

**COMPETING NOW AND THEN: EFFECTS OF DELAY AND THE VANISHING
GENDER GAP IN COMPETITIVENESS**

ONLINE APPENDIX (NOT FOR PUBLICATION)

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APPENDIX A: TRANSCRIPTS OF INSTRUCTIONS AND QUESTIONNAIRES

This section includes the verbatim text of the informed consent form, instructions, and questionnaires. Screen shots from Qualtrics are available upon request. All experimenter notes and explanations are in brackets and in *Italics*.

A.1. Part I Instructions Common Across All Treatments

[From the beginning of the survey until the end of Round 2, all participants across different treatments follow the same directions and questions.]

1. Consent

Participation is voluntary

It is your choice whether or not to participate in this research. If you choose to participate, you may change your mind and quit the study at any time. Refusal to participate or stopping your participation will involve no penalty or loss of benefits to which you are otherwise entitled.

What is the purpose of this research?

The purpose of this research is to understand how individuals perform in certain types of counting tasks.

How long will I take part in this research?

Your participation will take approximately 15-20 minutes to complete.

What can I expect if I take part in this research?

As a participant, you will answer a series of questions.

What are the risks and possible discomforts?

If you choose to participate, the effects should be comparable to those you would experience from viewing a computer monitor for 15-20 minutes and using a mouse or keyboard.

Are there any benefits from being in this research study?

In addition to payment, the study includes counting problems that may be interesting to consider.

Will I be compensated for participating in this research?

You will receive a base payment of \$0.25 if you finish the survey and pass the attention checking questions. In addition to that, you can earn a bonus of up to \$7.30 based on your, and others', performance. Note that if you fail to answer the attention checking questions correctly, you will not receive any compensation.

If I take part in this research, how will my privacy be protected? What happens to the information you collect?

Your data will be kept completely anonymous by using the Mechanical Turk ID. Your data will be linked only to your ID number; there is no way of matching any data collected to your name. When the research is completed, the raw data will be stored on a password-protected computer, accessible only to the researchers.

If I have any questions, concerns or complaints about this research study, who can I talk to? The principal investigator for this study is Olga Shurchkov who can be reached at (781) 283-2984, 106 Central St., Wellesley, MA 02481, olga.shurchkov@wellesley.edu.

This research has been reviewed by the Institutional Review Board of Wellesley College. If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the chair of the Wellesley College IRB, Nancy Marshall, nmarshall@wellesley.edu. You may wish to print this page for your records.

- I would like to participate in this study.
- I would like to leave this study.

2. Introduction

To receive your bonus payment, you must enter your Mechanical Turk ID into the box below and then click to continue. Your WorkerID starts with the letter A and has 12-14 letters or numbers. It is not your email address. To ensure accuracy, please copy and paste your WorkerID from Mturk. This makes sure that there are no mistakes. An example of a common mistake is that "0" (the number) is written instead of an "O" (the letter). Mistakes like that may significantly delay your bonus payment. Enter your WorkerID here:

Thank you for participating in our study. We estimate that this study will take about 15-20 minutes to complete. After you have finished, you will receive a completion code. Please return to the HIT on MTurk and enter the completion code in the space provided, in order to receive your credit.

You will receive \$0.25 for completing the HIT. In addition to that, you can earn a bonus of up to \$7.30 based on your, and others', performance. The additional money will be paid to you as a bonus through Amazon Mturk in approximately 7 days. We will now go through the instructions. Please read them carefully. You are only eligible for bonus payment if you adhere to the instructions.

Before we move on, please answer the following questions:

What is your gender?

- Male
- Female

What is your country of residence?

- United States
- Canada
- Other/ Do not wish to disclose

What season were you born in?

- Spring
- Summer
- Autumn
- Winter

3. Round 1 Instructions

In this experiment, you will be asked to complete three tasks that will each take 90 seconds. At the end of the experiment, we will randomly select one of the first two tasks. This randomly selected task and task 3 are the tasks that will be relevant to your bonus payment. The method used to determine your earnings varies across tasks. Before each task we will describe in detail how your payment is determined.

For task 1, you will be asked to solve a series of problems by counting the number of zeros (0) in tables consisting of zeros (0) and ones (1). You will be given 90 seconds to count the zeros in as many tables as possible. After the 90 seconds are up, the survey will automatically continue to

the next page. If you solve all available tables before the time is up, please just wait for the survey to continue automatically. In task 1, you get \$0.20 per table you solve correctly in the 90 seconds. Your payment does not decrease if you provide an incorrect answer to a table. We refer to this task as the Piece Rate Task. You will not be informed of how you did in the task until you receive your bonus payment. There is an attention checking question in this section. If you fail to answer it correctly, you will not be able to continue with the rest of the experiment, and you will not receive any compensation for participating. Now click to get started with task 1.

Round 1: Participants have 1:30 minutes to count number of 0s in as many tables as possible.

Confidence evaluation: How many tables do you think that you solved correctly in this section?

Attention checking question: This is a question to ensure that you are paying attention. If you do not answer it correctly, you will not receive compensation for taking the survey. Please choose the most accurate description of your current activity.

- I am jogging outside.
- I am sleeping.
- I am swimming.
- I am playing the piano.
- I am taking a survey.

4. Round 2 Instructions:

Like task 1, you will be given 90 seconds to count the zeros in a series of tables with ones and zeros. However, for task 2, your payment depends on your performance relative to that of another randomly selected participant who is doing the same experiment with the same tables as you. Our matching process will randomly match you with another participant, who was born in the summer and lives in the United States. If you correctly solve more tables than your match does, you will get \$0.40 per correct table. If you do not correctly solve more tables than your match does, you receive no earnings. If there is a tie, the payment will be split between the two of you. We refer to this as the Tournament Task. You will not be informed of how you do in this task until you receive your bonus payment. Now click to get started with task 2.

Round 2: Participants have 1:30 minutes to count number of 0s in as many tables as possible.

A.2. Choice for Round 3 and Part II

[The implementation of Part II (when Round 3 occurs and what payment scheme applies) differs for participants in different treatments.]

Treatment 1 – Piece-rate vs. Tournament Now

Round 3 Instructions

As in the previous two tasks, you will be given 90 seconds to count the zeros in a series of tables with ones and zeros. However, for task 3, you will get to choose what kind of payment scheme you want to get.

Piece Rate: You receive \$0.20 per table you solve correctly.

Tournament: Your performance will be evaluated relative to how your random match did in Task 2 - Tournament. If you correctly solve more tables in this task than that person did during task 2, you will get \$0.40 per correct table you solve correctly. If you do not correctly solve more tables in this task than that person did during task 2, you receive no earnings. If there is a tie, the payment will be split between the two of you.

The next screen will ask you to choose whether you want the Piece Rate or the Tournament applied to your performance in task 3. Now click to continue. Which compensation scheme do you prefer for task 3?

- Piece-rate
- Tournament

Round 3: Participants have 1:30 minutes to count number of 0s in as many tables as possible.

Belief Elicitation Questions

Performance Guess (For People Who Do Not Have Round 3 Delayed)

You now have a final chance to earn additional money. In this part, we want you to make some guesses. Two guesses will be selected randomly and for each correct guess that is selected for payment, you will receive an extra bonus of \$0.15. Remember that you have completed 3 tasks in total. Please guess how many tables that you think you and the person you are matched to solved correctly in task 2 and task 3.

In Task 2 – Tournament, how many tables do you think you solved correctly?

In Task 2 – Tournament, how many tables do you think the person you are matched to solved correctly?

In Task 3 – Choice, how many tables do you think you solved correctly?

In Task 3 – Choice, how many tables do you think the person you are matched to solved correctly?

Risk Preference

How do you see yourself: Are you generally a person who is fully prepared to take risks or do you try to avoid taking risks? 1(Not at all willing to take risks) - 10(Very willing to take risks)

Discount Rate

Please enter in the box below the amount that would make the following options equally attractive (Your answer should not exceed \$100)

A. Receive \$100 one year from now. B. Receive \$_____ immediately.

Please enter in the box below the amount that would make the following options equally attractive (Your answer should be between \$100 - \$200)

A. Receive \$100 one year from now.

B. Receive nothing one year from now and receive \$__ two years from now.

Additional Demographic Questions

Have you ever done this type of counting task before?

