Consent form

- Principal Investigator: **Seura Ha, PhD student, University of Michigan**
- Faculty Advisors: **Tanya Rosenblat, Professor of Information, University of Michigan**
  Yesim Orhun, Associate Professor of Marketing, University of Michigan

You are invited to participate in a research study about behavioral decision-making.

If you agree to be part of the research study, you will be asked to **use a mouse and a keyboard to perform tasks and answer questions in a survey**.

- Benefits of the research: You may not receive any personal benefits from being in this study. However, others may benefit from the knowledge gained from this study.
- Risks and discomforts: This study involves behavioral tasks and does not pose more than minimal risks to you physically, psychologically, and legally.
- Compensation: You will receive at least $10 for completing this study. Depending on your performance and choices in experimental tasks, you may earn up to $16 (including the completion fee of $10). All payments will be distributed in the form of a gift card of your choosing.
  - [Important!] **10 days after today's session**, the Ross Paid Pool will email you for the distribution of payment. To receive the compensation, you must (1) complete the session and (2) check the email from the Ross Paid Pool including a link to the payment. The link will expire 48 hours after the email is sent.

The Ross Paid Pool will handle all communications but will not have access to your answers in the study. In this manner, the researchers keep any identifying information (i.e., your email address) separate from your data collected during the study.

Information collected in this project may be shared with other researchers, but we will not share any information that could identify you.

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time.

If you have questions about this research study, please contact Yesim Orhun (aorhun@umich.edu).

As part of their review, the University of Michigan Institutional Review Board Health Sciences and Behavioral Sciences has determined that this study is no more than minimal risk and exempt from on-going IRB oversight.

Successful completion clause: Participants who successfully complete the study will receive payment. *Successful completion* is determined at the discretion of the experimenter using common methods to identify *non-genuine responses*. Examples of non-genuine responses include nonsense answers, responses completed in an extremely short or long amount of time, failure to respond to instructions, and/or otherwise clearly failing to offer genuine responses. Participants should complete the study in one sitting without interruptions to help ensure their response is not considered as non-genuine. Only submissions considered genuine will receive payment.

By clicking the **Agree** button at the bottom of this page, you are agreeing to be in this study. Please make sure you understand what the study is about before you agree.

Before proceeding to the next page, please answer the following questions to make sure you understand the information about taking part in this research. You have to get all the questions correct to proceed.

1. How will you participate in the study?

- ○ By verbally communicating with other participants and answering survey questions on a paper
- ○ By performing tasks and answering questions on a computer screen

2. When will you get paid?

- ○ Today
- ○ 10 days later
- ○ 2 weeks later

3. How will you get paid?

- ○ You will be contacted by the Ross Paid Pool via email and click the link in the email to receive a gift card.
- ○ You will come to this lab again and receive payment in cash

"I understand what the study is about and my questions so far have been answered. I agree to take part in this study."

Agree

Welcome!

The experiment consists of four sections. In each section, you will first read the instructions and perform different tasks. Your payment will be determined by your decisions, so please read the instructions very carefully.

Please make sure that your mobile phone is switched off. During the experiment, it is not allowed to communicate with other participants, use mobile phones, or start other programs on the computer. If you violate this rule, we must exclude you from the experiment and all payments.

If you have any questions at any point during the experiment, please raise your hand. An experimenter will come to your station and answer your questions quietly.

Next

During the experiment, you will give your estimates for the percentage chances of **four different scenarios of an event.** The percentage chance that you will report will influence your earnings. For each estimate task, you can receive an additional payoff of 1 dollar. The payoff mechanism is designed such that you have the highest chance of receiving an additional payoff of 1 dollar when you report your best estimate.

In the following, we will explain the payoff mechanism in detail. We will use the event **"the number of rainy days in Ann Arbor in September 2021"** as an example. This example is for **illustrative purposes** only and will be replaced by another event in the experiment.

Assume in the following that there are four possible scenarios for the "number of rainy days in Ann Arbor in September 2021," and that exactly one of the scenarios has occurred.

- Scenario A: In September 2021, Ann Arbor had less than 7 rainy days.
- Scenario B: In September 2021, Ann Arbor had between 7 and 9 rainy days.
- Scenario C: In September 2021, Ann Arbor had between 10 and 11 rainy days.
- Scenario D: In September 2021, Ann Arbor had at least 12 rainy days.

