Accounting, Organizations and Society 45 (2015) 40–51

Contents lists available at ScienceDirect

Accounting, Organizations and Society

journal homepage: www.elsevier.com/locate/aos

Perspective taking in auditor–manager interactions: An experimental investigation of auditor behavior ☆

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ARTICLE INFO

Article history:
Received 17 September 2012
Revised 20 April 2015
Accepted 7 July 2015
Available online 25 July 2015

Keywords:
Perspective taking
Role-taking experience
Individual difference
Experimental economics

ABSTRACT

We examine the effect of perspective taking on auditors' ability to evaluate managers' reported earnings and, in turn, contribute to high-quality financial reporting. Using an experimental-economics approach, we design two experiments to investigate auditor – manager interactions. In our first experiment, we manipulate auditors' prior experience in the manager's role. We predict and find that role-taking experience stimulates perspective taking, which allows auditors to more readily put themselves "in the manager's shoes," benefitting financial-reporting quality. In our second experiment, we examine dispositional perspective taking, focusing on individuals' propensity to spontaneously take the viewpoint of another, as a dimension of personality. We predict and find that auditors with high perspective-taking disposition are better able to judge managers' reported earnings than auditors with low perspective-taking disposition. Taken together, the results of our two experiments highlight the importance of perspective taking as a means to enhance auditors' performance in strategic interactions with managers.

Introduction

This paper reports the results of two experiments designed to examine the effect of perspective taking on auditors' ability to promote high-quality financial reporting. We define perspective taking as the capacity to entertain the psychological point of view of another (Davis, Conklin, Smith, & Luce, 1996). Our focus is on cognitive perspective taking, which entails understanding, as accurately as possible, another's thoughts, attitudes, or concerns in a specific situation (Epley, Caruso, & Bazerman, 2006). We use an experimental-economics approach to examine auditor–manager interactions, where players have conflicting interests. Specifically, we investigate *how* perspective taking affects auditors' assessment of managers' reporting choices, including auditors' propensity to identify and curtail reporting bias. We contend that successful perspective taking allows auditors to develop better mental models of clients' earnings, which leads to enhanced financial-reporting quality (Peecher, Schwartz, & Solomon, 2007).

Prior studies suggest that effective perspective taking improves individuals' judgments and decision making. Successfully taking another's perspective can reduce anchoring effects, confirmation bias, actor–observer bias, and in-group favoritism (Galinsky & Mussweiler, 2001). Moreover, being able to take the perspective of one's counterpart leads to more beneficial outcomes for self (Galinsky & Mussweiler, 2001). In an auditing context, Altiero, Kang, and Peecher (2014) document that auditors who are prompted to take an investor's perspective, by completing a series of investor-minded tasks, provide higher-quality materiality judgments than auditors who are not prompted. Our study complements Altiero et al. (2014) by examining the linkage between perspective taking and auditor behavior in strategic interactions with managers.

In our first experiment, we examine whether role-taking experience stimulates auditors' perspective taking. We contend

☆ We gratefully acknowledge helpful comments from Jim Dearden, Jeffrey Hales, Mark Peecher, Timothy Shields, T. Jeffrey Wilks, Ping Zhang, and two anonymous reviewers, as well as participants in a workshop at Rutgers University and the 2010 Auditing Section Midyear Meeting in San Diego, CA. The authors acknowledge the financial support by the Scheller College of Business, Georgia Institute of Technology, a Faculty Research Grant and a grant from the Martindale Center at Lehigh University, and a research grant from Haslam College of Business, the University of Tennessee. We also appreciate the research assistance of John Castonguay, Lauren Reid, and Jonathan Shipman.

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http://dx.doi.org/10.1016/j.aos.2015.07.001
0361-3682/

that role-taking experience enhances auditors' understanding of the manager's viewpoint, which benefits auditors' performance. Audit firms, especially the Big Four, have spent increasing amounts of resources to recruit former employees, commonly known as boomerangs (Badal, 2006; Deloitte, 2011). Firms' recruiting directors assert that auditors who return, after having spent time in industry, bring back "stronger knowledge, a broader sense of experience, a broader skill set" to the firm (Hyland, 2006). Our experiment sheds light on an advantage that accrues to audit firms by hiring employees from industry.

We manipulate auditors' prior experience in the manager's role (experience versus no experience), examining its effect on auditors' behavior. We predict and find that role-taking experience stimulates perspective taking. Auditors with role-taking experience more accurately estimate managers' reported earnings, as compared to auditors without such experience, and in turn make better reporting decisions, which promotes high-quality financial reporting.

We design a second experiment to further investigate the effect of perspective taking on auditors' capacity to evaluate managers' reported earnings (i.e., to assess whether earnings are materially misstated). We focus on dispositional perspective taking, representing individuals' natural ability to spontaneously take the viewpoint of another. Our second experiment allows us to cleanly examine the effect of perspective taking on auditor-participants' task performance, apart from the effect of situational factors that also might influence perspective taking. We use an established personality measure to appraise auditor-participants' perspective-taking disposition (Davis, 1980, 1983). We find that auditors with high perspective-taking disposition are better able to judge managers' reported earnings than auditors with low perspective-taking disposition. This result suggests that perspective-taking disposition is an important individual trait that underlies auditors' performance. Accordingly, our study complements other auditing-based research that investigates individuals' characteristics, including dispositional tendencies (e.g., Bonner & Lewis, 1990; Hurtt, 2010; Majors, Shefchik, & Vitalis, 2014; Rose, 2007; Scofield, Phillips, & Bailey, 2004).

Our study makes several contributions to the extant literature on audit quality. First, we provide evidence that perspective taking improves auditors' ability to accurately assess managers' reported earnings. The takeaway is that effective perspective taking is beneficial to audit quality. Second, we provide evidence that role-taking experience stimulates perspective taking. Furthermore, some individuals quite naturally are better at perspective taking than others, aside from the effects of role-taking experience. Those who are better at perspective taking, in turn, may have an advantage in strategic interactions as compared to others. Third, our findings suggest that auditors who possess better mental models of true earnings, indeed, are able to make better decisions, which enhances financial-reporting quality (Peecher et al., 2007). While this link often is assumed in the literature, we are able to provide empirical evidence of its validity. We suggest that auditors might benefit by making earnings estimates of reporting segments as a way to judge the sufficiency and accuracy of their mental models for a client's overall earnings process (see also Budescu, Peecher, & Solomon, 2012).

The results of our two experiments, taken together, have important implications for audit practice. First, audit firms can benefit from hiring auditors with prior experience in the corporate world, especially those involved in the financial-reporting process. Audit firms' efforts to recruit accountants from industry, including boomerangs, appear to be prudent as industry experience may aid perspective taking (i.e., anticipating managers' behavior and actions). Second, audit firms can benefit from targeted training programs that involve role taking. Such training programs potentially represent an efficient means to boost audit quality. As pointed out by Trotman, Wright, and Wright (2005), role-taking training is a relatively low-cost technique, as it can be conducted with other participants from the same firm. Third, audit firms may want to consider dispositional perspective taking in staffing assignments, for example, ensuring that some team members have high perspective-taking disposition. The importance of including such individuals on audit teams likely is magnified when the auditor and client are involved in resolving significant disagreements over accounting matters. Lastly, audit firms are advised to consider other ways to facilitate perspective taking (e.g., prompts in audit programs) as a means to improve auditor performance and, ultimately, audit quality.

The remainder of this paper is organized as follows. Section 2 reviews the related literature, which provides a basis to develop our research hypotheses. Section 3 describes our first experiment, and Section 4 presents the experimental results, along with a discussion of the findings. Section 5 describes our second experiment and, subsequently, presents the results. Section 6 offers concluding remarks.