- Yes
- No

Do you wear glasses or contact lenses?

- Yes
- No

What is your age in years?

What is the highest level of education you have completed?

- Less than high school
- High school or GED
- Some college
- 2-year college degree (Associates)
- 4-year college degree (BA, BS)
- Master's degree (MA, MS)
- Doctoral degree (PhD)
- Professional degree (MD, JD, DDS, etc.)

Are you of Hispanic origin or descent, such as Mexican, Puerto Rican, Cuban, or other Spanish background?

- Yes
- No

Which of the following best describes your race?

- White
- African-American or Black
- Asian
- Native Hawaiian or Other Pacific Islander
- Native American
- Other/Do not wish to disclose

Which of the following best describes your personal income before taxes? Take into account all your sources of income, including scholarships, health benefits, fringe benefits, and others. Please note that this is your personal income, not the income of your household.

- Less than \$10,000
- \$10,000 - \$19,999
- \$20,000 - \$29,999
- \$30,000 - \$39,999
- \$40,000 - \$49,999
- \$50,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 - \$149,999
- \$150,000 - \$249,999
- \$250,000-\$499,999
- \$500,000 and over

Additional Belief Questions

Perception of the Task

Do you think men or women generally do better in the "counting zeros" task that you just did?
1(Women do a lot better) – 10 (Men do a lot better)

Competitiveness

How much do you agree with the following statement? "I like situations in which I compete with others"

- Strongly Disagree
- Somewhat Disagree
- Neither Agree nor Disagree
- Somewhat Agree
- Strongly Agree

How competitive is your workplace and/or school?

1 (Not competitive at all) – 10 (Extremely competitive)

How much are you exposed to the competitive environments overall?

1 (I am not exposed to competitive environments at all) - 10 (I am exposed to competitive environments all the time)

Treatment 2 – Piece-rate vs. Tournament Later

Round 3 Instructions for Participants with No Access to Studying Tips

Task 3 will happen in 1-5 days. In approximately 24 hours, you will receive an email with a survey link asking you to complete the task. You can click on the link on any day from Tuesday to Friday to finish task 3. As in the previous two tasks, your task is to count the zeros in a series of tables with ones and zeros in 90 seconds. However, for task 3, you will get to choose what kind of payment scheme you want to get.

Piece Rate: You receive \$0.20 per table you solve correctly.

Tournament: Your performance will be evaluated relative to how your random match did in Task 2 - Tournament. If you correctly solve more tables in this task than that person did during task 2, you will get \$0.40 per correct table you solve correctly. If you do not correctly solve more tables in this task than that person did during task 2, you receive no earnings. If there is a tie, the payment will be split between the two of you.

The next screen will ask you to choose whether you want the Piece Rate or the Tournament applied to your performance in task 3. Now click to continue. Which compensation scheme do you prefer for task 3?

- Piece-rate
- Tournament

Round 3 Instructions for Participants with Access to Studying Tips

Task 3 will happen in 1-5 days. In approximately 24 hours, you will receive an email with a survey link asking you to complete the task. The email will also include a link that you can click on to see some tips and practice problems for the task. You can click on the link on any day from Tuesday to Friday to finish task 3. As in the previous two tasks, your task is to count the zeros in a series of tables with ones and zeros in 90 seconds. However, for task 3, you will get to choose what kind of payment scheme you want to get.

Piece Rate: You receive \$0.20 per table you solve correctly.

Tournament: Your performance will be evaluated relative to how your random match did in Task 2 - Tournament. If you correctly solve more tables in this task than that person did during task 2, you will get \$0.40 per correct table you solve correctly. If you do not correctly solve more tables in this task than that person did during task 2, you receive no earnings. If there is a tie, the payment will be split between the two of you.

The next screen will ask you to choose whether you want the Piece Rate or the Tournament applied to your performance in task 3. Now click to continue. Which compensation scheme do you prefer for task 3?

- Piece-rate
- Tournament

Extra Information for People Who Will Come Back for Part II

You will come back in 1-5 days (from Tuesday to Friday) to finish task 3. If you fail to come back by Friday at 4pm, you will not receive the bonus payment for task 3. When do you plan to come back to finish task 3? You have the chance to finish the task in any of the day:

- Tuesday (01/21/2020)
- Wednesday (01/22/2020)
- Thursday (01/23/2020)
- Friday (01/24/2020)

We will send out a follow-up email to you on Tuesday. We will also send you a reminder to come back and finish the task. Before the survey ends, please answer the following questions. You will then see the completion code on the screen.

[All subjects are asked NOW:]

- ***Belief Elicitation Questions***

- *Additional Demographic Questions*

[When subjects come back LATER, they complete the experiment with the following two tasks:]

- **Round 3:** Participants have 1:30 minutes to count number of 0s in as many tables as possible.
- *Additional Belief Elicitation Questions*

Treatment 3 – Tournament Now vs. Tournament Later

Round 3 Instructions for Participants with No Access to Studying Tips

As in the previous two tasks, your task is to count the zeros in a series of tables with ones and zeros in 90 seconds. For task 3, your performance will be evaluated relative to how your random match did in Task 2 - Tournament. If you correctly solve more tables in this task than that person did during task 2, you will get \$0.40 per correct table you solve correctly. If you do not correctly solve more tables in this task than that person did during task 2, you receive no earnings. If there is a tie, the payment will be split between the two of you. However, you will get to choose when to perform the task:

Tournament Now: You will perform the task now.

Tournament Later: You will come back to finish the task in 1-5 days. The next screen will ask you to choose whether you want the Tournament Now or the Tournament Later applied to your performance in task 3. Now click to continue.

If you choose Tournament Now, you will then be given 90 seconds to count the number of zeros in a series of tables with ones and zeroes, in the same way as before. If you choose Tournament Later, in approximately 24 hours, you will receive another email with a survey link asking you to complete the task. For now, we will give you clear instructions to exit the survey and come back later to finish the task. Note that regardless of what you choose, your final payment will be paid in approximately 7 days. Which compensation scheme do you prefer for task 3?

- Tournament Now
- Tournament Later

Round 3 Instructions for Participants with Access to Tips

As in the previous two tasks, your task is to count the zeros in a series of tables with ones and zeros in 90 seconds. For task 3, your performance will be evaluated relative to how your random match did in Task 2 - Tournament. If you correctly solve more tables in this task than that person did during task 2, you will get \$0.40 per correct table you solve correctly. If you do not correctly solve more tables in this task than that person did during task 2, you receive no earnings. If there is a tie, the payment will be split between the two of you. However, you will get to choose when to perform the task:

Tournament Now: You will perform the task now.

Tournament Later: You will come back to finish the task in 1-5 days. We will send you some tips and practice problems before you come back to perform the task. The next screen will ask

you to choose whether you want the Tournament Now or the Tournament Later applied to your performance in task 3. Now click to continue.

If you choose Tournament Now, you will then be given 90 seconds to count the number of zeros in a series of tables with ones and zeroes, in the same way as before. If you choose Tournament Later, in approximately 24 hours, you will receive an email with a survey link asking you to complete the task. The email will also include a link that you can click on to see some tips and practice problems for the task. For now, we will give you clear instructions to exit the survey and come back later to finish the task. Note that regardless of what you choose, your final payment will be paid in approximately 7 days. Which compensation scheme do you prefer for task 3?

- Tournament Now
- Tournament Later

[If participants choose Tournament Now, Round 3 happens right away, as follows:]

- **Round 3:** Participants have 1:30 minutes to count number of 0s in as many tables as possible.
- ***Belief Elicitation Questions***
- ***Additional Demographic Questions***
- ***Additional Belief Elicitation Questions***
-

[If participants choose Tournament Later, Round 3 happens later, as follows:]

Extra Information for People Who Will Come Back for Part II

You will come back in 1-5 days (from Tuesday to Friday) to finish task 3. If you fail to come back by Friday at 4pm, you will not receive the bonus payment for task 3. When do you plan to come back to finish task 3? You have the chance to finish the task in any of the day:

- Tuesday (01/21/2020)
- Wednesday (01/22/2020)
- Thursday (01/23/2020)
- Friday (01/24/2020)

We will send out a follow-up email to you on Tuesday. We will also send you a reminder to come back and finish the task. Before the survey ends, please answer the following questions. You will then see the completion code on the screen.