In the experiment, we would ask you to give your estimate for the chance of the occurrence of each respective scenario. Since only one of these scenarios has occurred, the sum of the probabilities would need to add up to 100%.

After you have made your estimate for the different scenarios, the computer will randomly select exactly **one scenario** as payoff relevant. This selection is random and does not mean that this scenario occurred.

The computer then randomly selects **a number X between 0 and 100.** The percentage chance to be selected is equal for each number.

Payoff

0:00 / 1:03

- If your specified percentage chance for the selected scenario is at least as high as the number X, then you will receive a dollar if the scenario has occurred.
- If, on the other hand, your specified percentage chance is lower than the number X, then you receive a dollar with a chance of X%.

According to these rules, it is always beneficial for you to report your best estimates.

For example, assume that your best estimate for the percentage chance of scenario A is 50% and you specify a chance of 30%. Then it can happen that the computer selects scenario A for the payout and the number 40 is taken for X. In this case, your chance of winning one dollar is 40%. If you had entered 50%, you would, according to your best estimate, win the one dollar with a percentage chance of 50% - exactly when scenario A occurred.

Practice questions

0:00 / 0:35

In order to increase your understanding of the payoff mechanism, we now ask you to answer some practice questions on the next page. We will use the example above, “the number of rainy days in Ann Arbor in September 2021.” Your answers to these questions will not affect your payouts in the experiment. However, we will not proceed to the next phase of the experiment until all participants have answered the questions correctly. You may consult the leaflet we provided during the experiment.

Please click the next page to proceed.

Next

The Next button is disabled for 3 minute.

Practice questions

The following practice questions relate to the exemplary event "the number of rainy days in Ann Arbor in September 2021" with the following four scenarios:

- Scenario A: In September 2021, Ann Arbor had less than 7 rainy days.
- Scenario B: In September 2021, Ann Arbor had between 7 and 9 rainy days.
- Scenario C: In September 2021, Ann Arbor had between 10 and 11 rainy days.
- Scenario D: In September 2021, Ann Arbor had at least 12 rainy days.

Assume that your best estimate for the percentage chances of Scenario *A* is 50%, Scenario *B* is 30%, and Scenario *C* is 15%.

1. Which of the following answers maximizes your chance of a payoff of 1 dollar?

- ○ A=25%, B=25%, C=25%, D=25%
- ○ A=50%, B=10%, C=15%, D=25%
- ○ A=50%, B=30%, C=15%, D=5%
- ○ A=100%, B=0%, C=0%, D=0%

Suppose that you reported your best estimates and the computer has randomly selected Scenario *C* (for which you estimated a 15% chance of occurring) and randomly picked *X* to be 25.

2. What is your chance to win 1 dollar?

- ○ 25%
- ○ 20%
- ○ 15%

3. Would you have had a higher chance of winning the 1 dollar by reporting 40% instead of 15%?

- ○ Yes
- ○ No

Next

Section 1

You will now begin Section 1.

Please click Next to proceed.

Next

In the first section of the experiment, we ask you to complete a quiz with 15 questions.

You will see a pattern with one cutout missing. Your task is to choose the correct cutout from four suggestions and press the Next button.

You have 30 seconds to select the correct answer for each pattern and click the Next button.

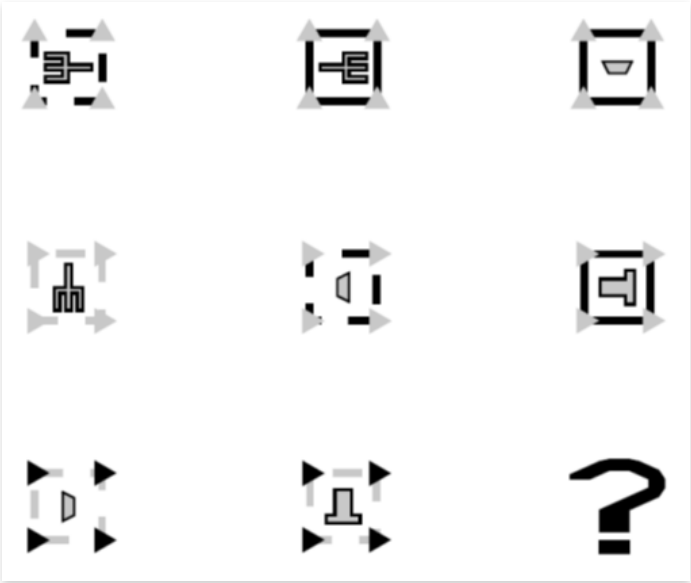
The additional payment for each correct question is $0.20. Additionally, the computer will draw a random prize between $0.00 and $1.00 and add it to the payment. For example, suppose that you got 5 out of the 15 questions correct, and the computer drew a random prize of $0.50. Then, the additional payment from this section is $0.20 X 5 + $0.50 = $1.50.

