concrete* mindset.

Second, to improve audits of estimates, prior research encourages auditors to think differently about accounting issues, for example, by adopting concrete thinking (Backof, Carpenter,

and Thayer 2018) or abstract thinking (Rasso 2015). Concrete thinking and abstract thinking can further translate into a concrete mindset and an abstract mindset (Freitas, Gollwitzer, and Trope 2004). My study suggests that changing mindsets alone may not be sufficient for improving audits of estimates because the fit between an auditor's mindset and focus could have incremental effects on judgment quality. Depending on auditors' initial willingness to engage in the judgment task, an audit team leader could use either fit or non-fit to improve audits of estimates.

Third, my study suggests that it is important to consider participants' initial willingness to engage in the experimental tasks when interpreting the effect of fit versus non-fit on performance. In tasks that do not involve making judgments, psychology research typically finds that fit improves performance compared to non-fit. However, it is possible that fit improves performance because the participants were initially less willing to engage in the experimental tasks, which tend to be relatively unengaging tasks such as squeezing a handgrip (Hong and Lee 2007) or solving anagrams (Lee et al. 2009). By contrast, in my study, the experimental task is relevant to participants' professional work. As a result, most of the participants were initially more engaged, contributing to my overall result that performance is higher under non-fit versus fit.

Finally, limited research in psychology examines the effect of fit versus non-fit on judgment quality. Studies on persuasion indirectly examine judgment quality by assessing the extent to which decision makers' attitudes reflect the strength of arguments used in persuasion (Petty, Cacioppo, and Schumann 1983). In this area, evidence as to whether fit or non-fit results in attitudes that are more reflective of argument strength is mixed (Aaker and Lee 2001; Koenig, Cesario, Molden, Kosloff, and Higgins 2009). My study examines judgment quality more directly in a complex task that auditors encounter at work. Moreover, I expect that considering participants'

initial willingness to engage in the experimental tasks could potentially reconcile the mixed evidence in this area (see section "V. Discussion" for details).

II. Theory and Hypothesis

Prevention focus and promotion focus

Regulatory focus theory describes the prevention and promotion focus as two basic drivers of human behavior (Higgins 1997; 1998). The prevention focus originates from the need for safety. A threat can activate the prevention focus and cause decision makers to be concerned with the duties and obligations they must meet (Shah et al. 1998; Idson and Higgins 2000). Auditors are likely to adopt a prevention focus at work because the audit opinion that they are accountable for is phrased as a *responsibility* in the audit report. Additionally, auditors face the *threat* of inspection and litigation. Furthermore, the audit work involves validating whether companies are meeting the *duties and obligations* required by law (e.g., the internal control requirement by the Sarbanes-Oxley Act of 2002).

In contrast, the promotion focus originates from the need for growth. A potential reward can activate the promotion focus and cause decision makers to be concerned with the hopes and aspirations they ideally would like to achieve (Shah et al. 1998; Idson and Higgins 2000). Auditors are likely to adopt a promotion focus when they think about their career ambitions and the growth opportunities offered by the job. In addition to monetary compensation and promotions, the auditing job offers a variety of opportunities for professional development. For example, auditors in public accounting can gain knowledge of different industries by working on multiple clients. Auditors can also gain project management skills by leading a team and operating under time pressure.

The fit between focus and mindset

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Decision makers can perform a task in a way that is compatible or incompatible with their focus for the task. When they perform the task in a way that is compatible with their focus, decision makers experience fit; when they perform the task in a way that is incompatible with their focus, decision makers experience non-fit (Higgins 2000; 2005). Prior research has encouraged auditors to approach the task of auditing estimates in different ways, for example, by thinking about *how* a client reached the specific assumptions about estimates (Backof et al. 2018) or thinking about *why* estimates could be misstated (Rasso 2015). Thinking about the "how" or "why" aspect of an issue can further induce decision makers to adopt a concrete mindset or an abstract mindset (Freitas et al. 2004). Of interest is the compatibility between an auditor's mindset (concrete versus abstract) and focus (prevention versus promotion) during the evaluation of estimates.

The notion of concrete and abstract mindset derives from construal level theory (Freitas et al. 2004). Construal level theory proposes that decision makers mentally represent elements of their environment such as tasks, objects, and events at two levels (see Trope et al. 2007 for a review). A concrete, low-level representation captures the details, contexts, and incidental features of elements (i.e., seeing the trees for the forest). "Viewing" elements from a short distance can cause decision makers to represent the elements at a concrete, low level. Many factors can affect the psychological distance from which decision makers view elements, for example, the time and location associated with the elements. For an audit project that starts *tomorrow* in a *local* town, an auditor is likely to mentally represent the project at a concrete, low level, thinking about who to contact at the client's site, what work files to bring, etc. Thinking about *how* a task is done can also cause decision makers to represent the task at a low level; moreover, the level of representation can carry over to other, unrelated elements in the environment, constituting a concrete mindset (Freitas et al. 2004).

On the other hand, an abstract, high-level representation of elements captures the essence and core features of the elements (i.e., seeing the forest for the trees). "Viewing" elements from a long distance helps decision makers represent the elements at an abstract, high level. In the previous example, if the audit project starts in *six months* at a *remote* town, the auditor is likely to simply label the project as "work" or "travel" in his or her mind, leaving out the details and contexts of the project. Thinking about *why* a task is done can cause decision makers to adopt an abstract mindset, representing the task and other unrelated elements within the environment at a high level (Freitas et al. 2004).

Prior research finds a "fit" between regulatory focus and construal level by operationalizing the two constructs in a variety of ways (e.g., Förster and Higgins 2005; Lee et al. 2009; Semin, Higgins, de Montes, Estourget, and Valencia 2005; Tuan Pham and Chang 2010; Mogilner, Aaker, and Pennington 2007; Pennington and Roese 2003). Relying on the fit between regulatory focus and construal level, I argue that a concrete mindset is compatible with a prevention focus and that an abstract mindset is compatible with a promotion focus. In the audit setting, a concrete mindset fits a prevention focus because taking a close-up view of an accounting issue allows auditors to pay attention to detail, helping auditors detect hidden problems and keeping them safe from litigation and inspection deficiencies. An abstract mindset does not fit a prevention focus because viewing an issue at a high level could let the hidden problems go undetected. On the other hand, an abstract mindset fits a promotion focus because thinking at a high level helps auditors see the big picture, allowing auditors to recognize and seize every opportunity that can be used to achieve hopes and aspirations. A concrete mindset does not fit a promotion focus because being trapped in detail could prevent auditors from seeing value in potential opportunities.

Recall that decision makers experience fit when they perform a task in a way that is compatible with their focus, and that decision makers experience non-fit when they perform the task in a way that is incompatible with their focus (Higgins 2000; 2005). I argue that auditors experience fit when they audit estimates with a mindset that is compatible with their focus, and that auditors experience non-fit when they audit estimates with a mindset that is incompatible with their focus. Therefore, auditors experience fit when they adopt 1) a concrete mindset *and* a prevention focus, or 2) an abstract mindset *and* a promotion focus in auditing estimates. On the other hand, auditors experience non-fit when they adopt 1) a concrete mindset *and* a promotion focus, or 2) an abstract mindset *and* a prevention focus in auditing estimates.

The effect of fit versus non-fit on judgment quality

A large body of research demonstrates that the experience of fit improves decision makers' performance compared to non-fit in tasks that do not involve making judgments. These tasks include solving anagrams (Shah et al. 1998; Idson and Higgins 2000; Lee et al. 2009), solving math problems (Keller and Bless 2006; Freitas, Liberman, and Higgins 2002), squeezing a handgrip (Hong and Lee 2007), and recalling information (Lee and Aaker 2004). Fit improves performance because decision makers "feel right" when they experience fit (Higgins 2000; 2005). Feeling right represents a sense of correctness, appropriateness, and importance (Higgins, Idson, Freitas, Spiegel, and Molden 2003; Camacho. Higgins, and Luger 2003). Decision makers who feel right place greater value in whatever activities they are engaging in (Higgins 2000; 2005). As a result, they are more motivated to perform the tasks at hand (e.g., Freitas and Higgins 2002; Freitas et al. 2002; Spiegel, Grant-Pillow, and Higgins 2004) and they exert more effort in those tasks (e.g., Förster, Higgins, and Idson 1998; Lee, Heeter, Magerko, and Medler 2013; Förster, Grant, Idson and Higgins 2001), compared to those who experience non-fit.

Relatively few studies examine the effect of fit versus non-fit on judgment quality. Studies on persuasion examine judgment quality indirectly by assessing the extent to which decision makers' attitudes reflect the strength of arguments used in persuasion (Petty et al. 1983). Specifically, evaluating a product based on the strength of arguments about the product rather than peripheral cues (e.g., whether a celebrity endorses the product) indicates deeper processing of information. Therefore, I argue that attitudes that are more reflective of argument strength imply higher quality of evaluative judgments. However, the findings are somewhat mixed regarding whether fit versus non-fit results in attitudes that are more reflective of argument strength.

Specifically, Aaker and Lee (2001) examine students' attitudes toward a hypothetical brand of tennis racket. They find that students who experience fit evaluate an advertisement for the tennis racket more carefully than those who experience non-fit. As a result, they are better at discriminating the strength of the arguments presented in the advertisement, and their attitudes toward the tennis racket are more reflective of argument strength. On the other hand, Koenig et al. (2009) examine students' attitudes toward an exam policy, and they find the opposite results. Specifically, the students' attitudes toward the exam policy are more reflective of argument strength when they experience non-fit versus fit. These mixed findings suggest that additional research on how fit versus non-fit affects judgment quality is necessary.

Given that prior research typically finds a performance-improving effect of fit versus non-fit, I predict that fit will improve auditors' judgment quality compared to non-fit by motivating auditors to exert effort in auditing estimates.

Hypothesis: *Judgment quality is higher when auditors experience fit versus non-fit in auditing estimates.*

III. Method

Task

I test my prediction with a 2x2 between-participants experiment in which I manipulate auditors' focus and mindset. Two hundred sixteen senior-level auditors (average experience = 36.8 months) from two Big 4 firms completed a case in which they assessed the discount rate used for valuing an asset. I adapt the case from prior research (Peecher, Piercey, Rich, and Tubbs 2010; Kadous et al. 2013; Bauer, Estep, and Griffith 2018). The client uses a rate of 13.2% and provides justifications for the rate. The client has received few audit adjustments in the past and it does not expect adjustments in the current year. The case, however, contains seeded issues that contradict the client's justifications, suggesting that 13.2% is too low (see Appendix 1 for the seeded issues). Therefore, the fair value estimate of the asset is likely overstated. Identifying the seeded issues requires cognitive effort. The more seeded issues an auditor identify, the more likely the auditor will realize that a higher rate is necessary.

Independent variables

To induce the experience of fit versus non-fit, I manipulate auditors' mindset followed by focus. Auditors completed both manipulations before they receive audit evidence used for assessing the discount rate. I adapt the mindset manipulation from psychology (e.g., Freitas et al. 2004; Schmeichel and Vohs 2009). As mentioned before, thinking about *how* an activity is done can induce decision makers to adopt a concrete mindset for subsequent tasks (e.g., Wakslak and Trope 2009). Therefore, auditors in the concrete mindset condition were instructed to answer *how* an audit intern can improve and maintain performance at work. On the other hand, thinking about *why* an activity is done can induce decision makers to adopt an abstract mindset for subsequent tasks (e.g., Wakslak and Trope 2009). Therefore, auditors in the abstract mindset condition were

instructed to answer *why* an audit intern would improve and maintain performance at work. See Appendix 2 for the manipulation.