[All delaying subjects are asked NOW:]

- ***Belief Elicitation Questions***
- ***Additional Demographic Questions***

[When subjects come back LATER, they complete the experiment with the following two tasks:]

- **Round 3:** Participants have 1:30 minutes to count number of 0s in as many tables as possible.
- ***Additional Belief Elicitation Questions***

Treatment 4 – Preference Ranking

Round 3 Instructions

As in the previous two tasks, your task is to count the zeros in a series of tables with ones and zeros in 90 seconds. However, for task 3, based on your preference ranking for the payment schemes, you will randomly get assigned one of the following schemes to calculate your earnings.

Piece Rate Now: You will perform the task now and receive \$0.20 per table you solve correctly.

Tournament Now: You will perform the task now. Your performance will be evaluated relative to how your random match did in Task 2 - Tournament. If you correctly solve more tables in this task than that person did during task 2, you will get \$0.40 per correct table you solve correctly. If you do not correctly solve more tables in this task than that person did during task 2, you receive no earnings. If there is a tie, the payment will be split between the two of you.

Piece Rate Later: Instead of performing now, you will come back to finish the task in 1-5 days. You will receive \$0.20 per table you solve correctly. We will send you some tips and practice problems before you come back to perform the task.

Tournament Later: Your performance is evaluated in the same way as when you choose Tournament Now. However, instead of performing now, you will come back to finish the task in 1-5 days. We will send you some tips and practice problems before you come back to perform the task. There is 70% that you will get your first choice, 15% that you will get your second choice, 10% that you will get your third choice, and 5% that you will get your fourth choice. The next screen will ask you to rank the four payment schemes according to your preference. Note that regardless of what compensation scheme you get, your final payment will be paid in approximately 7 days.

If you get assigned Piece Rate or Tournament Now, you will then be given 90 seconds to count the number of zeros in a series of tables with ones and zeroes, in the same way as before. If you get assigned Piece Rate Later or Tournament Later, in approximately 24 hours, you will receive an email with a survey link asking you to complete the task. The email will also include a link that you can click on to see some tips and practice problems for the task. For now, we will give you clear instructions to exit the survey and come back later to finish the task. Please rank the compensation scheme for task 3 according to your preference. (Rank 1 for your first choice, 2 for your second choice, 3 for your third choice, and 4 for your least favorable choice)

Piece Rate Now

Tournament Now

Piece Rate Later

Tournament Later

If right match: Your assigned payment scheme for task 3 is {your choice}. Now click to get started with task 3.

If wrong match: Your assigned payment scheme for task 3 is {your choice}. However, you have a chance to stick with your first-choice payment scheme by giving up \$0.05 of your total earnings. In other words, we will deduct \$0.05 from your total earnings if you are willing to give up \$0.05 of your payment by answering yes to the question below. Otherwise, your payment

scheme for task 3 will be the assigned one. Would you be willing to give up \$0.05 of your total earnings to keep your first choice?

- Yes
- No

*[If participants get **Piece Rate Now** or **Tournament Now**, Round 3 happens right away, as follows:]*

- **Round 3:** Participants have 1:30 minutes to count number of 0s in as many tables as possible.
- **Belief Elicitation Questions**
- **Additional Demographic Questions**
- **Additional Belief Elicitation Questions**

*[If participants get **Piece Rate Later** or **Tournament Later**, Round 3 happens later, as follows:]*

Extra Information for People Who Will Come Back for Part II

You will come back in 1-5 days (from Tuesday to Friday) to finish task 3. If you fail to come back by Friday at 4pm, you will not receive the bonus payment for task 3. When do you plan to come back to finish task 3? You have the chance to finish the task in any of the day:

- Tuesday (01/21/2020)
- Wednesday (01/22/2020)
- Thursday (01/23/2020)
- Friday (01/24/2020)

We will send out a follow-up email to you on Tuesday. We will also send you a reminder to come back and finish the task. Before the survey ends, please answer the following questions. You will then see the completion code on the screen.

[All delaying subjects are asked NOW:]

- **Belief Elicitation Questions**
- **Additional Demographic Questions**

[When subjects come back LATER, they complete the experiment with the following two tasks:]

- **Round 3:** Participants have 1:30 minutes to count number of 0s in as many tables as possible.
- **Additional Belief Elicitation Questions**

A.3. Detailed Instructions at the Time of Delayed Part II

1. Consent (same as one in Part I)

2. Introduction

To receive your bonus payment, you must enter your Mechanical Turk ID into the box below and then click to continue. Your WorkerID starts with the letter A and has 12-14 letters or numbers. It is not your email address. To ensure accuracy, please copy and paste your WorkerID from Mturk. This makes sure that there are no mistakes. An example of a common mistake is that "0" (the number) is written instead of an "O" (the letter). Mistakes like that may significantly delay your bonus payment. Enter your WorkerID here:

Welcome back and thank you for participating in our study. We estimate that this study will take about 5 minutes to complete. As mentioned last time, you will receive \$0.25 for completing this HIT. In addition to that, you can earn a bonus of up to \$7.30 based on your, and others', performance in the previous and this part of the experiment. The additional money will be paid to you as a bonus through Amazon Mturk next week. We will now go through the instructions. Please read them carefully. You are only eligible for bonus payment if you adhere to the instructions.

3. Round 3 Instructions

Similar to the task you completed last time, you will be given 90 seconds to count the zeros in a series of tables with ones and zeros. However, you don't have to commit to the payment scheme that you chose last time. You now will get to choose Piece Rate or Tournament Rate to apply to your performance on this task. Again, your earnings are determined as follows: Piece Rate: You receive \$0.20 per table you solve correctly. Tournament Rate: Your performance will be evaluated relative to how your random match did in the Tournament Task of the last experiment: If you correctly solve more tables than your match does, you will get \$0.40 per correct table. If you do not correctly solve more tables than your match does, you receive no earnings. If there is a tie, the payment will be split between the two of you. The next screen will ask you to choose whether you want the Piece Rate or the Tournament Rate applied to your performance. You will then be given 90 seconds to count the number of zeros in a series of tables with ones and zeroes. Now click to continue. Which compensation scheme do you prefer for task 3?

- Piece-rate
- Tournament

4. Additional questions

Task 3 is now finished. Before the survey ends, you now have a final chance to earn additional money. In this part, we want you to make some guesses. One guess will be selected randomly, and you will receive an extra bonus of \$0.15 if your selected guess is correct. Please guess how many tables you think you and the person you were matched to last time solved correctly in the task you just finished.

How many tables do you think that you solved correctly?

How many tables do you think that the person you were matched to solved correctly?

Perception of the Task

Do you think men or women generally do better in the "counting zeros" task that you just did?

1(Women do a lot better) – 10 (Men do a lot better)

Competitiveness

How much do you agree with the following statement? "I like situations in which I compete with others"

- Strongly Disagree
- Somewhat Disagree
- Neither Agree nor Disagree
- Somewhat Agree
- Strongly Agree

How competitive is your workplace and/or school?

1 (Not competitive at all) – 10 (Extremely competitive)

How much are you exposed to the competitive environments overall?

1 (I am not exposed to competitive environments at all) - 10 (I am exposed to competitive environments all the time)

APPENDIX B: PART II REMINDER EMAIL AND HELPFUL TIPS TO PREPARE FOR THE COUNTING ZEROS TASK

B.1. Part II Reminder Email

+ For participants in T2 and T3 with no access to studying tips:

Email Subject: Counting Task Survey Part 2

Email Content:

Thank you for participating in our counting task survey on Monday. This is the survey link for task 3: https://wellesley.co1.qualtrics.com/jfe/form/SV_7X1HFmxwRMQsjsN

Please complete the task by Friday 4pm in order to receive the bonus for task 3.

+ For participants in T2, T3, and T4 with access to studying tips:

Email Subject: Counting Task Survey Part 2 + Practice Problems

Email Content:

Thank you for participating in our counting task survey on Sunday. Please find the tips and practice problems using this

link: https://wellesley.co1.qualtrics.com/jfe/form/SV_aY1aS1ffgdGQifr And this is the survey link for task 3: https://wellesley.co1.qualtrics.com/jfe/form/SV_7X1HFmxwRMQsjsN Please complete the task by Friday 4pm in order to receive the bonus for task 3.