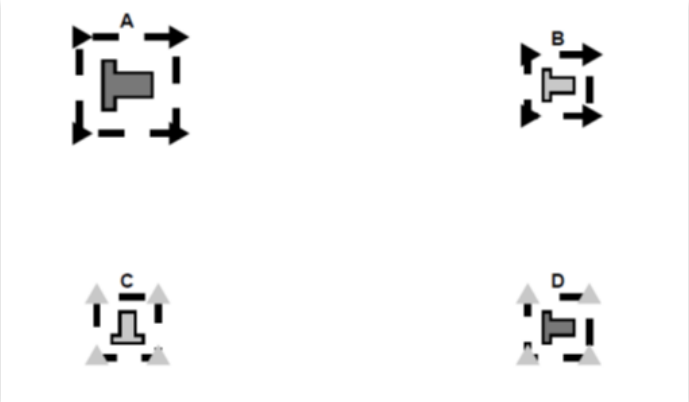
On the following page, you can answer a practice question to familiarize yourself with the format of the quiz.

Next

Practice question

Time left to complete this page: **0:27**



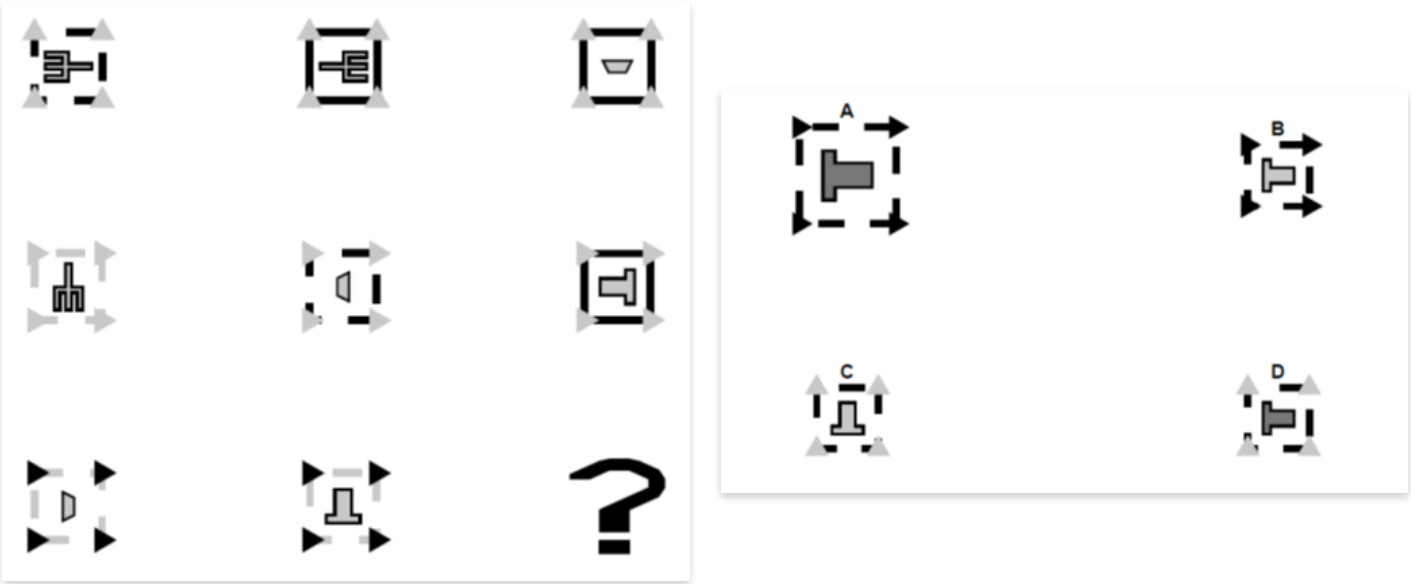


Which cutout is the right completion?