Auditors completed the focus manipulation right after the mindset manipulation. I adapt the focus manipulation from Vaughn et al. (2006a). As mentioned before, thinking about duties and obligations can induce decision makers to adopt a prevention focus for subsequent tasks (e.g., Lee et al. 2009; Freitas and Higgins 2002). Therefore, auditors in the prevention focus condition were instructed to list three *duties and obligations* they ought to meet for the hypothetical audit in the case. On the other hand, thinking about hopes and aspirations can induce decision makers to adopt a promotion focus for subsequent tasks (e.g., Lee et al. 2009; Freitas and Higgins 2002). Therefore, auditors in the promotion focus condition were instructed to list three *hopes and aspirations* they ideally would like to achieve for the hypothetical audit in the case. See Appendix 3 for the manipulation.

Recall that a concrete mindset fits a prevention focus and that an abstract mindset fits a promotion focus. Therefore, I consider auditors to be in a "fit" condition if they are prompted to adopt 1) a concrete mindset *and* a prevention focus or 2) an abstract mindset *and* a promotion focus. I consider auditors to be in a "non-fit" condition if they are prompted to adopt 1) a concrete mindset *and* a promotion focus or 2) an abstract mindset *and* a prevention focus.

Dependent variables

I measure auditors' judgment quality using three variables: auditors' assessment of the most appropriate rate, auditors' decision to reject the client's rate, and auditors' identification of the seeded issues. Auditors provided the assessment of the most appropriate rate after they evaluate the audit evidence. A higher assessment indicates higher judgment quality because the seeded issues within the audit evidence suggest that the client-preferred rate is too low, and auditors tend

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to conform to the client-preferred accounting treatment when there is room for judgment (Kadous et al. 2003; Hackenbrack and Nelson 1996). I expect that the assessment of the most appropriate rate will be higher under fit versus non-fit.

Auditors next provided the lowest rate they are willing to accept. I use the lowest rate to determine whether auditors decide to accept or reject the client's rate. I consider an auditor as *accepting* the client's rate if his or her lowest acceptable rate is equal to or less than the client's rate of 13.2%. I consider an auditor as *rejecting* the client's rate if his or her lowest acceptable rate is greater than 13.2%. I expect that auditors in the fit condition will be more likely to reject the client's rate than those in the non-fit condition.

Auditors finally explained their rate assessments and listed any issues they would like to discuss with their manager. A research assistant and I coded the number of seeded issues identified according to Appendix 1 based on the explanations and issues that auditors provided. Both coders have more than 20 months of audit experience and were blind to experimental conditions. The coders' initial agreement rate is 96.3%. Cohen's kappa is 0.78 ($p < 0.001$), indicating the agreement rate is above chance.[1] I expect that auditors in the fit condition will identify more seeded issues that contradict the client's justifications than those in the non-fit condition.

IV. Results

Manipulation check

I validated the manipulation of fit versus non-fit in a pre-test using Amazon Turk Prime. Recall that experiencing fit can make decision makers "feel right" (Higgins et al. 2003), increasing their motivation for the task at hand (Higgins 2005). In a 2 (focus) x 2 (mindset) between-participants pre-test, participants indicated their general feelings after completing the

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[1] All p-values are two tailed except when otherwise noted for directional predictions.

manipulations. Specifically, they responded to a statement "I feel right." in addition to statements about other types of feelings (0: not at all; 10: extremely). Participants next completed a multiple-choice exercise and rated their level of agreement with "I feel motivated to answer as many questions as I can correctly while working on the multiple choice exercise." among other statements (0: strongly disagree; 10: strongly agree). The manipulations in the pre-test are identical to the ones that I used in the main study in terms of order and content except that I made the instructions more appropriate for the non-audit participants (see these instructions in footnotes at Appendix 2 and 3).

One hundred nineteen participants completed the pre-test. Participants need to be a supervisor, work more than 36 hours per week, make more than $40,000 a year, hold a high school diploma or above, live in the U.S., and have completed more than 100 studies with a minimum approval rate of 95% to qualify for the pre-test. Among the 96 participants who correctly followed the instructions for the manipulations, those in the fit condition indicate that they feel marginally more right than those in the non-fit condition prior to receiving the multiple-choice exercise (t_{94} = 1.53, one-tailed p = 0.065). Participants in the fit condition also indicate that they feel more motivated to answer as many questions as they can correctly while working on the multiple-choice exercise than those in the non-fit condition (t_{94} = 2.19, one-tailed p = 0.016). Therefore, the manipulation of fit versus non-fit is effective.

Test of hypothesis

I predict that judgment quality will be higher when auditors experience fit versus non-fit. Therefore, I expect that auditors in the fit (versus non-fit) condition will assess a higher discount rate as the most appropriate rate, will be more likely to reject the client's rate, and will identify more seeded issues that contradict the client's justifications for using a lower rate. I test the

hypothesis using 206 responses after dropping observations from 10 auditors who did not complete the manipulations (n = 6) or did not follow the instructions for the manipulations (n = 4). Contrary to my prediction, auditors in the non-fit condition are more likely to reject the client's rate, and they identify fewer seeded issues compared to auditors in the fit condition. I provide the results for my major dependent variables below, and then I investigate why these results are opposite of my prediction in the section "Initial task engagement as a moderator" below.

To test the effect of fit versus non-fit on the assessment of the most appropriate rate, I estimate an ANOVA with fit as the independent variable while controlling for focus and mindset. Table 1, Panel B shows that fit versus non-fit has no impact on auditors' assessment of the most appropriate rate ($F_{1,\ 197} = 0.82$, $p = 0.365$).[2] The null effect occurs potentially because auditors are highly uncertain about what the most appropriate rate should be given the limited case information, consistent with prior research that the assessment of the most appropriate rate is a relatively noisy measure (Bauer et al. 2018). The same inferences result when the dependent variable is the assessment of the lowest acceptable rate. See Table 1 for details.

[Insert Table 1 here]

To test the effect of fit versus non-fit on auditors' decision to reject (versus accept) the client's rate, I use a logistic regression with fit as the independent variable while controlling for focus and mindset. Contrary to my prediction, auditors in the non-fit condition are more likely to reject the client's rate than those in the fit condition ($\chi^2_1 = 4.98$, $p = 0.026$).[3] See Table 2 for details.

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[2] In the ANOVA model, the main effect of firm and the fit by firm interaction are both insignificant ($p \geq 0.645$). However, the mindset by firm interaction is significant ($F_{1,\ 193} = 5.91$, $p = 0.016$). Specifically, a concrete mindset improves rate assessment compared to an abstract mindset for one firm ($F_{1,\ 113} = 10.11$, $p = 0.002$), but has no effect on rate assessment for the other firm ($F_{1,\ 80} = 0.206$, $p = 0.651$). Examining why mindset affects rate assessment and why this effect differs by firm is beyond the scope of this study.

[3] I add firm and the interaction of firm and experimental conditions to the logistic regression. The main effect of firm and the fit by firm interaction are both insignificant ($p \geq 0.314$). However, the mindset by firm interaction is marginally significant ($\chi^2_1 = 2.99$, $p = 0.084$). Similar to results on the most appropriate rate, a concrete mindset improves auditors' willingness to reject the client's rate compared to an abstract mindset for the same firm ($\chi^2_1 = 9.93$, $p = 0.002$), but

[Insert Table 2 here]

To test the effect of fit versus non-fit on the number of seeded issues identified, I use a negative binomial regression with a log link because the dependent variable is overdispersed count data (Z = 1.91, one-tailed p = 0.028). The independent variables are focus, mindset, and fit. The model fits well (χ^2_{201} = 205.22, p = 0.404). Contrary to my prediction, auditors in the non-fit condition identify more seeded issues that contradict the client's justifications compared to those in the fit condition (χ^2_1 = 7.30, p = 0.007). As a supplementary test, I estimate the same regression with the number of total valid issues identified as the dependent variable (model fit is good: χ^2_{201} = 204.50, p = 0.418). Total valid issues are the sum of the seeded issues identified and any other valid issues (agreed by both coders) that suggest the client's rate is aggressive. Again, auditors in the non-fit condition identify significantly more valid issues in total than those in the fit condition (χ^2_1 = 8.64, p = 0.003).[4] See Table 3 for details. Figure 1 summarizes the effect of fit versus non-fit on judgment quality.

[Insert Table 3 and Figure 1 here]

Mediation

To better understand the mechanism through which fit versus non-fit affects judgment quality, I conduct a mediation test. Recall that my prediction is based on the finding that fit increases decision makers' motivation to perform the task at hand compared to non-fit (Higgins 2000; 2005). To measure the strength of motivation for a task, prior research has used task persistence as a proxy (Förster et al. 1998; Hong and Lee 2007). Task persistence is the amount of

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mindset has no effect on the decision to reject the client's rate for the other firm (χ^2_1 = 0.54, p = 0.461). Examining why mindset affects the decision to reject the client's rate and why this effect differs by firm is beyond the scope of this study.

[4] I add firm and the interaction of firm and experimental conditions to the negative binomial regression. There is no main effect or any interactive effects of firm on seeded issues identified and total valid issues identified.

time a decision maker chooses to work on a task (Weiner 1972). For example, Hong and Lee (2007) find that participants who experience fit (versus non-fit) squeeze a handgrip longer, demonstrating greater motivational strength in overcoming the physical discomfort associated with squeezing the handgrip. Although my results suggest that non-fit improves judgment quality compared to fit, it is unclear whether this effect occurs because non-fit improves auditors' motivation for the judgment task compared to fit. Therefore, I examine whether the effect of fit versus non-fit on judgment quality is mediated by auditors' task persistence.

I use a serial mediation model to test the indirect effect of fit versus non-fit on judgment quality. Fit is the independent variable; task persistence, measured as the number of minutes that auditors spend on the task, is the first mediator; the number of seeded issues identified is the second mediator; auditors' decision to reject the client's rate is the binary dependent variable. Rejecting the client's rate indicates higher judgment quality compared to accepting the client's rate.

I test the indirect effect using Hayes (2018) macro (i.e., PROCESS, Model 6) with 10,000 bootstrapped estimates.[5] Figure 2 shows that the indirect effect of fit versus non-fit on auditors' decision to reject the client's rate through task persistence and identification of seeded issues in serial is significant (95% CI: [-0.22, -0.04]).[6] Therefore, it appears that non-fit improves judgment quality compared to fit by enhancing auditors' motivation to exert effort in the task which in turn increases the number of seeded issues identified.

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[5] A limitation of the macro is that it uses ordinary least squares regressions to model the number of seeded issues identified even though this variable is count data.

[6] Inferences regarding this serial indirect effect do not change if I use a moderated serial mediation model (independent variable: mindset; moderator: focus; first mediator: task persistence; second mediator: the number of seeded issues identified; binary dependent variable: decision to reject the client's rate). The moderated serial mediation model also shows that auditors with a concrete mindset are more likely to reject the client's rate than those with an abstract mindset. Interestingly, the main effect of mindset on decision to reject the client's rate is mediated by the number of seeded issues identified, bypassing task persistence. Therefore, it appears that mindset affects judgment quality through a mechanism unrelated to task motivation. This is consistent with prior research that mindset affects judgment quality by making auditors think differently rather than work longer on a judgment task (Griffith et al. 2015a). Examining why mindset affects judgment quality is beyond the scope of this study.

[Insert Figure 2 here]

Initial task engagement as a moderator

In this section, I develop and test a potential explanation for the above-reported results. Drawing on indirect evidence from psychology (Vaughn et al. 2006a; Vaughn et al. 2006b; Evans and Petty 2003; Avnet et al. 2013), I argue that judgment quality is higher under non-fit versus fit because most of the auditors in my sample were initially more willing to engage in the judgment task, and that the effect of fit versus non-fit on judgment quality depends on auditors' initial willingness to engage in the task. Relying on Matthews et al. (2002), I explain that auditors' initial willingness to engage in the task is a joint product of auditors' motivation, energy, and concentration for the task as they begin the study, and that this initial willingness reflects auditors' commitment to effort for the task *before* the influence of any manipulations. I propose that when auditors are initially less engaged, *fit* improves judgment quality compared to non-fit, and that when auditors are initially more engaged, *non-fit* improves judgment quality compared to fit.