B.2. Helpful Tips to Prepare for the Counting Zeros Task

1. Tips

Thank you for participating in our survey. We will give you several tips for the counting task. You will then be given 4 tables to practice without time constraint, and 8 tables to practice under time constraint. Before we move on, please enter your Worker ID

Below are some strategies that are used to solve the counting task. Please note that applying these tips does not guarantee higher score for the task. You should always do what works best for you.

1. Focus on sub-divisions of the big matrix: the first one-row/two-rows, and then the next one-row/two-rows
2. Note that the matrix is 7×7 . Count the number that occurs less in each row. For example, if there are less than three 0s in a row, count 0s. However, if there are four 0s or more, count 1s, and subtract that from 7 to find number of 0s.
3. Use a calculator to sum up the 0s from each sub-division.
4. If using a computer to finish the task, zoom in to make the matrix bigger.
5. If using a smartphone to finish the task, slide the screen appropriately to focus on the sub-division of the big matrix.
6. If you have 10 seconds or less remaining, fill in the rest of the answers with guesses. Note that the number of 0s will be most likely between 15-35.

2. Practice Problems

Four untimed 7×7 matrices with solutions at the end

Eight timed 7×7 matrices with solutions at the end

APPENDIX C: SUMMARY STATISTICS AND BALANCE TESTS

Table C1: Summary Statistics of Demographic Variables and Balance Tests on Demographics

Variables	PR v. T Now (Baseline)	PR v. T Later (Forced Delay, No Access to Studying)	PR v. T Later (Forced Delay, Studying)	PR-T Now vs. PR-T Later (Forced Delay, No Studying) (p-value)	PR-T Now vs. PR-T Later (Forced Delay, Studying) (p-value)	PR-T Later (Forced Delay, No Study) vs. PR- T Later (Forced Delay, Study) (p-value)
Age	39.78	39.95	38.79	0.896	0.446	0.384
Female	57.43%	54.74%	59.24%	0.593	0.709	0.364
Education						
Less than high school	0.99%	0.00%	0.47%	0.170	0.538	0.343
High school or GED	9.41%	10.00%	12.80%	0.843	0.275	0.382
Some College	17.33%	15.26%	27.49%	0.582	0.013*	0.003*
2-year college degree	11.88%	12.63%	8.53%	0.821	0.261	0.181
4-year college degree	38.61%	43.68%	38.86%	0.309	0.959	0.328
Master's degree	18.32%	14.74%	10.90%	0.342	0.033*	0.251
Professional degree	0.99%	2.63%	0.47%	0.221	0.538	0.076
Doctoral degree	2.48%	1.05%	0.47%	0.289	0.090	0.503
Major						
Business / MBA	23.63%	22.75%	19.46%	0.848	0.333	0.450
Economics	4.95%	2.99%	5.41%	0.355	0.843	0.265
Humanities / Arts	18.68%	19.16%	14.05%	0.909	0.232	0.198
Law	0.55%	1.80%	4.32%	0.276	0.019*	0.174
Medical	5.49%	11.98%	11.35%	0.031*	0.044*	0.856
Others	21.98%	14.37%	16.22%	0.067	0.161	0.633
Psychology	7.14%	5.39%	5.95%	0.502	0.644	0.822
Sciences / Math	17.58%	21.56%	23.24%	0.350	0.180	0.706
Income						
Less than \$10,000	12.38%	12.11%	12.32%	0.935	0.987	0.947
\$10,000 - \$19,999	8.91%	11.05%	8.06%	0.480	0.756	0.308
\$20,000 - \$29,999	9.41%	11.58%	17.54%	0.484	0.016*	0.093
\$30,000 - \$39,999	14.85%	11.05%	12.80%	0.265	0.546	0.592
\$40,000 - \$49,999	13.37%	13.16%	13.74%	0.952	0.911	0.864
\$50,000 - \$74,999	18.81%	20.53%	20.85%	0.670	0.604	0.936
\$75,000 - \$99,999	12.38%	10.53%	9.00%	0.567	0.268	0.609
\$100,000 - \$149,999	4.95%	7.37%	4.27%	0.320	0.740	0.183
\$150,000 - \$249,999	3.47%	2.11%	1.42%	0.416	0.178	0.603
\$250,000 - \$499,999	0.50%	0.00%	0.00%	0.333	0.307	-
Race						
Asian	9.41%	10.53%	5.69%	0.712	0.152	0.075
Black or African American	10.40%	8.95%	9.48%	0.629	0.756	0.855
Native American	1.49%	1.58%	1.42%	0.940	0.957	0.897
White	77.23%	76.84%	80.57%	0.928	0.406	0.363
Other/Not disclose	1.49%	2.11%	2.84%	0.644	0.346	0.637
Hispanic	11.39%	12.63%	9.95%	0.593	0.326	0.670

Note: Significance level: * p < 0.05

Table C2: Demographic Characteristics Balance by Gender

	All	Men	Women	p-Value
N	603	258	345	
Age	39.49	38.95	39.89	0.387
Education				
Less than high school	0.50%	0.78%	0.29%	0.434
High school or GED	10.78%	6.59%	13.91%	0.003***
Some College	20.23%	18.99%	21.16%	0.511
2-year college degree	10.95%	8.53%	12.75%	0.092
4-year college degree	40.30%	42.64%	38.55%	0.314
Master's degree	14.59%	19.38%	11.01%	0.005***
Professional degree	1.33%	1.55%	1.16%	0.685
Doctoral degreed	1.33%	1.55%	1.16%	0.685
Major				
Business / MBA	21.91%	23.21%	20.88%	0.520
Economics	4.49%	7.17%	2.36%	0.01**
Humanities / Arts	17.23%	15.61%	18.52%	0.374
Law	2.25%	1.27%	3.03%	0.153
Medical	9.55%	4.64%	13.47%	0.000***
Others	17.60%	15.19%	19.53%	0.187
Psychology	6.18%	5.06%	7.07%	0.331
Sciences / Math	20.79%	27.85%	15.15%	0.000***
Income				
Less than \$10,000	12.27%	8.53%	15.07%	0.012**
\$10,000 - \$19,999	9.29%	4.65%	12.75%	0.000***
\$20,000 - \$29,999	12.94%	11.24%	14.20%	0.277
\$30,000 - \$39,999	12.94%	11.24%	14.20%	0.277
\$40,000 - \$49,999	13.43%	13.18%	13.62%	0.874
\$50,000 - \$74,999	20.07%	24.42%	16.81%	0.024**
\$75,000 - \$99,999	10.61%	13.18%	8.70%	0.085
\$100,000 - \$149,999	5.47%	8.91%	2.90%	0.003***
\$150,000 - \$249,999	2.32%	3.49%	1.45%	0.121
\$250,000 - \$499,999	0.17%	0.39%	0.00%	0.318
Race				
Asian	8.46%	9.69%	7.54%	0.356
Black or African American	9.62%	6.20%	12.17%	0.010*
Native American	1.49%	3.10%	0.29%	0.013*
White	78.28%	79.07%	77.68%	0.682
Other/Not disclose	2.16%	1.94%	2.32%	0.747
Hispanic	11.28%	8.12%	15.50%	0.006**

Notes: Data pooled across three treatments: *PR v. T Now*, *PR v. T Later (Access to Studying)*, and *PR v. Later (No Access to Studying)*. Significance levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

APPENDIX D: ANALYSIS OF ATTRITION AND SELECTION INTO PART II OF THE EXPERIMENT

In this section we address the concern that the subjects who return to finish the experiment are fundamentally different from those who do not. What is particularly important to show is that these differences do not vary by treatment and gender.

Table D1 provides a comparison of returning and non-returning subjects according to their demographics by treatment. The most noteworthy difference is that women in the condition without access to studying are significantly more likely to come back to finish Part II than men are in that treatment. There is no difference in the treatment with access to studying, however.

Table D2 compares Part I choices and post-experiment questionnaire responses of returning and non-returning participants by treatment. Unsurprisingly, in both treatments, subjects who do not come back to the experiment are significantly worse at the task (have lower Round 1 score) and have significantly lower relative confidence about performance in the Round 2 tournament relative to an opponent. In both treatments, returning subjects are significantly more risk-averse than the non-returning ones. On average, returning and non-returning subjects do not differ in their Part I choices of payment scheme.