A | B | C | D

Case 1) Incorrect answer

Practice question

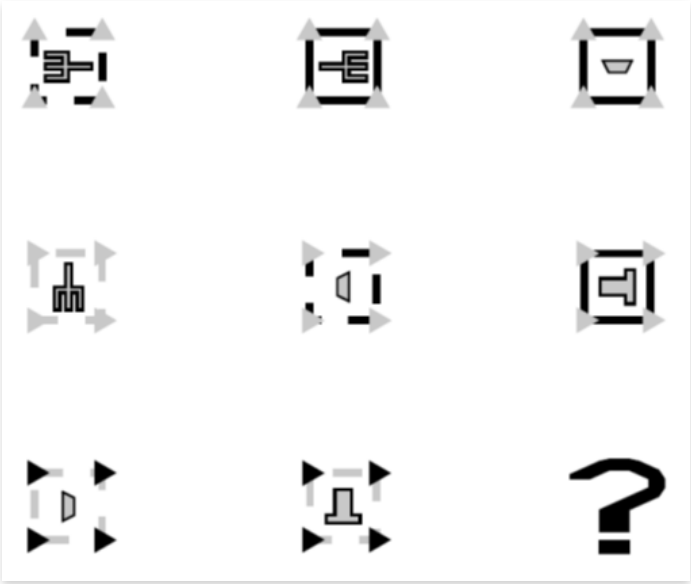


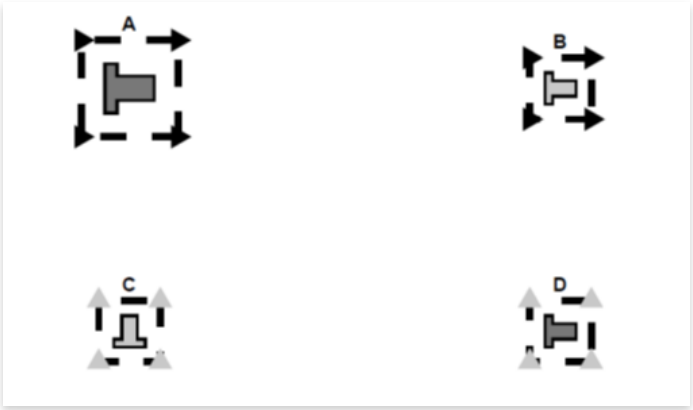
Your answer **A** was incorrect. The correct answer is **B**. Please review this question.
When you are ready to proceed to the task (which will ask you more of these questions), click Next.

Next

Case 2) Correct answer

Practice question





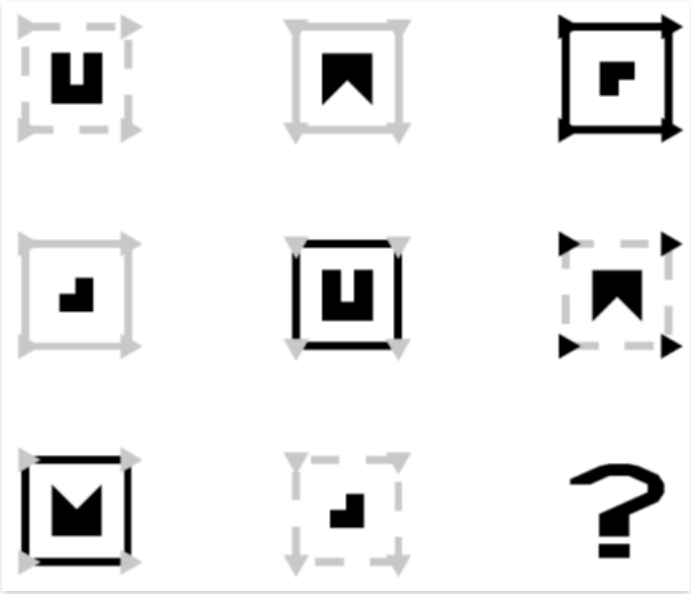
Your answer **B** was correct.

