Biased Self-Assessments, Feedback, and Employees’ Compensation Plan Choices

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Abstract

We conduct a laboratory experiment to examine how task difficulty, coupled with three different types of performance feedback, affects the compensation plans that individuals select. We examine fixed pay and performance-based pay that provides additional compensation for above-average performance. We find that participants are more likely to choose performance-based pay than fixed pay when a task is easy versus when a task is difficult and that this bias is mediated by participants’ (incorrect) assessments of their task-specific skill. Additionally, participants’ preferences for performance-based pay on easy tasks persist with the provision of individual, but not relative, performance feedback. Moreover, participants are more likely to select an inappropriate compensation plan (and forego greater earnings) when a task is easy versus when a task is difficult. Finally, we find some notable results related to both participants’ risk preferences and skill levels. Collectively, our results have welfare implications for both individuals and firms.

Keywords

Self-selection; task difficulty; feedback; confidence; incentives

JEL Descriptors

M41, M52, M55
1. Introduction

A fundamental function of management accounting is to design performance-evaluation and reward systems that enhance productivity by not only motivating high levels of effort but also by attracting the appropriate workforce. Evidence suggests that attracting the right worker is vital to firms, accounting for almost half of the incentive effects on performance (Lazear 2000; Cadsby et al. 2007). Despite the substantial impact of self-selection on performance, most research on incentives focuses on their effort effects (Bonner and Sprinkle 2002; Gerhart and Rynes 2003).

In this paper, we examine how task difficulty, coupled with three different types of performance feedback, affects the compensation plans that individuals select. First, tasks or jobs within a firm and between firms vary markedly in difficulty, and firms are interested in how task difficulty affects performance as it is a variable that is both observable and sometimes controllable. We posit that, in addition to the well-documented effects of task difficulty on performance (see, e.g., Hogarth 1993 or Bonner 2008), task difficulty will have a significant effect on individuals’ compensation plan choices.

Second, a key role of accounting systems is to provide performance feedback. Additionally, feedback frequently is not complete and firms may even withhold performance information when it is available (see, e.g., Landy and Farr 1980, Milkovich and Newman 1996, and Ray 2007). To this end, we examine how task difficulty affects compensation plan choices in a setting where individuals receive three different types of performance feedback – none, individual (absolute) performance, or relative performance.

At the heart of our study is the notion that individuals typically do not possess complete knowledge of their task-specific skill. Prior research (see, e.g., Holmström and Beach 1973;
Spence 1973; Demski and Feltham 1978; Waller and Chow 1985; Kachelmeier and Williamson 2010) generally assumes that individuals are aware of their task-specific skill and, as such, that individuals are able to select compensation plans that maximize their expected utility. In kind, firms are able to design compensation plans that effectively sort workers in the labor market.

Research in psychology, however, suggests that individuals are likely to have biased beliefs about their skills, and that the direction of these biases is likely to differ across tasks of varying difficulty. Specifically, research suggests that individuals are likely to believe they are better-than-average (worse-than-average) on easy (difficult) tasks. We posit that these biased beliefs are likely to lead individuals to inappropriately choose performance-based pay when a task is easy versus when a task is difficult. We also posit that individuals’ assessments of their skill will mediate the relation between task difficulty and compensation plan choices.

We conducted a computer-based experiment to test our hypotheses. The task entailed selecting the best synonym for a given word from the website www.freerice.com. We employed a vocabulary-based task to minimize the impact of effort and, as such, to isolate the effect of task-specific skill on performance. All participants completed one practice round and four compensated rounds, with each round comprising ten words. At the beginning of each compensated round, participants selected one of four pay plans. One plan provided fixed remuneration, and the other three plans compensated participants based on their performance relative to the average participant’s performance. The pay plans were structured so that, regardless of the treatment condition, approximately 50% of the participants would maximize their pay by choosing the fixed-pay plan and 50% of the participants would maximize their pay by choosing a performance-based pay plan that pays a bonus for above-average performance.
We manipulated two factors between participants. First, we randomly assigned participants to either an easy task or a difficult task condition, with synonym difficulty being determined via the level assigned to each word on www.freerice.com. Second, we randomly assigned participants to one of three feedback conditions. Participants were either provided with: (1) no information about individual performance or relative performance; (2) information about individual performance but not relative performance; or (3) information about relative performance but not individual performance.

We find that participants are more likely to choose performance-based pay than fixed pay when the task is easy versus when the task is difficult in both the no feedback (70% vs. 42%) and individual performance feedback (82% vs. 44%) conditions. These results are consistent with participants exhibiting a significant better-than-average (BTA) bias in the easy task condition that is mitigated in the difficult task condition. To this end, we find that the average participant working on the easy (difficult) task in the no- and individual-feedback conditions estimated his/her relative performance rank at 87% (47%).

We do not, however, find significant differences in compensation plan choices between easy and difficult tasks in the relative feedback condition (73% vs. 65%). These results are consistent with participants exhibiting a better-than-average (BTA) bias in both the easy and difficult task conditions when relative performance feedback is provided. In the relative feedback condition, we find that the average participant working on the easy (difficult) task estimated his/her relative performance rank at 65% (51%).

We also find that the relation between task difficulty and compensation plan selection is fully mediated by participants’ assessments of their skill. Collectively, our results suggest that individuals are more likely to select an inappropriate compensation plan when the task is easy
versus when the task is difficult and that this preference is mediated by individuals’ biased assessments of their task-specific skill. This led participants to forego greater earnings when working on the easy task than when working on the difficult task, suggesting that easy tasks can hamper individual welfare. Firms, though, can benefit by paying less for the same performance—that is, firms can lower labor costs when workers are overly optimistic (or pessimistic) about their abilities.

Finally, although we document biases in participants’ preferences for performance-based pay between task difficulty conditions, our results also reveal that performance-based pay does attract participants with higher skill levels. These results suggest that, consistent with the agency literature, performance-based pay serves an important sorting function by attracting higher-skilled workers. We also find that risk preferences significantly affect compensation plan choices, with more risk averse (seeking) participants being more likely to choose fixed (performance-based) pay. This result suggests that, consistent with theory, risk plays a significant role in individuals’ compensation plan decisions.