Background, theory, and hypotheses

Background

The importance of perspective taking in cognitive processes is examined extensively in Piaget's (1932, 1950) early work. Individuals take another's perspective by simulating another's internal states, and the form of simulation can vary depending on task demands (Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005). The aim of perspective taking is to put oneself "in another's shoes" and to effectively take another's vantage. Prior studies document numerous cognitive benefits of successful perspective taking, which arise in various social interactions (e.g., Davis et al., 1996; Galinsky & Moskowitz, 2000; Galinsky & Mussweiler, 2001; Galper, 1976; Johnson, 1967; Johnson & Johnson, 1982; Regan & Totten, 1975; Sessa, 1996).

Altiero et al. (2014) investigate perspective taking in an auditing context, noting that regulatory standards require auditors to consider investors' perspective when assessing materiality. The authors conduct an experiment, with experienced auditors as participants, and use a series of investor-minded tasks to stimulate auditors to actively take an investor's perspective. The findings indicate that prompting auditors to take the investor's perspective, by using investor-minded tasks, enables them to discriminate between potential audit adjustments that are more or less likely to be material for qualitative reasons. Otherwise, auditors fail to make the distinction. The results hold for both specialist and non-specialist auditors, but are more pronounced for specialists.[2] These findings underscore the importance of successful perspective taking as a means to reinforce audit quality.

As compared to Altiero et al. (2014), we examine perspective taking in strategic interactions with managers. We maintain that perspective taking improves auditors' strategic reasoning – the process whereby an agent reasons about the best strategy to adopt in a multi-player scenario, taking into account the likely behavior of the counterpart(s).[3] Without question, strategic reasoning is an

[2] When prompted, specialist auditors draw upon rich, domain-specific knowledge, permitting them to hone in on qualitative facets of materiality, which affects their evaluation of potential audit adjustments (e.g., whether adjustments affect the trend of key performance indicators).

[3] In strategic interactions, zero-order reasoning occurs when agents consider their own incentives, but not their counterparts' incentives. Zero-order reasoning involves "no understanding of the desires, beliefs, or thoughts of others" (Hedden & Zhang, 2002) and can lead to myopic choices. In contrast, higher-order reasoning involves strategic consideration of the incentives of one's counterparts as well as consideration of counterparts' beliefs about, and anticipation of, one's own incentives (Colman, 2003; Hedden & Zhang, 2002; Perner & Wimmer, 1985).

important part of auditing (Bloomfield, 1995; Bowlin, 2011), and prior findings suggest that strategic thinking can improve auditors' performance (e.g., Bowlin, 2011; Hoffman & Zimbelman, 2009; Zimbelman & Waller, 1999).

We claim that successful perspective taking facilitates strategic reasoning in that it allows auditors to better understand managers' problem space, including their reporting choices and incentives. Notwithstanding, successfully taking another's perspective can be difficult. People tend to overestimate the extent to which others share their point of view, and they often over-rely on their own experiences when interpreting or predicting the behavior of others (e.g., Epley, Keysar, Boven, & Gilovich, 2004; Van Boven, Dunning, & Loewenstein, 2000; Van Boven, Loewenstein, & Dunning, 2005).

We are interested in ways to enhance perspective taking, helping auditors put themselves in the manager's shoes. We examine whether gaining experience in the counterpart's role enables auditors to make better judgments and decisions in strategic interactions with managers. Next, we consider role-taking experience and its effect on perspective taking and performance.

Role-taking experience, perspective taking, and performance

Research in cognitive and social psychology emphasizes the importance of role taking in the process of social learning and proposes that successful interactions require the ability to "take the role of the other" (Biddle, 1986; Mead, 1934; Moreno, 1934, 1946). This line of research recognizes that the same individual might reason and act quite differently in different roles and, likewise, that different individuals may behave similarly in similar roles (Turner, 2006). Work grounded in the tradition of Piaget (1932, 1950) highlights role taking as an antecedent of successful perspective taking (e.g., Feffer, 1959).

Previous studies provide evidence that role-taking experience improves perspective taking (e.g., Burns & Brainerd, 1979; Chandler, 1973; Iannotti, 1978; Staub, 1971).[4] Chalmers and Townsend (1990) find that role-taking experience facilitates understanding others' problems and incentives. Sessa (1996) shows that role-taking experience influences individuals' perceptions of conflict, primarily because it enables better insight into others' perspective. In auditing, Trotman et al. (2005) find that role-taking experience helps auditors develop successful strategies when negotiating with clients.

Prior research indicates that role-taking experience helps individuals combat the tendency to overestimate the similarities between self and others, referred to as social-projection bias.[5] Johnson (1967) finds that role-taking experience leads opponents to gain a clearer understanding of others' position. Van Boven et al. (2000) show that social-projection bias, attributable to the endowment effect (Kahneman, Knetsch, & Thaler, 1991), can be overcome by equipping individuals with experience in another's role. In contrast, the same study finds that providing information about the endowment effect through lecturing alone does not reduce participants' social-projection bias. These findings highlight the importance of role-taking experience to improve perspective taking and underscore that role-taking experience cannot necessarily be substituted by secondhand encounters or common knowledge of incentives.

The linkage between role-taking experience and enhanced perspective taking is, by no means, a tautology or foregone conclusion. For example, Bowlin, Hales, and Kachelmeier (2009) provide evidence that, in strategic interactions, role-taking experience does not eliminate social-projection bias. Their findings suggest that the effect of such bias on participants' performance can be for better or worse. By comparison, we maintain that effective perspective taking improves individuals' performance.[6] We assert that role-taking experience allows auditors to form more accurate mental representations of the manager's incentives, options, and alternatives. Role-taking experience can enhance auditors' perspective taking by sensitizing them to situational factors that affect managers' reporting choices, most notably managers' incentives. In strategic interactions, successful perspective taking serves to amplify the salience of the counterpart's incentives (e.g., Fiske, Taylor, Etcoff, & Laufer, 1979; Wyer, Srull, Gordon, & Hartwick, 1982). The increased salience directs auditors' attention to managers' incentives.[7]

In our first experiment, we manipulate auditors' prior experience in the manager's role, with the aim of stimulating auditors' perspective taking. We do so guided by prior research in cognitive and social psychology, which documents a link between role-taking experience and perspective taking (Burns & Brainerd, 1979; Chalmers & Townsend, 1990; Chandler, 1973; Iannotti, 1978; Staub, 1971). As explained by Epley and Caruso (2009), three conditions are necessary for successful perspective taking: (a) actively attempting to place oneself in another's role or position; (b) reasoning about the other's perspective in a deliberate and effortful way in order to avoid dwelling on one's point of view and to infer the perceptions of the other; and (c) using diagnostic information about the other being evaluated. In strategic interactions, role-taking experience facilitates the realization of all three conditions. When the auditor has prior experience as a manager, the auditor has been in the other's role and has unique insight into how the other might reason and act.

Auditors with role-taking experience likely are attuned to the manager's incentives, and this experience provides a basis for them to understand and gauge the manager's behavior. This point is intuited by experimental economists, who often make participants switch roles in signaling experiments, primarily to improve participants' understanding of different parties' incentives (e.g., Brandts & Holt, 1992, 1993; Cooper, Garvin, & Kagel, 1997a, 1997b; Kübler, Müller, & Normann, 2008; Potters & van Winden, 1996). In fact, Anderson and Camerer (2000, 701) explicitly discuss this issue.

> *"There is a strong intuition among experimentalists that players do learn faster when they switch roles [. . .]. This is easily testable, by*

[4] Role-taking experience has been used across various fields to aid professionals in acquiring the perspectives of important others (see Sogunro, 2004 for a review).

[5] Social-projection bias is known under other labels, including "egocentric bias" (Epley et al., 2004), "false consensus" (Krueger & Clement, 1994; West, 1996), "attributive projection" (Holmes, 1968), and "egocentric attribution" (Bazinger & Kühberger, 2012; Heider, 1958).

