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Evaluating the Intentionality of Identified Misstatements: How Perspective Can Help Auditors in Distinguishing Errors from Fraud

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EVALUATING THE INTENTIONALITY OF IDENTIFIED MISSTATEMENTS: HOW PERSPECTIVE CAN HELP AUDITORS IN DISTINGUISHING ERRORS FROM FRAUD

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ABSTRACT

According to Auditing Standard No. 14, fraud is an *intentional act*. Thus, when a misstatement is identified during the audit, auditors should consider whether the misstatement might have been caused intentionally (PCAOB 2010a). The objective of the present study is to investigate whether considering the perspective of the manager responsible for a misstatement's occurrence impacts auditors' beliefs concerning the misstatement's intentionality. Using an experiment with 82 audit manager and senior manager participants, I find that auditors who actively consider the perspective of the manager who caused a misstatement assess the likelihood that the misstatement is intentional higher when the circumstances surrounding it are indicative of high versus low fraud risk. Conversely, auditors who do not consider the manager's perspective do not assess misstatement intentionality any differently in the presence of high fraud risk versus low fraud risk information. These findings suggest that the ability to recognize when client circumstances suggest an increased risk that a misstatement was caused intentionally may depend on whether auditors consider the perspective of the manager responsible for the misstatement.

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CHAPTER 1

INTRODUCTION

When a misstatement is identified during the audit, auditors are responsible for evaluating whether it is indicative of fraud (Auditing Standard No. 14 – PCAOB 2010a). The primary characteristic that differentiates a fraudulent misstatement from an error is whether the *underlying action* that resulted in the misstatement was intentional or unintentional (AICPA 2002). If a misstatement's intentionality hinges on the intent of the individual(s) who caused it, then it is important that auditors are sensitive to fraud risk factors specifically related to those responsible individuals. Although evaluating a manager's intent might be difficult (AICPA 2002; PCAOB 2007), a good starting point is to consider the incentives and opportunities of the manager responsible for a misstatement's occurrence.[1] The objective of the present study is to investigate how the use of perspective taking impacts auditors' assessments of a misstatement's intentionality.[2] According to psychology theory, evaluating a misstatement from the perspective of the manager who caused it should increase auditors'

[1] When evaluating the potential for fraud, the auditing standards recommend that auditors consider whether client conditions provide management with an incentive, opportunity, or the ability to rationalize a fraudulent act, which is referred to as the fraud triangle (AICPA 2002; PCAOB 2010b). Wolfe and Hermanson (2004) argue that a fourth element, capability, should be added to make a "fraud diamond." When a manager has knowledge of a business process and/or access to influence transactions, the ability to perpetrate fraud is increased (Wolfe and Hermanson 2004). Thus, the ability of a manager to cause a misstatement should be considered a fraud red flag.

[2] Perspective taking is a type of mental simulation in which an individual imagines himself in another individual's shoes and considers his own thoughts and actions under the circumstances facing another individual (Batson 2009; Davis et al. 1996; Coutu 1951; Epley and Caruso 2009).

attention to the circumstances surrounding the misstatement and how they might have influenced a manager's intentions to misstate (e.g., Regan and Totten 1975; Ross and Nisbett 1991).

Considering whether misstatements might be intentional is an important aspect of fraud detection, as evidenced by its explicit inclusion in AS No. 14 (PCAOB 2010a). Although fraud is often thought of as (and often may be) a multimillion dollar scheme involving the top members of management (Beasley, Carcello, and Hermanson 2010), intentional misstatements may also occur on a smaller scale. An intentional misstatement, even if it does not clearly exceed materiality, calls into question the integrity of management and should lead to a number of responses required by the auditing standards (PCAOB 2010a).[3] In fact, even *believing* that a misstatement *might be* intentional should prompt auditors to discuss concerns with client management and/or the audit committee and investigate the misstatement further to determine if fraud has in fact occurred (PCAOB 2010a). Recent PCAOB reports, however, indicate that auditors do not investigate whether misstatements are indicative of fraud when perhaps they should (PCAOB 2007), which suggests that additional improvements (and additional research) are needed within this important area of fraud detection. In a recent Practice Alert, the PCAOB stressed the importance of applying professional skepticism throughout the course of the audit and discouraged auditors from dismissing identified misstatements as immaterial without first giving them adequate consideration (PCAOB 2012).

[3] According to AS No. 14, if auditors believe that a misstatement is or might be intentional, they should evaluate the implications on the integrity of management and the assessment of fraud risk as well as consider whether additional audit evidence might be necessary to determine if fraud has occurred (PCAOB 2010a). Furthermore, SAB No. 99 states that an intentional misstatement, regardless of magnitude, may be considered an "illegal act" under federal securities law, and illegal acts must be reported to the audit committee (SEC 1999). Finally, believing that a misstatement might be intentional should influence auditors' materiality judgments (SEC 1999).

Previous studies in the auditing literature related to improving fraud detection have primarily focused on the planning phase of the audit (e.g., Asare and Wright 2004; Wilks and Zimbelman 2004; Carpenter 2007; Hoffman and Zimbelman 2009; Simon 2012). However, evaluating whether an identified misstatement might be intentional involves a somewhat different evaluation process than what is typically employed during fraud planning judgments. Evaluating the cause of an identified misstatement requires a *backwards*, explanatory evaluation process in which auditors attempt to determine a cause (fraud or error) of an observed event (misstatement). Furthermore, understanding how a misstatement came about often involves the consideration of a *specific* client action that occurred under a *specific* set of circumstances.

There is evidence within the psychology literature that an evaluation involving (1) a backwards inference process and/or (2) the understanding of a specific action under a specific set of circumstances results in a tendency to ignore the role of existing circumstances in influencing behavior (e.g., Jones and Nisbett 1971; Einhorn and Hogarth 1986; Gilbert 2002). A failure to consider how client circumstances might have influenced a manager's actions is likely to make it difficult for auditors to determine if a misstatement was caused intentionally.

In an effort to detect fraud, it is important to consider the existence of client circumstances that make the perpetration of fraud more desirable (i.e., an incentive) or easier to perpetrate and conceal (i.e., an opportunity) (PCAOB 2010a). According to psychology theory, evaluating another individual's actions from that person's point of view fosters an increased understanding of how existing circumstances might have influenced behavior (e.g., Regan and Totten 1975; Ross and Nisbett 1991; Eyal et al.

2008). By considering the perspective of the manager responsible for a misstatement, I expect that auditors will recognize the existence of fraud risk factors that may have provided the manager with an incentive and opportunity to intentionally misstate. Thus, when the circumstances surrounding a misstatement are indicative of high fraud risk, auditors who engage in perspective taking will be more likely to believe that the misstatement was caused intentionally and investigate further.

Using an experiment, I examine whether considering the perspective of the manager responsible for a misstatement affects auditors' assessments of a misstatement's intentionality. My study manipulates the fraud risk factors surrounding an identified misstatement to be indicative of a higher or lower risk of fraud. I attempt to manipulate perspective taking by instructing some auditors to imagine themselves in the shoes of the manager responsible for the misstatement. I also use a measured variable to capture the extent to which auditors actively considered the perspective of the manager. Both the manipulation and the measured variable are common ways of testing perspective taking in the psychology literature (Davis et al. 1996; Galinsky and Moskowitz 2000; Mallett et al. 2008).

I find that while the manipulated variable did not appear to induce perspective taking, the measured variable shows that auditors who actively considered the manager's perspective were more sensitive to the fraud risk factors surrounding the misstatement compared to auditors who did not use perspective taking.[4] When the fraud risk factors surrounding the misstatement were indicative of high risk, auditors who actively considered the manager's perspective assessed the misstatement as significantly more

[4] The effects of perspective taking were obtained after controlling for participant effort and experience.

likely to be intentional compared to auditors who did not use perspective taking. Interestingly, the auditors who did not consider the manager's perspective assessed the misstatement's intentionality the same in both the high fraud risk and the low fraud risk condition. Thus, it would appear that the ability to recognize when client circumstances suggest an increased risk that a misstatement was caused intentionally may depend on whether auditors consider the perspective of the manager responsible for the misstatement.

The present study contributes to the audit literature and to audit practice in a number of important ways. First, I provide evidence concerning the type of reasoning process that may help auditors assess the risk that an identified misstatement was caused intentionally. Perspective taking presumably provides auditors with insight into whether a manager was likely to have perceived misstating to be personally beneficial (an incentive) and reasonably easy to perpetrate and conceal (an opportunity). It is possible that while misstating the financial statements might not help management in general to meet a bonus target or analyst earnings target, it may nonetheless increase the compensation or performance evaluation of an individual manager. Thus, in addition to considering fraud risks at the company level, auditors also should consider fraud risks that are specific to an operating location or individual manager (AICPA 2002; Carcello and Hermanson 2008). My study provides insight into the type of reasoning process that may be helpful when seeking to understand the intentions of an individual manager.

Second, my study responds to the PCAOB's concerns that auditors are not displaying sufficient professional skepticism at the point in which a misstatement is identified (PCAOB 2007). Believing that a misstatement is immaterial does not excuse

auditors from applying a sufficient level of professional skepticism, including considering whether the misstatement might be intentional (PCAOB 2010a; PCAOB 2012). The results of my study suggest that auditors are more skeptical of an identified misstatement (i.e., believe that it is more likely to be intentional) when surrounding circumstances are indicative of high versus low fraud risk, but only when they consider the manager's perspective. Because one's ability to successfully take the perspective of another is believed to be improved through direct experience (Iannotti 1978; Chalmers and Townsend 1990), audit firms may want to consider integrating perspective taking tasks into future firm trainings.

The remainder of the paper proceeds as follows. Chapter 2 reviews the related literature and develops my hypotheses. The methodology and results are described in Chapter 3 and 4, respectively. Finally, Chapter 5 provides the conclusions and limitations of the study.