As mentioned earlier, most research focuses on the incentive (effort) effects of compensation plans. However, there have been some studies that have examined the effectiveness of sorting using compensation plans.\footnote{For work in the area, see, e.g., Chow (1983), Waller and Chow (1985), Shields and Waller (1988), Dillard and Fisher (1990), Cadsby et al. (2007), Niederle and Vesterlund (2007), Hyatt and Taylor (2008), Dohmen and Falk (2011), Larkin and Leider (2012), and Hales et al. (2014).} Our work differs from prior research in several important ways. First, we show that both task difficulty and the type of performance feedback differentially affect individuals’ compensation plan choices. Second, we conduct mediation analysis to document that participants’ biased assessments of their relative skill are indeed driving individuals’ compensation plan choices. Third, we provide compelling evidence
that risk preferences influence compensation plan choices and that, even when individuals are uncertain of their skill, compensation plans still serve an effective sorting role. Finally, in contrast to other studies, we employ a task that is not particularly effort-sensitive, which enables us to isolate the effect of skill.

The remainder of our paper is organized into four sections. The next section provides background and develops our hypotheses, and section three explains the methods employed to test our hypotheses. Section four presents the results, and section five provides a summary and discussion of the results.

2. Background and Hypotheses

Self-Selection

Firms use compensation plans to match job requirements and employee attributes via employees’ compensation plan choices, a process referred to as self-selection. Economic theory posits that employees select compensation plans to maximize their expected utility, with the utility function incorporating employee attributes such as task-specific skill, preferences for wealth, risk, effort, and compensation plan attributes, such as performance measures and performance target difficulty (Holmström and Beach 1973; Demski and Feltham 1978; Waller and Chow 1985). Ceteris paribus, performance-based pay is more attractive to employees who possess the requisite skills to more readily achieve compensation targets than to employees who do not. Alternatively, flat pay is more attractive to employees who do not possess the skills to achieve the compensation target.
**Task-Specific Skill Uncertainty**

Although the self-selection literature acknowledges that employees’ assessments of their task-specific skill affects compensation plan selection, a fundamental assumption in both the analytical (e.g., Holmström and Beach 1973; Spence 1973; Demski and Feltham 1978) and the experimental (e.g., Chow 1983; Waller and Chow 1985; Kachelmeier and Williamson 2010) literature is that employees possess knowledge of their task-specific skills and, as a result, that self-assessments of task-specific skills are accurate.\(^2\) Thus, employees are able to select compensation plans that maximize their expected utility, enabling firms to design compensation plans that effectively sort individuals in the labor market.

Given the transient nature of today’s workforce, however, task-specific skill uncertainty likely affects a considerable portion of the labor market. For example, survey evidence suggests that the average baby boomer held over ten jobs between the ages of 18 and 42 (Bureau of Labor Statistics 2006). New entrants into the labor market and workers moving laterally or vertically within the same firm or industry may be uncertain of their skill for novel tasks. In public accounting, for example, as audit professionals are promoted to higher levels, different skills become critical for success (Bhamornsiri and Guinn 1991; Tan and Libby 1997; Tan 1999). At the staff level, technical knowledge and teamwork are key skills. For seniors, problem-solving efficiency is crucial, while managers must possess communication and leadership skills to be successful. Finally, at the partner level, business acumen, client knowledge, and decisiveness are key success factors.

Although prior studies generally make the simplifying assumption that individuals are certain of their task-specific skill, it is acknowledged that this is often not the case (e.g., Spence

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\(^2\) Some exceptions are Cadsby et al. (2007), Hyatt and Taylor (2008), Dohmen and Falk (2011) and Larkin and Leider (2012).
1973; Salop and Salop 1976; Demski and Feltham 1978) due to differences in task experience and performance feedback (MacDonald 1982a, 1982b, 1982c). Consistent with this notion, Waller and Chow (1985, 461-462) state:

Generally, only a worker’s perceptions of personal attributes are involved directly in the contract selection process, and these perceptions may be vague or wrong. For example, an inexperienced worker in the labor market may have only vague perceptions about his/her skills before selecting a contract, such that he/she cannot predict exactly whether his/her performance will meet or exceed a standard, given some effort level, even in the absence of state uncertainty.

Because individuals often select compensation plans when they are uncertain of their task-specific skill, we relax the assumption that they have full knowledge of their task-specific skill and examine compensation plan selection in a setting in which individuals either receive no feedback or partial feedback.

Task Difficulty and Biased Skill Assessments

Tasks or jobs within a firm and between firms vary markedly in difficulty, and research finds that task difficulty can have substantial effects on performance (e.g., Hogarth 1993; Bonner 2008). It is important for firms to understand how task difficulty affects the facets of performance as this factor is observable to, and sometimes controllable by, firms.

Research in psychology suggests that task difficulty may differentially affect individuals’ assessments of their skills (e.g., Erev et al. 1994; Kruger and Dunning 1999). One body of literature in psychology demonstrates that when individuals are uncertain of their task-specific skill, they tend to be overconfident, a phenomenon known as the Better-Than-Average (BTA)

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3 Additionally, output may not be a reliable indicator of employees’ skill if there is a high degree of state uncertainty, idiosyncratic noise, or if the production function is non-separable, involving the joint inputs from multiple workers (Holmström 1979, 1982).
bias (see Dunning et al. 2004 for a review). Consistent with the BTA bias, recent studies (Cadsby et al. 2007; Hyatt and Taylor 2008; Dohmen and Falk 2011; Larkin and Leider 2012) provide evidence that individuals tend to inappropriately select performance-based pay when they are uncertain of their task-specific skill.

In contrast to prior studies that only focus on overconfidence, we develop our hypotheses based on theory and evidence from studies in psychology that augment the well-documented BTA bias (e.g., Kruger and Dunning 1999; Moore and Kim 2003; Burson et al. 2006; Moore 2007; Moore and Small 2007). Specifically, a recent stream of psychology research suggests that the BTA bias is contingent on the task domain (e.g., Burson et al. 2006; Moore and Cain 2007; Moore and Small 2007). Research suggests that individuals are systematically overconfident when a task is easy and underconfident when a task is difficult (e.g., Burson et al. 2006; Moore and Cain 2007; Moore and Small 2007; Hales and Kachelmeier 2008).