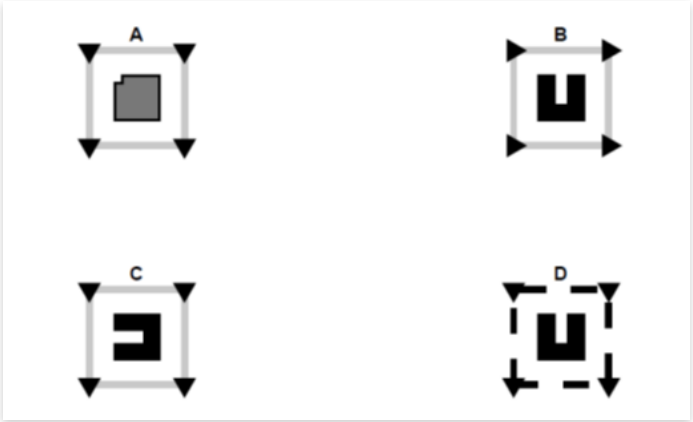
When you are ready to proceed to the task (which will ask you more of these questions), click Next.

Next

Pattern 1/15

Time left to complete this page: **0:27**





Which cutout is the right completion?

A | B | C | D

Section 2

You have completed Section 1.

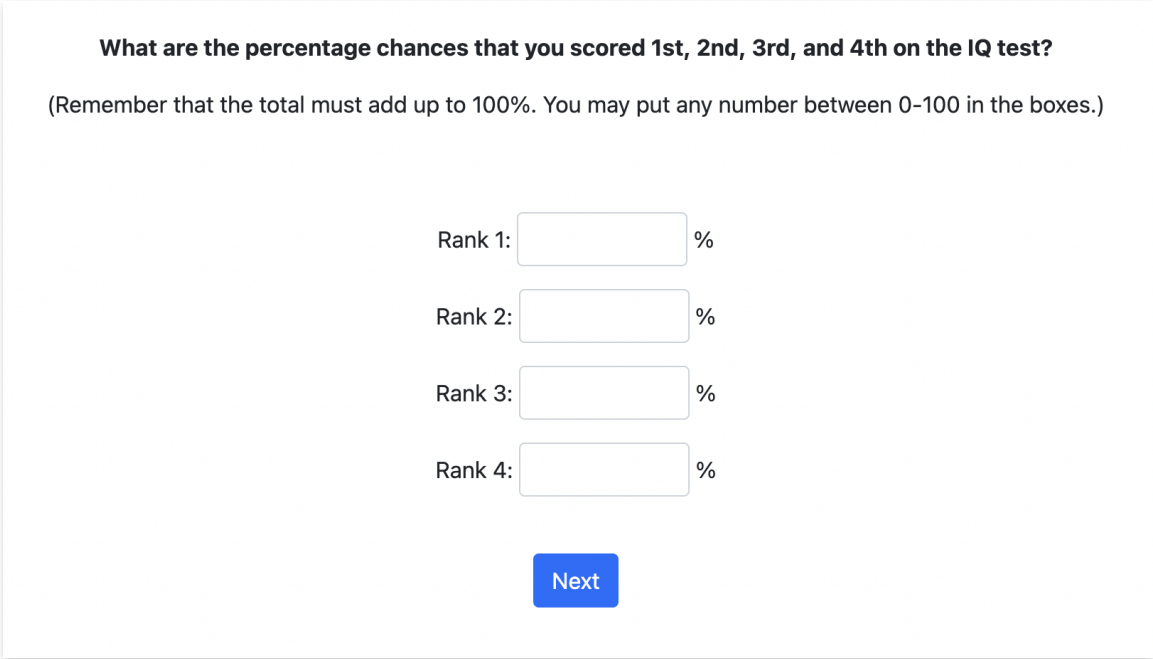
Please click Next to proceed to Section 2.

Next

The test you have just taken is an **intelligence test (IQ test)**. All participants have seen exactly the same questions, and in the same order.

The computer has randomly assigned you to a group of 4 with other U-M students, and your score on the IQ test has been evaluated relative to the participants in that group.

In a little bit, we will ask you to estimate the percentage chances that you have been ranked 1st, 2nd, 3rd, and 4th in your group. The question will look as follows:



You will have the opportunity to win 1 dollar using the same payoff mechanism that we explained at the beginning of the experiment (please consult the leaflet if you need to). This means that you maximize your payoff when you give your best estimate.

If the case occurs that two participants in the group have the same score, the computer randomly decides which participant has the higher or the lower rank.

Before you proceed to the next page, please answer the following comprehension quiz. This quiz is not counted in the final payoff.