CHAPTER 2

BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1 EVALUATING MISSTATEMENT INTENTIONALITY AND ATTENTION TO FRAUD RISKS

Most of the fraud detection literature to date has focused on the planning phase of the audit (see Hammersley 2011 for an extensive review of the fraud planning literature). The auditing standards require the performance of various fraud planning procedures (e.g., fraud risk assessments, brainstorming sessions); thus, fraud should be a primary focus for auditors during the planning phase of the audit (Braun 2000). Hammersley (2011) concludes in her review of the fraud planning literature that auditors generally are sensitive to the presence of fraud risk factors when planning the audit. However, the planning phase of the audit is not the only point at which fraud should be considered. Auditors should be sensitive to fraud risks during all stages of the audit (AICPA 2002; PCAOB 2010a).

One point at which auditors should specifically consider the potential for fraud is upon identifying a misstatement within the financial statements. When a misstatement is identified, auditors should consider whether the misstatement is indicative of fraud (PCAOB 2010a). No study of which I am aware provides direct evidence of auditors' sensitivity to fraud risk factors when evaluating the cause of an identified misstatement. However, there is some evidence that auditors are not always sensitive to the presence of fraud during later stages of the audit. Prior studies suggest that auditors' sensitivity to fraud during evidence evaluation may be lower when auditing an account assessed as

having a low risk of misstatement (Phillips 1999) or when the documentation of fraud risks during the planning phase lacks sufficient detail (Hammersley et al. 2010). Braun (2000) reports that during the performance of testing procedures, auditors generally are not sensitive to qualitative information indicative of fraud, particularly when they are placed under time pressure. Braun (2000) concludes that unlike the planning phase of the audit where fraud is a primary focus, during later stages of the audit, fraud becomes a secondary task.

In recent years, the importance placed on fraud detection has increased substantially (AICPA 2002; PCAOB 2010a, 2010b). Thus, it is possible that auditors are sensitive to information indicative of fraud when evaluating identified misstatements. However, PCAOB inspection reports have documented multiple instances in which auditors have failed to investigate whether departures from GAAP were indicative of fraud, suggesting that auditors are not applying sufficient levels of professional skepticism when misstatements are identified (PCAOB 2007). Due to the high frequency of misstatements encountered by auditors during their careers that are due to error rather than fraud, auditors are likely to believe that most identified misstatements are unintentional (Libby 1985; Loebbecke et al. 1989). If auditors are too quick to conclude that an identified misstatement is unintentional, they may fail to recognize when the circumstances surrounding a misstatement are indicative of high fraud risk.

The psychology literature suggests that there are two characteristics associated with the process evaluating a misstatement that may naturally result in a general insensitivity to fraud risk factors. First, evaluating a misstatement for evidence of fraud involves a backwards inference process. A backwards inference is one in which an

outcome is known (e.g., a known misstatement is identified) and a cause must be inferred (e.g., error or fraud) (O'Donnell 2004; Koonce et al. 2011). During backwards inferences, attention is divided between the various causes that might explain an outcome, rather than focusing on the circumstances that make one particular cause more likely (Schustack and Sternberg 1981; Einhorn and Hogarth 1986; Waller and Felix 1989). When applied to the evaluation of an identified misstatement, this suggests that rather than focusing exclusively on the presence of fraud risk factors (i.e., the circumstances that make fraud a more likely cause), auditors' attention will be divided between fraud and error as potential causes.[5] While considering the potential for fraud and error simultaneously is not necessarily improper, it does suggest that auditors will be less sensitive to information indicative of fraud than they would be if they were considering fraud in isolation.

Second, assessing whether a misstatement might be intentional often involves the evaluation of a specific client action performed under a specific set of circumstances. Many studies in psychology have reported that in an effort to make sense of (or attribute a cause to) another individual's actions, there is a tendency to ignore the role of the situation in influencing behavior (e.g., Jones and Nisbett 1971; Galper 1976; Gilbert 2002). Instead, these studies find that people tend to attribute the actions of others to their stable dispositional traits.[6] Thus, when auditors evaluate an identified misstatement, the

[5] Conversely, fraud planning procedures involve a forward inference process in which auditors reason about fraud in a forward, predictive manner. During forward inferences, a particular cause (e.g., fraud) is typically considered in isolation along with the circumstances that make that cause more likely to result in an outcome (e.g., misstatement) (Einhorn and Hogarth 1986; Waller and Felix 1989). Thus, during fraud planning procedures, auditors' attention is likely focused primarily on fraud and the existence of fraud risk factors (Braun 2000; Hammersley 2011).

[6] A dispositional trait is a stable characteristic of one's personality. However, people do not always act in ways that are consistent with their dispositions. As the time for action draws near, individuals are influenced less by their dispositions and more by whether the immediate circumstances enable or constrain

psychology literature suggests that they will not consider how existing circumstances might have influenced a manager to intentionally misstate the financial statements. For example, an auditor may attribute an identified misstatement to a manager's incompetence (a disposition), thus concluding it to be unintentional, and fail to recognize that the manager's compensation or performance evaluation criteria provided him with an incentive to intentionally misstate.

2.2 PERSPECTIVE TAKING

The psychology literature suggests that a greater understanding of how existing circumstances might have influenced another's behavior is achieved by considering the individual's point of view (i.e., perspective taking). Perspective taking is a type of mental simulation in which an individual imagines himself in another's place and considers his own thoughts and actions under the circumstances facing another individual (Coutu 1951; Davis et al. 1996; Batson 2009; Epley and Caruso 2009). Perspective taking has been used in a variety of contexts in psychology as a method for improving interpersonal understanding and is theorized to provide insight into another individual's thoughts and feelings (e.g., Piaget 1932; Galinsky and Moskowitz 2000).[7]

Prior studies in auditing have found that actually stepping into the shoes of the client via role playing can lead to improved negotiation outcomes and financial reporting quality (Trotman et al. 2005; Peytcheva et al. 2012). Role playing involves actively playing out the role of another individual (Coutu 1951). Trotman et al. (2005) find that

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behavior (Eyal et al. 2009). Thus, even generally honest managers might commit fraud if the circumstances make it appear advantageous and feasible (AICPA 2002; Carpenter and Reimers 2005).

[7] According to Hurtt (2010), interpersonal understanding is one of the primary components of professional skepticism and consists of understanding the motivations and perceptions of individual managers.

auditors who played the role of the client during a mock negotiation subsequently negotiated larger write-downs during the actual negotiation with the client compared to auditors receiving other negotiation interventions. Peytcheva et al. (2012) had student-participants interact strategically as auditors and managers in a laboratory experiment and found that auditors who had been assigned a manager role in a previous round were more accurate in discerning true earnings from a manager's reported earnings compared to auditors who had not experienced a manager role. The improvements in negotiation outcomes and financial reporting quality reported in these studies presumably occur as a result of obtaining a better understanding of the client's perspective.[8]

One of the most studied benefits of perspective taking is its ability to foster an increased understanding of the situation facing another individual (e.g., Regan and Totten 1975; Galinsky and Moskowitz 2000). In fact, perspective taking is described in the psychology literature as "the active consideration of another's point of view and the situation that person faces" (Galinsky 2002, p. 97). Although people often ignore the role of the situation in influencing the behavior of others, this appears to be a function of perspective. When asked to explain the actions of an individual from an observer's (i.e., third-person) point of view, psychology studies report that people attribute the individual's behavior to dispositional traits, with very little attention given to the

[8] Prior studies have used strategic reasoning, the consideration of management's potential motives and actions, as a method to improve auditors' fraud detection procedures (Hoffman and Zimbelman 2009; Bowlin 2011; Simon 2012). Strategic reasoning is derived from game theory and is used to anticipate the hypothetical actions of an opponent (Zimbelman and Waller 1999). Thus, strategic reasoning is useful during the planning phase of the audit to anticipate where and how management might hypothetically enact fraud. Once a misstatement is identified, however, anticipating a client's action is no longer necessary. At this point, auditors require a reasoning process that can aid in the *understanding of an already enacted behavior*. The psychology literature suggests that evaluating another individual's behavior from the "actor's" point of view (i.e., perspective taking) leads to a greater understanding of the behavior and the circumstances within which the behavior was enacted (Ross and Nisbett 1991; Galinsky 2002; Eyal et al. 2008; Batson 2009).

circumstances surrounding the behavior (e.g., Jones and Nisbett 1971; Galper 1976; Gilbert 2002). By prompting participants to consider and explain another's actions from the actor's point of view (i.e., a first-person perspective), explanations become more focused on the situation and how existing circumstances might have influenced behavior (Regan and Totten 1975; Galper 1976; Eyal et al. 2008).

The psychology literature suggests that when auditors use their natural, third-person perspective to assess the risk that a misstatement was caused intentionally, they will be relatively insensitive to the circumstances surrounding the misstatement and their fraud implications (Jones and Nisbett 1971; Gilbert 2002). Conversely, considering the perspective of the manager responsible for the misstatement (i.e., the actor's point of view) will increase auditors' attention to fraud risk factors and the understanding of how these factors might have influenced the manager's intentions to misstate (Regan and Totten 1975; Eyal et al. 2008; Epley and Caruso 2009). Thus, I expect that when the circumstances surrounding a misstatement are indicative of higher fraud risk (i.e., the manager responsible for the misstatement has a direct incentive and opportunity to misstate), auditors who engage in perspective taking will assess misstatement intentionality higher than auditors who do not engage in perspective taking. Conversely, when the circumstances surrounding a misstatement are indicative of lower fraud risk, auditors who engage in perspective taking are expected to assess misstatement intentionality lower than auditors who do not engage in perspective taking. Stated formally, my first hypothesis is as follows:

> **H1:** When the circumstances surrounding an identified misstatement are indicative of higher (lower) fraud risk, auditors who engage in perspective taking will assess the likelihood that the misstatement is intentional higher (lower) than auditors who do not engage in perspective taking.