Consistent with a BTA bias, empirical evidence suggests that individuals are routinely overconfident in several domains. For example, individuals believe they are above average in their ability to drive, ride a bicycle, or even use a computer mouse (Svenson 1981; Kruger 1999). Conversely, individuals are underconfident in other domains. For example, individuals tend to believe they are below-average in their ability to juggle, live past 100, or cope with the passing of a loved one (Kruger 1999; Blanton et al. 2001; Chambers et al. 2003). Thus, when a task is easy, individuals are likely to fall prey to the BTA bias. Conversely, when a task is difficult, individuals are likely to suffer from a Worse-Than-Average (WTA) bias.

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4 BTA beliefs can have implications for behavior in business settings. For example, Camerer and Lovallo (1999) find that individuals’ overconfidence may explain the high rates of entrepreneurial entry and Malmendier and Tate (2005) suggest that overconfidence may contribute to the high rate of corporate acquisitions. Capps et al. (2014) suggest that unintentional optimism influences managers’ financial reporting and voluntary disclosure decisions.

5 Hales and Kachelmeier (2008) examine a task with a wide distribution of perceived ability and find evidence consistent with both BTA and WTA biases.
Two recent theories from psychology provide a parsimonious explanation for the BTA/WTA biases, the differential weighting hypothesis (Kruger 1999; Klar 2002) and the differential information hypothesis (Moore 2007; Moore and Cain 2007; Moore and Small 2007). The differential information/weighting hypotheses posit that task difficulty influences assessments of task specific skill due to two factors: (1) assessments of oneself and others tend to be biased away from extremes (Erev et al. 1994; Burson et al. 2006), and (2) individuals have more information about themselves than others, leading to less accurate (i.e., more biased) assessments of others (Dawes and Mulford 1996; Fiedler 1996, 2000; Epley and Dunning 2006).

Combined, these factors suggest that when a task is easy and overall rates of success are high, self-assessments will be downwardly biased and assessments of others will be even more downwardly biased (Moore and Small 2007). Thus, when a task is easy, individuals believe their performance is superior to others, consistent with the BTA bias (Kruger 1999; Moore 2007; Moore and Small 2007). Conversely, when a task is difficult and overall rates of success are low, self-assessments are upwardly biased and assessments of others are even more upwardly biased (Erev et al. 1994; Burson et al. 2006). As a result, individuals believe they are worse than average for difficult tasks (Moore and Small 2007).

If individuals’ assessments are consistent with the BTA/WTA biases and they select compensation plans that match their self-assessed task-specific skill to maximize expected utility, then we would expect the following. When a task is easy, individuals are likely to be overconfident and believe they are better-than-average and, as a result, will be more likely to select performance-based pay. On the other hand, when a task is difficult, individuals are likely to be under-confident and believe they are worse-than-average and, as a result, will be more likely to select fixed pay. This leads to our first hypothesis:
HYPOTHESIS 1: In a setting where individuals are not provided with information about their performance or others’ performance, individuals will be more likely to select performance-based pay than fixed pay when a task is easy versus when a task is difficult.

Performance Feedback

One function of the accounting system is to provide performance feedback (Bonner and Sprinkle 2002; Hannan et al. 2013; Tafkov 2013; Brown et al. 2014). However, individuals frequently are provided with incomplete or partial feedback. For instance, it is quite common for firms to withhold information about performance, even when it is available (see, e.g., Landy and Farr 1980, Milkovich and Newman 1996, and Ray 2007). Further, even if an individual possesses knowledge about his/her task-specific skill, s/he may not have knowledge of the distribution of others’ skills (McDonald 1982a, 1982b, 1982c). Such situations occur when individuals are applying for a new job or even a new position within their current firm and have limited information about relevant others. Firms may also be loath to share relative performance information to avoid undesirable reactions such as animosity or discouragement (Milkovich and Newman 1996).

Conversely, individuals may know where they stand relative to others, but may not have complete information about their own task-specific skill. Such situations can occur in the vitality curve (i.e., rank-and-yank) or A, B, C, etc. grading performance-evaluation systems that are frequently used at many firms (Krop 2013). These issues can be exacerbated in team settings, where it is difficult for individuals to isolate their unique contributions. As such, we examine conditions where individuals receive partial performance feedback in the form of either individual (absolute) feedback or relative feedback (whether they are “above average” or “at or below average”).
Consistent with Bayesian updating, feedback should reduce uncertainty as individuals incorporate new information into their self-assessments. In other words, feedback should enable individuals to update their beliefs regarding their task-specific skill, leading to more accurate self-assessments and, in turn, reducing biased compensation plan choices as predicted in hypothesis 1. However, it is not clear that participants will engage in Bayesian updating when provided with either relative or individual performance feedback. For example, Hyatt and Taylor (2008) find that the BTA effect is mitigated when participants are provided with performance feedback. However, Larkin and Leider (2012) find that the BTA effect persists even when participants receive performance feedback. Moreover, prior research has not considered the types of feedback nor the performance-based compensation plans that we examine that pay a bonus for above-average performance.

Relative feedback provides a clear signal to individuals regarding whether their performance is above- or below-average. Recent research also suggests that relative feedback may affect individuals’ self-esteem and induce competitive behavior, leading to greater effort and performance (Dohmen and Falk 2011; Kuhnen and Tymula 2012). Again, though, it is somewhat unclear as to whether such feedback will mitigate skill assessment biases. One might posit that compensation plan selection would change markedly for a difficult task as roughly half of the individuals now have information that they are “above average,” offsetting any WTA biases. It is less clear, though, whether individuals who receive explicit feedback that they are “at

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6 Hyatt and Taylor (2008) had participants make a compensation plan choice on one day and receive feedback and make one compensation plan choice on a subsequent day. Larkin and Leider (2012) use a multi-period environment in one experimental session. These different design choices may explain the divergent results.

7 Larkin and Leider (2012) only examine performance-based compensation plans (i.e., linear and convex). Hyatt and Taylor (2008) examine a fixed, totally variable and a combination plan with fixed and bonus pay for above-average performance. However, no participants chose the combination compensation plan, and as a result, it is unclear how feedback affects individuals’ decisions when choosing between fixed pay and performance-based pay when a bonus is paid for above-average performance.
or below average” will select fixed pay because individuals may be reluctant to discard a positive self-image (Wood 1989; Kunda 1990; Hoorens and Buunk 1993; Alicke and Govorun 2005). Additionally, while relative feedback informs individuals that they are “above average” or “at or below average,” the ordinal, rather than cardinal, nature of the performance feedback may only soften, but not fully mitigate, participants’ biases (e.g., participants may believe that they are “just above” or “just below” average).

