results

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## 0.1 Describing main variables of interest

First, we explored the characteristics of the main practice variables in the dataset. Across conditions, 45.51% of all participants chose to practice, with 48.22% choosing to practice in the piece-rate payment condition and 51.78% choosing to practice in the tournament payment condition. This difference in the choice to practice across conditions is significant when condition is included as a predictor alone, , 95% CI , , , , but in the subsequent section we explain how the effect changes when including other predictors in the model. Participants spent an average of 29.12 seconds practicing across all rounds of practice and of those who chose to practice, completed an average of 0.14 total rounds of extra practice problems (that is, rounds of practice after having seen what the practice looks like in the first practice round).

Like all studies in the first chapter, we replicate the effect of gender on risk attitudes, , 95% CI , , , , and confidence, , 95% CI , , , , such that women were more risk averse and less confident relative to men.

Contrary to the majority of studies in the first chapter, we find a significant effect of gender on task score, Mwomen=10.45, SD=4.47; Mmen= 12.29, SD =7.28, , 95% CI , , , , even when including risk attitudes, confidence, and an interaction between gender and condition in the model, , 95% CI , , , . We explore this finding further in the discussion section for this study.

## 0.2 Effects of gender and condition on both practicing and perceptions of one’s relative practicing

We replicate the effect of gender on the choice to practice found in Chapter 1, where 50.77% of women chose to prepare via practice, relative to 37.65% of men, , 95% CI , , , . The gender effect holds in a logistic regression with gender, condition, and the interaction between the two predicting the binary choice to practice problems, , 95% CI , , , (see Figure ??). However, we do not find an interaction between gender and condition, , 95% CI , , , , contrary to our hypothesis that the gender difference in the choice to prepare would be exacerbated under the tournament payment scheme relative to the piece-rate payment scheme. Additionally, the aforementioned effect of condition on the choice to practice is no longer significant in the model including these additional predictors, , 95% CI , , , . In a subsequent logistic regression that added confidence, risk attitudes, and task scores to explore whether they explain the gender difference in the choice to practice, we find that gender still significantly predicts the choice to practice when these variables are included in the model, , 95% CI , , , .

We also examined other measures of practice to test the robustness of the effect of gender on practicing. We find that women, relative to men, completed a significantly higher number of practice problems, , 95% CI , , , , more rounds of practice, *b* = 0.31, CI [0.04, 0.59], *z* = 2.24, *p* = 0.03, and spent more time completing practice problems, , 95% CI , , , while controlling for condition and the interaction between gender and condition. None of the interaction effects were significant across any of these dependent variables.

## 0.3 Accuracy of levels of practicing based on participant gender

Next, we ran a linear regression with gender, condition, and the interaction between those two variables predicting the aforementioned perceived practice deviation variable (that is, subtracting each participants’ percentile based on number of practice problems completed from their self-rated decile) to test our second hypothesis that women would be more likely to assume they practice less than others compared to men, especially under the competitive tournament payment scheme. We find a significant effect of gender on perceived practice deviation, such that women (relative to men) were significantly less likely to assume they practice more than others, , 95% CI , , , , Mwomen=23.56, SD=56.11; Mmen= 39.69, sd=54.87 (see Figure ??). We do/do not (INSERT) observe a significant effect of condition on perceived relative practice, INSERT. Finally, we did not find evidence of the anticipated interaction effect between gender and condition on perceptions of relative preparation, , 95% CI , , , .

Since this is the first time we have used the perceived practice deviation variable and are not able to attest to its robustness, we also explored another way of testing this hypothesized effect by using participants’ self-rated decile as the dependent variable instead of perceived practice deviation and then controlling for number of practice problems attempted (as a proxy for more precise estimate of amount of practicing) in a linear regression. We find that, regardless of the number of practice problems attempted, women are significantly less likely to say they practice more than others, compared to men, INSERT.

On top of the differences in how much women and men in this study perceived they practiced relative to others, we also tested men and women’s accuracy of their relative practice through a series of t-tests comparing the perceived practice deviation variable to 0 (which would represent a participant guessing their exact decile correctly). Across the full dataset, most participants tended to overestimate how much they practiced relative to others, INSERT. After honing in on each gender included in the study, we find that this effect holds among both women, INSERT, and men, INSERT. Notably, participants who chose to practice significantly underestimated their relative practice, both among women, INSERT, and men, INSERT.

We also explored how self-rated decile changes based on whether participants were asked to compare their amount of practicing to men or women in the study specifically, and find that participants’ perceptions of how much they practiced relative to women in the study are significantly lower than perceptions of much they practiced relative to men, , 95% CI , , , .

## 0.4 Perceptions of gender differences in behavior

Like in Study 3 of Chapter 1, we ran both chi-square goodness of fit tests with all three response options for the questions about perceptions of gender differences, and if the test with all options was significant, we subsequently ran more targeted chi-square tests to perform pairwise comparisons. Across all measures of perceptions of gender differences in behavior, we replicate effects found in the previous studies. First, the majority of participants (59.57%) said that women would be more likely to practice/study for the task, , , , which was significantly higher than the proportion of participants who said men would be more likely to practice/study than women (4.73%), , , and the proportion of participants that said there was no difference in the likelihood that men and women would practice/study (35.7%), , .

Similarly, participants were significantly more likely to say that women prepare more than men in general (68.28% of participants), , , relative to the proportion of participants that said men prepare more than women (4.41% of participants), , , or that there is no difference in how much men and women prepare (27.31% of participants), , .

Yet, participants did not expect a gender difference in performance on the main multiplication task used, , , where 54.17% of participants said that there was no difference in how many multiplication problems men and women correctly solved, while 20.56% said men correctly solved more multiplication problems than women,, , and 25.27% said women had a performance advantage over men, , .

Finally, 64.24% of participants expected women would be more likely to choose the piece-rate payment scheme than the tournament payment scheme, , , which was a significantly higher proportion of participants than those who expected women would choose each payment scheme equally (20.9%), , , and than those who expected women would choose tournament more often than piece rate, (14.86%), , . On the contrary, when asked about how much men in the study would compete, a significant majority of participants (63.5%) expected men to be more likely to choose the tournament payment scheme over the piece-rate payment scheme, , , relative to the proportion of participants who said men would choose each payment scheme equally (15.8%), , , and the proportion who said men would choose piece rate more often than tournament (20.7%), , .