[6] Role-taking experience may not eliminate social-projection bias in Bowlin et al. (2009) for a variety of reasons. The experimental setting in Bowlin et al. (2009) focuses solely on players' payoffs. Each player makes a dichotomous choice: the manager chooses to report cautiously or aggressively and the auditor chooses to be diligent or lax. The combination of players' choices determines their respective payoffs. By comparison, our setting permits more variation in players' responses. The manager chooses a reported amount (i.e., reported earnings). The auditor then estimates earnings, using the manager's report. The auditor also decides whether to accept or reject the manager's report. By incorporating earnings in our design (i.e., a finer measure of managers' strategic intentions and auditors' expectations), we may be able to better capture the benefits of role-taking experience, that being improvements in perspective taking.

[7] Substantial literature in cognitive psychology provides evidence on the relationship between attention and cognitive performance (e.g., James, 1890; Kahneman, 1973; Posner & Petersen, 1990). Prior findings suggest that focusing attention on a specific item serves as a selection mechanism for the importance of the item: it increases the accessibility of knowledge in working memory that is relevant to the item as compared to other items (Oberauer, 2002, 2009; Rerko & Oberauer, 2013). Focused attention increases the likelihood that an item will be efficiently transferred into working memory and leads to better encoding of stimuli (Dulas & Duarte, 2013; Smith & Sewell, 2013) and, thus, superior cognitive performance (Daneman & Carpenter, 1980). Research in education also provides evidence of an association between focused attention and improvements in cognitive performance (Hidi, 1995; Musso, Kyndt, Cascallar, & Dochy, 2012; Wilson, Will, Schoenfield-McNeill, & Montague, 2013).

comparing experiments with different degrees of role-switching, but we know of no such experiments."

Because role-taking experience leads to a heightened understanding of situational incentives, it provides a basis for auditors to carefully assess managers' reporting choices, including the chance of reporting biases. Auditors who have been in the manager's shoes have firsthand experience making reporting choices and seeing how others react to such choices. Simply put, role-taking experience stimulates auditors' perspective taking, which dampens their propensity to anchor on managers' reports and, further, allows them to better evaluate whether managers' earnings reports are materially misstated (Galinsky & Mussweiler, 2001). Therefore, auditors are expected to benefit from prior experience in the manager's role. Our research hypotheses are expressed as follows.

H1. Auditors with role-taking experience (as a manager) are better able to assess whether the manager's reported earnings are materially misstated than auditors without role-taking experience.

H2. Auditors' perspective taking mediates the relationship between role-taking experience and their assessment of the manager's reported earnings.

Research method

Overview

We recruit 58 students from a public university to participate in our first experiment. The average age of the participants is 21 years, and 33 are male. The vast majority are undergraduates (83%) and most are business majors (88%). Our use of student participants is appropriate in that we examine economic behavior in an abstract setting, where players are rewarded based on their performance. Other experimental-economics studies use a similar approach (e.g., King, 2002; Magilke, Mayhew, & Pike, 2009).

Participants are randomly assigned to one of two groups: a role-taking group and a non-role-taking group. The experiment consists of six rounds and lasts approximately 90 min. In rounds 1 and 2, participants in the role-taking group are managers, and those in the non-role-taking group are auditors.[8] In rounds 3–6, all participants are auditors. Therefore, participants in the role-taking group switch roles in round 3, whereas those in the non-role-taking group remain in the same role throughout the experiment. Participants' role by round is shown in Table 1.

Task and procedures

Upon arrival, participants report to one of two rooms, where they stay for the entirety of the experiment. Instructions are distributed and read aloud by a researcher. Next, the researcher provides an example of how each experimental round proceeds and answers participants' questions. Then, six experimental rounds are administered.

At the beginning of each round, participants learn their roles, and managers and auditors are paired. Each round proceeds as follows.

Table 1
Participants' role by round: Experiment one.

	Round 1	Round 2	Round 3[a]	Round 4	Round 5	Round 6
Role-taking group	Manager	Manager	Auditor	Auditor	Auditor	Auditor
Non-role-taking group	Auditor	Auditor	Auditor	Auditor	Auditor	Auditor

[a] As shown, over rounds 3–6, all participants are auditors. We use managers' reports, along with corresponding actual earnings, randomly selected from a previous experimental session that includes managers and auditors over all rounds.

1. The manager is endowed with a public and private signal of earnings. The combined signals indicate earnings, such that the manager knows actual earnings.
2. The auditor observes the public signal of earnings, but not the private one.
3. The manager submits an earnings report, which the auditor reviews.[9] The manager's report does not have to be truthful (e.g., it can be inflated).
4. The auditor makes his/her own estimate of earnings, conditioned on the manager's reported amount.
5. The auditor decides whether to accept or reject the manager's earnings report.
6. Participants are informed of their payoff.

Procedurally, actual earnings are determined by summing two numbers, denoted Integer I and Integer II. Integer I is the public signal, and Integer II is the private one. Both numbers are randomly generated each round by drawing from a uniform distribution that ranges from 0 to 50. Thus, earnings can range from 0 to 100.

The manager is incentivized to report higher earnings values, as long as the auditor accepts the reported amounts. The auditor, on the other hand, is incentivized to accept amounts that are close to the actual value (i.e., within a specified materiality threshold) and otherwise reject reported amounts. Each player's specific payoffs/incentives are common knowledge. The procedures repeat for six rounds, where auditor–manager dyads are re-paired each round.

In rounds 1 and 2, managers in the role-taking group submit earnings reports to auditors in the non-role-taking group. In rounds 3–6, such pairings are not possible because all participants are auditors. We make this design choice to ensure that auditors only receive earnings reports from managers who have not been auditors previously: that is, to ensure that our design is not confounded by managers' specific prior experience as an auditor. To generate managers' reports for rounds 3–6, we use amounts reported, along with the corresponding actual earnings, from a previous experimental session that includes manager–auditor pairs without role-taking experience.[10] We make participants aware of this fact. After the six rounds are finished, participants complete a post-experiment questionnaire. The questionnaire includes an item to measure participants' perspective taking. Specifically, we include the following statement, "I understand the perspective of the sender" (manager), where participants respond on a seven-point Likert scale, anchored by 1 = strongly disagree and 7 = strongly

[8] In the experimental materials, we refer to the manager as the "sender" and the auditor as the "receiver." We use neutral labels to denote players' roles in order to guard against extraneous influences that are associated with the assigned role. For expositional convenience, we use the manager/auditor terminology throughout the paper.

[9] In the experimental materials, the manager's earnings report is referred to as a report of commodity value.

[10] In the previous session, the basic procedures and experimental parameters are identical to those in experiment one. Prior to conducting experiment one, a research assistant, with no knowledge of the experiment, randomly selected four managers' reports, along with the corresponding actual earnings amounts, from the previous session. As a consequence, we control for managers' reports and clients' actual earnings over rounds 3–6.

agree. Participants' responses represent a measure of their perceived ability to take the counterpart's perspective.[11]

Managers' payoff

The manager's payoff per round is contingent on the auditor's decision to accept or reject the reported amount. If the auditor accepts the manager's earnings report, the manager's payoff is the reported amount. Otherwise, the manager's payoff is 65% of the actual earnings. The payoff choices derive from practical considerations such that (1) higher reported amounts are preferable (e.g., increasing the likelihood of meeting targets, increasing the manager's bonuses, and benefitting the manager's reputation) and (2) auditor rejection is costly (e.g., delays in reporting, strained relations with the auditor, and additional audit costs that, at some point, are passed on to the client).