The effect of individual feedback on the selection of compensation plans in which the performance target is based on relative performance is even more questionable than the effect of relative feedback for two reasons. First, selection of relative compensation plans relies on assessment of one’s task specific skill and assessments of others’ skill. Individual feedback provides information about one’s own skill, but does not provide any information about others’ skill. Second, empirical evidence suggests that individual feedback exacerbates the BTA/WTA biases (Moore and Cain 2007; Moore and Small 2007). Given the lack of a clear prediction regarding the effect of feedback on compensation plan selection, we propose the following null hypothesis:

**HYPOTHESIS 2:** In settings where individuals are provided with information about their absolute or relative performance, individuals will be more likely to select performance-based pay than fixed pay when a task is easy versus when a task is difficult.

Our first two hypotheses examine the relation between task difficulty and individuals’ preferences for performance-based pay or fixed pay under three feedback regimes (none, individual, or relative). The motivation underlying these hypotheses is that individuals’ skill

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8 Consistent with the differential information hypothesis (Moore and Cain 2007; Moore and Small 2007), when a task is easy (difficult), individuals underestimate (overestimate) their actual skill and further underestimate (overestimate) others’ skill, leading to the BTA (WTA) effect. When a task is easy (difficult), individual feedback results in an upward (downward) revision of the assessment of individual skill, but does not lead to an equivalent revision of others’ skill, exacerbating the BTA (WTA) bias.
assessments will guide their compensation plan choices. As such, we expect that individuals’ perceptions of their skill will mediate the relation between task difficulty and compensation plan choices. This leads to our third hypothesis:

**HYPOTHESIS 3:** *Individuals’ assessments of their skill will mediate the relation between task difficulty and compensation plan choices.*

3. **Method**

*Task & Manipulations*

The task entailed selecting the best synonym for a given word from a list of four choices from the website [www.freerice.com](http://www.freerice.com). We employed a vocabulary-based task to minimize the impact of effort and, as such, to isolate the effect of task-specific skill on performance.\(^9\)

Participants completed one practice round and four compensated rounds. In each round, we randomly selected (without replacement) ten vocabulary words from a database of over 1,000 words. We measured performance as the number of words participants correctly classified (from 0 to 10) in each round.

To test our hypotheses, we employ a 2 × 3 design. We manipulate, between-participants, task difficulty (easy or difficult) and feedback (no feedback, individual feedback, or relative feedback). First, we randomly assigned participants to either an easy task condition or a difficult task condition for both the practice round and the four compensated rounds. We determined synonym word difficulty via the level assigned to each word on [www.freerice.com](http://www.freerice.com), from one to

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\(^9\) Prior research finds that effort has a minimal impact on performance for recognition memory tasks (Libby and Lipe 1992).
Participants in the easy (difficult) task condition received words from levels 10 through 20 (44 through 60).\textsuperscript{10} Second, we randomly assigned participants to one of three feedback conditions. In the no feedback condition, participants did not receive any information about either their absolute or relative performance throughout the entire experimental session. In the individual feedback condition, we informed participants of the number of words they correctly classified after each round of the experiment, including the practice round. In the relative feedback condition, we informed participants whether their performance was “at or below average” or “above average” after each round of the experiment, including the practice round.\textsuperscript{11} Finally, and as previously mentioned, all participants completed four compensated rounds, with each round containing ten words.

\textit{Participants & Procedures}

We conducted our experiment using web-based software in a computer laboratory with 148 undergraduate students from a large, public university. As detailed below, the experiment comprised three elements.

\textit{Risk Preferences}

Prior to the practice round and the four compensated rounds, we elicited participants’ risk preferences using a series of ten gambles in which participants chose between two lotteries (Holt

\textsuperscript{10} To ensure that (\textit{a priori}) performance significantly differed between task difficulty conditions, we conducted a pre-test with undergraduate students from a large, public university.

\textsuperscript{11} Thus, participants in the relative (individual) feedback condition were not provided with individual (relative) performance information. This allows us to isolate the effects of individual and relative feedback.
and Laury 2002). Figure 1 displays the ten gambles and the two options presented to participants. We created the variable Risk to measure participants’ risk preferences. Risk ranges in value from one to eleven, with the specific number corresponding to the gamble where participants switched their preference from the less risky lottery (A) to the more risky lottery (B).12 Participants were informed that at the conclusion of the experiment, one of the ten gambles would be randomly selected and compensated as per the parameters in Figure 1.

(Figure 1)

**Compensated Rounds**

Participants completed a non-compensated practice round in which they answered ten questions. Following the practice round, participants completed four compensated rounds. At the beginning of each round, participants selected a compensation plan. As shown in Figure 2, participants could select one of four compensation plans. Compensation plan A is a fixed-wage plan as pay does not depend on performance. The pay for compensations plans B, C, and D depends on participants’ performance relative to the “average” participant, and differed as to the amount of fixed versus bonus pay if the threshold was achieved. We chose compensation-based plans that award a bonus for above-average performance because these contracts are closely related to the theories (BTA/WTA) that we examine. Moreover, these relative performance contracts are prevalent in practice (Murphy 1999; De Angelis and Grinstein 2014). For the easy (difficult) task condition, the average performance was nine (two) correct answers out of ten questions.13 Thus, participants in the easy (difficult) task condition needed to answer ten (three)...

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12 Thus, a participant who chose option B for the first (seventh) gamble would be assigned a Risk of one (seven). A participant would receive an “11” for Risk if s/he chose option A for all ten gambles (although this choice is dominated by Option B for the tenth gamble). As depicted in Figure 1, a higher (lower) Risk value represents greater (lesser) risk aversion.

13 Using a protocol similar to the one employed by Hannan et al. (2008), we ran the no feedback and individual feedback conditions before running the relative feedback condition. We obtained the average performance for each
out of ten questions correctly to exceed the performance target.

(Figure 2)

Using participants’ compensation plan choices, we constructed the measure PerfPay, which takes on a value of one if a participant chose compensation plans B, C, or D and a value of zero if a participant chose compensation plan A. That is, our primary interest is whether participants selected fixed pay versus performance-based pay. However, we also examine the individual performance-based plans (i.e., plans B, C, and D) separately as the different bonus components may affect participants’ compensation plan choices.