I argue that how fit versus non-fit affects judgment quality depends on auditors' initial willingness to engage in the judgment task because this initial willingness drives the implicit concerns that auditors have for performing the task. I argue that when auditors are initially less willing to engage in a judgment task, they are likely to *implicitly* consider "Do I want to perform this task?" When decision makers are instructed to *explicitly* consider whether they want to continue in a task and to continue to exert effort if the answer is yes, performance in a word listing task is higher under fit versus non-fit (Vaughn et al. 2006a). The explanation is that fit suggests that the answer is yes, causing decision makers to continue to exert effort, whereas non-fit suggests that the answer is no, causing decision makers to stop exerting effort (Vaughn et al. 2006a). Therefore, I argue that judgment quality will be higher under fit versus non-fit because fit makes

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the initially less engaged auditors "feel right" about performing the task, increasing their task motivation and effort.

On the other hand, when decision makers believe that a task is important and relevant to them, decision makers care about the judgments they make in the task (Avnet et al. 2013). Therefore, I argue that auditors are likely to *implicitly* consider "Am I making a quality judgment?" when they are initially more willing to engage in the task. When decision makers are instructed to *explicitly* consider whether their performance is good enough and to stop exerting effort if the answer is yes, performance in a word listing task is higher under non-fit versus fit (Vaughn et al. 2006a). The explanation is that non-fit suggests that the answer is no, causing decision makers to continue to exert effort, whereas fit suggests that the answer is yes, and thus no additional effort is needed (Vaughn et al. 2006a; Vaughn et al. 2006b). Therefore, I argue that judgment quality will be higher under non-fit versus fit because non-fit suggests that auditors are not making quality judgments, whereas fit makes auditors "feel right" or sufficient about their judgment quality. As a result, the initially more engaged auditors are likely to exert additional effort to close the performance gap because they care about making quality judgments.

Test of initial engagement as a moderator

In this section, I test whether the effect of fit versus non-fit on judgment quality depends on auditors' initial willingness to engage in the judgment task. I expect that *fit* improves judgment quality compared to non-fit when auditors are initially *less* willing to engage in the task, and that *non-fit* improves judgment quality compared to fit when auditors are initially *more* willing to engage in the task.

I infer auditors' initial willingness to engage in the judgment task using their performance on task engagement checks placed *before* any manipulations. Therefore, auditors' performance on

these checks is not influenced by the manipulations. The checks are multiple-choice questions that ask 1) how an increase in the discount rate affects the fair value estimate of the asset, and 2) how an increase in the asset's fair value affects the gain on asset securitization. The background information preceding the checks reviews the relationship among the discount rate, the fair value estimate of the asset, and the gain on asset securitization. The background information also contains the correct answers to the questions. Auditors do not receive feedback on their performance on these checks.

I argue that auditors' performance on task engagement checks reflects their initial commitment to effort for the task for two reasons. First, auditors should be able to answer the questions correctly because the questions test accounting knowledge that is basic for experienced professionals. Therefore, auditors who select the wrong answers likely read the questions and the multiple-choice options too fast. I argue that auditors who are initially more willing to engage in the task are more likely to pass the checks because they are more likely to read the questions and multiple-choice options carefully. Second, if auditors do not know the correct answers to the questions, they could revisit the background information to locate the correct answers. I argue that auditors who are initially more willing to engage in the task are more likely to pass the checks because they would be more willing to revisit the background information to locate the correct answers.

Therefore, I consider auditors to be initially more engaged if they answer both questions correctly (n = 168) and initially less engaged if they answer either question wrong (n = 37) or leave either question unanswered (n = 1).[7] In the following analyses, I examine whether the effect of fit

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[7] Auditors in the fit condition are more likely to be initially less engaged than those in the non-fit condition ($\chi^2_1 = 5.41$, p = 0.020), raising the concern that the difference in initial task engagement drives the effect of fit versus non-fit on judgment quality. I repeat the analyses presented in table 2 and 3 while adding the initial engagement as a binary control variable. Auditors in the non-fit (versus fit) condition identify more seeded issues ($\chi^2_1 = 4.474$, p = 0.034) and

versus non-fit on judgment quality depends on auditors' initial willingness to engage in the rate assessment task. Recall that assessing a higher rate as the most appropriate rate, deciding to reject the client's rate, or identifying more seeded issues indicates higher judgment quality.

I test the joint effect of fit and initial engagement on the assessment of the most appropriate rate with an ANOVA. The independent variables are focus, mindset, fit, initial engagement, and the interaction between initial engagement and each of the three preceding variables. Untabulated results show that the fit by initial engagement interaction is in the expected direction but statistically insignificant ($F_{1, 193} = 0.27$, p = 0.602). The fit by initial engagement interaction, however, is significant and in the expected direction when the lowest acceptable rate is the dependent variable ($F_{1, 189} = 5.07$, p = 0.025). See Table 4 for details. The interaction is significant for the lowest acceptable rate but not for the most appropriate rate potentially because determining the most appropriate rate requires more information (that is not provided in the case) than determining the lowest rate that an auditor is willing to accept. This is consistent with prior research that the assessment of the most appropriate rate is a noisier measure than the assessment of the lowest acceptable rate (Bauer et al. 2018). Table 4, Panel C shows that for auditors who are initially less engaged, fit improves the assessment of the lowest acceptable rate compared to non-fit ($F_{1, 31} = 5.81$, p = 0.022). Table 4, Panel D shows that for auditors who are initially more engaged, non-fit starts to improve the assessment of the lowest rate compared to fit, but this difference is insignificant ($F_{1, 158} = 5.81$, p = 0.415).

[Insert Table 4 here]

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more valid issues in total ($\chi^2_1 = 5.527$, p = 0.019). They also spend more time on the task than those in the fit condition ($F_{1, 201} = 5.296$, p = 0.022). However, fit versus non-fit no longer has a significant effect on auditors' decision to reject the client's rate ($\chi^2_1 = 2.445$, p = 0.118). In the current section, I find an effect of fit versus non-fit on judgment quality within each level of initial engagement, alleviating the concern that initial engagement drives the main results.

I test the joint effect of fit and initial engagement on auditors' decision to reject (versus accept) the client's rate with the Firth logistic regression.[8] The independent variables are focus, mindset, fit, initial engagement, and the interaction between initial engagement and each of the three preceding variables. The fit by initial engagement interaction is in the expected direction but insignificant ($Z = -1.00$, $p = 0.316$). Table 5, Panel C shows that for auditors who are initially less engaged, those in the fit condition are more likely to reject the client's rate than those in the non-fit condition, but this difference is insignificant ($Z = 0.51$, $p = 0.611$). Table 5, Panel D shows that for auditors who are initially more engaged, however, those in the non-fit condition are marginally more likely to reject the client's rate than those in the fit condition ($\chi^2_1 = 3.48$, $p = 0.062$).

[Insert Table 5 here]

I test the joint effect of fit and initial engagement on the number of seeded issues identified using a negative binomial regression with a log link. The independent variables are fit, initial engagement, and the fit by initial engagement interaction.[9] The model fit is good ($\chi^2_{201} = 208.82$, $p = 0.338$). The fit by initial engagement interaction is significant ($\chi^2_1 = 5.57$, $p = 0.018$), suggesting that the effect of fit versus non-fit on judgment quality depends on auditors' initial willingness to engage in the task. Specifically, for auditors who are initially less engaged, those in the fit condition identify marginally more seeded issues ($\chi^2_1 = 3.29$, $p = 0.070$) and more valid issues in total ($\chi^2_1 = 3.76$, $p = 0.053$) than those in the non-fit condition.[10] For auditors who are

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[8] Following Heinze and Schemper's (2002) recommendation, I use the Firth logistic regression to address the problem of separation in logistic regression. A quasi-complete separation happened in my analysis because the decision to reject the client's rate separates the level of initial engagement almost perfectly. Specifically, among the 69 auditors who decided to reject the client's rate, only 3 auditors were initially less engaged.

[9] The maximum likelihood algorithm fails to converge when the independent variables are focus, mindset, fit, initial engagement, and the interaction between initial engagement and each of the three preceding variables. Therefore, I drop four terms from the regression (focus, mindset, focus by initial engagement, and mindset by initial engagement). Although it is not appropriate to analyze count data with an ANOVA, when I add back the four terms, the results of an ANOVA show a significant fit by initial engagement interaction ($F_{1, 198} = 5.32$, $p = 0.022$).

[10] The maximum likelihood algorithm fails to converge when the independent variables are focus, mindset, and fit. Therefore, I drop focus and mindset from the regression. Although it is not appropriate to analyze count data in an

initially more engaged, however, those in the non-fit condition identify more seeded issues ($\chi^2_1 =$ 7.26, p = 0.007) and more valid issues in total ($\chi^2_1 =$ 9.03, p = 0.003) than those in the fit condition. [11] See Table 6 for details. Figure 3 summarizes the joint effect of fit and initial engagement on judgment quality.

[Insert Table 6 and Figure 3 here]

V. Discussion

Reconciling mixed findings regarding judgment quality

The analyses largely support the idea that the effect of fit versus non-fit on judgment quality depends on auditors' initial willingness to engage in the judgment task. The results on seeded issues and total valid issues identified provide strong evidence that *fit* increases judgment quality compared to non-fit when auditors are initially less engaged, and that *non-fit* increases judgment quality compared to fit when auditors are initially more engaged. By considering participants' initial task engagement as a moderator, my study potentially reconciles some mixed findings regarding whether fit or non-fit results in attitudes that are more reflective of argument strength. As I argued earlier, attitudes that are more reflective of argument strength imply higher quality of evaluative judgments.

My study suggests that considering the personal relevance of an experimental task can help explain the mixed findings because task relevance can affect participants' initial willingness to engage in the task. Recall that Aaker and Lee (2001) and Koenig et al. (2009) find opposite results

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ANOVA, the same inferences result when I estimate an ANOVA with focus, mindset, and fit as the independent variables (seeded issues identified: $F_{1, 34} =$ 3.06, p = 0.089; total valid issues identified: $F_{1, 34} =$ 3.66, p = 0.064).

[11] The same inferences result when I estimate a negative binomial regression model with fit as the independent variable, controlling for focus and mindset (seeded issues identified: $\chi^2_1 =$ 8.48, p = 0.004; total valid issues identified: $\chi^2_1 =$ 10.33, p = 0.001). Results also indicate that a concrete mindset improves the identification of seeded issues and total valid issues compared to an abstract mindset for the initially more engaged auditors. Examining why mindset affects judgment quality is beyond the scope of this study.

regarding whether fit or non-fit results in attitudes that are more reflective of argument strength (see section "The effect of fit versus non-fit on judgment quality" in "II. Theory and Hypothesis"). Specifically, attitudes are more reflective of argument strength under *fit* versus non-fit in Aaker and Lee (2001, study 3), whereas the opposite is true in Koenig et al. (2009, study 2). Both studies use undergraduate students as participants.

To explain the contradictory findings, I argue that the participants in Aaker and Lee (2001) are potentially less willing to engage in the experimental task because the arguments presented in the study are about product features of a hypothetical brand of tennis racket. I argue that unless the participants are particularly interested in playing tennis, the arguments may not be very relevant to them. Therefore, the participants are likely to be implicitly evaluating "Do I want to perform this task?" as they begin the study. Fit makes participants "feel right" about performing the task, thus motivating them to evaluate the arguments carefully and improving their ability to discern argument strength.