Table D3 estimates the effect of demographic variables on the probability of coming back for Part II. Women are, on average, more likely to come back to finish the experiment. However, with the exception of ethnicity (Hispanic) for which we have a particularly low sample, none of the demographic characteristics interact with access to studying treatment condition, which implies that our analysis of the effect of studying for the sub-sample of returning subjects is not skewed by large demographic differences.

Finally, Table D4 estimates the effect of Part I decisions on the probability of coming back for Part II, essentially confirming the patterns we see in Table D2. Women and subjects who are more capable at the task, more relatively confident, and more risk-averse are more likely to come back. Interestingly, the subjects in the treatment with access to studying are less likely to come back on average (Column 1), but this effect disappears in the fully interacted model (Column 2).

In summary, while we do find some systematic differences in characteristics of subjects who do and do not return for the delayed part of the experiment, these differences do not vary systematically with treatment.

Table D1: Comparison of Demographic Characteristics of Subjects Who Come Back v. Do not Come Back for Part II in the Forced Delay Treatment

	<i>Forced Delay, No Access to Studying</i>			<i>Forced Delay, Access to Studying</i>		
	Came Back for Part II	Did Not Come Back for Part II	p-value	Came Back for Part II	Did Not Come Back for Part II	p-value
N	155	35	-	147	64	-
Women	94	10	-	91	34	-
Share female	0.61	0.29	<0.01***	0.62	0.53	0.24
Age	41.29	34.03	<0.01***	39.35	37.52	0.36
Education						
High school or less	0.09	0.14	0.42	0.12	0.16	0.53
Some college/Undergrad. degree	0.72	0.69	0.68	0.76	0.73	0.75
Graduate degree	0.19	0.17	0.83	0.12	0.11	0.78
Major						
Business / Law/ Economics	0.23	0.31	0.31	0.22	0.33	0.13
Humanities / Arts	0.20	0.14	0.38	0.17	0.07	0.03**
Medical/ Psychology	0.15	0.14	0.86	0.14	0.19	0.37
Sciences / Math	0.21	0.24	0.72	0.24	0.22	0.86
Other	0.16	0.07	0.12	0.17	0.14	0.54
Income						
Low income (Less than \$40,000)	0.47	0.40	0.45	0.52	0.48	0.67
Middle income (\$40,000-99,999)	0.42	0.54	0.20	0.41	0.48	0.36
High income (Over \$100,000)	0.10	0.06	0.33	0.07	0.03	0.23
Hispanic	0.06	0.40	<0.01***	0.09	0.13	0.45
Race						
Asian	0.10	0.14	0.48	0.05	0.06	0.82
Black or African American	0.09	0.09	0.93	0.10	0.09	0.97
Native American	0.01	0.06	0.22	0.00	0.05	0.08*
White	0.79	0.69	0.25	0.82	0.77	0.36
Other/Not disclose	0.02	0.03	0.77	0.03	0.03	0.88

Note: Significance levels: *** p < 0.01, ** p < 0.05, * p < 0.10.

Table D2: Comparison of Part I Choices and Behavioral Variables of Subjects Who Come Back v. Do not Come Back for Part II in the Forced Delay Treatment

	<i>Forced Delay, No Access to Studying</i>			<i>Forced Delay, Access to Studying</i>		
	Came Back for Part II	Did Not Come Back for Part II	p-value	Came Back for Part II	Did Not Come Back for Part II	p-value
N	155	35		147	64	
Round 1 Score	4.30	2.86	<0.01***	4.35	3.66	<0.01***
Round 1 Score Guess	4.28	4.21	0.80	4.50	4.34	0.50
Share Choosing Tournament in Part I	0.25	0.14	0.12	0.23	0.25	0.77
Men	0.41	1.00	<0.01***	0.56	0.50	0.71
Women	0.59	0.00	<0.01***	0.44	0.50	0.71
Risk Preference (self-report)	5.19	6.46	0.02**	4.97	6.41	<0.01***
Relative Confidence (Round 2)	0.16	-0.49	0.01***	0.05	-0.30	0.05**
Discount Rate	0.74	0.65	0.11	0.74	0.74	0.99
Maleness of Task	-0.03	-	-	0.10	-	-
Competitiveness (self-report)	3.31	-	-	3.10	-	-

Notes: Round 1 Score represents score out of 8 in the matrix task performed under a piece-rate payment scheme. Round 1 Score Guess represents the unincentivized predicted score in Round 1, asked immediately after performance. Share Choosing Tournament in Part I is the proportion of participants who choose tournament over piece-rate payment scheme in advance of the actual competition. Self-reported risk preference is measured on a 1-10 Likert scale. Relative confidence in Round 2 is measured as a difference between the guess of own score and the score of one's opponent in Round 2 (tournament), incentivized and asked in the post-Part I questionnaire. Discount rate is calculated based on an intertemporal choice problem that asks the least amount of money one would accept today to not have to wait one year to receive \$100. This measure is a composite of the standard exponential and hyperbolic discount rates. Gender perceptions and self-reported competitiveness were asked in the post-Part II questionnaire and were only answered by returning subjects who had a delayed Part II. Maleness of task is measured on a -4 to 4 scale. Self-reported preference for competition is measured on the Strongly Disagree to Strongly Agree Likert scale. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table D3: Determinants of the Probability of Coming Back for Part II, Demographics

Dep. Var. Pr(Come Back for Part II)	(1)		(2)	
Female	0.110**	(0.044)	0.175***	(0.055)
Access to Studying (Treatment)	-0.130***	(0.042)	-0.023	(0.161)
Age	0.003	(0.002)	0.00321*	(0.002)
High income	0.018	(0.059)	0.094	(0.062)
Black	-0.005	(0.072)	-0.013	(0.096)
Asian	-0.058	(0.081)	-0.084	(0.089)
Other race	0.035	(0.126)	-0.063	(0.140)
Hispanic	-0.240***	(0.082)	-0.388***	(0.102)
High education	0.0001	(0.045)	-0.006	(0.056)
Fem x Treatment			-0.114	(0.088)
Age x Treatment			-0.001	(0.003)
High income x Treatment			-0.152	(0.117)
Black x Treatment			0.007	(0.145)
Asian x Treatment			0.058	(0.170)
Other race x Treatment			0.046	(0.241)
Hispanic x Treatment			0.327**	(0.158)
High education x Treatment			-0.004	(0.088)
Dep. Var. Mean	0.753		0.753	
Observations	401		401	
R-squared	0.0854		0.113	

Notes: Access to studying refers to whether or not a participant is given access to helpful study tips before coming back for Part II of the experiment. High income is defined as \$75,000 or higher; high education is 4-year college degree or higher. The omitted category is a White man with low income and low educational level who has no access to studying. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table D4: Determinants of the Probability of Coming Back for Part II, Choices and Behavioral Variables

Dep. Var. Pr(Come Back for Part II)	(1)		(2)	
Female	0.129**	(0.050)	0.182***	(0.063)
Access to Studying (Treatment)	-0.121***	(0.040)	0.003	(0.181)
Chose Tournament in Part I	0.107	(0.074)	0.149*	(0.087)
Fem x Tournament in Part I	-0.100	(0.095)	-0.096	(0.093)
Score in Round 1	0.0593***	(0.014)	0.066***	(0.019)
Round 1 Score Guess	-0.012	(0.016)	-0.028	(0.020)
Relative Confidence	0.044***	(0.015)	0.046***	(0.017)
Risk Preference	-0.032***	(0.009)	-0.021*	(0.012)
Fem x Treatment			-0.108	(0.087)
Part I Tournament x Treatment			-0.087	(0.095)
Score x Treatment			-0.017	(0.028)
Guess x Treatment			0.034	(0.032)
Relative Confidence x Treatment			-0.001	(0.030)
Risk x Treatment			-0.022	(0.017)
Dep. Var. Mean	0.761		0.761	
Observations	397		397	
R-squared	0.154		0.165	

Notes: Access to studying refers to whether or not a participant is given access to helpful study tips before coming back for Part II of the experiment. Chose Tournament in Part I is the tournament entry decision (1 - tournament, 0 - piece rate) made in advance of actual competition. Score in Round 1 represents score out of 8 in the matrix task performed under a piece-rate payment scheme. Round 1 Score Guess represents the unincentivized predicted score in Round 1, asked immediately after performance. Relative confidence is measured as a difference between the guess of own score and the score of one's opponent in Round 2 (tournament), incentivized and asked in the post-Pat I questionnaire. Self-reported risk preference is measured on a 1-10 Likert scale. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

APPENDIX E: COMPARISON TO THE ADM (2017) DATA

In this appendix section, we ask whether it is possible that our non-replication of the ADM (2017) baseline gender gap in tournament entry could be due to some fundamental change in the subject pool on Amazon Mechanical Turk between 2017 and 2020. In other words, even though we used the exact same selection criteria to be included in our study, the entire population might be now different.