After selecting a compensation plan, participants answered the ten synonym questions. Following this, participants were asked to assess how many questions they answered correctly (from 0 to 10), and how many questions the average participant answered correctly (from 0 to 10).

Additionally, we asked participants in all conditions to estimate their relative performance rank from 0% to 99%. Participants were then provided with feedback information, if any, as per our manipulation and asked to select their compensation plan for the next round, and so on, until they completed all four rounds.

After completing all four rounds, participants completed a brief questionnaire that contained primarily demographic questions. Participants then received their remuneration from the experiment, which equaled the monies received from completing the risk preferences task difficulty condition from participants’ performance in the no feedback and the individual feedback conditions. Average actual performance was 9.27 and 2.95 in the easy and difficult task conditions, respectively. Participants were not informed of the average performance in any condition. Thus, participants in the no- and individual-feedback conditions would not, unless they selected plan A, know their compensation after each round. Participants in the relative feedback condition could, however, calculate their compensation after each round.

$^{14}$ Participants in the no feedback condition answered both questions. Participants in the individual (relative) feedback condition answered the second (first) question.
instrument plus the compensation for completing the task.\textsuperscript{15} To this end, participants were informed (prior to round 1) that one of the four rounds would be randomly selected to determine their pay from completing the synonym task.

4. Results

Descriptive Statistics

Table 1 presents the descriptive statistics from our experiment. Consistent with our first hypothesis, Table 1 shows that participants in the no-feedback condition selected performance-based pay more frequently when the task was easy versus when the task was difficult (70\% versus 42\%). Consistent with our second hypothesis, Table 1 documents that participants receiving individual feedback selected performance-based pay more frequently when the task was easy versus when the task was difficult (82\% versus 44\%). While participants receiving relative feedback selected performance-based pay more frequently when the task was easy versus when the task was difficult (73\% versus 65\%), the difference is not particularly large.

(Table 1)

Table 1 also shows that our results are consistent with participants having biased assessments of their task-specific skill. Specifically, Table 1 documents that participants’ relative ranking estimates are higher on the easy task than on the difficult task (overall average of 78\% on the easy task versus overall average of 44\% on the difficult task), indicating not only BTA and WTA biases in easy and difficult tasks, respectively, but also that the BTA bias appears to be stronger than the WTA bias. Table 1 further documents that, consistent with BTA and WTA

\textsuperscript{15} Because we used the performance data from the no feedback and individual feedback conditions to determine average performance, participants in these conditions received their pay one to several days after participating in the experiment.
biases, participants’ relative skill rankings always exceeds 50% in the easy task condition and are less than or equal to 51% in the difficult task condition.

By design, participants answered more questions correctly in the easy conditions than in the difficult conditions. In order to assess performance between task difficulty conditions, we created the variable \( \text{NormPerform} \). We created this variable in two steps. First, we computed, for each participant, the number of questions s/he answered correctly less the average number of questions correctly answered by all participants in the same task difficulty condition. Next, we divided the aforementioned difference by the standard deviation in actual performance of all participants in the same task difficulty condition. Table 1 shows that, consistent with using compensation contracts for sorting purposes, \( \text{NormPerform} \) is higher for participants who chose performance-based pay than for participants who chose fixed pay in both the easy and difficult task conditions. Table 1 also reveals that participants took much more time when working on a difficult task than when working on easy task, particularly when they chose performance-based pay. Finally, Table 1 shows that, as would be posited, participants who were relatively more risk averse (risk seeking) were more likely to choose fixed pay (performance-based pay).

Panels A and B of Figure 3 graphically depict the proportion of time participants selected a performance-based compensation plan by task difficulty condition, feedback condition, and round. This Figure illustrates not only that participants selected performance-based pay more frequently in the easy task condition than in the difficult task condition, but also that participants’ choices did not vary markedly over the course of the experiment for five of the six treatment conditions. The exception is the difficult task, individual feedback condition. As
shown in Panel B of Figure 3, participants in this condition initially selected performance-based pay 64% of the time – by the end of the experiment, this proportion was approximately 40%.16

(Figure 3)

Compensation Plan Choices (Hypotheses 1 & 2)

Hypothesis 1 posits that, in the absence of feedback, participants are more likely to select performance-based pay than fixed pay when the task is easy than when the task is difficult. Hypothesis 2 posits that, even when provided with individual feedback or relative performance feedback, participants are more likely to choose performance-based pay than fixed pay when the task is easy versus when the task is difficult. To test hypotheses 1 and 2, we estimate, by feedback condition, a logistic regression model with PerfPay as the dependent variable, EasyTask as the independent variable, and Risk and NormPerform as the control variables.17 As discussed in the method section, PerfPay equals one (zero) if a participant chose a performance-based (fixed) pay plan. EasyTask is an indicator variable that equals one (zero) if a participant was randomly assigned to the easy (difficult) task condition. The variables Risk and NormPerform are as defined earlier and in Table 1.

As shown in Panel A of Table 2, EasyTask is highly significant (p = 0.007) in the no feedback condition, supporting hypothesis 1.18 We find that, in the absence of feedback, participants in the easy task condition were 4.4 times more likely to select performance-based pay than participants in the difficult task condition. As shown in Panel A of Figure 3, this result is consistent with a BTA bias in the easy task condition and a WTA bias in the difficult task

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16 The pattern of results is consistent with the prediction that when a task is difficult, individual feedback exacerbates the WTA bias (cf. footnote 8).

17 The effect of Round was not significant in any of the regressions.

18 All reported p-values are one-tailed for directional predictions and two-tailed otherwise.
condition. Specifically, participants selected performance-based pay 70% (42%) of the time in the easy (difficult) task condition, compared to a natural benchmark of 50%.

As shown in Panel B of Table 2, *EasyTask* is also highly significant (*p* < 0.001) in the individual performance feedback condition, consistent with hypothesis 2. We find that when provided with individual performance feedback, participants in the easy task condition were 5.5 times more likely to select-performance based pay than participants in the difficult task condition. As shown in Panel A of Figure 3, this result is also consistent with a BTA bias in the easy task condition and a WTA bias in the difficult task condition. Specifically, when provided with individual performance feedback, participants selected performance-based pay 82% (44%) of the time in the easy (difficult) task condition.