Auditors' payoff

The auditor's payoff is contingent on the auditor's estimate of earnings, the auditor's accept/reject decision, and the manager's earnings report. The auditor relies on the manager's report to determine an estimated earnings amount. The auditor then considers whether to accept or reject the manager's report. Relatedly, Peecher et al. (2007) suggest that the accuracy of auditors' earnings estimates influences their reporting decisions, for the betterment of financial-reporting quality. Budescu et al. (2012) assert that auditors' expectations impact their assessment of material misstatement: auditors are more likely to conclude that reported amounts are fairly stated when auditors' evidence-based expectations are closer to managers' reported amounts. For our purposes, auditors' earnings estimates are compared to managers' reported amounts and deviations are judged in light of the specified materiality threshold. Thus, auditors' earnings estimates provide a basis to accept or reject reported amounts, thereby impacting financial-reporting quality.

The auditor's payoff per round, depicted in Fig. 1, indicates that the auditor's payoff includes a fixed component and a bonus component. We discuss the two components below.

If the auditor accepts the manager's report, the auditor's fixed payoff is 50 when the reported amount is within ±10 of the actual amount and 0 otherwise. Under these circumstances, the auditor approves the client's financial statements without adjustment. The ±10 represents materiality bounds, such that the manager's report is materially correct as long as it is within these bounds. Accordingly, the auditor receives a high payoff for approving reports that are materially correct and a low payoff for approving reports that are materially misstated.

Next, we consider the auditor's payoff when s/he rejects the manager's report. Now, the auditor's fixed payoff is 35 or 5, contingent on the auditor's estimate of earnings. Under these circumstances, the auditor's estimate becomes the amount that is reflected in the client's financial statements. If the auditor's estimate is within the materiality bounds, and it is closer to the actual earnings than the manager's reported amount, the auditor's fixed payoff is 35. In this case, the client's financial statements are materially correct. The payoff choice reflects the practical reality that if the auditor initially rejects the manager's report, additional audit work is required and client relations are strained, which reduces the auditor's fixed payoff (as compared to a fixed payoff of 50). By comparison, if the auditor's estimate is outside of the materiality bounds or it is farther away from the actual earnings than the manager's reported amount, the auditor's fixed payoff is 5. In this case, the auditor's estimate either is materially misstated or inferior to the manager's earnings report. Whichever the case, the practical implications are that additional audit work is required, client relations are strained, and outputs are inferior.[12]

In addition, the auditor can earn a bonus each round based on the earnings estimate. The bonus is computed as follows.

$$\text{Bonus} = (100 - |\text{Auditor's Estimate of Earnings} - \text{Client's Actual Earnings}|)/10.$$

We provide a bonus to ensure that auditors are incentivized to be accurate in their earnings estimate, irrespective of the accept/reject decision.

In determining the experimental parameters (refer to Fig. 1), we assume that the auditor's objective is to approve materially correct reports and otherwise reject reports. The auditor's decision, in turn, provides a basis for differences in the fixed payoff component. When the auditor rejects the manager's report, we assume that the auditor must determine an acceptable earnings amount to report: that is, an amount within the materiality bounds. The auditor contributes to high-quality financial reporting as long as s/he (1) approves materially correct reports or (2) rejects reports and determines a value to report that is materially correct and superior to that of managers' reported amounts. For illustrative purposes, Fig. 2 depicts *when* the auditor contributes to high-quality financial reporting: that is, the decision nodes where the auditor does and does not benefit financial-reporting quality.

Results

We are interested in the effect of role-taking experience on auditor-participants' ability to determine whether managers' reported earnings are materially misstated and, further, whether perspective taking mediates the relationship. First, we consider the accuracy of auditors' estimates of the manager's earnings. We argue that auditors who make more accurate estimates are better equipped to judge whether reported earnings are free of material misstatement and, thus, to promote high-quality financial reporting. Next, we scrutinize whether role-taking experience facilitates auditors' perspective taking, which allows us to get at the cognitive process underlying auditors' judgments. Lastly, we perform additional analyses and discuss our findings.

Tests of H1

Our first hypothesis predicts that auditors with role-taking experience are better able to assess whether managers' reported

[11] This measure emphasizes the cognitive aspect of perspective taking (Anderson & Camerer, 2000; Epley & Caruso, 2009).

[12] Economic theory predicts that the manager reports a value such that the auditor is indifferent to accepting or rejecting the amount: the auditor accepts any amount equal to or below the value and rejects any amount above it. Based on our experimental parameters, the economic predictions are that (1) the manager reports Integer I + 43 and (2) the auditor accepts the reported amount. Details are available from the authors upon request.

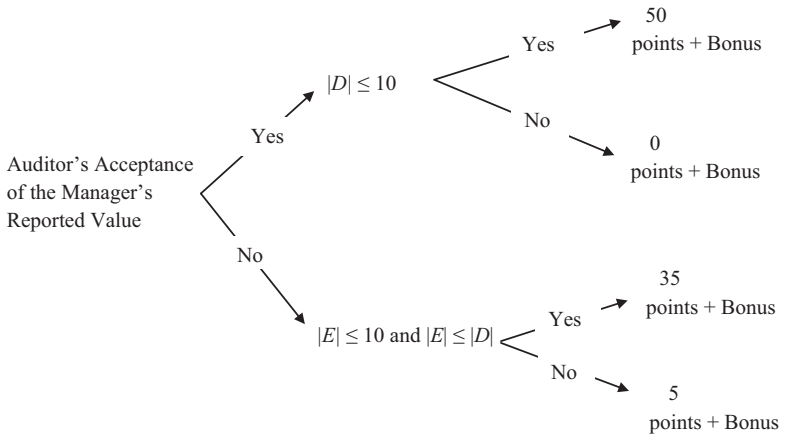

Fig. 1. Auditor's payoff per round. Note: D = Manager's Earnings Report − Actual Earnings, *E* = Auditor's Estimate of Earnings − Actual Earnings, and Bonus = (100 − |Auditor's Estimate of Earnings − Actual Earnings|)/10.