On the other hand, I argue that the participants in Koenig et al. (2009) are potentially more willing to engage in the experimental task because the arguments presented in the study are about why universities should require seniors to take comprehensive exams before they graduate. Participants were asked to indicate how supportive they are of the hypothetical exam policy after reading the arguments. I argue that the evaluation of an exam policy is likely more relevant to the participants than the evaluation of a tennis racket given that the participants are undergraduate students. Therefore, the participants in Koenig et al. (2009) are likely to be implicitly evaluating "Am I making an appropriate evaluation of the exam policy?" as they begin the study. Fit makes participants "feel right" about their evaluations, suggesting any additional effort in the task is unnecessary. On the other hand, non-fit suggests that their evaluations are not good enough. As a

result, participants who experience non-fit would read the arguments more carefully to make sure their evaluations are appropriate, improving their ability to discern argument strength.

From judgment quality to task performance in general

I propose that considering participants' initial willingness to engage in the experimental task could have important implications for interpreting the effect of fit versus non-fit on task performance in general, beyond judgment quality. As mentioned before, in tasks that do not involve making a judgment but require continuous effort, the common finding is that *fit* improves performance compared to non-fit. These tasks include dieting (Spiegel et al. 2004), squeezing a handgrip (e.g., Hong and Lee 2007), recalling information (Lee and Aaker 2004; Aaker and Lee 2001), solving anagrams (e.g., Lee et al. 2009; Förster et al. 1998), and solving math problems such as addition and subtraction (Freitas et al. 2002). On the contrary, evidence that *non-fit* improves performance compared to fit is rare. To my knowledge, Vaughn et al. (2006a) are the only researchers who find non-fit improves performance in a word listing task compared to fit when participants are instructed to stop listing words if they believe they have listed as many as they could.

I argue that the performance-improving effect of non-fit is rare potentially because the participants are less willing to engage in the aforementioned tasks *prior to* experiencing fit or non-fit. This is not surprising because those tasks are not the ones for which participants typically care about their performance outside of an experimental setting (e.g., squeezing a handgrip; solving anagrams). As a result, participants are likely to *implicitly* evaluate "Do I want to perform this task?" as they enter the experiment. I propose that if researchers use a task that is relevant and important to participants, participants are likely to be initially more willing to engage in the task. As a result, they are likely to *implicitly* evaluate "Am I doing well in this task?" In that case, non-

fit could improve performance in non-judgment tasks compared to fit, consistent with my results on judgment quality. Future research could examine this possibility.

VI. Conclusions

Improving audits of estimates is an important issue. Regulators frequently observe audit deficiencies in this area and have urged auditors to think critically about management assumptions underlying the estimates (e.g., PCAOB 2010; 2017). I propose that one way to potentially improve audits of estimates is to create an experience of "fit". Drawing on social psychology theory (Higgins 2000; 2005), I argue that auditors experience fit when the mindset (concrete/abstract) they use for auditing estimates is compatible with their focus (prevention/promotion). Specifically, a concrete mindset is compatible with a prevention focus and an abstract mindset is compatible with a promotion focus (e.g., Förster and Higgins 2005; Lee et al. 2009). Prior research finds that decision makers who experience fit "feel right" about performing the tasks at hand; as a result, they are more motivated to exert effort in those tasks compared to those who experience non-fit (e.g., Förster et al. 1998; Higgins 2005). Therefore, I predict that auditors who experience fit (versus non-fit) will be more motivated to exert effort in auditing estimates and make higher quality judgments.

I find that judgment quality is higher under non-fit versus fit, contrary to my prediction. Specifically, auditors in the non-fit condition identify more seeded issues that contradict management justifications for a biased estimate and they are also more likely to reject the biased estimate compared to auditors in the fit condition. To explain this finding, I draw on indirect evidence from psychology (Vaughn et al. 2006a; Vaughn et al. 2006b; Evans and Petty 2003; Avnet et al. 2013), and I predict that the effect of fit versus non-fit on judgment quality depends on the auditors' willingness to engage in the judgment task *prior to* receiving any manipulations.

I argue that when auditors are initially less engaged, *fit* improves judgment quality compared to non-fit by making auditors "feel right" about *performing the judgment task*, increasing their task motivation and effort. On the other hand, when auditors are initially more engaged, I argue that *non-fit* improves judgment quality because fit can make auditors "feel right" or sufficient about *the quality of their judgments*, suggesting no additional effort is needed. I infer auditors' *initial* willingness to engage in the task using their performance on task engagement checks placed *before* any manipulations.

Results largely support my new prediction. I find that most of the auditors in my study are initially more willing to engage in the judgment task, contributing to the overall result that judgment quality is higher under non-fit versus fit. It is worth noting that the participating auditors completed the study right before meal time and that they received no compensation for participation. Yet, most of them are still more willing to engage in the task without the influence of any manipulations. A contributing factor could be that my participants are experienced professionals who take work-related tasks seriously. Participants with no professional experience, such as undergraduate students, could be less willing to engage in the rate assessment task given the same circumstances and therefore make better judgments under fit versus non-fit.

My study suggests that both fit and non-fit can be effective for improving audits of estimates. For example, in certain situations, auditors may have already adopted a prevention focus or a promotion focus when they face an upcoming inspection or promotion. If an audit team leader observes that the auditors are initially less engaged, the leader could orient the auditors' mindsets in a compatible way to motivate them to engage in the task. On the other hand, if the leader observes that the auditors are initially more engaged, the leader could orient the auditors' mindsets in an incompatible way to further improve judgment quality. This performance-improving effect

of non-fit is encouraging because the initially more engaged auditors already make better judgments than the initially less engaged auditors in my experiment, and yet, non-fit further improves judgment quality compared to fit. The use of non-fit for continuous improvement has implications for analysts, investors, and employees when they make judgments that bear consequences. In those cases, these decision makers are likely to care about the quality of their judgments and be initially more engaged in making those judgments. My study suggests that non-fit rather than fit can further improve their judgment quality.

A limitation of this study is that I do not manipulate auditors' initial willingness to engage in the rate assessment task. Instead, I use auditors' performance on task engagement checks as a proxy. This proxy could be correlated with variables that are omitted in the study. Future research could manipulate auditors' initial willingness to engage in the judgment task to further validate the findings of this study.

Appendix 1: Seeded Issues

	Seeded issues that contradict the client's justifications for using a lower discount rate:
1	The client argues that the macroeconomic conditions have been stable and show signs of prosperity. However, the industry analyst report shows that the specific sector where the client's customers work has been recovering more slowly than the rest of the economy post-recession. Therefore, the client fails to consider the condition of the economic sector that is more relevant to its rate assessment.
2	The client argues that its customers' credit ratings have been stable. However, the credit ratings appear stable because the client does not monitor changes in its customers' credit ratings since first issuing the credit cards. Therefore, the client's argument lacks support.
3	The client argues that its customers have good credit scores. However, the credit score schedule shows that approximately 50% of the customers have credit ratings that are moderate, poor, or very poor. Therefore, the client's assumption about its customer base is aggressive.
4	The client argues that its customers are affluent. However, starting in the current year, the client has extended credit on generous terms which can attract customers who are less affluent and need easy credit. Therefore, the default risk has perhaps increased more for the client than for its peers.
5	The client's control policies for credit card issuance and maintenance reflected best practices in prior years. However, in the current year, the client has extended credit to its existing customers without rechecking their credit scores. This is problematic because the existing customers' credit ratings may have deteriorated and extending credit without rechecks reflects heightened risk in credit management.
6	The pattern of the client's discount rate is inconsistent with the pattern of its peers' rates. For example, the client's rate is lower (more aggressive) than the rate used by the industry leader, one of the largest credit card issuers and one of the most stable credit managers in the world.
7	The pattern of the client's discount rate is inconsistent with the pattern of the prepayment rate on credit cards. For example, the pattern of the prepayment rate suggests that the default risk has increased more for the client than for its peers. However, the increase in the client's discount rate does not adequately reflect this greater increase in default risk.

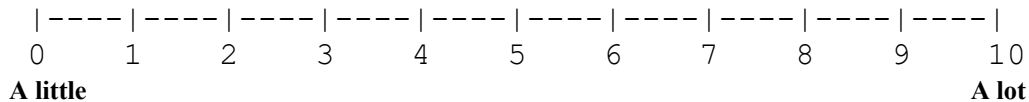**Appendix 2: Manipulation of Mindset**[12]

Concrete mindset condition:

Part of your work at RCI involves coaching an audit intern. Imagine that you plan to talk to the intern about improving and maintaining performance at work. To help you with the discussion, please complete the thought process below.

How does an intern improve and maintain performance at work?
List three means by which an intern could improve and maintain performance at work.

1.

2.

3.

How much will engaging in the **first** activity you just listed help an intern improve and maintain performance at work?

```
| ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
  0      1      2      3      4      5      6      7      8      9     10
A little                                                        A lot
```

How much will engaging in the **second** activity you just listed help an intern improve and maintain performance at work?

```
| ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
  0      1      2      3      4      5      6      7      8      9     10
A little                                                        A lot
```

How much will engaging in the **third** activity you just listed help an intern improve and maintain performance at work?

```
| ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
  0      1      2      3      4      5      6      7      8      9     10
A little                                                        A lot
```

---

[12] The manipulation used in the pre-test reads as "Imagine that you plan to talk to an intern about improving and maintaining performance at work. To help you with the discussion, please complete the thought process below." All else is the same.

Now complete the diagram on the right starting with box 1 and finishing with box 4. In box 1, fill in one way how an intern can improve and maintain performance at work. You will next move to box 2, filling in how the item you write in box 1 is done, and so on. The diagram on the left provides an example with a starting topic of "assess control risk".
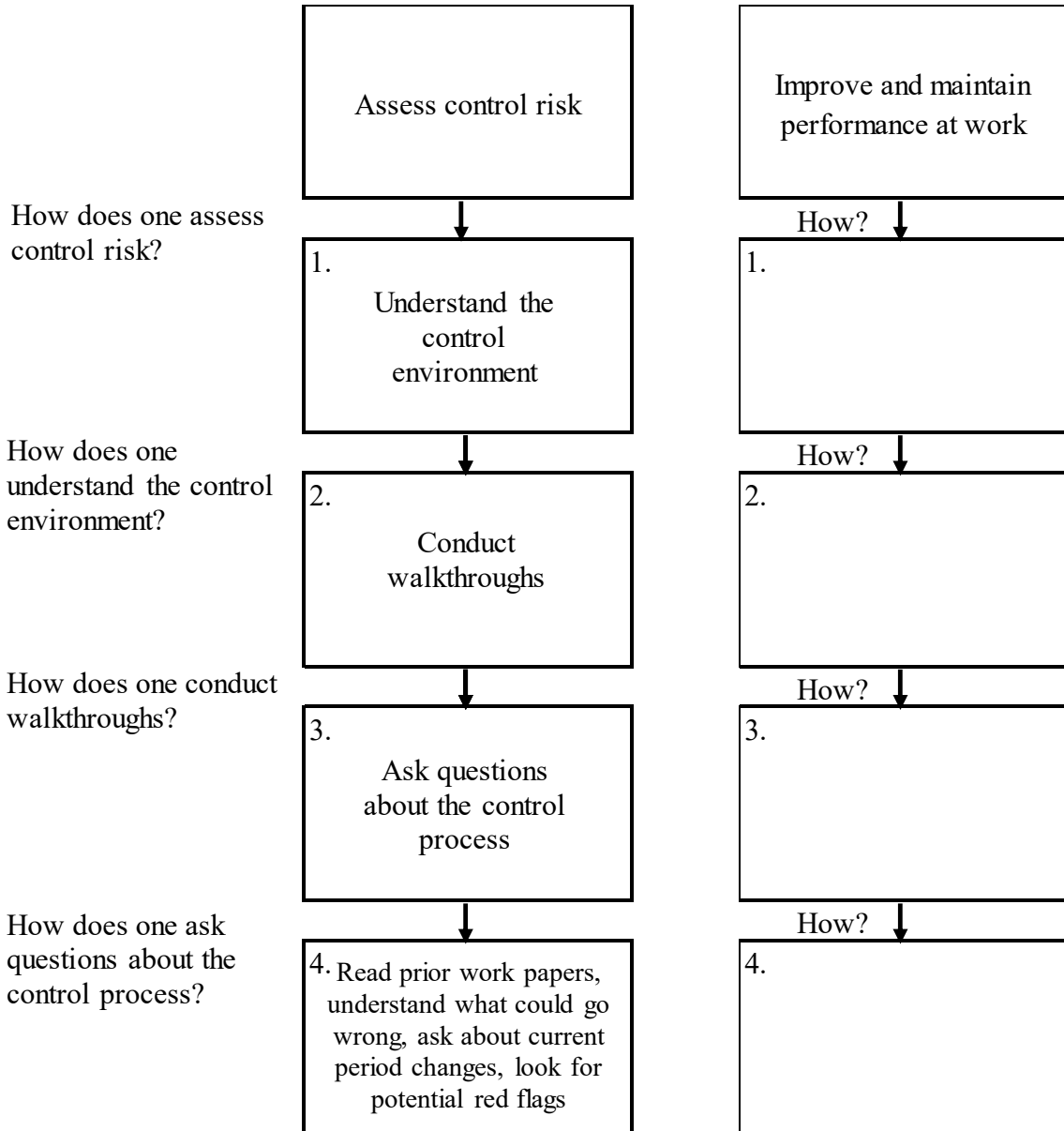
	Assess control risk		Improve and maintain performance at work

How does one assess control risk?