As shown in Panel C of Table 2, the effect of *EasyTask* is, while directionally consistent with hypothesis 2, not significant (*p* = 0.182) in the relative performance feedback condition. Moreover, and as shown in Panel A of Figure 3, participants in both task difficulty conditions appeared to exhibit a BTA bias. Specifically, when provided with relative performance feedback, participants selected performance-based pay 73% (65%) of the time in the easy (difficult) task condition. Although this effect was not expected, this finding is consistent with prior research that suggests that relative feedback can affect self-esteem and induce competitive behavior (e.g., Mas and Moretti 2009; Kuhnen and Tymula 2012). There is some evidence that the relative feedback may be affecting participants’ behavior in the difficult condition. Consistent with the competitive effects induced by relative feedback, as shown in Table 1, participants working on a difficult task who received relative feedback selected performance-based pay more often and spent more time completing the task than participants working on a difficult task who received individual feedback or no feedback.
Collectively, our results suggest that participants working on easy tasks exhibit a BTA bias which, in turn, leads to a preference for performance-based pay. From an individual standpoint, this reduces average compensation as individuals are selecting inappropriate compensation plans. Firms, however, can benefit from such biases as they are paying less for the same performance. In particular, we find that, compared to selecting the compensation plan that maximizes their pay, individuals in the easy task condition earn approximately 22% less than their maximum earnings during the experiment.

While not as strong, our results suggest that participants working on difficult tasks exhibit a WTA bias when they are either not provided feedback or provided individual feedback. Again, this harms the individual but benefits the firm. Moreover, we find that, compared to selecting the contract that maximizes their pay, individuals in the difficult task condition earn about 13% less than their maximum earnings during the experiment (the difference in foregone earnings between task conditions is significant at $p < 0.02$).

**Mediation Analysis (Hypothesis 3)**

Our theoretical arguments for hypothesis 1 and hypothesis 2 suggest that it is individuals’ inaccurate assessments of their task-specific skill that is driving their compensation plan choices. As such, our third hypothesis predicts that individuals’ assessments of their skill will mediate the relation between task difficulty and compensation plan choices.

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19 Consistent with the BTA bias, we find that that participants working on an easy task are two times more likely to inappropriately choose a performance-based compensation plan than participants working on a difficult task ($p = 0.004$).
We conduct a three-step mediation analysis (Baron and Kenny 1986) to test whether the relation between task difficulty and compensation plan selection is mediated by participants’ assessments of their task specific skill. The mediation analysis is presented in Table 3.

We first examine the direct effect of EasyTask on Rank (Link a) and find that there is a significant positive relation between these variables ($p < 0.01$). Second, we examine the direct effect of EasyTask on PerfPay (Link c) and find that [overall] there is a significant positive relation between these variables ($p < 0.01$). Finally, we test the full model and find that there is a significant positive relation between Rank and PerfPay ($p < 0.01$) (Link b). In this final specification, the relation between EasyTask and PerfPay is no longer significant (Link c’), which is consistent with full mediation. Taken together, our tests of hypotheses 1 and 2 and the mediation analysis provide evidence that participants choose performance-based pay more often when working on easy tasks than when working on difficult tasks and that this preference for performance-based pay when working on easy tasks is driven by participants’ assessments of their skill.

**Sorting and Risk Preferences**

Although we document biases in participants’ preferences for performance-based pay between task difficulty conditions, our results also reveal that performance-based pay does attract participants with higher skill levels. Specifically, and as shown in Panels A, B, and C of Table 2, the variable NormPerform is highly significant in all three logistic regressions (largest $p < 0.05$). We find that, on average, a unit change in NormPerform increases the odds of selecting

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20 Risk and NormPerform are included as control variables in each of the three regression models used to test the three mediation steps.
performance-based pay by 58%. These results suggest that, consistent with the agency literature, performance-based pay serves an important sorting function.

We also find that risk preferences significantly affect compensation plan decisions, with more risk averse (seeking) participants being more likely to choose fixed (performance-based) pay. Specifically, as shown in Panels A, B, and C of Table 2, the Risk variable is highly significant in two of the three logistic regressions (both p’s < 0.01). These results suggest that, consistent with theory, risk plays a significant role in individuals’ compensation plan decisions.

**Specific Compensation Plans Chosen**

As shown in Figure 2, participants could choose a fixed compensation plan (Plan A) or one of three performance-based compensation plans (Plans B, C, and D). The performance-based pay plans differed as to the amount of fixed versus bonus pay if the threshold was achieved. Figure 4 presents the proportion of time participants selected each pay plan by task difficulty condition and feedback condition.

(Figure 4)

The results shown in Figure 4 are generally consistent with our findings regarding task difficulty when only considering whether individuals chose a fixed or a performance-based plan. However, Figure 4 does reveal that, conditional on selecting a performance-based pay plan, participants in the easy task condition receiving either no feedback or individual performance feedback selected Plan D (Plan B) approximately 40% (36%) of the time. In contrast, and again conditional on selecting a performance-based pay plan, participants in the difficult task condition receiving either no feedback or individual performance feedback selected Plan D (Plan B) approximately 15% (69%) of the time. This provides some additional evidence regarding BTA
and WTA biases between task difficulty conditions. Specifically, even when selecting a performance-based plan, participants in the easy task condition appeared to be more confident in their abilities and, as such, were more (less) likely to select the performance-based pay plan with the strongest (weakest) incentives.

When relative feedback is provided, however, Figure 4 shows that we do not observe significant differences in the specific performance-based pay plan chosen between task difficulty conditions. This finding is consistent with the results presented earlier suggesting that a WTA bias is not present in the difficult task, relative feedback condition.

5. Conclusion

In this paper, we conduct a laboratory experiment to examine how task difficulty, coupled with three different types of performance feedback, affects the compensation plans that individuals select. We find that participants are more likely to choose performance-based pay than fixed pay when a task is easy versus when a task is difficult and that this bias is mediated by participants’ (incorrect) assessments of their task-specific skill. Additionally, we find that participants’ preferences for performance-based pay persist with the provision of individual-, but not relative-, performance feedback.