The expected interaction is depicted in Panel A of Figure 2.1. Without the use of perspective taking, auditors are expected to fail to recognize the risk of fraud indicated by the circumstances surrounding an identified misstatement. Auditors who engage in perspective taking, however, will recognize the higher (lower) risk indicated by the circumstances surrounding the misstatement and will assess misstatement intentionality higher (lower) in accordance with the fraud risk factors that are present.[9]

The psychology literature suggests that perspective taking results in (1) increased attention to the circumstances that might have influenced another's behavior (e.g., Regan and Totten 1975) and (2) a greater understanding of how an individual might have perceived or interpreted these circumstances (Ross and Nisbett 1991). The following hypotheses are intended to provide support for the perspective taking mechanism in terms of how it is expected to influence auditors' assessments of misstatement intentionality.

As previously discussed, perspective taking has been found to result in a greater sensitivity to the role of the situation in influencing the behavior of others (Regan and Totten 1975; Galper 1976; Eyal et al. 2008). Studies that have examined the effect of shifting perspectives have asked participants to explain an action either from their own observer's perspective or instead by imagining themselves in the actor's shoes (Regan and Totten 1975; Galper 1976). These studies find that explanations provided from an actor's point of view focus to a greater extent on the surrounding circumstances and how these circumstances might have influenced the action being described.

[9] I note that it is possible that, due to a floor effect, there may be no difference between the misstatement intentionality assessments of auditors in the lower risk condition, regardless of engagement in perspective taking. This might be the case if auditors always maintain a certain level of skepticism when a misstatement is identified. Thus, the low risk line in Figure 2.1 might be flat rather than slanted downward.

Consistent with studies in psychology, I expect that auditors who evaluate a misstatement from the perspective of the manager who caused it will be more sensitive to circumstances that might have influenced the manager to intentionally misstate. Specifically, I expect these auditors to focus their attention on the fraud risk factors that provide the manager with a direct incentive and opportunity for fraud.[10] Thus, when asked to describe the factors considered while evaluating misstatement intentionality, auditors who engage in perspective taking are expected to include a greater number of factors that provide the manager with a direct incentive and opportunity to intentionally misstate. Stated formally, my second hypothesis is as follows:

> **H2:** Auditors who engage in perspective taking will list a greater number of fraud risk factors that provide the manager with a direct incentive and opportunity to intentionally misstate compared to auditors who do not engage in perspective taking.

Perspective taking provides insight into how another individual might perceive and interpret his or her surroundings (e.g., Jones and Nisbett 1971, Ross and Nisbett 1991). It is the *perceived* desirability and feasibility of an action that causes an individual to form a behavioral intention (e.g., Ajzen 1985, 1991). Thus, when a manager perceives fraud to be both personally beneficial (i.e., an incentive) and relatively easy to perpetrate and conceal (i.e., an opportunity), the manager is more likely to form fraudulent intentions and engage in a fraudulent act.[11]

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[10] Although considering all fraud risk factors is important, the present study is most interested in how auditors evaluate whether a specific client action was intentional. Psychology theory related to the formation of intentions, would suggest that the circumstances that are *most salient* to a manager at a given point in time will have the greatest influence on his behavioral intentions (Ajzen 1985, 1991; Eyal et al. 2008). I expect that factors that provide a manager with a *direct* incentive to misstate and a *direct* opportunity to do so will be more salient, and thus more influential, than more distal factors.

[11] The ability to rationalize a fraudulent act is the third element of the fraud triangle (PCAOB 2010a). Because my theory relates to the use of perspective taking to understand how the *situation* influences another's behavior, I focus exclusively on incentives and opportunities, which are the elements most related

According to SAS No. 99, a manager is more likely to commit a fraudulent act when client circumstances impose a sufficient amount of pressure (AICPA 2002). To recognize when a set of circumstances impose a "sufficient amount of pressure," and provide a sufficient opportunity for fraud, auditors should consider the manager's interpretation of the situation (Ross and Nisbett 1991). Perspective taking provides insight into how another individual might perceive a set of circumstances. Thus, I propose that auditors who engage in perspective taking will recognize the extent to which the circumstances surrounding a misstatement provide the manager with an incentive and opportunity for fraud. Stated formally, my final hypotheses are as follows:

> **H3a:** When the circumstances surrounding a misstatement are indicative of higher (lower) fraud risk, auditors who engage in perspective taking will assess the manager's incentive for fraud higher (lower) than auditors who do not engage in perspective taking.
>
> **H3b:** When the circumstances surrounding a misstatement are indicative of higher (lower) fraud risk, auditors who engage in perspective taking will assess the manager's opportunity for fraud higher (lower) than auditors who do not engage in perspective taking.

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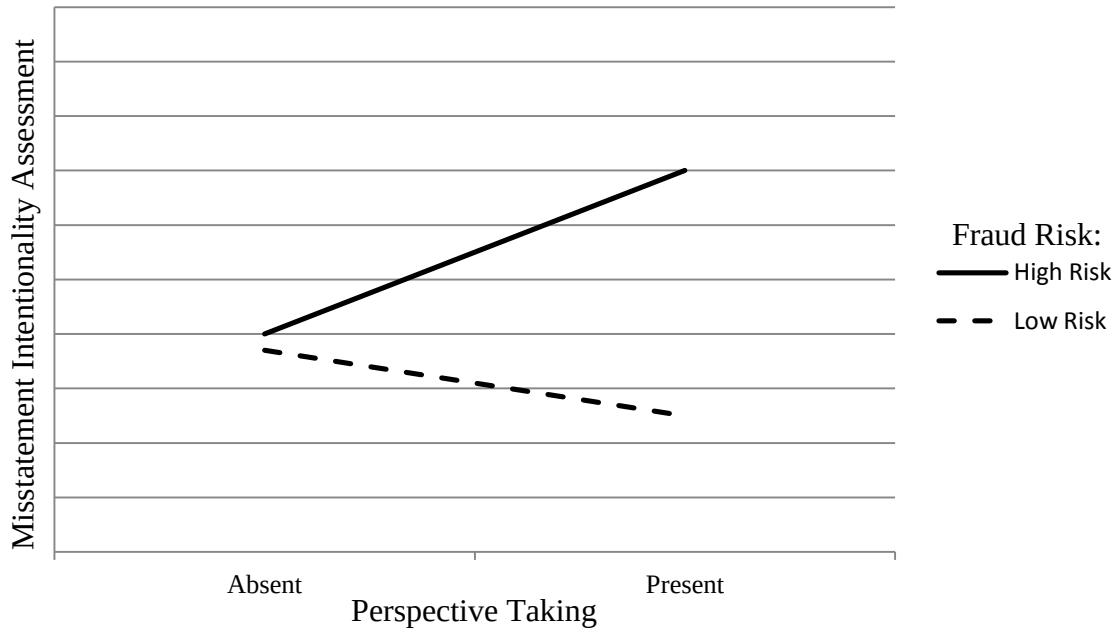
to client circumstances, whereas rationalization is how the individual justifies what he/she is going to do or has done.

PANEL A: Expected Interaction – H1



PANEL B: Results – H1

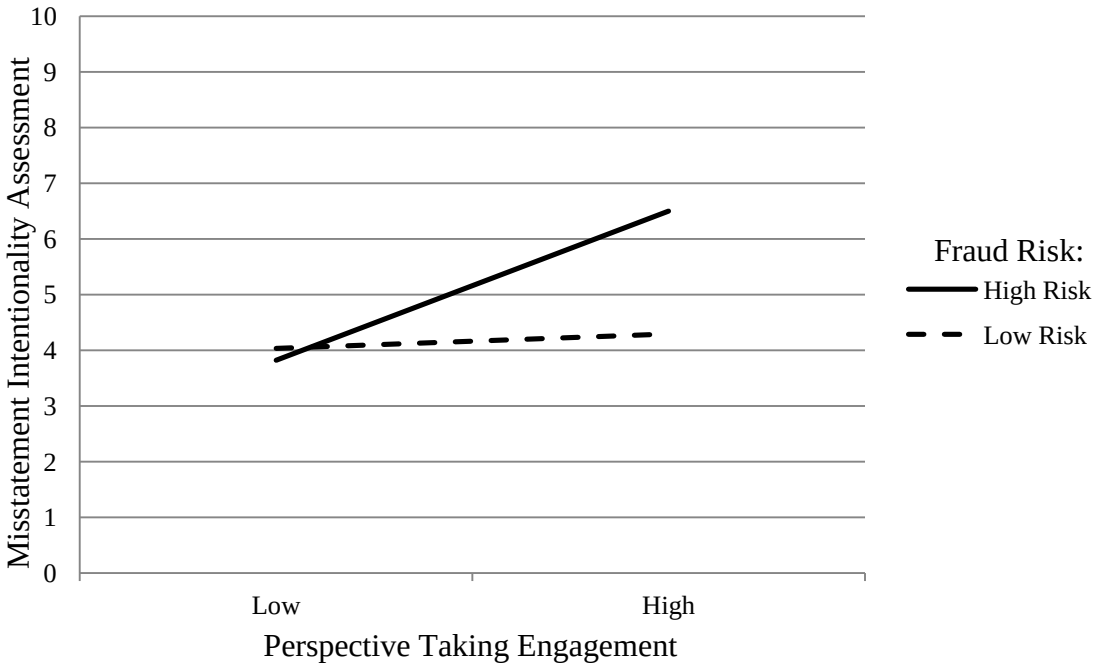


FIGURE 2.1 The figures above depict the expected (Panel A) and resulting (Panel B) interaction of fraud risk and perspective taking on auditors' assessments of a misstatement's intentionality.