To address this question, we compare our data sample to the one we obtained from the authors of ARD (2017). Table E1 provides a comparison of demographics across our datasets by gender and overall. We find some significant differences.

First, we point out that both men and women in our sample are older by about 4.5 years, on average. The literature points to an important interaction between age and the gender gap in competitiveness: older women have been found to be more competitive than younger women (Flory et al. 2018). However, the absence of the gender gap in our experiment is not due to women being more competitive, but rather because our male subjects compete at lower rates than in previous studies, including ADM (2017).

Second, our pool seems to be significantly more educated than the subjects in the ADM (2017) sample (we have significantly fewer people in the low-education group and more in the high-education group). Consistently, our subjects earn higher incomes than those in the ADM dataset. Once again, however, we have no reason to believe that the absence of the competitiveness gap could be explained by this discrepancy. In fact, the effect of higher educational attainment should go in the opposite direction based on the findings in Buser, Peter, and Wolter (2017b) who find that it is low-ability men and women who compete at similar rates, while high-ability men outcompete high-ability women.

Finally, we have more subjects with a business education and more who have reported “other” as their course of study. We do not have a reason to believe that a business degree would be a deterrent against competition for men, and in fact, we conjecture that the effect is likely to be quite the opposite.

Table E2 compares the two samples across ability in the task, behavioral traits, and beliefs that have been measured and comparable in both studies (for example, ADM 2017 do not elicit discount rates or ask for self-reports of competitiveness in their post-experiment questionnaire). First, we note that our counting zeros matrix is 7x7 like in ADM (2020), while ADM 2017 use an 8x8 matrix, making the task harder. Thus, it is not surprising that we find that our subjects perform better in the baseline. Either way, it is not clear why better performance would lead to lower tournament entry rates by men in our case. The rest of the comparisons reveal that our subjects are as confident, as risk-averse, and as likely to believe that the task is gender-neutral as the subjects in ADM (2017).

Table E1: Comparison of Demographic Characteristics between Our Data and ADM (2017) Data

	<i>Men</i>			<i>Women</i>			<i>All</i>		
	Our Data	ADM	p-value	Our Data	ADM	p-value	Our Data	ADM	p-value
N	86	498		116	496		202	994	
Age	39.68	33.70	<0.01***	39.84	36.58	0.02**	39.78	35.14	<0.01***
Education									
High school or less	0.10	0.18	0.04**	0.10	0.16	0.09*	0.10	0.17	<0.01***
Some college/Undergrad. degree	0.63	0.71	0.15	0.72	0.75	0.51	0.68	0.73	0.17
Graduate degree	0.27	0.11	<0.01***	0.18	0.09	0.03**	0.22	0.10	<0.01***
Major									
Business	0.21	0.14	0.16	0.25	0.15	0.02**	0.24	0.14	<0.01***
Economics	0.09	0.06	0.37	0.02	0.01	0.53	0.05	0.04	0.41
Law	0.00	0.02	<0.01***	0.01	0.01	0.80	0.01	0.02	0.12
Humanities / Arts	0.20	0.15	0.30	0.18	0.22	0.33	0.19	0.18	0.91
Medical	0.04	0.03	0.63	0.07	0.09	0.37	0.05	0.06	0.81
Psychology	0.25	0.23	0.75	0.12	0.15	0.49	0.18	0.19	0.64
Sciences / Math	0.03	0.05	0.26	0.10	0.07	0.30	0.07	0.06	0.59
Other	0.18	0.15	0.51	0.25	0.15	0.03**	0.22	0.15	0.04**
Income									
Low income (Less than \$40,000)	0.34	0.71	<0.01***	0.54	0.71	<0.01***	0.46	0.71	<0.01***
Middle income (\$40,000-99,999)	0.48	0.25	<0.01***	0.42	0.25	<0.01***	0.45	0.25	<0.01***
High income (Over \$100,000)	0.17	0.04	<0.01***	0.03	0.04	0.29	0.09	0.04	0.03**
Race									
Asian	0.13	0.08	0.20	0.07	0.06	0.74	0.09	0.07	0.27
Black or African American	0.05	0.04	0.86	0.15	0.09	0.10	0.10	0.07	0.09*
Native American	0.02	0.01	0.59	0.01	0.01	0.78	0.01	0.01	0.60
White	0.79	0.78	0.81	0.76	0.77	0.79	0.77	0.77	0.94
Other/Not disclose	0.01	0.01	0.65	0.02	0.02	0.62	0.01	0.02	0.98

Notes: Data used for the comparison are from our Treatment 1, *PR v. T Now*, and the entire dataset of ADM (2017). Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table E2: Comparison of Main Behavioral Variables between Our Data and ADM (2017) Data

	<i>Men</i>			<i>Women</i>			<i>All</i>		
	Our Data	ADM	p-value	Our Data	ADM	p-value	Our Data	ADM	p-value
N	86	498		116	496		202	994	
Round 1 Score	4.198	2.892	<0.01***	4.000	3.063	<0.01***	4.084	2.977	<0.01***
Share with Positive Relative Confidence	0.651	0.578	0.205	0.578	0.515	0.239	0.609	0.547	0.112
Risk Preference (self-report)	5.721	5.843	0.648	5.431	5.113	0.207	5.554	5.479	0.681
Gender Perception of Task	5.128	5.213	0.683	5.034	4.935	0.599	5.074	5.074	0.999

Notes: Data used for the comparison are from our Treatment 1, *Piece-rate vs. Tournament Now*, and the entire dataset of ADM (2017). Round 1 Score represents score out of 10 in the matrix task performed under a piece-rate payment scheme. Share with positive relative confidence measures the proportion of participants who believe that they score higher than their opponent in Round 2. This question was incentivized and asked in the post-Part I questionnaire. Self-reported risk preference is measured on a 1-10 Likert scale. Gender perception of Task was asked in the post-Part I questionnaire, measured on a 1 (Women are better at the task) to 10 (Men are better the task) scale. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