As a result of the bias we document, participants are more likely to select an inappropriate compensation plan when the task is easy versus when the task is difficult. This, in kind, led participants to forego more earnings when working on the easy task than when working on the difficult task. These results suggest that, to avoid welfare losses, individuals may wish to consider task difficulty when choosing an employment contract. Firms, though, can benefit by paying less for the same performance.
We also find that participants with higher skill levels are more likely to select performance-based pay. Thus, performance-based pay is at least partially effective vis-à-vis attracting higher-skilled employees. Finally, we find that risk averse (seeking) individuals are more likely to inappropriately choose fixed (performance-based) pay. Accordingly, individuals may wish to consider their tolerance for risk in contract selection.

In summary, an important function of management accounting is to design reward systems that enable firms to attract the “right” employees (e.g., Chow 1983; Waller and Chow 1985; Kachelmeier and Williamson 2010; Hales et al. 2014). Hales and Kachelmeier (2008) call for future research to investigate biases in relative performance predictions in business contexts along with the economic implications of these biases. Our study answers this call and contributes to extant research in this area by documenting how variables such as task difficulty, performance feedback, skill, and risk preferences influence the compensation plans that individuals select. Our findings demonstrate that these variables and decisions have welfare implications for both individuals and firms.
References


To elicit risk preferences, we presented participants with ten gambles. For each gamble, we asked participants to choose Option A or Option B. The payoffs for Option A are less variable than the payoffs for Option B. Moving down the gambles, the probability of the high payoff increases so, at some point, individuals should prefer Option B to Option A. For example, a risk-neutral individual should choose Option A four times before switching to Option B, and even the most risk-averse person should switch to Option B by the tenth gamble since Option B yields a riskless payoff that exceeds the riskless payoff of Option A. We created the variable Risk to measure participants’ risk preferences. Risk ranges in value from one to eleven, with the specific number corresponding to the gamble where participants switched their preference from Option A to Option B (a value of “11” is assigned if a participant selects Option A for the tenth gamble).
Figure 2  Compensation Plans

<table>
<thead>
<tr>
<th>Plan</th>
<th>At or Below Average</th>
<th>Above Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$8.00</td>
<td>$8.00</td>
</tr>
<tr>
<td>B</td>
<td>$6.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>C</td>
<td>$4.00</td>
<td>$12.00</td>
</tr>
<tr>
<td>D</td>
<td>$2.00</td>
<td>$14.00</td>
</tr>
</tbody>
</table>

For each of the four compensated rounds of the experiment, participants selected one of the four compensation plans specified above. As shown above, compensation plan A is a fixed-wage plan as pay does not depend on performance. The pay for compensation plans B, C, and D depend on participants’ performance relative to the “average” participant. For the easy (difficult) task condition, the average performance was nine (two) correct answers out of ten questions. Thus, participants in the easy (difficult) task condition needed to answer ten (three) out of ten questions correctly to exceed the performance target.
Figure 3  Proportion of Performance-Based Pay Selections

Panel A: Proportion of Performance-Based Pay Selections by Task Difficulty and Feedback

Panel A of Figure 3 presents the proportion of compensation plan selections in which participants selected performance-based pay (compensation Plans B through D) by task difficulty condition and feedback condition.

Panel B: Proportion of Performance-Based Pay Selections by Task Difficulty, Feedback and Round

Panel B of Figure 3 presents the proportion of compensation plan selections in which participants selected performance-based pay (compensation Plans B through D) by task difficulty condition and feedback condition for each round of the experiment.
Figure 4  Specific Compensation Plans Selected by Task Difficulty and Feedback

Panel A: Easy Task

Panel B: Difficult Task

Figure 4 presents the proportion of fixed pay (Plan A), performance-based pay with the lowest bonus (Plan B), performance-based pay with the medium bonus (Plan C), and performance-based pay with the highest bonus (Plan D) selections, by task difficulty condition and feedback condition.
Table 1  Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Easy Task</th>
<th></th>
<th>Difficult Task</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compensation plan selected</td>
<td></td>
<td>Compensation plan selected</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Performance-Based Pay</td>
<td>Fixed Pay</td>
<td></td>
<td>Performance-Based Pay</td>
</tr>
<tr>
<td>No Feedback</td>
<td>Observations, n (%)</td>
<td>64 (70%)</td>
<td>28 (30%)</td>
<td>44 (42%)</td>
</tr>
<tr>
<td></td>
<td>Performance, mean (sd)</td>
<td>9.53 (0.82)</td>
<td>8.39 (1.52)</td>
<td>3.23 (1.49)</td>
</tr>
<tr>
<td></td>
<td>NormPerform, mean (sd)</td>
<td>0.42 (0.09)</td>
<td>-0.55 (0.25)</td>
<td>0.24 (0.16)</td>
</tr>
<tr>
<td></td>
<td>Time, mean (sd)</td>
<td>60.30 (31.88)</td>
<td>60.79 (23.59)</td>
<td>111.68 (38.58)</td>
</tr>
<tr>
<td></td>
<td>Risk, mean (sd)</td>
<td>6.28 (1.73)</td>
<td>8.68 (2.65)</td>
<td>6.39 (0.92)</td>
</tr>
<tr>
<td></td>
<td>Rank, mean (sd)</td>
<td>87% (12%)</td>
<td>69% (11%)</td>
<td>50% (11%)</td>
</tr>
<tr>
<td>Individual Feedback</td>
<td>Observations, n (%)</td>
<td>98 (82%)</td>
<td>22 (18%)</td>
<td>39 (44%)</td>
</tr>
<tr>
<td></td>
<td>Performance, mean (sd)</td>
<td>9.49 (0.98)</td>
<td>8.68 (1.39)</td>
<td>2.82 (1.23)</td>
</tr>
<tr>
<td></td>
<td>NormPerform, mean (sd)</td>
<td>0.39 (0.84)</td>
<td>-0.31 (0.25)</td>
<td>-0.05 (0.14)</td>
</tr>
<tr>
<td></td>
<td>Time, mean (sd)</td>
<td>54.95 (19.70)</td>
<td>73.73 (39.27)</td>
<td>101.08 (33.23)</td>
</tr>
<tr>
<td></td>
<td>Risk, mean (sd)</td>
<td>6.79 (1.91)</td>
<td>8.14 (3.23)</td>
<td>6.87 (1.20)</td>
</tr>
<tr>
<td></td>
<td>Rank, mean (sd)</td>
<td>87% (16%)</td>
<td>78% (17%)</td>
<td>44% (20%)</td>
</tr>
<tr>
<td>Relative Feedback</td>
<td>Observations, n (%)</td>
<td>64 (73%)</td>
<td>24 (27%)</td>
<td>65 (65%)</td>
</tr>
<tr>
<td></td>
<td>Performance, mean (sd)</td>
<td>8.72 (1.40)</td>
<td>7.88 (1.73)</td>
<td>3.12 (1.52)</td>
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<tr>
<td></td>
<td>NormPerform, mean (sd)</td>
<td>-0.28 (0.15)</td>
<td>-1.00 (0.30)</td>
<td>0.17 (0.14)</td>
</tr>
<tr>
<td></td>
<td>Time, mean (sd)</td>
<td>69.20 (35.81)</td>
<td>59.67 (17.20)</td>
<td>121.80 (60.77)</td>
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<tr>
<td></td>
<td>Risk, mean (sd)</td>
<td>6.09 (1.92)</td>
<td>7.58 (2.41)</td>
<td>6.20 (1.30)</td>
</tr>
<tr>
<td></td>
<td>Rank, mean (sd)</td>
<td>65% (23%)</td>
<td>61% (17%)</td>
<td>51% (20%)</td>
</tr>
<tr>
<td>All</td>
<td>Observations, n (%)</td>
<td>226 (75%)</td>
<td>74 (25%)</td>
<td>148 (51%)</td>
</tr>
<tr>
<td></td>
<td>Performance, mean (sd)</td>
<td>9.28 (1.13)</td>
<td>8.31 (1.57)</td>
<td>3.07 (1.44)</td>
</tr>
<tr>
<td></td>
<td>NormPerform, mean (sd)</td>
<td>0.21 (0.06)</td>
<td>-0.62 (0.16)</td>
<td>0.13 (0.09)</td>
</tr>
<tr>
<td></td>
<td>Time, mean (sd)</td>
<td>60.50 (29.08)</td>
<td>64.27 (27.95)</td>
<td>113.33 (49.00)</td>
</tr>
<tr>
<td></td>
<td>Risk, mean (sd)</td>
<td>6.60 (1.88)</td>
<td>8.16 (2.76)</td>
<td>6.43 (1.20)</td>
</tr>
<tr>
<td></td>
<td>Rank, mean (sd)</td>
<td>81% (20%)</td>
<td>69% (16%)</td>
<td>49% (18%)</td>
</tr>
</tbody>
</table>