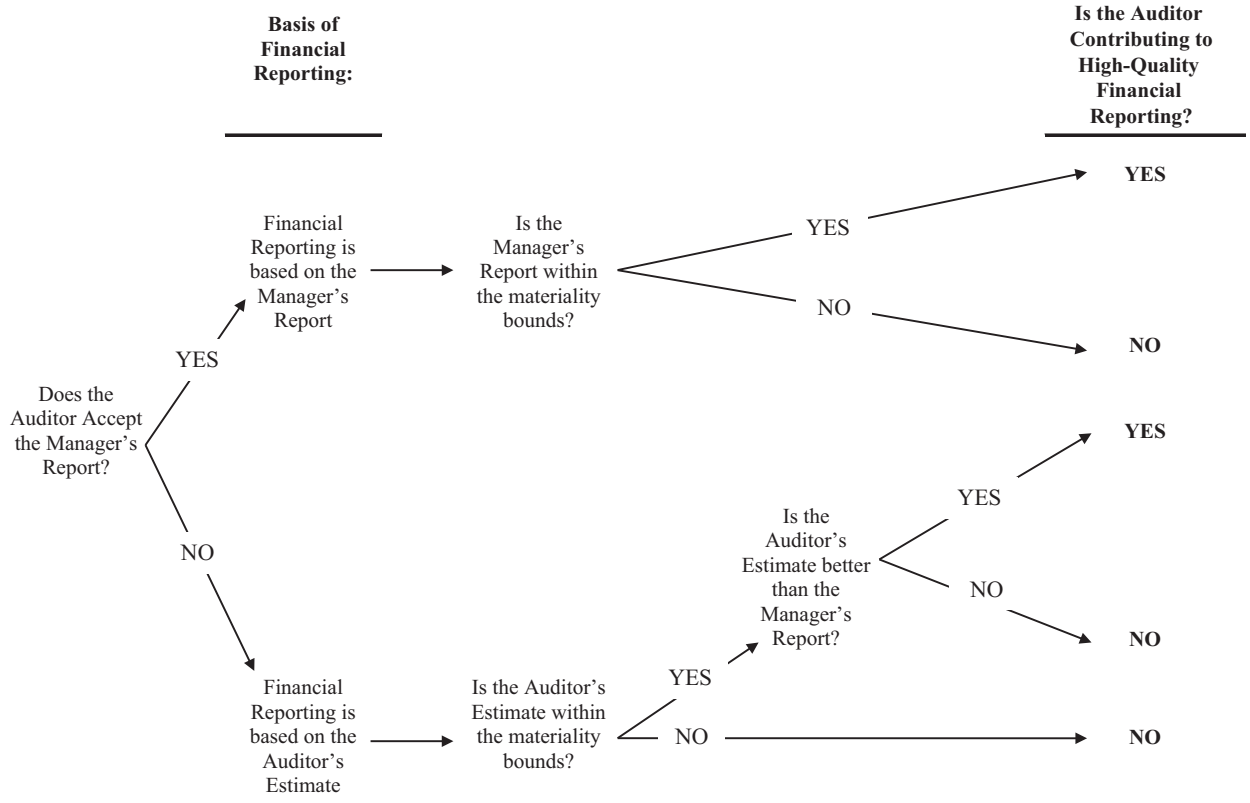

Fig. 2. The auditor's role in high-quality financial reporting.

earnings are materially misstated than auditors without such experience. We examine auditor-participants' estimates of earnings over rounds 3–6: participants in both experimental groups provide estimates of earnings in rounds 3–6. We compute the average absolute estimation error per round for each participant as follows.

$$\text{Estimation Error} = \sum |\text{Auditor's Estimate of Earnings} - \text{Client's Actual Earnings}|/4.$$

By computing an average error, we generate one independent observation per participant, which allows us to avoid potential problems that arise if participants' estimation errors are correlated across rounds.

Table 2 presents descriptive statistics for auditors' average absolute estimation error, partitioning the data by the two experimental groups. The mean (median) estimation error of the role-taking group is less than that of the non-role-taking group: 7.96 (7.00) versus 10.43 (9.75), respectively. A parametric *t*-test and a nonparametric Mann–Whitney test show that the difference

between the two groups is statistically significant at conventional levels: $t(56) = -2.10$, $p = 0.02$, one-tailed, and $Z = -2.52$, $p = 0.006$, one-tailed, respectively. Inferences are unaffected if we perform a repeated measures analysis of variance, using participants' absolute estimation error per round as the dependent variable. Our findings are consistent with H1 and suggest that role-taking experience enhances auditors' performance.

We further probe the accuracy of auditors' earnings estimates. Fig. 3 presents the frequency of participants' estimation errors over rounds 3–6, partitioned into categories based on the magnitude of the error. The frequencies are presented separately for each experimental group. Fisher's exact test indicates that the proportion of absolute estimation errors that falls within the materiality bounds (i.e., $|E| \leqslant 10$) is significantly greater for the role-taking group than the non-role-taking group at $p = 0.003$, one-tailed. These findings provide further support for H1.

High-quality financial reporting and links to the accuracy of earnings estimates

Next we consider the effect of role-taking experience on auditors' decisions. Panel A of Table 3 presents descriptive data, summarizing the percentage of time that auditors' decisions contribute to financial-reporting quality (refer to Fig. 2), partitioned by role-taking group. We perform a parametric *t*-test and a nonparametric Mann–Whitney test, collapsing participants' decisions across the four rounds. We find that auditors in the role-taking group are more likely to make decisions that contribute to financial-reporting quality than auditors in the non-role-taking group: $t(56) = 2.58$, $p = 0.007$, one-tailed, and $Z = 2.44$, $p = 0.007$, one-tailed, respectively. We also examine whether auditors' accept/reject decisions are correct, irrespective of their earnings estimates. That is, we examine the percentage of time that auditors accept reported amounts that are within ±10 of the actual amount and otherwise reject reported amounts. Panel B of Table 3 presents descriptive data. Again, we perform parametric and nonparametric tests and find that auditors in the role-taking group are more likely to make correct decisions than auditors in the non-role-taking group: $t(56) = 2.17$, $p = 0.017$, one-tailed, and $Z = 1.85$, $p = 0.03$, one-tailed, respectively. Our findings suggest that role-taking experience fosters financial-reporting quality.

We conduct further analyses to assess the link between the accuracy of auditors' earnings estimates and financial-reporting quality. As suggested earlier, auditors who formulate more accurate estimates of actual earnings make sounder decisions, benefitting financial-reporting quality (see also Peecher et al., 2007). To formally test this relationship, we regress the number of times that auditors' decisions contribute to financial-reporting quality (over rounds 3–6) on their average absolute estimation error. We find that the coefficient of the average estimation error is negative and statistically significant ($\beta = -0.18$, $t(56) = -11.25$, $p < 0.001$). We repeat the analysis substituting the number of times that auditors make correct accept/reject decisions as the dependent variable and results are similar ($\beta = -0.13$, $t(56) = -6.77$, $p < 0.001$).[13] Our findings suggest that the accuracy of auditors' earnings estimates are associated with better decisions. Auditors who have smaller estimation errors, indeed, promote financial-reporting quality.

[13] We re-perform the analyses using logistic regression, controlling for round effects. The dependent variable is auditors' decision per round: 1 = contributing to financial-reporting quality (or making a correct decision) and 0 = otherwise. The independent variable is auditors' absolute estimation error per round. Inferences are unaffected: that is, smaller estimation errors are associated with better decisions.

Table 2
The effect of role-taking experience on auditors' accuracy in estimating earnings: Experiment one.[a]

Statistic	Role-taking group	Non-role-taking group	Total
Mean	7.96	10.43	9.19
Median	7.00	9.75	8.63
Std. Deviation	4.47	4.48	4.61
Min	2.25	1.25	1.25
Max	22.75	20.25	22.75
Mean test: $t(56) = -2.10$, $p = 0.02$, one-tailed			
Median test: $Z = -2.54$, $p = 0.006$, one-tailed			

[a] In experiment one, auditors in the role-taking group have prior experience in the manager's role. Accuracy in estimating earnings is measured by the auditor's average estimation error, calculated as ∑|Auditor's Estimate of Earnings − Actual Earnings|/4.

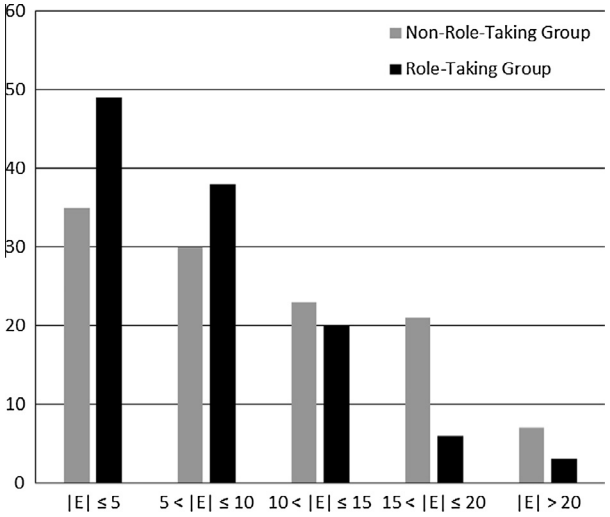

Fig. 3. Frequency of auditors' absolute estimation error: Experiment one. Note: The figure shows the frequency of participants' absolute estimation error, computed as ∑|Auditor's Estimate of Earnings − Actual Earnings|/4, broken down into categories based on the magnitude of the error I. The figure includes all observations from rounds 3–6. Using Fisher's exact test, the proportion of absolute estimation errors that falls within the materiality bounds (i.e., $|E| \leqslant 10$) is significantly greater for the role-taking group than the non-role-taking group at $p = 0.003$, one-tailed.