CHAPTER 3

METHODOLOGY

3.1 PARTICIPANTS AND STUDY ADMINISTRATION

Participants were provided through a grant from the Center for Audit Quality and included 82 auditors from the Big 4 public accounting firms, consisting of 25 managers, 56 senior managers and one partner. Participants had a combined average of 9.6 years of audit experience. Through discussions with audit practitioners, it was determined that evaluating whether identified misstatements might be intentional is typically performed by auditors with this level of experience. Sixty-three participants accessed the experiment online using Qualtrics software and the remaining 19 participants completed the study in paper-based format. There were no differences in responses based on firm or medium of study administration.

3.2 CASE MATERIALS AND PROCEDURES

I created case materials in consultation with an audit partner from a Big 4 firm. The case materials were then reviewed by three additional audit partners. Finally, the case was pilot tested with 21 audit managers and senior managers. I revised the case based on partner feedback and pilot test results in an attempt to increase the understandability of the case and adjust the strength of the manipulations.

Participants were provided with case materials related to a hypothetical year-end audit engagement and were asked to evaluate a misstatement identified by the audit team. Participants were provided with an excerpt from the audit program that included

instructions for evaluating identified misstatements. In addition to obtaining an understanding of the nature and cause of each misstatement and evaluating materiality, all participants were told to "consider whether each misstatement is or might be intentional," consistent with the wording of AS No. 14 (PCAOB 2010a). The audit program instructions contained the manipulation of perspective taking, as will be described in the next section. Participants were asked to verify their understanding of the audit program instructions by initialing next to each step.

After viewing the audit program instructions, participants received information related to the identified misstatement, including the circumstances contributing to its occurrence and the manager responsible. All participants received an explanation from client management that the misstatement had resulted from an unintentional classification error. Included within the case information were the manipulated fraud risk factors as well as information about the quantitative and qualitative materiality of the misstatement. The materiality information indicated that the misstatement was below all quantitative benchmarks and did not allow the company to meet a bonus target or analyst earnings target and did not mask a change in earnings or other trends.

After participants finished reviewing the case information, they were asked to evaluate the likelihood that the misstatement is or might be intentional. Participants then described the facts that they considered when evaluating whether the misstatement was intentional, assessed the extent to which the manager responsible had an incentive and opportunity for fraud, indicated follow-up procedures, and answered demographic and manipulation check questions.

3.3 INDEPENDENT VARIABLES

The study uses a 2x2 between subjects design in which perspective taking and fraud risk are manipulated. Additionally, the data is analyzed using a measure of perspective taking in place of the manipulated variable. Perspective taking has been analyzed in psychology studies by manipulating perspective taking via instructions (e.g., Davis et al. 1996; Galinsky and Moskowitz 2000), measuring individuals' dispositional perspective taking ability via self-report (e.g., Davis 1983), or by measuring actual engagement in perspective taking using open-ended responses (e.g., McPherson Frantz and Janoff-Bulman 2000; Mallett et al. 2008). The present study employs two of these methods – a perspective taking manipulation, which could be easily integrated into audit work programs, and a perspective taking measure, which is intended to capture the extent to which auditors actively took the perspective of the client manager. Both manipulated variables (fraud risk and perspective taking) and the measured perspective taking variable are described in this section.

3.3.1 FRAUD RISK MANIPULATION

Fraud risk was manipulated by varying four pieces of information directly related to the manager responsible for the misstatement and the action leading to the misstatement. In this way, the fraud risk surrounding the misstatement's occurrence was high or low, while general company information remained consistent between conditions. The four pieces of information that were manipulated included two fraud risk factors that varied the extent to which the manager responsible for the misstatement directly benefited from its occurrence (i.e., an incentive for the manager to intentionally misstate). The remaining two fraud risk factors varied the perceived ease or difficulty with which

the manager could have perpetrated and concealed the misstatement (i.e., an opportunity for the manager to intentionally misstate). See the Appendix for the full manipulations. I obtained verification from an audit partner that each of the high fraud risk factors did in fact increase the risk that the misstatement might be intentional. Additionally, the audit partner verified that the manipulations within the low risk condition successfully reduced the risk that the misstatement was intentional.

3.3.2 Perspective Taking Manipulation

Perspective taking is manipulated via the presence or absence of perspective taking instructions included within the audit program (PT Instructions-Present vs. PT Instructions-Absent). In all conditions, the audit program instructs participants to evaluate whether each misstatement is or might be intentional. Participants in the PT Instructions-Present condition are told to evaluate the facts and circumstances related to the misstatement using the following evaluation process: "Think from the perspective of the client-individual responsible for the misstatement. Put yourself in the place of this client-individual and try to imagine what you would think and how you would feel…"[12] Conversely, participants in the PT Instructions-Absent condition are told to evaluate the facts and circumstances "as you normally would in practice" (see the Appendix for the full manipulations).

3.3.3 Perspective Taking Measure

Studies in psychology suggest that perspective taking is an effortful process, which can be inhibited when there are high demands on one's cognitive resources (e.g.,

[12] The wording of the perspective taking manipulation is consistent with perspective taking studies in psychology, which instruct participants to imagine themselves in another's shoes and consider their own thoughts and feelings under the circumstances facing another (e.g., Davis et al. 1996; Galinsky and Moskowitz 2000; Mallet et al. 2008)

Davis et al. 1996). Conversely, other studies have reported that some individuals naturally (i.e., spontaneously) engage in perspective taking even when not explicitly told to do so (e.g., Leith and Baumeister 1998; Mallett et al. 2008). Thus, it is possible that some auditors will fail to consider a manager's perspective when instructed to do so and/or will naturally consider the manager's perspective even when they do *not* receive perspective taking instructions. To deal with the potential difficulties of manipulating perspective taking, prior studies have captured the degree to which participants considered another's perspective by coding their open-ended responses based on references to another's perspective, interpretation, thoughts, beliefs, feelings, wants and/or desires (e.g., Leith and Baumeister 1998; McPherson, Frants and Janoff-Bulman 2000; Mallett et al. 2008) Coding of open-ended responses has been used within the audit literature to capture auditors' mental states, including problem representations and mental simulations (e.g., Hammersley 2006; Trotman et al. 2009). Because I am most interested in the effects of actively taking on the perspective of a client manager (i.e., simulating a manager's perspective), I construct a measure of perspective taking engagement that is based on similar measures used within the psychology and audit literature.

To construct the perspective taking engagement measure, I analyzed participants' responses to a question asking them to explain the factors they considered while evaluating whether the misstatement might be intentional. Two coders (the author and a doctoral student with auditing experience) worked independently to code participant responses. Each participant was assigned a generic participant number, so that both coders were blind to the participant's experimental condition during the coding process

and the doctoral student coder was blind to the hypotheses. A dichotomous coding scheme was used so that each response was either coded as (1) high in perspective taking engagement (High PT Engagement) or (2) low in perspective taking engagement (Low PT Engagement).[13]

The measure of perspective taking engagement is based on whether participants documented that they had considered the perspective of the manager responsible for the misstatement while evaluating the misstatement's intentionality. Consistent with the definition of perspective taking within the psychology literature and consistent with studies that have measured perspective taking using open-ended responses, participants were coded as High in PT Engagement if they made one or more references to the manager's perspective, interpretation, thoughts, beliefs, feelings, wants, and/or desires. Responses that did not include reference to the manager's perspective, thoughts, feelings, etc. were coded as Low in PT Engagement. See Figure 3.1 for examples of responses coded as High versus Low in PT Engagement. Forty-two of the 82 participants (51.2%) were coded as High in PT Engagement, while the remaining 40 (48.8%) participants were coded as Low in PT Engagement. Inter-rater agreement is 89.0 percent. Cohen's Kappa, a measure of agreement over and above that expected by random agreement, is 0.78. Generally, Kappa values of .60 - .70 are considered to reflect a substantial level of agreement (Landis and Koch 1977; Fleiss 1981). All coding differences were mutually resolved.

[13] A dichotomous measure was chosen so that results could be easily shown in graphical format. Additionally, this allows the perspective taking measure to be easily compared to the manipulation of perspective taking, which has two levels (present versus absent).

3.4 DEPENDENT VARIABLES

Four dependent measures are used to test my hypotheses: misstatement intentionality assessments, attention to manager-specific fraud risk factors, and incentive and opportunity assessments. Participants' assessments of misstatement intentionality (used to test H1) were elicited by asking participants the likelihood that the identified misstatement is or might be intentional on an 11-point scale with endpoints labeled "0 – NOT at all Likely" and "10 – VERY Likely".

To measure auditors' attention to manager-specific fraud risk factors (used to test H2), I asked participants to list facts from the case that they considered while evaluating whether the misstatement might be intentional. Because I expect perspective taking to focus auditors' attention on circumstances that might have influenced a specific manager's intentions to misstate, I used the number of manager-specific fraud risk factors listed by participants as the dependent variable. The manager-specific fraud risk factors include the four manipulated fraud risk factors (two related to the manager's incentive to misstate and two related to his opportunity to misstate) and two additional fraud risk factors that were determined to be manager-specific, as they also related to the manager's incentive or opportunity.[14] In testing H2, any reference made to a manager-specific fraud risk factor is considered to provide evidence of attention, regardless of whether it is discussed as increasing or decreasing the risk of fraud. Participants were not able to refer back to the case while listing the factors they considered. The use of free recall to measure attention is consistent with prior auditing literature (e.g., Tan 1995; Phillips

[14] The two additional manager-specific fraud risk factors were (1) the fact that a supplier penalty had been incurred as a result of the manager's failure to purchase a certain level of product (an incentive to hide the penalty) and (2) the fact that the manager had not submitted supporting documentation along with a payment request (an opportunity to hide the misclassified expense). These two facts were the same in all conditions.