1. Understand the control environment

1.

How does one understand the control environment?

2. Conduct walkthroughs

2.

How does one conduct walkthroughs?

3. Ask questions about the control process

3.

How does one ask questions about the control process?

4. Read prior work papers, understand what could go wrong, ask about current period changes, look for potential red flags

4.

Abstract mindset condition:

Part of your work at RCI involves coaching an audit intern. Imagine that you plan to talk to the intern about improving and maintaining performance at work. To help you with the discussion, please complete the thought process below.

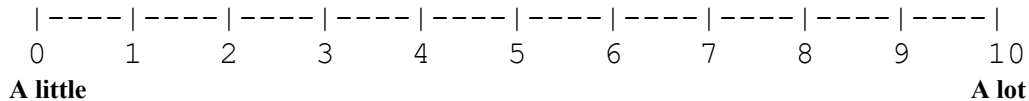**Why does an intern improve and maintain performance at work?**
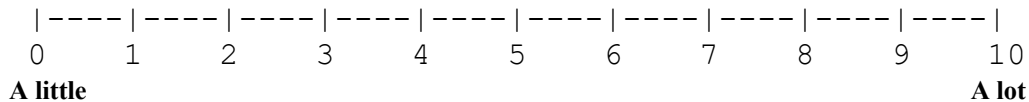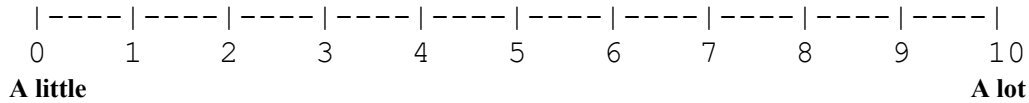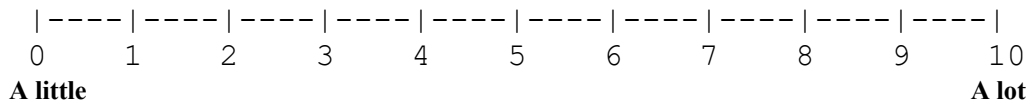List three ways in which an intern improving and maintaining performance at work could help meet important goals.

1.

2.

3.

How much will an intern improving and maintaining performance at work help meet the **first** important goal you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
A little   **A lot**

How much will an intern improving and maintaining performance at work help meet the **second** important goal you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
A little   **A lot**
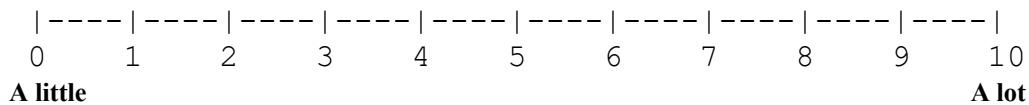
How much will an intern improving and maintaining performance at work help meet the **third** important goal you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
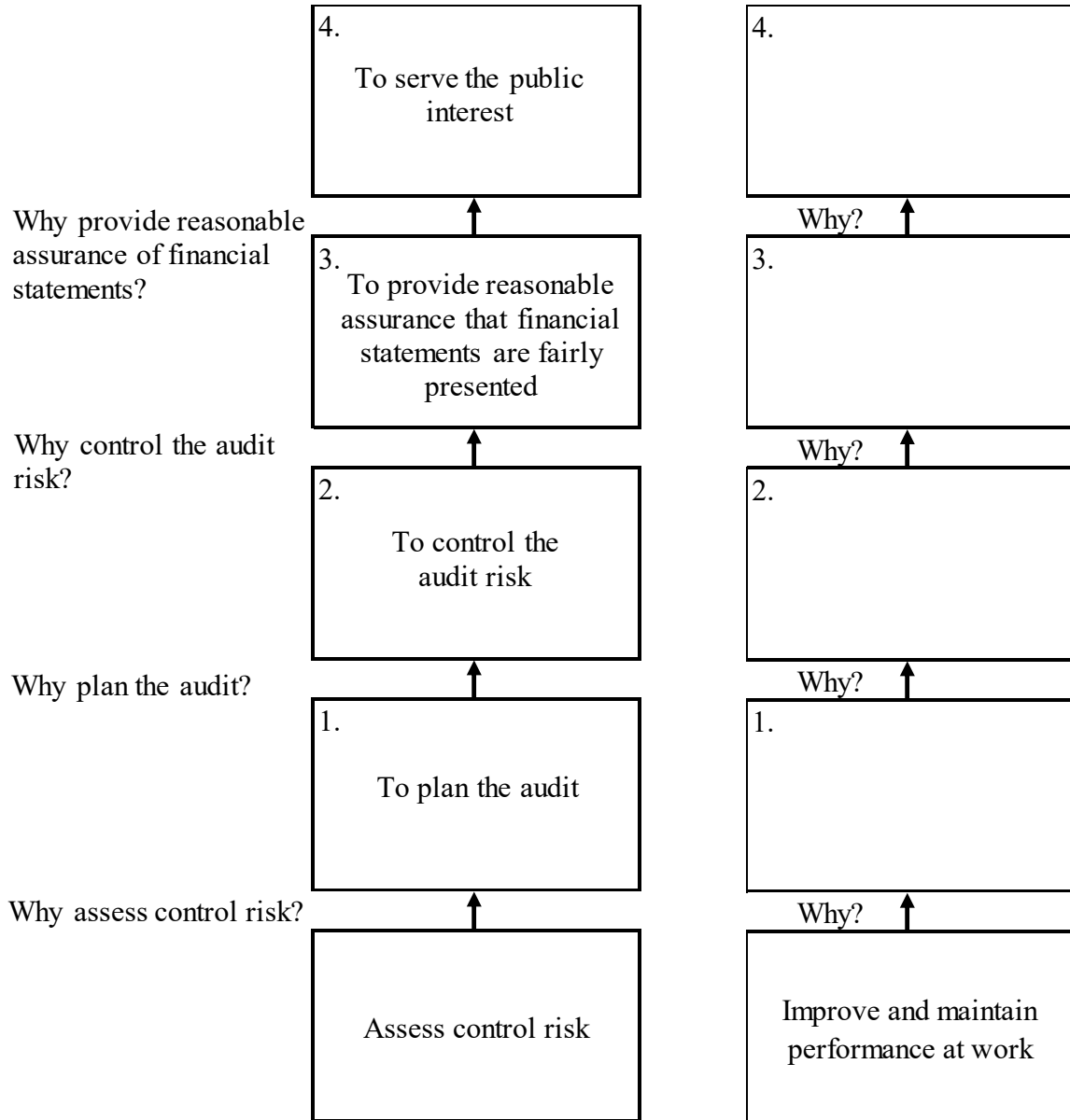**A little**   **A lot**

Now complete the diagram on the right starting with box 1 and finishing with box 4. In box 1, fill in one reason why an intern would improve and maintain performance at work. You will next move to box 2, filling in why the item you write in box 1 is done, and so on. The diagram on the left provides an example of how to respond with a starting topic of "assess control risk".

4. To serve the public interest	4.

Why provide reasonable assurance of financial statements?   Why?

3. To provide reasonable assurance that financial statements are fairly presented	3.

Why control the audit risk?   Why?

2. To control the audit risk	2.

Why plan the audit?   Why?

1. To plan the audit	1.

Why assess control risk?   Why?

| Assess control risk	Improve and maintain performance at work

Appendix 3: Manipulation of Focus[13]

Prevention focus condition:

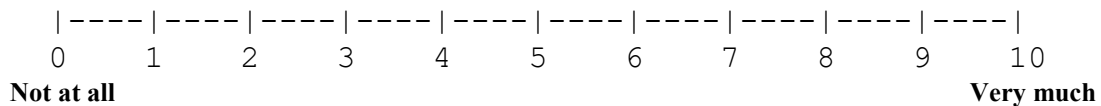## Duties and Obligations for the RCI Audit

Before you start the field work, take a moment to think about what you must do for the performance year. Since you are the in-charge on RCI and this is your first time on the engagement, take a moment to think about the duties and obligations you ought to meet. List three of them below.


1.

2.

3.

How much do you believe you ought to meet the **first** duty and obligation you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
Not at all   **Very much**
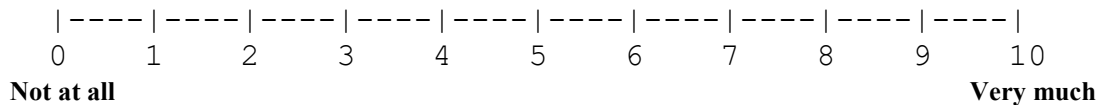
How much do you believe you ought to meet the **second** duty and obligation you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
Not at all   **Very much**

How much do you believe you ought to meet the **third** duty and obligation you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
Not at all   **Very much**

---
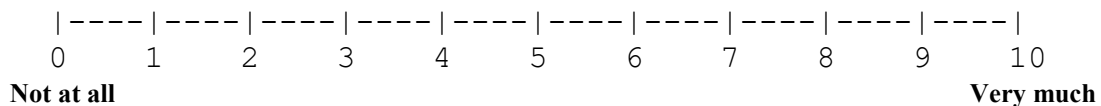
[13] The manipulation used in the pre-test reads as "Now take a moment to think about what you must do at work, that is, the duties and obligations you ought to meet at work. List three of them below." in the prevention focus condition and "Now take a moment to think about what you hope to achieve at work, that is, the hopes and aspirations you ideally would like to achieve at work. List three of them below." in the promotion focus condition. All else is the same.

Promotion focus condition:

Hopes and Aspirations for the RCI Audit

Before you start the field work, take a moment to think about what you hope to achieve for the performance year. Since you are the in-charge on RCI and this is your first time on the engagement, think about the hopes and aspirations you ideally would like to achieve. List three of them below.

1.

2.

3.