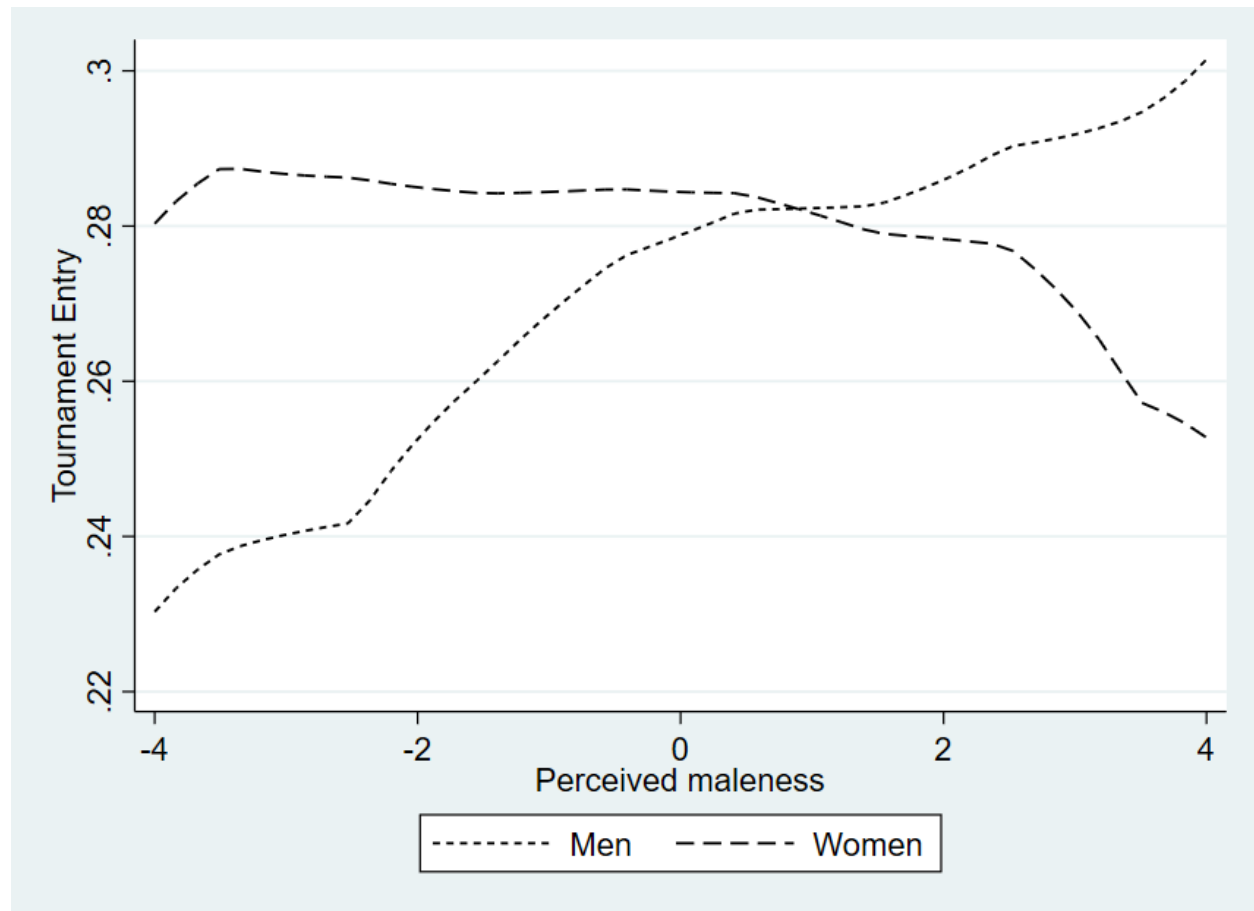
APPENDIX F: ADDITIONAL ANALYSIS

F1: Analysis of the Effect of Gender Stereotypes on Tournament Entry Decisions

A possible explanation for non-replication of the baseline gender gap in competitiveness is the fact that the task is perceived to be gender-neutral. Recall that maleness ranges from -4 (women are better at the task) to 4 (men are better at the task). On average, the perceived maleness of the task is 0.0930 for men and 0.0172 for women. Both values are very close to 0, implying that, on average, men and women perceive the task to be gender-neutral.

However, there may be a gendered way in which subjects respond to their own individual beliefs about the task. Figure F1 plots the relationship between the perceived maleness of the task and tournament entry decision by gender. It shows that, directionally, men who perceive the task to be more male-oriented are more likely to enter the tournament (positive slope), while women who perceive the task to be more male-oriented are less likely to compete (negative slope).

Figure F1: Relationship between Task's Perceived Maleness and Tournament Entry Decision



Note: Data are from Treatment 1, *Piece-rate vs Tournament Now*.

We test for the significance of this relationship formally and the results are presented in Table F1. The relationship between the gender perception of the task and tournament entry is positive for men: as perceived maleness increases, the probability of tournament entry increases (Columns 1-2), but not significant. For women, the opposite is true: as perceived maleness increases, the probability of tournament entry decreases (Column 3), but the relationship is not significant for women, and in fact reverses when we control for ability, risk preference, and confidence (Column 4). When we run the model on the pooled sample from Treatment 1, we show that the interaction on female and maleness is negative, but not statistically significant in Column 5. Again, once we include controls for ability, risk, and confidence, the sign on the interaction reverses and continues to be insignificant.

Table F1: Relationship between Task’s Perceived Maleness and Tournament Entry Decision

	Men		Women		Pooled (Men and Women)	
	(1)	(2)	(3)	(4)	(5)	(6)
Female					0.010 (0.064)	0.049 (0.063)
Maleness	0.020 (0.0261)	0.020 (0.0251)	-0.001 (0.0222)	0.023 (0.0241)	0.020 (0.026)	0.019 (0.026)
Female x Maleness					-0.021 (0.034)	0.005 (0.036)
Score in Round 1		0.014 (0.032)		0.037 (0.024)		0.020 (0.020)
Risk Preference		0.010 (0.017)		0.0318* (0.017)		0.019 (0.012)
Round 1 Guess		-0.0713* (0.038)		0.020 (0.033)		-0.017 (0.024)
Relative Confidence		0.127*** (0.040)		0.0628* (0.033)		0.0871*** (0.026)
Dep. Var. Mean	0.267	0.267	0.276	0.278	0.272	0.274
Observations	86	86	116	115	202	201
R-squared	0.006	0.105	0.000	0.107	0.003	0.079

Notes: Sample restricted to the baseline treatment, *Piece-rate vs Tournament Now*. Sample restricted to Treatment 1. Dependent variable is the tournament entry decision (1 - tournament, 0 - piece rate) made in advance of actual competition. Robust standard errors in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

F2: Analysis of the Effect of Educational Background on Tournament Entry

In this section, we separate the participants in our baseline treatment by their educational background to examine if the gender gap differs by educational level. The significant gender gap in competitiveness documented in past research tends to emerge among subjects with high ability (e.g., Swiss high school students in Buser et al. (2020)) or high educational background (college students in NV's lab experiment). Similar to Buser et al. (2020), our sample allows us to explore tournament entry across the entire ability distribution, as proxied by educational background. For our analysis, we define highly educated subjects as ones with a bachelor's degree or higher and less educated subjects as ones with less than a bachelor's degree. We check and find that there is no heterogeneous effect: there is no gender gap either among our low-education participants or among our highly education participants (Table F2).

Table F2: Mean Tournament Entry by Gender and Educational Background

	<u>Men</u>	<u>Women</u>	<u>p-value</u>
High Education Level	0.291	0.299	0.928
Low Education Level	0.226	0.245	0.847

Notes: Summary statistics are based on data from Piece-rate v. Tournament Now treatment. There are two educational levels: high level includes people with a bachelor's degree and higher; low level includes people with less than a bachelor's degree. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

F3: Summary Statistics of Main Behavioral Variables, by Gender and Treatment

Table F3 separates the aggregated averages reported in Table 2 by treatment. Recall that we do not find significant differences in tournament entry by men and women in either Treatment 1 (no delay) or in the sub-condition of Treatment 2 (forced delay) without access to studying. These are represented in the first two panels of the Table below. On the other hand, men are significantly more likely to enter the delayed tournament in the sub-condition of Treatment 2 (forced delay) with access to studying.

Here we point out that there are no consistent patterns in gender differences in behavioral traits or ability across these treatments. For example, women are not more risk-averse in T1, but they are more risk-averse in T2 without access to studying – yet, there is no gender gap in entry in either condition. Women are also broadly more patient than men in our data, which also cannot explain the treatment difference. Relative confidence differences show up to be significant in treatment where there is no gender gap, but not in the treatment where we find one. Confidence as measured by the score guess is the only consistent explanation for the gap in entry in T2 with access to studying (men are more confident in their base ability in the task).

Table F3: Summary Statistics of Main Behavioral Variables, by Gender and Treatment

	No Delay (T1)			Forced Delay (T2), No Access to Studying			Forced Delay (T2), Access to Studying			Forced Tournament (T3)			Preference Ranking (T4)		
	Men	Women	p-val	Men	Women	p-val	Men	Women	p-val	Men	Women	p-val	Men	Women	p-val
Round 1 Score	4.20	4.00	0.44	3.69	4.32	0.01**	4.15	4.14	0.94	4.28	4.18	0.58	4.05	3.96	0.68
Score Guess (Round 1)	4.62	4.46	0.42	4.41	4.21	0.39	4.81	4.34	0.04**	4.92	4.48	<0.01***	4.39	4.46	0.69
Relative Confidence (Round 2)	0.03	-0.33	0.04**	0.36	-0.22	<0.01***	0.08	-0.14	0.19	0.08	-0.13	0.12	-0.06	-0.11	0.82
Risk Preference (self-report)	5.72	5.43	0.39	5.83	5.10	0.04**	5.90	5.07	0.02**	6.15	5.41	<0.01***	6.09	5.18	0.01***
Discount Rate	0.73	0.79	0.06	0.67	0.77	0.02**	0.69	0.77	0.03**	0.72	0.76	0.07*	0.76	0.75	0.74
Observations	86	116		86	104		86	125		178	233		80	112	
Maleness of Task	0.09	0.02	0.76	0.33	-0.27	0.02	0.36	-0.07	0.15	0.42	-0.34	<0.01***	0.41	-0.07	0.05**
Competitiveness (self-report)	3.60	3.28	0.03**	3.38	3.27	0.54	3.39	2.91	0.01***	3.59	3.24	<0.01***	3.61	3.09	<0.01***
Observations	86	116		61	94		56	91		174	225		75	102	