1999; Rose 2007). The same doctoral student coder and I worked independently to identify the number of manager-specific fraud risk factors listed by each participant. Inter-rater agreement is 86.6 percent and Cohen's Kappa is .75, reflecting a substantial level of agreement (Landis and Koch 1977; Fleiss 1981). All differences in coding were mutually resolved.

Finally, incentive and opportunity assessments (used to test H3a and H3b, respectively) measure the extent to which auditors believe the manager responsible for the misstatement had an incentive and opportunity to intentionally misstate. I ask participants to indicate the extent to which the manager had an incentive for fraud (i.e., how beneficial was it to the manager to intentionally misstate) on an 11-point scale ranging from "0 – No Incentive (Not at all Beneficial)" to "10 – Strong Incentive (Very Beneficial)." The extent to which the manager had an opportunity for fraud (i.e., how difficult/easy was it for the manager to misstate) is measured on an 11-point scale ranging from "0 – No Opportunity (Very Difficult)" to "10 – Strong Opportunity (Very Easy)."

Case Fact being Referred to in Participant Response	Example of Participant Response Coded Low vs. High in PT Engagement	
	Low in PT Engagement	**High in PT Engagement**
Control Deficiency	"The approval for payment was made by someone who did not ordinarily perform the review since the primary reviewer was out of the office."	"Control was not working throughout the year due to personnel change...*purchasing manager could have realized that adequate support didn't need to be sent*."
Responsibility for Initiation of Supply Agreement	"Joe initiated the supply agreement and was responsible for setting the purchasing targets."	"Since Joe had the responsibility to initiate the contract and make purchases based on the contract, *he might not want to be responsible* for an additional expense."
Manager's Performance Evaluation Criteria	"Joe is evaluated…based on primary job responsibilities and operational performance and profitability of his division."	"*From the employee's perspective*, his rating…is evaluated based on his performance of duties and *an $800K + penalty would not look good for his performance*."

FIGURE 3.1 The table above provides examples of participant responses that were coded as being High vs. Low in PT Engagement. Participant responses were elicited by asking them to list the factors they considered when evaluating whether the misstatement might be intentional. Italicized text within the High PT Engagement column points out the participant's reference to the manager's perspective, interpretation, thoughts, feelings, wants/desires that was considered by the coders to be an admission that the participant had considered the manager's perspective while evaluating the misstatement.

CHAPTER 4

RESULTS

4.1 PERSPECTIVE TAKING MANIPULATION CHECK

Participants responded to a manipulation check question that asked them to indicate the instructions they had received regarding evaluating the misstatement. The two choices were as follows: "as I normally would in practice" or "from the perspective of Joe Rogers, Purchasing Manager (i.e., by imagining myself in the place of the client-individual responsible for the misstatement)." Seventy-four of the 82 participants who completed the study (90.2%) correctly identified the instructions they had received. However, recalling the instructions received does not verify that participants actively considered the manager's perspective during their evaluations. Thus, a more precise way of determining whether the perspective taking manipulation was successful is by using the measure of PT Engagement, which indicates whether participants actually considered, by their own admission, the manager's perspective. I find that of the 42 participants who received perspective taking instructions, 19 actively engaged in perspective taking (i.e., were coded as High in PT Engagement) (45.2%).[15] Of the participants who did *not* receive perspective taking instructions, 23 (57.5%) spontaneously considered the perspective of the manager without being prompted.

[15] Using a measure of perspective taking similar to the one used in the present study, Leith and Baumeister (1998) find that 72% of their participants actively engaged in perspective taking after receiving instructions to do so. The lower percentage found in my study may be due to the high cognitive demands of my task, which can make perspective taking particularly difficult (Davis et al. 1996).

Thus, I actually find that a higher percent of participants engaged in perspective taking when they did *not* receive instructions to do so, suggesting that my perspective taking manipulation did not have the intended effect. This finding is unexpected and may be due to differences in the individual perspective taking abilities of my participants (Davis 1983). It appears that prompting auditors to engage in perspective taking is not sufficient to result in actual engagement in perspective taking, at least for the task employed in my study. This finding is inconsistent with psychology studies, which have successfully manipulated perspective taking using wording similar to the PT Instructions manipulation used in this study. Because my perspective taking manipulation was not successful, I rely on the PT Engagement measure to test my hypotheses. The PT Engagement measure is a more appropriate way of analyzing the effects of perspective taking in my study since it is critical that participants are using the appropriate mindset (i.e., considering the perspective of the client manager) if the benefits of perspective taking are expected to be obtained. I do provide results related to the effect of the PT Instructions manipulation on auditors' misstatement intentionality judgments (although not significant) for descriptive purposes.

4.2 Results using the Manipulated Perspective Taking Instructions Variable

Consistent with an ineffective manipulation of perspective taking, I find that receiving PT Instructions does not influence auditors' assessments of a misstatement's intentionality in the manner predicted by H1. Panel A of Table 4.1 provides descriptive statistics for auditors' misstatement intentionality assessments and Panel B provides

ANOVA results.[16] The interaction between PT Instructions and Fraud Risk is not significant ($F = 0.98$, $p = 0.327$).[17] The only significant effect in the model is the main effect for Fraud Risk ($F = 13.98$, $p < 0.001$). Tests of simple effects (untabulated) show that auditors' misstatement intentionality assessments were significantly higher in the High Risk versus the Low Risk condition regardless of whether PT Instructions were Present (LS means 5.75 and 4.39, $F = 3.51$, $p = 0.033$, one-tailed) or Absent (LS means 6.23 and 3.89, $F = 12.11$, $p < 0.001$, one-tailed). Because of the failed perspective taking manipulation, it is unclear from these results whether the misstatement intentionality assessments of auditors who actively engaged in perspective taking are driving the significant difference between the High Risk and Low Risk condition. Thus, to separate the effects of auditors who actively considered the manager's perspective from those who did not, I test my hypotheses using the PT Engagement measure.[18]

4.3 Results using the Measured Perspective Taking Engagement Variable

4.3.1 Control Variables

To help rule out the alternative explanation that the PT Engagement measure is capturing participants' level of effort or experience, I include three control variables in all of the analyses that use PT Engagement as an independent variable (i.e., in all tests of hypotheses and supplemental analyses). Two of the control variables, Total Facts and

[16] For analyzing the effect of the PT Instructions manipulation, the eight participants (9.8%) who failed the PT Instructions manipulation check question are excluded. Results are qualitatively unchanged when all participants are included in the analysis.

[17] All reported p-values throughout the paper are two-tailed unless otherwise noted.

[18] H2, H3a and H3b test the process through which perspective taking affects misstatement intentionality assessments. Because I do not find an effect of PT Instructions on assessments of misstatement intentionality, I do not report results for H2, H3a and H3b. Instead, these hypotheses are tested using the PT Engagement measure.

Time, proxy for participant effort in the experimental task, and Auditor Level proxies for general audit experience. Table 4.2 provides descriptive statistics for the control variables. Total Facts represents the number of case facts included by participants when asked to explain the factors they considered while evaluating the misstatement.[19] Because the Total Facts measure is based on the same open-ended response used to measure PT Engagement, it controls for the amount of information included by participants. Time represents the number of minutes participants spent on the experimental task.[20] Finally, Auditor Level represents the participant's experience level (manager, senior manager or partner) within the audit firm.[21]

4.3.2 TEST OF H1

H1 predicts that when the factors surrounding a misstatement are indicative of higher (lower) fraud risk, auditors who engage in perspective taking will assess the

[19] I chose to use the number of facts included by participants rather than the number of words because perspective taking has been found to foster information elaboration (Hoever et al. 2012). Thus, I would expect that when auditors engage in perspective taking, they will elaborate to a greater extent about the manager's thoughts, feelings, interpretations, etc., resulting in a greater number of words.

[20] Three participants were eliminated because they did not indicate their time on the paper-based instrument and seven additional participants were eliminated because their Time indicated that they had not completed the experiment in one sitting. Because some measures are memory-based, participants were instructed to complete the study in one sitting. Results are qualitatively unchanged when these participants are included in the analyses.

[21] Results are qualitatively unchanged when additional control variables are included in the analyses. Because one firm did not provide full demographic data, the additional control variables utilize a reduced sample of 56 participants. The additional control variables include years of audit experience (in place of the auditor level control variable), number of frauds encountered in the last three years, and a measure of how often participants are responsible for evaluating the intentionality of misstatements on their audit teams (i.e., task experience), which was measured using an 11-point scale with endpoints labeled "0 – Never" and "10 – Always." Additionally, all analyses were run while controlling for the interaction of each control variable (Total Facts, Time and Auditor Level) with the Fraud Risk variable. None of the interactions were significant in any of the models. Furthermore, all hypotheses are still supported when the interactions are included in the analyses. Thus, for simplicity, the final analyses do not include the control variable*fraud risk interactions.

likelihood that the misstatement is intentional higher (lower) than auditors who do not use perspective taking. Panel A of Table 4.3 provides descriptive statistics and Panel B provides the results of an ANCOVA that includes PT Engagement and Fraud Risk as the independent variables as well as the three control variables. The ANCOVA table shows a significant interaction between PT Engagement and Fraud Risk on misstatement intentionality assessments ($F = 4.72$, $p = 0.034$), which provides initial support for H1.