Ideally, how much would you like to achieve the **first** hope and aspiration you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
Not at all   **Very much**
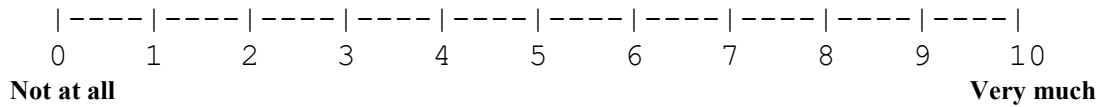
Ideally, how much would you like to achieve the **second** hope and aspiration you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
Not at all   **Very much**
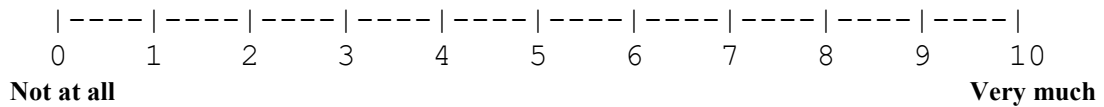
Ideally, how much would you like to achieve the **third** hope and aspiration you just listed?

```
|----|----|----|----|----|----|----|----|----|----|
 0    1    2    3    4    5    6    7    8    9    10
```
Not at all   **Very much**
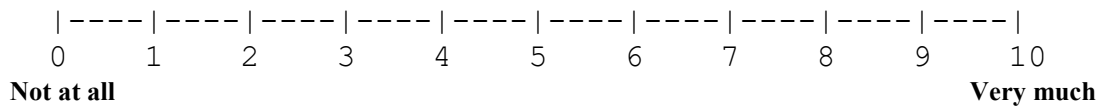
References

Aaker, J. L., and A. Y. Lee. 2001. "I" seek pleasures and "we" avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research* 28 (1): 33–49.

American Institute of Certified Public Accountants (AICPA). 2016. *AICPA Code of Professional Conduct*. Available at https://www.aicpa.org/content/dam/aicpa/research/standards/codeofconduct/downloadabledocuments/2014december15contentasof2016august31codeofconduct.pdf

Avnet, T., D. Laufer, and E.T. Higgins 2013. Are all experiences of fit created equal? Two paths to persuasion. *Journal of Consumer Psychology* 23(3): 301-316.

Backof, A. G., T. Carpenter, and J. M. Thayer. 2018. Auditing Complex Estimates: How Do Construal Level and Evidence Formatting Impact Auditors' Consideration of Inconsistent Evidence? *Contemporary Accounting Research* 35(4): 1798-1815.

Bauer, T. D., C. Estep, and E. Griffith. 2018. The Effects of Psychological Ownership on Team Member Judgments and Communication. Working paper. Available at https://ssrn.com/abstract=2798346

Camacho, C. J., E. T. Higgins, and L. Luger. 2003. Moral value transfer from regulatory fit: what feels right is right and what feels wrong is wrong. *Journal of personality and social psychology* 84(3): 498.

Cannon, N. H. and J. C. Bedard. 2016. Auditing challenging fair value measurements: Evidence from the field. *The Accounting Review* 92 (4): 81–114.

Dechow, P. M., L. A. Myers, and C. Shakespeare. 2010. Fair value accounting and gains from asset securitizations: A convenient earnings management tool with compensation side-benefits. *Journal of accounting and economics* 49(1): 2-25.

Deloitte. 2017. *Transparency Report 2016/2017*. Available at https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/about-deloitte/deloitte-nl-transparantieverslag-2016-2017.pdf

Ernst & Young. (EY). 2018. *Join EY Assurance Services Submit your CV*. Available at https://eygbl.referrals.selectminds.com/experienced-opportunities/jobs/join-ey-assurance-services_submit-your-cv-31988

Evans, L. M., and R. E. Petty. 2003. Self-guide framing and persuasion: Responsibly increasing message processing to ideal levels. *Personality and Social Psychology Bulletin* 29 (3): 313–324.

Förster, J. and E. T. Higgins. 2005. How global versus local perception fits regulatory focus. *Psychological science* 16 (8): 631–636.

Förster, J., E. T. Higgins, and L. C. Idson. 1998. Approach and avoidance strength during goal attainment: Regulatory focus and the" goal looms larger" effect. *Journal of personality and social psychology* 75 (5): 1115.

Förster, J., H. Grant, L. C. Idson, and E. T. Higgins. 2001. Success/failure feedback, expectancies, and approach/avoidance motivation: How regulatory focus moderates classic relations. *Journal of Experimental Social Psychology* 37 (3): 253–260.

Freitas, A. L. and E. T. Higgins. 2002. Enjoying goal-directed action: The role of regulatory fit. *Psychological science* 13 (1): 1–6.

Freitas, A. L., N. Liberman, and E. T. Higgins. 2002. Regulatory fit and resisting temptation during goal pursuit. *Journal of Experimental Social Psychology* 38(3): 291-298.

Freitas, A. L., P. Gollwitzer, and Y. Trope. 2004. The influence of abstract and concrete mindsets on anticipating and guiding others' self-regulatory efforts. *Journal of experimental social psychology* 40 (6): 739–752.

Griffith, E. E., J. S. Hammersley, and K. Kadous. 2015b. Audits of complex estimates as verification of management numbers: How institutional pressures shape practice. *Contemporary Accounting Research* 32 (3): 833–863.

Griffith, E. E., J. S. Hammersley, K. Kadous, and D. Young. 2015a. Auditor mindsets and audits of complex estimates. *Journal of Accounting Research* 53 (1): 49–77.

Hackenbrack, K. and M. W. Nelson. 1996. Auditors' incentives and their application of financial accounting standards. *The Accounting Review* 71 (1): 43–59.

Hayes, A. 2018. Introduction to mediation, moderation, and conditional process analysis: a regression-based approach. Second edition. Guilford.

Heinze, G. and M. Schemper. 2002. A solution to the problem of separation in logistic regression. *Statistics in Medicine* 21 (16): 2409-2419.

Higgins, E. T. 1997. Beyond pleasure and pain. *American Psychologist* 52 (12): 1280.

Higgins, E. T. 1998. Promotion and prevention: Regulatory focus as a motivational principle. In *Advances in experimental social psychology*, 30:1–46. Elsevier.

Higgins, E. T. 2000. Making a good decision: value from fit. *American Psychologist* 55 (11): 1217.

Higgins, E. T. 2005. Value from regulatory fit. *Current directions in psychological science* 14 (4): 209–213.

Higgins, E. T., L. C. Idson, A. L. Freitas, S. Spiegel, and D. C. Molden. 2003. Transfer of value from fit. *Journal of personality and social psychology* 84 (6): 1140.

Hong, J. and A. Y. Lee. 2007. Be fit and be strong: Mastering self-regulation through regulatory fit. *Journal of consumer research* 34 (5): 682–695.

Hurley, P. J. 2015. Ego depletion: Applications and implications for auditing research. *Journal of Accounting Literature*: 35, 47-76.

Idson, C. L. and E. T. Higgins. 2000. How current feedback and chronic effectiveness influence motivation: Everything to gain versus everything to lose. *European Journal of Social Psychology* 30 (4): 583–592.

International Forum of Independent Audit Regulators (IFIAR). 2017. *2016 Annual Inspection Findings Survey.* Available at https://www.irba.co.za/upload/2016-Survey-Stakeholder-Announcement-final.pdf

Kadous, K., J. Leiby, and M. E. Peecher. 2013. How do auditors weight informal contrary advice? The joint influence of advisor social bond and advice justifiability. *The Accounting Review* 88 (6): 2061–2087.

Kadous, K., S. J. Kennedy, and M. E. Peecher. 2003. The effect of quality assessment and directional goal commitment on auditors' acceptance of client-preferred accounting methods. *The Accounting Review* 78 (3): 759–778.

Keller, J. and H. Bless. 2006. Regulatory fit and cognitive performance: the interactive effect of chronic and situationally induced self-regulatory mechanisms on test performance. *European Journal of Social Psychology* 36 (3): 393–405.

Koenig, A. M., J. Cesario, D. C. Molden. S. Kosloff, and E. T. Higgins. (2009). Incidental experiences of regulatory fit and the processing of persuasive appeals. *Personality and Social Psychology Bulletin* 35(10): 1342-1355.

KPMG. 2016. *Enhancing Audit Quality*. Available at
    https://home.kpmg.com/content/dam/kpmg/us/pdf/2017/01/enhancing-audit-quality.pdf

Lee, A. Y. and J. L. Aaker. 2004. Bringing the frame into focus: the influence of regulatory fit on
    processing fluency and persuasion. *Journal of personality and social psychology* 86 (2):
    205.

Lee, A. Y., P. A. Keller, and B. Sternthal. 2009. Value from regulatory construal fit: The
    persuasive impact of fit between consumer goals and message concreteness. *Journal of
    Consumer Research* 36 (5): 735–747.

Lee, Y.-H., C. Heeter, B. Magerko, and B. Medler. 2013. Feeling right about how you play: The
    effects of regulatory fit in games for learning. *Games and Culture* 8 (4): 238–258.

Matthews, G., S. E. Campbell, S. Falconer, L. A. Joyner, J. Huggins, Gilliland, K., ... and J. S.
    Warm. 2002. Fundamental dimensions of subjective state in performance settings: Task
    engagement, distress, and worry. *Emotion* 2(4): 315.

Mocadlo, R. P., 2016. How Do Auditors Order Their Tasks, and How Does Task Ordering
    Affect Performance? Working paper. Available at https://ssrn.com/abstract=2850581

Mogilner, C., J. L. Aaker, and G. L. Pennington. 2007. Time will tell: The distant appeal of
    promotion and imminent appeal of prevention. *Journal of Consumer Research* 34 (5):
    670–681.

Peecher, M. E., I. Solomon, and K. T. Trotman. 2013. An accountability framework for financial
    statement auditors and related research questions. *Accounting, Organizations and Society*
    38 (8): 596–620.

Peecher, M. E., M. D. Piercey, J. S. Rich, and R. M. Tubbs. 2010. The effects of a supervisor's
    active intervention in subordinates' judgments, directional goals, and perceived technical
    knowledge advantage on audit team judgments. *The Accounting Review* 85 (5): 1763–
    1786.

Pennington, G. L., and N. J. Roese. 2003. Regulatory focus and temporal distance. *Journal of
    Experimental Social Psychology* 39 (6): 563–576.

Petty, R. E., J. T. Cacioppo, and D. Schumann. 1983. Central and peripheral routes to advertising
    effectiveness: The moderating role of involvement. *Journal of consumer research* 10 (2):
    135–146.

Public Company Accounting Oversight Board (PCAOB). 2010. *Report on Observations of
    PCAOB Inspectors Related to Audit Risk Areas Affected by the Economic Crisis*.
    Available at
    https://pcaobus.org/Inspections/Documents/4010_Report_Economic_Crisis.pdf

Public Company Accounting Oversight Board (PCAOB). 2013. *Accountability: Protecting
    Investors, the Public Interest and Prosperity*. Delivered at the Association of Government
    Accountants' 62nd Annual Professional Development Conference, July 17. Available at
    https://pcaobus.org/News/Speech/Pages/07172013_AGA.aspx

Public Company Accounting Oversight Board (PCAOB). 2017. *Preview of Observations from
    2016 Inspections of Auditors of Issuers*. Available at
    https://pcaobus.org/Inspections/Documents/inspection-brief-2017-4-issuer-results.pdf

PwC. 2018. *What Makes a Good Auditor?* Available at
    https://auditortraining.pwc.com.au/makes-good-auditor/

Ramanna, K. and R. L. Watts. 2012. Evidence on the use of unverifiable estimates in required
   goodwill impairment. *Review of Accounting Studies* 17 (4): 749-780.

Rasso, J. T. 2015. Construal instructions and professional skepticism in evaluating complex estimates. *Accounting, Organizations and Society* 46: 44-55.

Schmeichel, B. J., and K. Vohs. 2009. Self-affirmation and self-control: affirming core values counteracts ego depletion. *Journal of personality and social psychology* 96 (4): 770.