Tests of H2

Our second hypothesis predicts that perspective taking mediates the relationship between role-taking experience and auditors' assessment of managers' reporting choices. As part of the post-experiment questionnaire, participants respond to a statement that elicits perceived perspective taking, where higher values suggest better self-assessed perspective-taking ability. We find that the average response of the role-taking group ($M = 5.59$, $SD = 1.50$) is higher than that of the non-role-taking group ($M = 3.66$, $SD = 1.86$), and the difference is statistically significant using parametric ($t(56) = 4.36$, $p < 0.001$, one-tailed) and nonparametric ($Z = 3.89$, $p < 0.001$, one-tailed) tests. We investigate whether participants' perspective taking mediates the relationship between auditors' role-taking experience and the accuracy of their earnings estimates.

Fig. 4 presents the results of a path analysis. We observe that when auditors' perspective taking is included in the model, role-taking experience loses its statistical significance. Further, the path from role-taking experience to auditors' perspective taking is statistically significant ($p < 0.001$), as is the path from perspective taking to auditors' estimation error ($p = 0.019$). We test for mediation, as suggested by Preacher and Hayes (2008). Using the bootstrapping macro, we document a significant mediation

Table 3
Auditors' decisions and role-taking experience: Experiment one.

Round	Role-taking group	Non-role-taking group
Panel A: Percentage of auditors' decisions that contribute to financial-reporting quality[a]		
3	0.59	0.45
4	0.90	0.69
5	0.76	0.55
6	0.41	0.31
Total	$M = 0.66$	$M = 0.50$
	$SD = 0.21$	$SD = 0.27$
Panel B: Percentage of auditors' decisions that correctly accept/reject managers' report[b]		
3	0.66	0.52
4	0.72	0.55
5	0.79	0.66
6	0.45	0.41
Total	$M = 0.66$	$M = 0.53$
	$SD = 0.18$	$SD = 0.24$

[a] The cell entries in Panel A indicate the percentage of time that auditors' decision contribute to financial-reporting quality. This result occurs when (1) the auditor accepts reported earnings that are within ±10 of actual earnings or (2) the auditor rejects the manager's report, the auditor's earnings estimate is acceptable (within ±10 of actual earnings, and the auditor's estimate is superior to that of the manager (closer to actual earnings than the manager's reported amount). The specifics that underlie high-quality financial reporting are depicted in Fig. 2. The total at the bottom of the Panel indicates the mean and standard deviation of the percentage of time that auditor-participants' decisions contribute to financial-reporting quality.

[b] The cell entries in Panel B indicate the percentage of time auditors make the correct decision to accept or reject reported earnings, irrespective of auditors' estimates of earnings. The auditor's decision is correct as long as the auditor accepts reported earnings that are within ±10 of actual earnings and rejects other amounts. The total at the bottom of the Panel indicates the mean and standard deviation of the percentage of time that auditor-participants' decisions are correct.

effect ($p = 0.031$, one-tailed), and we find that the 95% bootstrap confidence interval for indirect effects excludes zero. Our results provide support for H2.

To gain further insight, we consider the effect of perspective taking on auditors' performance in each experimental group separately. We do so because others (Davis, 1980, 1983; Davis et al., 1996; Davis, Hull, Young, & Warren, 1987) document individual differences in perspective-taking ability. The analyses presented above are indicative of differences *between* the two experimental groups (role-taking versus non-role-taking). We probe whether differences also arise *within* groups. According to our theoretical development, effective perspective taking improves individuals' judgments (e.g., Altiero et al., 2014; Davis et al., 1996; Galinsky & Moskowitz, 2000; Galinsky & Mussweiler, 2001; Galper, 1976; Johnson, 1967; Johnson & Johnson, 1982; Regan & Totten, 1975; Sessa, 1996). We examine whether this relationship holds, irrespective of participants' prior experience.

We regress auditors' average absolute estimation error on their perceived perspective taking, performing the analysis separately for each role-taking group. We find that, in both groups, the coefficient of auditors' perspective taking is negative and statistically significant: $\beta = -0.83$, $t(27) = -1.89$, $p = 0.035$, one-tailed, for the non-role-taking group, and $\beta = -0.95$, $t(27) = -1.75$, $p = 0.046$, one-tailed, for the role-taking group.[14] Hence, participants who perceive that they are better at perspective taking, indeed, are more accurate in estimating earnings. Our findings suggest that individual differences in perspective taking influence auditor behavior, beyond their role-taking experience.

[14] We also put participants into high and low perspective-taking groups, using a median split, and repeat the regression analysis for each role-taking group. Inferences are unaffected.

Additional analyses

Prior findings suggest that individuals are susceptible to social-projection bias (e.g., Bowlin et al., 2009; Epley et al., 2004; Rizzolatti & Craighero, 2004; Van Boven et al., 2000, 2005). To determine whether social-projection bias is a viable explanation for our findings, we analyze the association between prior experience and auditors' judgments. Social-projection bias predicts that, in the role-taking group, prior experience (over rounds 1–2) explains auditors' estimates of earnings and their decisions to accept/reject reported earnings (over rounds 3–6). More specifically, social-projection bias suggests that the degree to which participants inflate reported earnings as a manager affects (1) the extent to which they discount reported earnings as an auditor and (2) their propensity to reject reported earnings.

For participants in the role-taking group, we regress auditors' average downward adjustment of earnings (over rounds 3–6) on their average reporting bias (over rounds 1–2). Auditors' downward adjustment is defined as the difference between managers' reported earnings and auditors' estimated earnings. Reporting bias, on the other hand, is defined as the difference between managers' reported earnings and actual earnings. We find that the coefficient of average reporting bias is not significant ($\beta = -0.06$, $t(27) = -0.78$, $p = 0.44$). We repeat the analysis using the number of times that auditors reject managers' reported earnings as the dependent variable and again, the coefficient of average reporting bias is not significant ($\beta = 0.01$, $t(27) = 0.51$, $p = 0.61$). Finally, we re-perform the analyses substituting a dummy variable for average reporting bias, defined as 1 if the average bias (over rounds 1–2) is greater than 10 (the materiality threshold) and 0 otherwise, and inferences are unaffected. Hence, we conclude that specific prior experience does not account for auditors' behavior, and we rule out social-projection bias as an alternative explanation for our results.

Discussion

Our results suggest that role-taking experience facilitates auditors' assessment of managers' reporting choices (i.e., determining whether reported earnings are materially misstated). Auditors with role-taking experience (as a manager) make more accurate estimates of earnings than auditors without such experience. In terms of the underlying cognitive mechanism, we find that role-taking experience stimulates perspective taking, which enables auditors to more effectively put themselves in the manager's shoes. In turn, they are better able to judge managers' reported earnings. We rule out social-projection bias as an alternative explanation for our findings, and we offer evidence that links the accuracy of auditors' earnings estimates with their decision to accept/reject manager's reports, thereby promoting financial-reporting quality. Along these lines, Peecher et al. (2007) provide a framework that characterizes the audit process as evidence-driven, belief-based, risk assessment. As part of the audit process, auditors formulate beliefs about reported amounts and disclosures, which serve as a basis to evaluate the reasonableness of managers' reporting choices. Auditors who formulate richer, more accurate beliefs are expected to provide higher quality services, benefitting financial-reporting quality (see also Budescu et al., 2012). Our findings are consistent with this depiction of the audit process.

Our results also provide evidence of individual differences in perspective taking. We find that, even in the non-role-taking group, auditors' perspective taking is associated with the accuracy of their earnings estimates. This result suggests that perspective-taking disposition can significantly impact individuals' judgments and decision making in strategic interactions.