Because I expect a particular pattern of cell means, consistent with Panel A of Figure 2.1, I use a series of planned comparisons as my primary test of H1. Panel C reports the planned comparisons. I find that in the High Risk condition, misstatement intentionality assessments are significantly higher for auditors High in PT Engagement (LS mean 6.50) versus Low in PT Engagement (LS mean 3.82) ($F = 12.59$, $p = 0.001$). In the Low Risk condition, I do not find a significant difference between the assessments of auditors considered High versus Low in PT Engagement (4.29 and 4.03, respectively) ($F = 0.13$, $p = 0.724$). The null finding in the Low Risk condition might be due to a floor effect if the identification of a misstatement always results in auditors having a certain level of skepticism. Finally, I find that auditors High in PT Engagement assess misstatement intentionality significantly higher in the High versus Low Risk condition (LS means 6.50 and 4.29, respectively) ($F = 9.03$, $p = 0.004$). Conversely, auditors Low in PT Engagement do not assess misstatement intentionality differently when Fraud Risk is High (3.82) versus Low (4.03) ($F = 0.07$, $p = 0.796$). Thus, the auditors who engaged in perspective taking appear to be more sensitive to the differing levels of fraud risk indicated by the circumstances surrounding the misstatement. Panel B of Figure 2.1 depicts the resulting divergent interaction, which supports H1.

Overall, these findings suggest that an auditor's assessment of a misstatement's intentionality is no different when the misstatement is surrounded by factors indicative of high versus low fraud risk, unless the auditor considers the perspective of the manager responsible for the misstatement. Furthermore, it appears that perspective taking is particularly helpful for recognizing when a misstatement is at a higher risk of being intentional, given that perspective taking had the greatest effect on misstatement intentionality assessments in the High Risk condition.

4.3.3 TEST OF H2

H2 predicts that auditors who engage in perspective taking will list a greater number of manager-specific fraud risk factors than auditors who do not engage in perspective taking.[22] Panel A of Table 4.4 provides descriptive statistics on the mean number of manager-specific fraud risk factors listed by participants. ANCOVA results in Panel B show a significant main effect for PT Engagement ($F = 17.33$, $p < 0.001$), which provides support for H2. Simple effects are presented in Panel C. I find that in the High Risk condition, auditors High in PT Engagement listed an average of 2.61 manager-specific fraud risk factors, which is significantly higher than the 1.41 listed by auditors Low in PT Engagement ($F = 17.77$, $p < 0.001$). In the Low Risk condition, the number of

[22] The coding scheme for the PT Engagement measure was not based on whether participants identified manager-specific fraud risk factors, but rather whether participants actively considered the manager's perspective. Participants who discussed manager-specific fraud risk factors (i.e., facts that influenced the incentive or opportunity for the manager to intentionally misstate) *without* mentioning what the manager might have thought or felt about those circumstances were coded as Low in PT Engagement (see Figure 3.1 for examples). Thus, the PT Engagement coding scheme does not ensure support for H2. Furthermore, 32 of the 35 participants coded Low in PT Engagement (91.4%) listed at least one manager-specific fraud risk factor, which indicates that risk factor identification does not ensure perspective taking.

manager-specific fraud risk factors listed by auditors High in PT Engagement (2.09) is not significantly higher than those Low in PT Engagement (1.67) ($F = 2.13$, $p = 0.149$).[23]

These findings provide support for the theory that perspective taking increases the salience of the existing circumstances that might have influenced a manager's intentions to misstate. The finding that auditors recalled roughly the same number of Total Facts regardless of condition (see Table 4.2) suggests that perspective taking resulted in increased attention to manager-specific fraud risk factors, not simply increased attention to case facts in general. Thus by engaging in perspective taking, auditors appear to be more sensitive to the fraud risk factors that indicate a manager who caused a misstatement had an incentive and opportunity to do so intentionally.

4.3.4 TEST OF H3A AND H3B

H3a and H3b predict that when the factors surrounding a misstatement are indicative of higher (lower) fraud risk, auditors who engage in perspective taking will recognize that the manager has a higher (lower) incentive and opportunity for fraud. Panel A of Table 4.5 provides separate sets of descriptive statistics for auditors' incentive and opportunity assessments. Panel B displays the ANCOVA models for each dependent variable. I find that the interaction between PT Engagement and Fraud Risk is marginally significant for auditors' incentive assessments ($F = 3.56$, $p = 0.064$), but is not significant

[23] Recall that the extent to which the manager-specific fraud risk factors increased or decreased fraud risk varied depending on whether participants were in the High Risk or Low Risk condition. Therefore, I analyzed whether participants discussed the manager-specific fraud risk factors as increasing fraud risk, decreasing fraud risk, or did not specify (i.e., remained neutral). I find that in the High Risk condition, auditors who were considered High (Low) in PT Engagement discussed 95.3% (56.5%) of the manager-specific fraud risk factors listed as increasing fraud risk, 0% (17.4%) as decreasing fraud risk, and 4.7% (26.1%) as neutral. In the Low Risk condition, auditors who were considered High (Low) in PT Engagement discussed 39.4% (16.2%) of manager-specific fraud risk factors as increasing fraud risk, 48.5% (29.7%) as decreasing fraud risk, and 12.1% (54.1%) as neutral

for opportunity assessments ($F = 2.06$, $p = 0.156$). Because I expect the same pattern of cell means as was predicted for H1 (see Panel A of Figure 2.1), I use a series of planned comparisons as the primary test of H3a and H3b. The results of the planned comparisons are reported in Panel C.

The planned comparisons related to auditors' incentive assessments suggest that the marginally significant interaction between PT Engagement and Fraud Risk is largely driven by the High Risk condition. In the High Risk condition, auditors High in PT Engagement assess the manager's incentive for fraud to be significantly higher (LS mean 7.57) than auditors Low in PT Engagement (LS mean 4.68) ($F = 14.09$, $p < 0.001$). I do not find a significant effect of PT Engagement on incentive assessments in the Low Risk condition ($F = 0.95$, $p = 0.332$). Finally, consistent with H3a, I find that auditors High in PT Engagement assess the manager's incentive to be significantly higher in the High Risk (LS mean 7.57) versus the Low Risk condition (LS mean 4.20) ($F = 20.40$, $p < 0.001$), while the difference between High and Low Risk is not significant for auditors Low in PT Engagement ($F = 2.34$, $p = 0.131$). Thus, when the circumstances surrounding a misstatement suggest that the responsible manager may have benefited from its occurrence, auditors who engage in perspective taking appear to recognize the manager's increased incentive for fraud.

Although I did not find a significant interaction between PT Engagement and Fraud Risk on auditors' opportunity assessments, the planned comparisons do provide some support for H3b. Consistent with H3b, I find that in the Low Risk condition, auditors High in PT Engagement assess the manager's opportunity for fraud to be significantly lower (LS mean 5.16) than auditors Low in PT Engagement (LS mean 6.31)

(F = 3.02, p = 0.044, one-tailed). I do not find a significant effect of PT Engagement in the High Risk condition (F = 0.13, p = 0.717). Finally, consistent with the divergent interaction that is predicted by H3b, I find that auditors High in PT Engagement assess the manager's opportunity for fraud to be significantly higher in the High Risk (LS mean 7.56) compared to the Low Risk condition (5.16) (F = 13.99, p < 0.001). Conversely, the difference between the High and Low Risk conditions is not significant for auditors Low in PT Engagement (F = 2.08, p = 0.154).

Overall, the findings related to H3a and H3b suggest that by considering the manager's perspective, auditors are more sensitive to the extent to which existing circumstances provide the manager with a direct incentive and opportunity for fraud. Auditors assessed the manager's incentive and opportunity to be significantly greater in the presence of circumstances indicative of high versus low fraud risk, but only when they had considered the manager's perspective.

4.4 Supplemental Analysis: Auditors' Follow-Up Judgments and Procedures

I performed a supplemental analysis to determine whether auditors who engage in perspective taking not only assess the risk that a misstatement is intentional more in line with the risk factors that are present, but also respond in appropriate ways. Table 4.6 presents the results of this analysis, which used Tukey's multiple comparisons procedure for each auditor judgment/procedure. According to the auditing standards, believing that a misstatement might be intentional should impact auditors' assessments of fraud risk, materiality and management's integrity (SEC 1999; AICPA 2002; PCAOB 2010a).[24] I

[24] Fraud Risk (Materiality) Assessments were collected on an 11-point scale with endpoints labeled "0 – Very Low (Immaterial)" and "10 – Very High (Material)." Integrity Assessment measures participants' assessment of the integrity/ethicality of the manager who caused the misstatement and was collected on an 11-point scale with endpoints labeled "0 – Not At All Ethical" and "10 – Very Ethical."

find that auditors High in PT Engagement assessed the overall level of fraud risk significantly higher in the High Risk condition (LS mean 6.26) compared to the Low Risk condition (LS mean 4.44) ($p = 0.012$). They also assessed the materiality level of the misstatement significantly higher in the High Risk (4.09) versus Low Risk condition (1.54) ($p = 0.005$). Conversely, the fraud risk and materiality assessments of auditors Low in PT Engagement are not significantly different between Fraud Risk conditions ($p = 0.075$ for fraud risk and $p = 0.302$ for materiality). I find no differences between any of my experimental conditions for auditors' assessment of the manager's integrity (all p-values > 0.100).

Finally, I asked participants to indicate the likelihood of performing various procedures to further investigate for fraud, suggested by auditing standards and prior literature (SEC 1999; Asare and Wright 2004; PCAOB 2010a; Hammersley et al. 2011). I find that for each of these procedures, auditors High in PT Engagement were significantly more likely to enact the procedure in the High Risk versus the Low Risk condition. These follow-up procedures include investigating further for fraud (LS means 6.77 and 5.20, $p = 0.003$), increasing testing procedures (6.47 and 5.08, $p = 0.040$), communicating concerns to client management (5.38 and 3.16, $p = 0.002$), communicating concerns to the audit committee (4.61 and 2.49, $p = 0.001$), and consulting with a forensic specialist (4.65 and 2.78, $p = 0.004$). For auditors Low in PT Engagement, I find no significant differences in the likelihood of performing these procedures between the High and Low Risk conditions (all p-values > 0.200). These results suggest that auditors who engage in perspective taking are more likely to investigate an identified misstatement further for evidence of fraud when the circumstances surrounding it are indicative of high versus low fraud risk.