Securities and Exchange Commission (SEC). 2002. *All About Auditors: What Investors Need to Know*. Available at https://www.sec.gov/reportspubs/investor-publications/investorpubsaboutauditorshtm.html

Semin, G. R., T. Higgins, L. G. de Montes, Y. Estourget, and J. F. Valencia. 2005. Linguistic signatures of regulatory focus: how abstraction fits promotion more than prevention. *Journal of personality and social psychology* 89 (1): 36.

Shah, J., T. Higgins, and R. S. Friedman. 1998. Performance incentives and means: how regulatory focus influences goal attainment. *Journal of personality and social psychology* 74 (2): 285.

Spiegel, S., H. Grant-Pillow, and E. T. Higgins. 2004. How regulatory fit enhances motivational strength during goal pursuit. *European Journal of Social Psychology* 34 (1): 39–54.

Trope, Y., N. Liberman, and C. Wakslak. 2007. Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *Journal of consumer psychology* 17 (2): 83–95.

Tuan Pham, M. and H. H. Chang. 2010. Regulatory focus, regulatory fit, and the search and consideration of choice alternatives. *Journal of Consumer Research* 37 (4): 626–640.

Vaughn, L. A., J. Malik, S. Schwartz, Z. Petkova, and L. Trudeau. 2006a. Regulatory fit as input for stop rules. *Journal of Personality and Social Psychology* 91 (4): 601.

Vaughn, L. A., T. O'Rourke, S. Schwartz, J. Malik, Z. Petkova, and L. Trudeau. 2006b. When two wrongs can make a right: Regulatory nonfit, bias, and correction of judgments. *Journal of Experimental Social Psychology* 42(5): 654-661.

Wakslak, C., and Y. Trope. 2009. The effect of construal level on subjective probability estimates. *Psychological Science* 20 (1): 52–58.

Weiner, B. 1972. Theories of motivation: From mechanism to cognition. Oxford, England: Markham.

Figure 1: The Observed Effect of Fit versus Non-fit on Judgment Quality

Panel A: Assessment of the most appropriate rate (%)
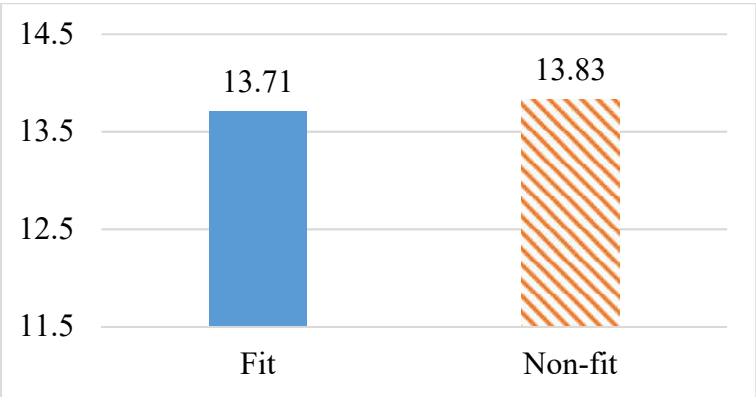
Panel B: Percentage of auditors who rejected the client's rate
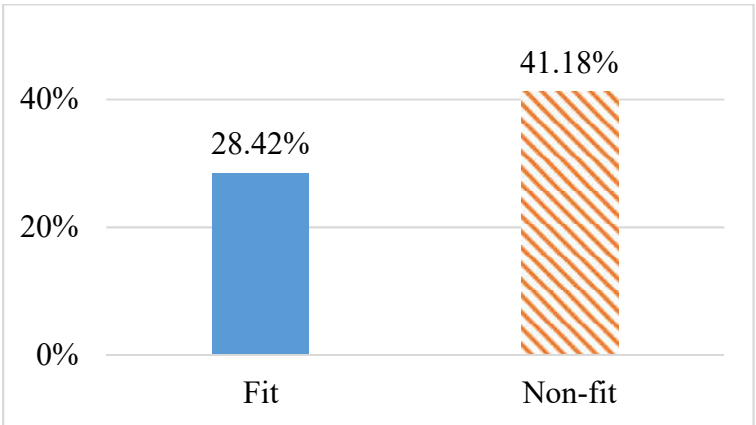
Panel C: Identification of seeded issues
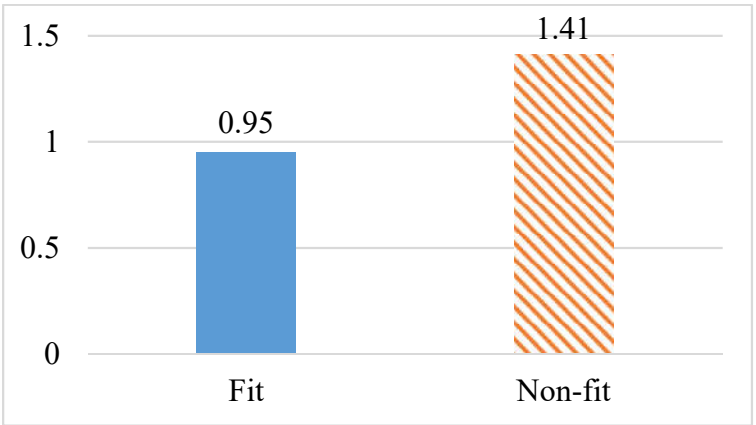
A concrete mindset fits a prevention focus and an abstract mindset fits a promotion focus. Assessing a higher rate as the most appropriate rate, rejecting the client's rate, and identifying more seeded issues indicate higher judgment quality. Refer to Appendix 1 for a description of the seeded issues.

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Figure 2: The Indirect Effect of Fit versus Non-fit on Judgment Quality
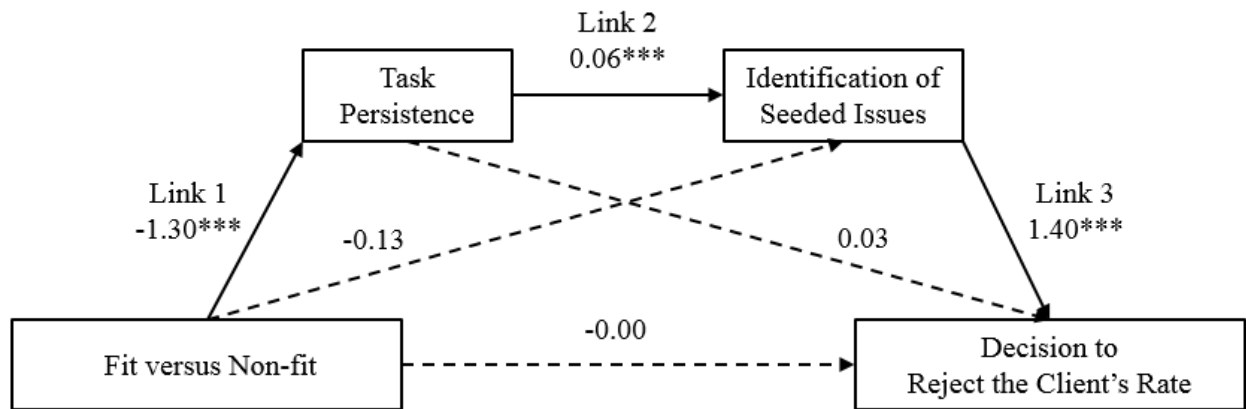
Link 1-2-3 indirect effect, 95% CI: (-0.22, -0.04)

*** p < 0.01. All p-values are two-sided except when otherwise noted. Solid lines denote statistically significant effects and dashed lines denote statistically insignificant effects. Coefficients are unstandardized. The fit condition consists of 1) auditors who are prompted to adopt a prevention focus *and* a concrete mindset, and 2) auditors who are prompted to adopt a promotion focus *and* an abstract mindset. The non-fit condition consists of 1) auditors who are prompted to adopt a prevention focus *and* an abstract mindset, and 2) auditors who are prompted to adopt a promotion focus *and* a concrete mindset. Task persistence is the number of minutes that auditors spend on the task. Identification of seeded issues is the number of seeded issues identified by auditors. See Appendix 1 for a description of the seeded issues. Rejecting the client's rate indicates higher judgment quality compared to accepting the client's rate. I follow Hayes (2018) to test the indirect effect of fit versus non-fit on judgment quality. The 95% bootstrapped confidence interval for link 1-2-3 is significant, suggesting that the effect of fit versus non-fit on the decision to reject the client's rate is mediated by task persistence and identification of seeded issues. A limitation of this model is that it uses ordinary least squares regressions rather than negative binomial regressions to model the number of seeded issues identified even though this variable is count data. Inferences regarding the indirect effect of fit versus non-fit on decision to reject the client's rate do not change when I estimate a moderated serial mediation model using mindset as the independent variable, focus as the moderator, task persistence as the first mediator, identification of seeded issues as the second mediator, and decision to reject the client's rate as the dependent variable. This model shows a main effect of mindset. Auditors with a concrete mindset are more likely to reject the client's rate than those with an abstract mindset, and this effect is mediated by the number of seeded issues identified. Interestingly, mindset has no effect on task persistence. This is consistent with prior research that mindset affects judgment quality by making auditors think differently rather than work longer on a judgment task (Griffith et al. 2015a). Examining why mindset affects judgment quality is beyond the scope of this study.

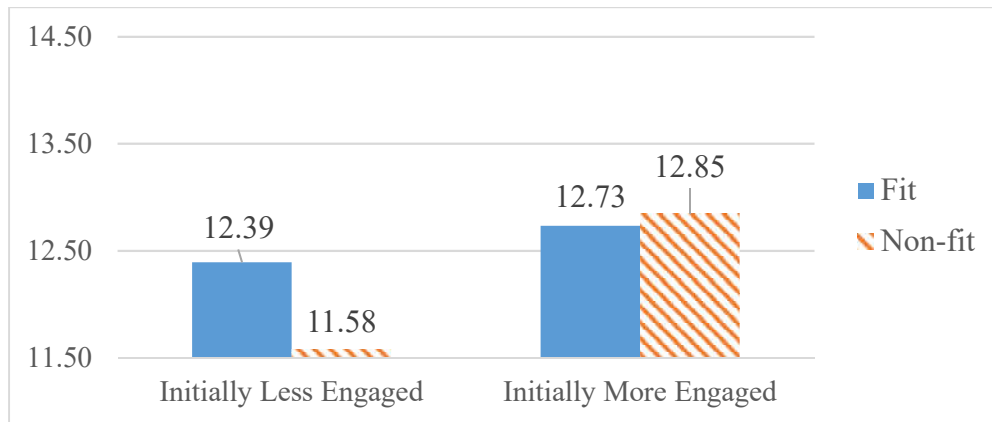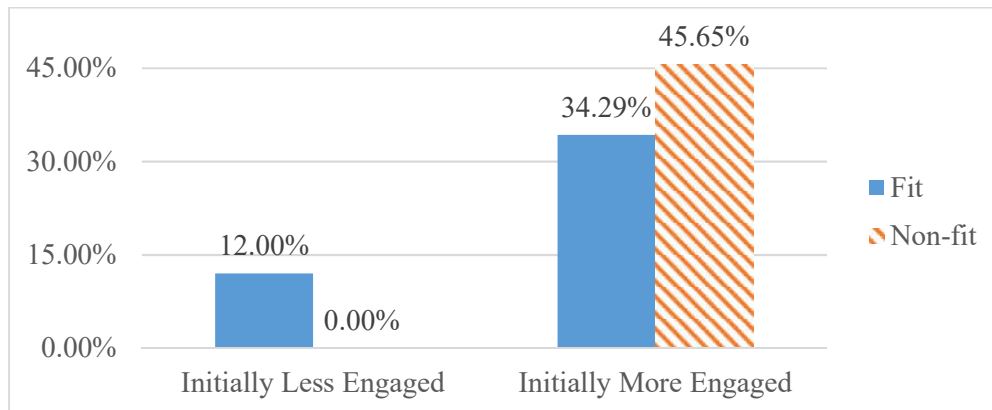**Figure 3: The Observed Effect of Fit and Initial Engagement on Judgment Quality**