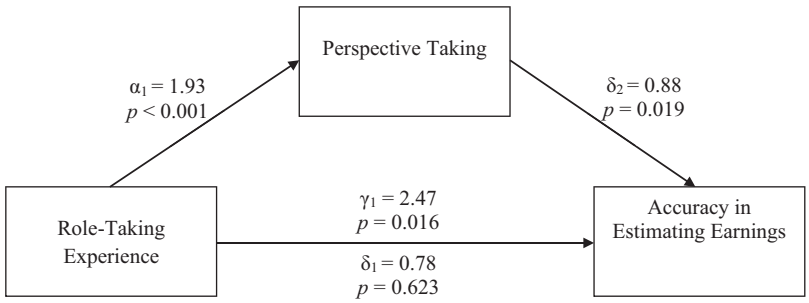

Fig. 4. Path analysis results with perspective taking as a mediator: Experiment one. Note: The figure shows the path analysis results linking role-taking experience, perceived perspective taking, and auditors' accuracy in estimating earnings. The coefficient for the direct path from role-taking experience to auditor's accuracy in estimating earnings is represented by γ_1 when the mediator is *not* included in the path model and δ_1 when the mediator is included in the model. Using Preacher and Hayes' (2008) macro, we document a significant mediation effect at $p = 0.031$, one-tailed and we also find that the 95% bootstrap confidence interval for indirect effects excludes zero.

We note that other research has focused on perspective taking as a trait or personality dimension (Davis, 1980, 1983; Davis et al. 1996). More specifically, Davis (1980, 1983) has developed a measure to gauge individuals' tendency to spontaneously take the psychological point of view of others, focusing on cognitive perspective taking.[15] The measure is established and designed to capture individuals' capacity for non-egocentric thought, which allows them to anticipate the behavior and reactions of others. By comparison, the measure we use in our experiment is self-assessed. One advantage of our measure is that it is context specific: that is, the measure is elicited based on participants' consideration of our experimental setting. A potential drawback, however, is that our measure has not been validated and, as such, it may capture other dimensions of personality beyond the ability to put oneself in another's shoes. The fundamental concern is that our findings might be driven by some other facet of personality, rather than perspective taking. Indeed, prior research documents that perspective-taking ability is linked to self-confidence, self-esteem, and perceived self-efficacy (Corcoran & Mallinckrodt, 2000; Davis, 1983). Further, previous studies document that these personality dimensions are positively associated with task performance (Bandura, 1993; Berry, 1987; Berry & West, 1993; Stankov, 2000; Stankov & Lee, 2008; Wood & Bandura, 1989).

In an effort to appraise the validity of our perspective-taking measure, we recruit 60 Amazon Mechanical Turk participants and elicit their responses to the Davis measure and our measure from experiment one. Participants' responses indicate that the two measures are significantly correlated, $\rho = 0.77$, $p < 0.001$. Notwithstanding, we acknowledge that our measure is a potentially noisy proxy for perspective-taking ability.

To shed further light on the effect of perspective taking on auditor-participants' task performance, we design a second experiment using the Davis measure, a validated measure of individual perspective-taking disposition. Our focus is on individual differences, absent other situational factors that might stimulate perspective taking. The aim is to cleanly examine the effects of perspective taking on task performance: that is, to determine whether participants' perspective-taking disposition affects their judgments in a predictable way. As discussed previously, effective perspective taking helps individuals to better judge the behavior of others in social interactions (Davis et al., 1996; Galinsky & Moskowitz, 2000; Galinsky & Mussweiler, 2001; Galper, 1976; Johnson, 1967; Johnson & Johnson, 1982; Regan & Totten, 1975; Sessa, 1996). Accordingly, we expect participants with high perspective-taking disposition to have better insight into others' behavior than those with low perspective-taking disposition. Our second experiment is designed to provide insight into whether auditor-participants' disposition to take another's perspective impacts their ability to judge managers' reporting behavior.

Experiment two

Task and procedures

We recruit 39 students from a public university to participate in our second experiment. The average age of the participants is 21 years, and 19 are male. Almost all participants are undergraduates (92%), and the majority are business or economics majors (59%). The experimental task is the same as that used in our first experiment, except that all participants are assigned to the non-role-taking condition, meaning that everyone is an auditor for the entirety of the experiment. As a consequence, we introduce two practice rounds (replacing rounds 1–2 from our earlier experiment) in which the instructions walk participants through two examples. The examples explain players' potential actions and how such actions map into players' payoffs. After the two practice rounds, four experimental rounds are conducted. We use the same managers' earnings reports (rounds 3–6) as in our first experiment.

After finishing the experimental task, participants complete a post-experiment questionnaire, which includes the Davis (1980) scale. The scale measures participants' spontaneous perspective-taking disposition and is comprised of seven items that elicit how well various statements describe respondents. Each statement involves respondents' cognitive ability to empathize with others.[16] Participants' mean score on the Davis scale is 4.42 ($SD = 0.85$). Following Davis et al. (1987), we split them at the median and put them into high and low perspective-taking groups. The average response is 5.00 ($SD = 0.52$) for participants in the high perspective-taking group and 3.69 ($SD = 0.61$) for those in the low perspective-taking group.

[15] Davis (1980, 1983) develops the Interpersonal Reactivity Index, designed to measure dispositional empathy. The instrument includes four separate subscales that delve into separate facets of empathy, including perspective taking, empathic concern, personal distress, and fantasy. We are interested in the perspective-taking subscale that deals with cognition and understanding others' beliefs, behavior, and actions.

[16] The scale has seven items: (1) I sometimes find it difficult to see things from the "other person's" point of view (reverse-coded); (2) I try to look at everybody's side of a disagreement before I make a decision; (3) I sometimes try to understand my friends better by imagining how things look from their perspective; (4) If I'm sure I'm right about something, I don't waste much time listening to other people's arguments (reverse-coded); (5) I believe that there are two sides to every question and try to look at them both; (6) When I'm upset at someone, I usually try to "put myself in his shoes" for a while; and (7) Before criticizing somebody, I try to imagine how I would feel if I were in their place. For each item, participants respond on a seven-point Likert scale, anchored by 1 = does not describe me well to 7 = describes me well. Participants' average response across the seven items is a measure of their perspective-taking disposition. Based on participants' responses, we obtain a Cronbach's alpha of 0.88.

Table 4
The effect of perspective-taking disposition on auditors' accuracy in estimating earnings: Experiment two.[a]

Statistic	Perspective-taking group		Total
	High	Low	
Mean	7.11	9.49	8.15
Median	7.00	9.00	7.50
Std. Deviation	3.79	5.01	4.46
Min	1.75	2.50	1.75
Max	15.75	21.25	21.25
Mean test: $t(37) = -1.69$, $p = 0.05$, one-tailed			
Median test: $Z = -1.67$, $p = 0.049$, one-tailed			

[a] In experiment two, participants respond to the Davis scale, which allows us to measure their perspective-taking disposition. We use a median split to partition participants into a high and low perspective-taking group. Accuracy in estimating earnings is measured by the auditor's average estimation error, calculated as $\sum$|Auditor's Estimate of Earnings − Actual Earnings|/4.

Results

We examine whether perspective-taking disposition is associated with auditors' evaluation of managers' earnings reports. We compute auditors' average absolute estimation error over the four rounds. Descriptive statistics are presented in Table 4, partitioned by perspective-taking group. We find that the mean (median) estimation error of the high perspective-taking group is less than that of the low perspective-taking group: 7.11 (7.00) versus 9.49 (9.00), respectively. A parametric *t*-test and a nonparametric Mann–Whitney test indicate that the difference between the two groups is statistically significant at conventional levels: $t(37) = -1.69$, $p = 0.05$, one-tailed and $Z = -1.67$, $p = 0.049$, one-tailed, respectively. Our finding suggests that participants' natural perspective-taking disposition improves task performance.