Notes: Round 1 Score represents score out of 8 in the matrix task performed under a piece-rate payment scheme. Score guess (Round 1) represents the unincentivized predicted score in Round 1, asked immediately after performance. Relative confidence in Round 2 is measured as a difference between the guess of own score and the score of one's opponent in Round 2 (tournament), incentivized and asked in the post-Pat I questionnaire. Self-reported risk preference is measured on a 1-10 Likert scale. Discount rate is calculated based on an intertemporal choice problem that asks the least amount of money one would accept today to not have to wait one year to receive \$100. This measure is a composite of the standard exponential and hyperbolic discount rates. Gender perceptions and self-reported competitiveness were asked in the post-Part II questionnaire and were only answered by returning subjects who had a delayed Part II. Maleness of task is measured on a -4 to 4 scale. Self-reported preference for competition is measured on the Strongly Disagree to Strongly Agree Likert scale. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

APPENDIX G: ROBUSTNESS CHECKS

G1. Specifications Using Demographic Controls

Table G1: OLS Estimates of the Prob of Tournament Entry in the Three Main Treatments, Controlling for Demographic Characteristics

	Panel A: No Delay			Panel B: Forced Delay, No Studying			Panel C: Forced Delay, Studying		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	-0.006 (0.070)	-0.006 (0.070)	0.013 (0.067)	-0.001 (0.067)	0.021 (0.079)	0.075 (0.084)	-0.111* (0.063)	-0.161** (0.074)	-0.118 (0.074)
Score in Round 1	0.023 (0.021)	0.024 (0.021)	0.019 (0.020)	-0.018 (0.021)	-0.024 (0.025)	-0.0406* (0.022)	0.015 (0.024)	0.015 (0.031)	-0.008 (0.026)
Risk Preference	0.0220* (0.012)	0.0217* (0.012)	0.016 (0.013)	0.014 (0.014)	0.0350** (0.016)	0.0321** (0.016)	0.0264** (0.012)	0.0269* (0.014)	0.020 (0.013)
Round 1 Guess	0.010 (0.024)	0.009 (0.024)		-0.006 (0.026)	-0.024 (0.029)		-0.025 (0.026)	-0.036 (0.037)	
Maleness		0.013 (0.017)	0.026 (0.018)		0.006 (0.026)	0.005 (0.026)		0.013 (0.020)	0.010 (0.019)
Relative Confidence			0.0902*** (0.026)			0.0581** (0.025)			0.0673** (0.028)
Dep. Var. Mean	0.275	0.275	0.274	0.233	0.252	0.252	0.236	0.231	0.231
Observations	200	200	201	189	155	155	208	147	147
R-squared	0.063	0.0655	0.122	0.0313	0.0717	0.102	0.109	0.187	0.214

Notes: Dependent variable is the tournament entry decision (1 - tournament, 0 - piece rate) made in advance of actual competition. All specifications control for age, indicators for race, income level, and education level (high income is defined as \$75,000 or higher; high education is defined as 4-year college degree or higher). Robust standard errors in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table G2: OLS Estimates of the Effect of Studying (i.e., Viewing Tips) on Score in Round 3 (Forced Delay treatment), Controlling for Demographics

	Men	Women
	(1)	(2)
<i>Panel A: Forced Delay, Studying v. Not Studying Comparison</i>		
Studied (Viewed Email with Tips)	-0.244 (0.503)	0.619* (0.321)
Score in Round 1	0.736*** (0.140)	0.396*** (0.121)
Dep. Var. Mean	4.571	4.527
Observations	56	91
R-squared	0.455	0.235
<i>Panel B: Forced Delay, Studying v. No Access to Studying Comparison</i>		
Had Access to Studying	-0.174 (0.383)	0.517** (0.234)
Score in Round 1	0.644*** (0.102)	0.491*** (0.093)
Dep. Var. Mean	4.438	4.408
Observations	89	147
R-squared	0.449	0.299

Notes: Dependent variable is score in Round 3 of participants who come back for Part II of the experiment. All specifications control for age, indicators for race, income level, and education level (high income is defined as \$75,000 or higher; high education is defined as 4-year college degree or higher). Robust standard errors in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

G2: Logistic Specifications

Table G3: Logistic Estimates of the Probability of Tournament Entry in the Three Main Treatments

	Panel A: No Delay			Panel B: Forced Delay, No Studying			Panel C: Forced Delay, Studying		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	0.121 (0.335)	0.133 (0.337)	0.261 (0.340)	-0.0358 (0.359)	0.0865 (0.400)	0.290 (0.416)	-0.607* (0.334)	-0.856** (0.414)	-0.782* (0.421)
Score in Round 1	0.122 (0.104)	0.131 (0.107)	0.0785 (0.101)	-0.108 (0.111)	-0.160 (0.129)	-0.255** (0.120)	0.0528 (0.136)	0.00780 (0.189)	-0.0242 (0.150)
Risk Preference	0.126** (0.0624)	0.124** (0.0628)	0.0989 (0.0659)	0.0725 (0.0731)	0.180** (0.0855)	0.171* (0.0885)	0.160** (0.0707)	0.178** (0.0854)	0.166** (0.0844)
Round 1 Guess	0.00500 (0.120)	0.00243 (0.120)		-0.0316 (0.142)	-0.133 (0.168)		-0.0755 (0.153)	-0.00457 (0.216)	
Maleness		0.0526 (0.0882)	0.118 (0.0961)		0.00833 (0.129)	-0.0228 (0.134)		0.0899 (0.123)	0.0772 (0.117)
Relative Confidence			0.503*** (0.168)			0.308* (0.167)			0.331* (0.192)
Dep. Var. Mean	0.274	0.274	0.272	0.233	0.252	0.252	0.236	0.231	0.231
Observations	201	201	202	189	155	155	208	147	147

Notes: Dependent variable is the tournament entry decision (1 - tournament, 0 - piece rate) made in advance of actual competition. Robust standard errors in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Table G4: Logistic Estimates of the Prob of Tournament Entry in the Three Main Treatments, Controlling for Demographic Characteristics

	Panel A: No Delay			Panel B: Forced Delay, No Studying			Panel C: Forced Delay, Studying		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	-0.080 (0.373)	-0.072 (0.373)	-0.062 (0.383)	-0.005 (0.382)	0.117 (0.426)	0.394 (0.465)	-0.600 (0.379)	-1.010** (0.504)	-0.656 (0.527)
Score in Round 1	0.107 (0.111)	0.122 (0.115)	0.058 (0.115)	-0.123 (0.122)	-0.129 (0.139)	-0.232* (0.132)	0.113 (0.159)	0.125 (0.239)	-0.053 (0.205)
Risk Preference	0.148** (0.073)	0.149** (0.074)	0.123 (0.077)	0.082 (0.074)	0.185** (0.088)	0.180** (0.090)	0.157** (0.080)	0.164 (0.103)	0.122 (0.095)
Round 1 Guess	0.063 (0.123)	0.061 (0.123)		-0.019 (0.144)	-0.128 (0.168)		-0.165 (0.157)	-0.225 (0.228)	
Maleness		0.081 (0.091)	0.166 (0.105)		0.032 (0.135)	0.011 (0.141)		0.090 (0.140)	0.061 (0.125)
Relative Confidence			0.636*** (0.205)			0.336** (0.163)			0.510** (0.207)
Dep. Var. Mean	0.275	0.275	0.274	0.234	0.255	0.255	0.237	0.233	0.233
Observations	200	200	201	188	153	153	207	146	146

Notes: Marginal effects on dependent variable is the tournament entry decision (1 - tournament, 0 - piece rate) made in advance of actual competition. All specifications control for age, indicators for race, income level, and education level (high income is defined as \$75,000 or higher; high education is defined as 4-year college degree or higher). Robust standard errors in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.