TABLE 4.1: EFFECT OF PERSPECTIVE TAKING INSTRUCTIONS AND FRAUD RISK ON MISSTATEMENT INTENTIONALITY ASSESSMENTS

PANEL A: Least Squares Mean (Standard Deviation) of Misstatement Intentionality Assessments[a]

PT Instructions – Present		PT Instructions - Absent	
Low Risk (n = 18)	High Risk (n = 16)	Low Risk (n = 18)	High Risk (n = 22)
4.39 (2.17)	5.75 (2.57)	3.89 (2.00)	6.23 (1.77)

PANEL B: ANOVA Table – Misstatement Intentionality Assessments

Source	df	SS	F	p-value
PT Instructions	1	0.002	0.00	0.982
Fraud Risk	1	62.48	13.98	<0.001
PT Instructions*Fraud Risk	1	4.36	0.98	0.327
Error	70	312.92		

Note: All p-values are two-tailed.

[a] Assessments of Misstatement Intentionality were measured by asking participants to indicate the likelihood that an identified misstatement is or might be intentional using an 11-point scale with endpoints labeled "0 – Not at all Likely" and "10 – Very Likely."

TABLE 4.2: DESCRIPTIVE STATISTICS – MEAN *MEDIAN* (STANDARD DEVIATION) OF EFFORT AND EXPERIENCE CONTROL VARIABLES

	PT Engagement - High		PT Engagement - Low	
	Low Risk (n = 14)	High Risk (n = 23)	Low Risk (n = 21)	High Risk (n = 14)
Total Facts[a]	3.57 *3.50* (1.91)	3.57 *3.00* (1.31)	3.48 *4.00* (1.54)	3.36 *3.00* (1.60)
Time[b]	24.60 *19.50* (18.94)	18.77 *15.78* (8.47)	16.68 *15.58* (10.06)	27.39 *22.25* (16.09)
Auditor Level[c]	2.71 (0.47)	2.78 (0.52)	2.52 (0.51)	2.86 (0.36)

Note: Table 4.2 provides descriptive statistics related to the three control variables that are included in all statistical tests using the PT Engagement measure. These covariates are used to control for auditor effort in the experimental task and auditor experience.

[a] Total Facts (a proxy for effort) is the total number of case facts included by participants when asked to explain the information used to assess misstatement intentionality.

[b] Time (a proxy for effort) is the average number of minutes spent on the study.

[c] Auditor Level is an indicator variable where 1 represents a senior-level auditor, 2 represents a manager-level auditor, 3 represents a senior manager-level auditor, and 4 represents a partner-level auditor.

TABLE 4.3: EFFECT OF PERSPECTIVE TAKING ENGAGEMENT AND FRAUD RISK ON MISSTATEMENT INTENTIONALITY ASSESSMENTS

PANEL A: Least Squares Mean (Standard Deviation) of Misstatement Intentionality Assessments[a]

PT Engagement – High		PT Engagement - Low	
Low Risk (n = 14)	High Risk (n = 23)	Low Risk (n = 21)	High Risk (n = 14)
4.29 (2.17)	6.50 (1.61)	4.03 (2.43)	3.82 (2.24)

PANEL B: ANCOVA Table – Misstatement Intentionality Assessments

Source	df	SS	F	p-value
PT Engagement	1	36.59	8.18	0.006
Fraud Risk	1	16.00	3.58	0.063
PT Engagement*Fraud Risk	1	21.12	4.72	0.034
Total Facts	1	9.34	2.09	0.153
Time	1	8.63	1.93	0.170
Auditor Level	2	2.30	0.26	0.774
Error	64	286.32		

PANEL C: Planned Comparisons

Comparison	F	p-value
High Risk: High PT Engagement > Low PT Engagement	12.59	0.001
Low Risk: High PT Engagement < Low PT Engagement	0.13	0.724
High PT Engagement: High Risk > Low Risk	9.03	0.004
Low PT Engagement: High Risk = Low Risk	0.07	0.796

Note: All p-values are two-tailed and all analyses include the control variables from Table 4.2.

[a] Assessments of Misstatement Intentionality were measured by asking participants to indicate the likelihood that an identified misstatement is or might be intentional using an 11-point scale with endpoints labeled "0 – Not at all Likely" and "10 – Very Likely."

TABLE 4.4: EFFECT OF PERSPECTIVE TAKING ENGAGEMENT ON ATTENTION TO MANAGER-SPECIFIC FRAUD RISK FACTORS

PANEL A: Least Squares Mean (Standard Deviation) of Auditor Attention to Manager-Specific Fraud Risk Factors[a]

PT Engagement - High			PT Engagement - Low		
Low Risk (n = 14)	High Risk (n = 23)	Total (n = 37)	Low Risk (n = 21)	High Risk (n = 14)	Total (n = 35)
2.09 (1.08)	2.61 (1.13)	2.35 (1.11)	1.67 (0.94)	1.41 (1.15)	1.54 (1.02)

PANEL B: ANCOVA Table – Attention to Manager-Specific Fraud Risk Factors

Source	df	SS	F	p-value
PT Engagement	1	11.10	17.33	<0.001
Fraud Risk	1	0.024	0.39	0.537
PT Engagement*Fraud Risk	1	2.23	3.50	0.066
Total Facts	1	26.40	41.23	<0.001
Time	1	1.43	2.24	0.140
Auditor Level	2	0.87	0.68	0.510
Error	64	40.98		

PANEL C: Planned Comparisons

Comparison	F	p-value
High Risk: High PT Engagement > Low PT Engagement	17.77	<0.001
Low Risk: High PT Engagement > Low PT Engagement	2.13	0.149

Note: All p-values are two-tailed and all analyses include the control variables from Table 4.2.

[a] Attention to Manager-Specific Fraud Risk Factors was measured as the number of fraud risk factors listed by participants related to the incentives and opportunities of the manager responsible for the misstatement. The maximum number of items that participants could have listed for this measure was six.

TABLE 4.5: EFFECT OF PERSPECTIVE TAKING ENGAGEMENT AND FRAUD RISK ON INCENTIVE AND OPPORTUNITY ASSESSMENTS

PANEL A: Least Squares Mean (Standard Deviation) of Incentive and Opportunity Assessments[a]

	PT Engagement - High		PT Engagement - Low	
	Low Risk (n = 15)	High Risk (n = 27)	Low Risk (n = 25)	High Risk (n = 15)
Incentive	4.20	7.57	3.44	4.68
	(2.40)	(1.57)	(2.26)	(2.72)
Opportunity	5.16	7.56	6.31	7.32
	(1.86)	(2.15)	(1.60)	(1.66)

PANEL B: ANCOVA Tables – Incentive Assessment and Opportunity Assessment

Dependent Variable	Source	df	SS	F	p-value
Incentive	PT Engagement	1	56.06	12.04	0.001
	Fraud Risk	1	85.77	18.41	<0.001
	PT Engagement*Fraud Risk	1	16.58	3.56	0.064
	Total Facts	1	22.93	4.92	0.030
	Time	1	15.25	3.27	0.075
	Auditor Level	2	1.37	0.15	0.864
	Error	64	298.12		
Opportunity	PT Engagement	1	3.50	1.03	0.315
	Fraud Risk	1	46.35	13.58	0.001
	PT Engagement*Fraud Risk	1	7.04	2.06	0.156
	Total Facts	1	4.86	1.42	0.237
	Time	1	2.56	0.75	0.390
	Auditor Level	2	10.75	1.58	0.215
	Error	64	218.36		

Note: All p-values are two-tailed and all analyses include the control variables from Table 4.2.

[a] Assessments of the manager's incentive (opportunity) were measured on an 11-point scale with endpoints labeled 0 – No Incentive (Opportunity) and 10 – Strong Incentive (Opportunity).

TABLE 4.5 (CONTINUED)

PANEL C: Planned Comparisons

Dependent Variable	Comparison	F	p-value
Incentive	High Risk: PT Engagement High > Low	14.09	<0.001
	Low Risk: PT Engagement High < Low	0.95	0.332
	High PT Engagement: High Risk > Low Risk	20.40	<0.001
	Low PT Engagement: High Risk = Low Risk	2.34	0.131
Opportunity	High Risk: PT Engagement High > Low	0.13	0.717
	Low Risk: PT Engagement High < Low	3.02	0.087
	High PT Engagement: High Risk > Low Risk	13.99	<0.001
	Low PT Engagement: High Risk = Low Risk	2.08	0.154

Note: All p-values are two-tailed and all analyses include the control variables from Table 4.2.