1. You are randomly assigned into a group of ___ participants in this study. (Type in a number)

2. [True or False] Your group members solved different problems than you.

- ○ True
- ○ False

3. [True or False] Your task is to estimate the percentage chances with which you ranked 1st, 2nd, 3rd, 4th in the group.

- ○ True
- ○ False

Next

What are the percentage chances that you scored 1st, 2nd, 3rd, and 4th on the IQ test?

(Remember that the total must add up to 100%. You may put any number between 0-100 in the boxes.)

Rank 1: %

Rank 2: %

Rank 3: %

Rank 4: %

Next

Section 3

You have completed Section 2.

Please click Next to proceed to Section 3.

Next

Now condition

Now, you will be paired **once** with a randomly selected person from your group and will be told whether your rank is higher or lower than this person. The assignment is completely anonymous, and you will never know the identity of the selected comparison person.

Afterwards, you have another possibility to give your estimation with which percentage chance you have been ranked 1st, 2nd, 3rd, and 4th. You will have the chance to win 1 dollar using the same payoff mechanism that we explained at the beginning of the experiment. This means that you maximize your payoff when you give your best estimate.

At the end of the experiment today, you will be informed about your actual rank in the group.

Before you proceed to Section 3, please answer the following comprehension quiz. This quiz is not counted in the final payoff.

1. [True or False] In Section 3, you will learn whether a randomly selected member of your group is higher or lower in rank than you.

○ True ○ False

2. [True or False] You will learn your actual rank **today**.

○ True ○ False

Next

10 days later condition

Now, you will be paired **once** with a randomly selected person from your group and will be told whether your rank is higher or lower than this person. The assignment is completely anonymous, and you will never know the identity of the selected comparison person.

Afterwards, you have another possibility to give your estimation with which percentage chance you have been ranked 1st, 2nd, 3rd, and 4th. You will have the chance to win 1 dollar using the same payoff mechanism that we explained at the beginning of the experiment. This means that you maximize your payoff when you give your best estimate.

At the time we contact you again in 10 days from now, you will be informed about your actual rank in the group, but you will not receive any further information about your performance until then.

Before you proceed to Section 3, please answer the following comprehension quiz. This quiz is not counted in the final payoff.

1. [True or False] In Section 3, you will learn whether a randomly selected member of your group is higher or lower in rank than you.

○ True ○ False

2. [True or False] You will learn your actual rank **10 days later** but will not receive any further information until then.

○ True ○ False

Next

Never condition

Now, you will be paired **once** with a randomly selected person from your group and will be told whether your rank is higher or lower than this person. The assignment is completely anonymous, and you will never know the identity of the selected comparison person.

Afterwards, you have another possibility to give your estimation with which percentage chance you have been ranked 1st, 2nd, 3rd, and 4th. You will have the chance to win 1 dollar using the same payoff mechanism that we explained at the beginning of the experiment. This means that you maximize your payoff when you give your best estimate.

In the course of the experiment, you will not receive any further information about your performance and you will never learn your actual rank in the group.

Before you proceed to Section 3, please answer the following comprehension quiz. This quiz is not counted in the final payoff.

1. [True or False] In Section 3, you will learn whether a randomly selected member of your group is higher or lower in rank than you.

○ True ○ False

2. [True or False] You will **never** learn your actual rank in the group.

○ True ○ False

Next

Case 1) Bad news

The computer has randomly selected another participant in your group.

Your score on the IQ test was **lower.**

Next

Case 2) Good news

The computer has randomly selected another participant in your group.

Your score on the IQ test was **higher.**

Next

Now condition

Now, you have another opportunity to give your estimate with which percentage chances you have scored on rank 1, rank 2, rank 3, and rank 4.

At the end of the experiment today, you will be informed about your actual rank in the group.

What are the percentage chances that you scored 1st, 2nd, 3rd, and 4th on the IQ test?

Rank 1: ____ %

Rank 2: ____ %

Rank 3: ____ %

Rank 4: ____ %

Next

10 days later condition

Now, you have another opportunity to give your estimate with which percentage chances you have scored on rank 1, rank 2, rank 3, and rank 4.

At the time we contact you again in 10 days from now, you will be informed about your actual rank in the group, but you will not receive any further information about your performance until then.

What are the percentage chances that you scored 1st, 2nd, 3rd, and 4th on the IQ test?