**Performance** Number of questions answered correctly (out of 10) per round.

**NormPerform** Normalized performance = (number of questions a participant answered correctly – average number of questions answered correctly by all participants in the same task difficulty condition) ÷ (standard deviation in actual performance of all participants in the same task difficulty condition).

**Time** Time spent on the task in each round, in seconds.

**Risk** Ranges in value from zero to eleven. Higher values represent greater risk aversion.

**Rank** A participant’s self-assessed relative performance rank, from 0% to 99%. 

35
Table 2 Tests of Hypotheses 1 & 2

Logistic regression model employed:
\[ P(\text{PerfPay}) = \alpha_0 + \alpha_1 \text{EasyTask} + \alpha_2 \text{Risk} + \alpha_3 \text{NormPerform} + \varepsilon \]

Panel A: No Feedback Condition

<table>
<thead>
<tr>
<th>Predicted</th>
<th>Relative Risk</th>
<th>Standard</th>
<th>p-value</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign</td>
<td>Coefficient</td>
<td>Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>3.54 ***</td>
<td>1.27</td>
<td>0.005</td>
<td>34.33</td>
</tr>
<tr>
<td>EasyTask</td>
<td>+</td>
<td>1.49 ***</td>
<td>0.61</td>
<td>4.43</td>
</tr>
<tr>
<td>Risk</td>
<td>-</td>
<td>-0.55 ***</td>
<td>0.17</td>
<td>0.58</td>
</tr>
<tr>
<td>NormPerform</td>
<td>+</td>
<td>0.63 ***</td>
<td>0.21</td>
<td>1.87</td>
</tr>
</tbody>
</table>

*number of participants* 49

*number of observations* 196

Panel B: Individual Feedback Condition

<table>
<thead>
<tr>
<th>Predicted</th>
<th>Relative Risk</th>
<th>Standard</th>
<th>p-value</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign</td>
<td>Coefficient</td>
<td>Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>0.32</td>
<td>1.19</td>
<td>0.789</td>
<td>1.37</td>
</tr>
<tr>
<td>EasyTask</td>
<td>+</td>
<td>1.71 ***</td>
<td>0.43</td>
<td>5.54</td>
</tr>
<tr>
<td>Risk</td>
<td>-</td>
<td>-0.08</td>
<td>0.18</td>
<td>0.92</td>
</tr>
<tr>
<td>NormPerform</td>
<td>+</td>
<td>0.31 **</td>
<td>0.16</td>
<td>1.37</td>
</tr>
</tbody>
</table>

*number of participants* 52

*number of observations* 208

Panel C: Relative Feedback Condition

<table>
<thead>
<tr>
<th>Predicted</th>
<th>Relative Risk</th>
<th>Standard</th>
<th>p-value</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign</td>
<td>Coefficient</td>
<td>Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>3.90 ***</td>
<td>1.09</td>
<td>0.000</td>
<td>49.59</td>
</tr>
<tr>
<td>EasyTask</td>
<td>+</td>
<td>0.51</td>
<td>0.57</td>
<td>1.67</td>
</tr>
<tr>
<td>Risk</td>
<td>-</td>
<td>-0.47 ***</td>
<td>0.14</td>
<td>0.62</td>
</tr>
<tr>
<td>NormPerform</td>
<td>+</td>
<td>0.41 **</td>
<td>0.19</td>
<td>1.51</td>
</tr>
</tbody>
</table>

*number of participants* 47

*number of observations* 188

Table 2 presents the results of a logistic regression model employed to examine compensation plan selection by feedback condition. Panels A, B and C present the results of the No Feedback, Individual Feedback and Relative Feedback conditions, respectively. The dependent variable PerfPay is an indicator variable that equals one (zero) if the participant chose performance-based (fixed) pay. The independent variable EasyTask is an indicator variable that equals one (zero) if the participant was randomly assigned to the easy (difficult) task condition. The variables Risk and NormPerform are as defined in Table 1.

***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.
Table 3 presents the results of tests to examine whether compensation plan selection is mediated by participants’ assessments of their task-specific skill. All regressions include the control variables Risk and NormPerform, which are defined in Table 1.

***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.