TABLE 4.6: SUPPLEMENTAL ANALYSIS: LEAST SQUARES MEAN (STANDARD DEVIATION) OF SUBSEQUENT AUDIT JUDGMENTS AND PROCEDURES

	PT Engagement - High		PT Engagement - Low	
Assessment/Procedure	Low Risk (n = 14)	High Risk (n = 23)	Low Risk (n = 21)	High Risk (n = 14)
Fraud Risk Assessment	4.44 [a]	6.26 [a]	4.05	5.58
	(1.69)	(1.53)	(1.33)	(2.15)
Materiality Assessment	1.54 [a]	4.09 [a b]	2.96	1.55 [b]
	(1.53)	(2.47)	(2.05)	(2.10)
Integrity Assessment	4.93	4.33	5.35	5.33
	(1.44)	(1.65)	(1.47)	(0.94)
Investigate Further for Presence of Fraud	5.20 [a]	6.77 [a]	5.46	6.30
	(1.67)	(0.42)	(1.75)	(0.65)
Increase Testing of Cash Disbursements	5.08 [a]	6.47 [a]	5.80	6.32
	(2.15)	(0.95)	(1.69)	(1.01)
Communicate Concerns to Client Management	3.16 [a]	5.38 [a]	3.50	4.44
	(1.50)	(1.50)	(1.74)	(1.82)
Communicate Concerns to Audit Committee	2.49 [a]	4.61 [a]	2.69	3.46
	(1.53)	(1.50)	(1.67)	(1.31)
Consult with Forensic Specialist	2.78 [a]	4.65 [a]	3.80	3.43
	(1.07)	(1.96)	(1.69)	(1.03)

Note: This table provides descriptive statistics regarding subsequent audit judgments and planned procedures indicated by participants after having assessed misstatement intentionality. Fraud Risk (Materiality) Assessments were collected on an 11-point scale with endpoints labeled "0 – Very Low (Immaterial)" and "10 – Very High (Material)." Integrity Assessment measures participants' assessment of the integrity/ethicality of the manager who caused the misstatement and was collected on an 11-point scale with endpoints labeled "0 – Not At All Ethical" and "10 – Very Ethical." The remaining subsequent audit procedures were collected on 7-point likelihood scales with endpoints labeled "Very Unlikely" and "Very Likely."

[a,b] For each audit assessment/procedure, superscripts of the same letter indicate that the means are different at $p < 0.05$ (two-tailed). All other comparisons are not significant at $p < 0.05$. All analyses include the control variables from Table 4.2.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Fraud detection continues to be an important consideration for auditors. A failure to detect fraud has serious consequences for both the audit firm and the larger public (Palmrose 1987; Bonner et al. 1998; Beasley et al. 2010). As such, it is important that auditors continue to improve their fraud detection skills. In the present study, I examined whether considering the perspective of the manager responsible for a misstatement's occurrence influences auditors' sensitivity to the level of fraud risk surrounding the misstatement and the resulting belief that the misstatement was intentional.

The results of the present study suggest that by engaging in perspective taking, auditors are more likely to recognize when the circumstances surrounding an identified misstatement suggest that it was caused intentionally. Consistent with psychology theory related to perspective taking, I find that auditors who considered the manager's perspective, compared to those who did not, gave more attention to the circumstances that might have influenced the manager's actions (i.e., manager-specific fraud risk factors). Furthermore, auditors who engaged in perspective taking recognized the manager's increased incentive to misstate in the high fraud risk condition, relative to the low fraud risk condition. Most importantly, I find that when the circumstances surrounding a misstatement were indicative of high fraud risk, auditors who engaged in perspective taking assessed misstatement intentionality higher than those who did not use perspective taking. Conversely, the assessments of auditors who did not engage in

perspective taking were no different when factors surrounding a misstatement were indicative of high or low fraud risk. The implications of failing to recognize the level of fraud risk surrounding an identified misstatement are that auditors may not investigate a misstatement further when doing so might be warranted by the circumstances.

There are some limitations to the present study. First, the use of perspective taking relies on the evaluation of fraud risk factors that are observable to the auditor. To the extent that a manager's fraudulent intentions are influenced by factors that are unobservable to the auditor (e.g., personal financial troubles), the utility of perspective taking might be reduced. Second, the study uses a specific misstatement scenario as well as a specific type of misstatement (a known misstatement/understatement of expenses); therefore, some caution must be used when generalizing the results. Finally, it appears that simply instructing auditors to think from the manager's perspective is not sufficient. I find that receiving perspective taking instructions had no effect on auditors' misstatement intentionality assessments. Furthermore, participants who received perspective taking instructions were no more likely to actively engage in perspective taking than those who did not receive such instructions.

Although the present study cannot determine what caused some auditors to engage in perspective taking or what prevented others from doing so, there are some potential explanations. First, in the absence of perspective taking instructions, auditors were told to evaluate the misstatement's intentionality "as they normally would in practice." It would appear that for some auditors, their normal evaluation process already involves considering the perspective of the responsible manager, since some auditors engaged in perspective taking naturally. Perspective taking is considered to be a social

skill that is improved over time through direct perspective taking experience (Iannotti 1978; Chalmers and Townsend 1990). Thus, the more auditors have considered the perspective of management in practice, the easier and more successful the perspective taking process theoretically should be. Based on this reasoning, audit firms may want to consider including tasks within firm trainings that involve the consideration of a client manager's perspective to provide auditors with increased perspective taking experience.

Second, prior studies in psychology suggest that people have varying levels of dispositional perspective taking abilities (e.g., Davis 1983). Therefore, it is possible that the auditors who were prompted to use perspective taking, but did not, may not have been able to discard their own perspective to take on the perspective of the manager. Conversely, the auditors who spontaneously considered the manager's perspective may possess a greater dispositional perspective taking ability. Future research can explore whether individual differences in perspective taking abilities influence how well auditors perform in fraud detection tasks and whether training may help those who tend not to consider the perspectives of others naturally. Determining what causes some auditors to engage in perspective taking and/or what prevents others from doing so is largely a question for future research to explore. Approximately half of the auditors in the present study considered the manager's perspective, suggesting that there is room for improvement.

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APPENDIX A: EXCERPTS FROM EXPERIMENTAL INSTRUMENT

The following pages provide excerpts from my experimental instrument, including an overview of the identified misstatement, followed by the manipulation of perspective taking instructions and fraud risk.

OVERVIEW OF THE IDENTIFIED MISSTATEMENT

Joe Rogers is the primary individual responsible for purchasing decisions at Green Division (a division of C&P). The identified misstatement was the result of inaccurate information provided by Joe Rogers in a Payment Request form. In the form, he classified a payment being made to a supplier as a prepayment for future purchases. The payment actually related to a one-time penalty triggered by Green Division's failure to purchase the minimum amount of product specified within a Supply Agreement. As a result of the inaccurate payment classification, the accounting department recorded the payment as a prepaid asset rather than an expense. The misclassification was not identified during the review process, in part because Joe Rogers did not include documentation to support the purpose of the payment. C&P management believes that, "The payment was incorrectly classified as a prepayment by Joe Rogers because prepayments are a frequent occurrence with many of our suppliers. However, we rarely incur a penalty for missing a minimum purchasing target. As such, in filling out the Payment Request form, Joe Rogers accidentally selected a prepayment classification rather than selecting the appropriate expense classification, and unfortunately this mistake was not caught during the review process."

MANIPULATION OF PERSPECTIVE TAKING INSTRUCTIONS (ABSENT VS. PRESENT)

Note: All participants received an excerpt from the audit program. The perspective taking manipulation appeared within the third step of the audit program, directly following the instructions to "consider whether each misstatement is or might be intentional."

Audit Program: Evaluating Identified Misstatements	I have read and understand the instructions
1.) Obtain an understanding of the nature and cause of each misstatement.	☐
2.) Evaluate whether each misstatement is material. Take into account both quantitative and qualitative materiality factors.	☐
3.) Consider whether each misstatement is or might be intentional. In considering whether a misstatement might be intentional, evaluate the facts and circumstances related to the misstatement	☐

Perspective Taking Absent:

…as you normally would in practice.

Perspective Taking Present:

…by using the following evaluation process required by your firm:
Think from the perspective of the client-individual responsible for the misstatement. Put yourself in the place of this client-individual and try to imagine what **you** would think and how **you** would feel about the act of misstating under the circumstances faced by the client.

FRAUD RISK MANIPULATION (HIGH RISK VS. LOW RISK)

Note: The High and Low Risk manipulations were seeded within additional information provided to participants. The first two manipulations vary the extent to which Joe Rogers had an incentive to misstate and the final two vary the extent to which he had an opportunity to misstate.

High Risk	Low Risk
Contract Initiation: Joe Rogers **initiated** the Supply Agreement and **was** responsible for setting the purchasing targets.	Contract Initiation: Joe Rogers **did not initiate** the Supply Agreement and **was not** responsible for setting the purchasing targets.
Joe Rogers' Performance Evaluation Criteria: Manager performance is evaluated at the end of each year to determine raises and promotions based on (1) the manager's primary job responsibilities and (2) **the operational performance and overall profitability of the manager's division**.	Joe Rogers' Performance Evaluation Criteria: Manager performance is evaluated at the end of each year to determine raises and promotions based on (1) the manager's primary job responsibilities and (2) **compliance with Company policies and proper financial reporting practices**.
Current Year Control Testing: Testing results revealed that the Corporate Treasurer normally approves Payment Requests. However, due to a **seven month** leave of absence, the Corporate Treasurer's responsibilities were temporarily assumed by another individual who was not familiar with the approval process. During this **seven month** period, **multiple Payment Requests were** submitted without proper supporting documentation, **including** the one associated with the misstatement. Thus, **multiple Payment Requests were** identified that were improperly approved. **These multiple** exceptions indicate that the approval process was consistently **ineffective** throughout most of the year in rejecting unsupported Payment Requests.	Current Year Control Testing: Testing results revealed that the Corporate Treasurer normally approves Payment Requests. However, due to a **one week** leave of absence, the Corporate Treasurer's responsibilities were temporarily assumed by another individual who was not familiar with the approval process. During this **one week** period, **the only Payment Request that was** submitted without proper supporting documentation **was** the one associated with the misstatement. Thus, **this is the only Payment Request** identified that was improperly approved. **This isolated** exception indicates that the approval process was consistently **effective** throughout most of the year in rejecting unsupported Payment Requests.
Internal Audit Involvement: C&P internal audit **does not** perform testing at Green Division. Out of the six divisions of C&P, internal audit consistently performs testing at **the two largest** divisions each year - **Houston Division and Portland Division**.	Internal Audit Involvement: C&P internal audit periodically perform testing at Green Division. Out of the six divisions of C&P, internal audit consistently performs unannounced testing at **two randomly selected** divisions each year.