Rank 1: ____ %

Rank 2: ____ %

Rank 3: ____ %

Rank 4: ____ %

Next

Never condition

Now, you have another opportunity to give your estimate with which percentage chances you have scored on rank 1, rank 2, rank 3, and rank 4.

However, you will never learn your actual rank in the group.

What are the percentage chances that you scored 1st, 2nd, 3rd, and 4th on the IQ test?

Rank 1: ____ %

Rank 2: ____ %

Rank 3: ____ %

Rank 4: ____ %

Next

Section 4

You have completed Section 3.

Now, we ask you to carefully read through and answer some questions.
Please click Next to proceed to Section 4.

Next

The test you have taken in Section 1 is a version of IQ test developed by Civelli and Deck (2018). It is similar to Raven's Progressive Matrices, a non-verbal test used to measure general human intelligence and abstract reasoning, which is one of the most common tests administered to individuals ranging from 5-year-olds to the elderly. [Source: Wikipedia]

1. Have you ever taken this kind of test before?

- ○ Yes
- ○ No

2. On a scale of 1 (very low) to 7 (very high), how would you rate the importance of your performance on the quiz for your **academic success**?

4

1 — Very low | 4 | 7 — Very high

3. On a scale of 1 (very low) to 7 (very high), how would you rate the importance of your performance on the quiz for your **professional success**?

4

1 — Very low | 4 | 7 — Very high

Next

How well does the following statement describe you as a person?

"I tend to postpone tasks even if I know it would be better to do them right away."

Please indicate your answer on a scale from 0 to 10. A 0 means “does not describe me at all,” and a 10 means “describes me perfectly.” You can use any number between 0 and 10 to indicate where you fall on the scale, using 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10.

5

0
Does not describe me at all

5

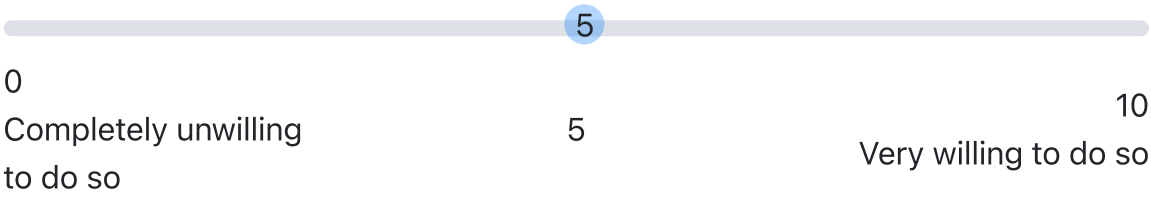
10
Describes me perfectly

Next

We now ask you for your willingness to act in a certain way.

"How willing are you to give up something that is beneficial for you today in order to benefit more from that in the future?"

Please again indicate your answer on a scale from 0 to 10. A 0 means “completely unwilling to do so,” and a 10 means “very willing to do so.” You can also use any number between 0 and 10 to indicate where you fall on the scale, using 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10.



Next

Now, please imagine the following situation:
You can choose between a sure payment of a particular amount of money, **or** a draw, where you would have an equal chance of getting $450 or getting nothing.

Which would you prefer?

- a 50/50 chance of getting $450 or getting nothing
  or
- an amount of $240 as a sure payment

- ○ 50/50 chance of getting $450 or getting nothing
- ○ Sure payment of $240
- ○ I don't know

Next

Now please imagine this new situation:
Suppose you were given the choice between receiving a payment today or a payment in 12 months.

Please assume there is no inflation, i.e. future prices are the same as today's prices.

Which would you rather receive?

- $160 today
  or
- $246 in 12 months

- ○ $160 today
- ○ $246 in 12 months
- ○ I don't know

Next

How old are you?

What is your gender?

- ○ Female
- ○ Male
- ○ Non-binary / third gender
- ○ Prefer not to say

Please indicate your field of study. If you have more than one field, please indicate the one you most identify with.

What was your SAT/ACT score? If you do not want to share, write 0.

What is your current GPA? If you do not want to share, write 0.

Next

Now condition results (not shown in other treatment conditions)

Results

You were ranked 3rd among your group of 4 people in the IQ test.

Please click the next button.

Next

Thank you.

Thank you for participating.

You may leave this room now. Please do not disturb other participants as you leave the lab.
Please check the email that will be sent by **Paid Subject Pool** 10 days later.