To further judge the accuracy of auditors' earnings estimates, we examine the frequency of participants' estimation errors over the four rounds, partitioned into categories based on whether the magnitude of the error is within ±10 of actual earnings. Fisher's exact test indicates that the proportion of absolute estimation errors that falls within the materiality bounds (i.e., $|E| \leqslant 10$) is significantly greater for the high perspective-taking group than the low perspective-taking group at $p = 0.043$, one-tailed. This finding provides additional evidence of the effect of perspective-taking disposition on participants' performance.

Next, we investigate the effect of perspective-taking disposition on auditors' decisions. Panel A of Table 5 presents descriptive data, summarizing the percentage of time that auditors' decisions contribute to financial-reporting quality (refer to Fig. 2), partitioned by perspective-taking group. Examination of the data indicates that the percentage is larger for the high perspective-taking group in three of four rounds. However, collapsing the data across the four rounds, parametric and nonparametric tests indicate that the difference between the two groups is not statistically significant at conventional levels: $t(37) = 0.85$, $p = 0.20$, one-tailed, and $Z = 0.73$, $p = 0.23$, one-tailed, respectively. Panel B of Tables 5 presents descriptive data, summarizing the percentage of time that auditors' make the correct accept/reject decision, irrespective of their earnings estimates. Again, collapsing the data across the four rounds, we find that difference between the two groups is not statistically significant: $t(37) = 0.03$, $p = 0.49$, one-tailed, and $Z = 0.00$, $p = 0.50$, one-tailed. We suggest that perspective-taking disposition may have a more subtle effect on auditors' decisions as compared to other variables (e.g., role-taking experience) that are designed to stimulate perspective taking. Our conjecture is consistent with findings in psychology that behavior is influenced by both contextual factors and personality, but contextual factors are likely a stronger predictor of behavior in a specific situation, whereas personality is a more consistent predictor of behavior over time (Fleeson, 2001; Fleeson & Noftle, 2008; Ross & Nisbett, 1991).

Table 5
Auditors' decisions and perspective-taking disposition: Experiment two.

Round	Perspective-taking group	
	High	Low
Panel A: percentage of auditors' decisions that contribute to financial-reporting quality[a]		
3	0.45	0.41
4	0.86	0.53
5	0.77	0.65
6	0.41	0.59
Total	$M = 0.63$	$M = 0.54$
	$SD = 0.29$	$SD = 0.31$
Panel B: Percentage of auditors' decisions that correctly accept/reject managers' report[b]		
3	0.45	0.41
4	0.64	0.47
5	0.86	0.82
6	0.41	0.65
Total	$M = 0.59$	$M = 0.59$
	$SD = 0.25$	$SD = 0.25$.

[a] The cell entries in Panel A indicate the percentage of time that auditors' decision contribute to financial-reporting quality. This result occurs when (1) the auditor accepts reported earnings that are within ±10 of actual earnings or (2) the auditor rejects the manager's report, the auditor's earnings estimate is acceptable (within ±10 of actual earnings, and the auditor's estimate is superior to that of the manager (closer to actual earnings than the manager's reported amount). The specifics that underlie high-quality financial reporting are depicted in Fig. 2. The total at the bottom of the Panel indicates the mean and standard deviation of the percentage of time that auditor-participants' decisions contribute to financial-reporting quality.

[b] The cell entries in Panel B indicate the percentage of time auditors make the correct decision to accept or reject reported earnings, irrespective of auditors' estimates of earnings. The auditor's decision is correct as long as the auditor accepts reported earnings that are within ±10 of actual earnings and rejects other amounts. The total at the bottom of the Panel indicates the mean and standard deviation of the percentage of time that auditor-participants' decisions are correct.

Subsequently, we scrutinize whether participants with more accurate estimates of earnings promote high-quality financial reporting. As before, we regress the number of times that auditors' decisions contribute to financial-reporting quality on their average absolute estimation error. We find that the coefficient of the average estimation error is negative and statistically significant ($\beta = -0.18$, $t(37) = -5.17$, $p < 0.001$), which suggests that estimation accuracy is associated with superior decision making. We repeat the analysis using the number of times that auditors make the correct accept/reject decision and inferences are unaffected ($\beta = -0.11$, $t(37) = -3.41$, $p = 0.002$).

Finally, we perform a path analysis to assess the links between perspective-taking group, estimation accuracy, and promoting high-quality financial reporting. We document a significant path from perspective taking to estimation accuracy (path coefficient of −2.37, $p = 0.042$) and from estimation accuracy to promoting high-quality financial reporting (path coefficient of −0.17, $p < 0.001$). Results are similar examining the links between perspective taking, estimation accuracy, and making correct accept/reject decisions. All in all, the results suggest that dispositional perspective taking impacts auditor-participants' assessment of managers' reporting choices, aside from the effects of other factors that might be introduced to stimulate perspective taking.

Conclusion

We report the results of two experiments designed to examine the effect of perspective taking on auditors' ability to determine whether managers' reported earnings are materially misstated and, in turn, to contribute to high-quality financial reporting. In our first experiment, we manipulate auditors' prior experience in the manager's role (experience versus no experience). We predict

and find that role-taking experience stimulates perspective taking, which allows auditors to more accurately estimate managers' reported earnings, ultimately benefitting financial-reporting quality. In our second experiment, we appraise auditor-participants' ability to spontaneously take another's psychological viewpoint, beyond the effects of role-taking experience. As expected, we find that auditors with high perspective-taking disposition are better able to judge managers' reported earnings than auditors with low perspective-taking disposition. On the whole, our findings highlight the importance of perspective taking as a means to promote audit quality.

We recognize that our study is subject to various limitations. Our experimental setting abstracts away from a specific audit context. However, the use of an abstract setting allows us to carefully focus on the underlying constructs and, importantly, to directly test our theoretical arguments. Indeed, our experimental findings support the underlying theory. In designing the experimental task, we sought to incorporate the key features of auditor–manager interactions, specifically both parties' situational incentives. Importantly, we are not aware of any audit content factor that would interact with role-taking experience or perspective-taking ability in such a way as to alter our findings. We leave this issue for future study.

In addition, our study focuses on the cognitive aspects of perspective taking – mentally understanding another's point of view. But, other aspects of perspective taking can come into play in strategic interactions. For example, affective empathy may be important in gauging others' behavior (e.g., Batson, 2009; Davis, 1983; Davis et al., 1987). Auditors may benefit from sensitivity to their counterpart's feelings, including situational stress and discomfort that are triggered by the reporting environment, which impact managers' actions. In our experimental setting, the affective aspects of perspective taking are suppressed (to avoid potential confounds). Our experimental task is calculative and game-like, and it precludes social interaction (e.g., auditors observe managers' reports and nothing else). Accordingly, our study does not shed light on the associations between affective empathy, perspective taking, and auditor performance. We readily acknowledge that the emotional aspects of perspective taking are important, and we encourage others to study this area in the future.

Despite the limitations, our results directly point to the benefits of enhanced perspective taking in promoting audit quality. Our findings suggest that audit firms can benefit from hiring individuals who have been on the corporate side of the financial-reporting process, including boomerangs. Audit firms also may be able to capture the benefits of role-taking experience by implementing training programs that include role taking. In addition, our findings suggest that audit firms may want to consider dispositional perspective taking in staffing assignments. The importance of including some team members with high perspective taking likely is magnified when the auditor and client are involved in resolving significant disagreements over accounting matters. Finally, we encourage audit firms to consider other ways to facilitate perspective taking as a means to improve auditor performance.

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