Panel A: Assessment of the lowest acceptable rate (%)

Panel B: Percentage of auditors who rejected the client's rate

Panel C: Identification of seeded issues
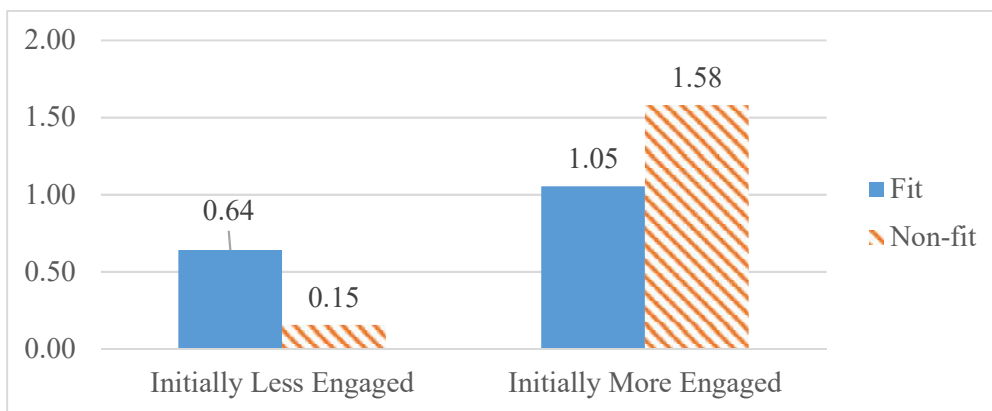
A concrete mindset fits a prevention focus and an abstract mindset fits a promotion focus. Assessing a higher rate as the lowest acceptable rate, rejecting the client's rate, and identifying more seeded issues indicate higher judgment quality. Refer to Appendix 1 for a description of the seeded issues.

Table 1: Assessment of the Most Appropriate Rate (%)

Panel A: Descriptive statistics: mean (standard deviation) [n]

	Mindset	Focus		
Fit	Abstract	Promotion	13.57 (0.70) [44]	13.71 (0.94) [97]
	Concrete	Prevention	13.82 (1.10) [53]	
Non-fit	Abstract	Prevention	13.64 (1.16) [52]	13.83 (1.11) [104]
	Concrete	Promotion	14.01 (1.03) [52]	

Panel B: ANOVA

Source	Sum of Squares	df	Mean Square	F	p
Focus	0.19	1	0.19	0.18	0.674
Mindset	4.74	1	4.74	4.51	0.035
Fit	0.86	1	0.86	0.82	0.365
Error	206.93	197	1.05		

_____

Five auditors did not provide an assessment of the most appropriate rate, leaving 201 observations in the analysis. All p-values are two-sided except when otherwise noted. A higher assessment of the most appropriate rate indicates higher judgment quality because the case contains seeded issues that suggest the client's rate of 13.2% is too low. Inferences do not change when the lowest acceptable rate is the dependent variable.

Table 2: Decision to Reject the Client's Rate

Panel A: Descriptive statistics: proportion (percentage)

	Mindset	**Focus**		
Fit	Abstract	Promotion	6/42 (14.29%)	27/95 (28.42%)
	Concrete	Prevention	21/53 (39.62%)	
Non-fit	Abstract	Prevention	17/51 (33.33%)	42/102 (41.18%)
	Concrete	Promotion	25/51 (49.02%)	

Panel B: Logistic regression

Source	df	Chi-square	p
Focus	1	1.17	0.280
Mindset	1	9.31	0.002
Fit	1	4.98	0.026

Nine auditors did not provide an assessment of the lowest acceptable rate, leaving 197 observations in the analysis. All p-values are two-sided except when otherwise noted. Auditors are considered as willing to reject the client's rate if their lowest acceptable rate is greater than the client's rate of 13.2%. Auditors are considered as willing to accept the client's rate if their lowest acceptable rate is equal to or smaller than 13.2%. Rejecting the client's rate indicates higher judgment quality compared to accepting the client's rate because the judgment case contains seeded issues that suggest the client's rate of 13.2% is too low.

Table 3: Identification of Issues

Panel A: Descriptive statistics for *seeded issues* identified: mean (standard deviation) [n]

	Mindset	**Focus**		
Fit	Abstract	Promotion	0.74 (0.94) [47]	0.95 (1.18) [100]
	Concrete	Prevention	1.13 (1.35) [53]	
Non-fit	Abstract	Prevention	1.15 (1.26) [52]	1.41 (1.27) [106]
	Concrete	Promotion	1.65 (1.25) [54]	

Panel B: Negative binomial regression for *seeded issues* identified

Source	df	Chi-square	p
Focus	1	0.04	0.836
Mindset	1	6.63	0.010
Fit	1	7.30	0.007

Panel C: Negative binomial regression for *total valid issues* identified

Source	df	Chi-square	p
Focus	1	0.00	0.979
Mindset	1	7.30	0.007
Fit	1	8.64	0.003

All p-values are two-sided except when otherwise noted. Refer to Appendix 1 for a description of the seeded issues. Total valid issues include the seeded issues and any other valid issues (agreed by both coders) that suggest the client's rate is too low. Identifying more seeded issues or more valid issues in total indicates higher judgment quality because these issues contradict the client's justifications for using a lower rate and making quality judgments requires the consideration of contradictory evidence.

Table 4: Assessment of the Lowest Acceptable Rate (%)

Panel A: Descriptive statistics: mean (standard deviation) [n]

	Initially Less Engaged	**Initially More Engaged**	
Fit	12.39 (0.80) [25]	12.73 (1.01) [70]	12.64 (0.96) [95]
Non-fit	11.58 (1.12) [10]	12.85 (1.15) [92]	12.73 (1.21) [102]
	12.16 (0.96) [35]	12.80 (1.09) [162]	

Panel B: ANOVA

Source	Sum of Squares	df	Mean Square	F	p
Focus	0.00	1	0.00	0.00	0.972
Mindset	0.01	1	0.01	0.01	0.929
Fit	2.88	1	2.88	2.57	0.111
Initial Engagement	15.45	1	15.45	13.78	0.000
Focus by Initial Engagement	0.03	1	0.03	0.03	0.874
Mindset by Initial Engagement	2.39	1	2.39	2.13	0.146
Fit by Initial Engagement	5.69	1	5.69	5.07	0.025
Error	211.95	189	1.12		

Panel C: ANOVA (initially less engaged: fit > non-fit)

Source	Sum of Squares	df	Mean Square	F	p
Focus	0.01	1	0.01	0.02	0.904
Mindset	0.62	1	0.62	0.74	0.397
Fit	4.90	1	4.90	5.81	0.022
Error	26.16	31	0.84		

Panel D: ANOVA (initially more engaged: non-fit > fit)

Source	Sum of Squares	df	Mean Square	F	p
Focus	0.03	1	0.03	0.03	0.876
Mindset	4.47	1	4.47	3.80	0.053
Fit	0.78	1	0.78	0.67	0.415
Error	185.79	158	1.18		

Nine auditors did not provide an assessment of the lowest acceptable rate, leaving 197 observations in the analysis. All p-values are two-sided except when otherwise noted. A higher assessment of the lowest acceptable rate indicates higher judgment quality because the case contains seeded issues that suggest the client's rate of 13.2% is too low. The pattern of the most appropriate rate is similar to the pattern of the lowest acceptable rate except that the fit by initial engagement interaction is insignificant.

Table 5: Decision to Reject the Client's Rate

Panel A: Descriptive statistics: proportion (percentage)

	Initially Less Engaged	**Initially More Engaged**	
Fit	3/25 (12.00%)	24/70 (34.29%)	27/95 (28.42%)
Non-fit	0/10 (0.00%)	42/92 (45.65%)	42/102 (41.18%)
	3/35 (8.57%)	66/162 (40.74%)	

Panel B: Firth logistic regression

Source	Z	p
Focus	-0.43	0.669
Mindset	-1.22	0.222
Fit	-0.03	0.978
Initial Engagement	2.56	0.011
Focus by Initial Engagement	-0.17	0.865
Mindset by Initial Engagement	-0.37	0.713
Fit by Initial Engagement	-1.00	0.316

Panel C: Firth logistic regression (initially less engaged: fit > non-fit)

Source	Z	p
Focus	-0.13	0.893
Mindset	-0.44	0.657
Fit	0.51	0.611

Panel D: Logistic regression (initially more engaged: non-fit > fit)

Source	df	Chi-square	p
Focus	1	1.22	0.270
Mindset	1	8.08	0.004
Fit	1	3.48	0.062

Nine auditors did not provide an assessment of the lowest acceptable rate, leaving 197 observations in the analysis. All p-values are two-sided except when otherwise noted. Auditors are considered as willing to reject the client's rate if their lowest acceptable rate is greater than the client's rate of 13.2%. Auditors are considered as willing to accept the client's rate if their lowest acceptable rate is equal to or smaller than 13.2%. Rejecting the client's rate indicates higher judgment quality compared to accepting the client's rate because the judgment case contains seeded issues that suggest the client's rate of 13.2% is too low. I use the Firth logistic regression to address the problem of separation in logistic regression (Heinze and Schemper 2002). Specifically, a quasi-complete separation happened because only 3 auditors among the 69 auditors who decided to reject the client's rate were initially less engaged.

Table 6: Identification of Issues

Panel A: Descriptive statistics for *seeded issues* identified: mean (standard deviation) [n]

	Initially Less Engaged	**Initially More Engaged**	
Fit	0.64 (0.91) [25]	1.05 (1.25) [75]	0.95 (1.18) [100]
Non-fit	0.15 (0.38) [13]	1.58 (1.25) [93]	1.41 (1.27) [106]
	0.47 (0.80) [38]	1.35 (1.28) [168]	

Panel B: Negative binomial regression for *seeded issues* identified

Source	df	Chi-square	p
Fit	1	1.73	0.189
Initial Engagement	1	13.27	0.000
Fit by Initial Engagement	1	5.57	0.018

Panel C: Simple effects for *seeded issues* identified

	df	Chi-square	p
Initially Less Engaged: Fit > Non-fit	1	3.29	0.070
Initially More Engaged: Non-fit > Fit	1	7.26	0.007

Panel D: Negative binomial regression for *total valid issues* identified

Source	df	Chi-square	p
Fit	1	1.78	0.182
Initial Engagement	1	13.43	0.000
Fit by Initial Engagement	1	6.26	0.012

Panel E: Simple effects for *total valid issues* identified

	df	Chi-square	p
Initially Less Engaged: Fit > Non-fit	1	3.76	0.053
Initially More Engaged: Non-fit > Fit	1	9.03	0.003

All p-values are two-sided except when otherwise noted. I drop four terms (Focus, Mindset, Focus by Initial Engagement, and Mindset by Initial Engagement) from the negative binomial regressions in Panel B and Panel D because the maximum likelihood algorithm fails to converge. I add the four terms to an ANOVA and repeat the analyses in Panel B and D. Although the ANOVA model is not appropriate for analyzing count date, the only terms that are significant are initial engagement and the fit by initial engagement interaction, consistent with the results presented in Panel B and D. Inferences do not change when I control for focus and mindset and repeat the analyses in

Panel C and E in an ANOVA for the initially less engaged auditors and in a negative binomial regression for the initially more engaged auditors. Refer to Appendix 1 for a description of the seeded issues. Total valid issues include the seeded issues and any other valid issues (agreed by both coders) that suggest the client's rate is too low. Identifying more seeded issues or more valid issues in total indicates higher judgment quality because these issues contradict the client's justifications for using a lower rate and making quality judgments requires the consideration of contradictory evidence.