

# Instructions

February 15, 2012

Welcome to today's experiment. Please read these instructions carefully as they explain how you earn money from the decisions you make in this experiment. Your minimum earning is a guaranteed \$5 participation payment. There will be no talking during today's session. If you have a question, please raise your hand and an experimenter will come over to answer it in private.

## **Rounds and payment**

You will participate in 10 rounds of decision making. Each round consists of a Decision Task and two Estimation Tasks – Estimation Task 1 and Estimation Task 2. At the end of the experiment, you will receive payment (in addition to your guaranteed \$5 participation payment) corresponding to one round of the Decision Task, one round of Estimation Task 1 and one round of Estimation Task 2 – but these rounds will not be the same. In the round selected for payment of the Decision Task, the Estimation Tasks of this round will not be paid. In the round selected for payment of Estimation Task 1, neither the Decision Task nor Estimation Task 2 of this round will be paid. In the round selected for payment of Estimation Task 2, neither the Decision Task nor Estimation Task 1 of this round will be paid. You will not know until the end of the experiment which rounds have been selected for payment.

At the beginning of every round you will be randomly paired with one other participant. Both you and the person you are paired with face the same decision. You will be paired with another randomly selected person each round. Every person is equally likely to be paired with you, regardless of who you have been paired with in previous rounds. No participant will be able to identify you from one round to the next, or learn what you did in any previous round.

## Decision Task

You will complete a Decision Task with your partner. This is the first part of each round and will be followed, in each round, by Estimation Task 1 and Estimation Task 2.

In the Decision Task each of you has a *choice* to make between an ‘A’ option and a ‘B’ option. The *choices* that you and your partner make may be modified by the computer before they are translated into *final choices* however. The outcome of the decision task depends on the *final choices* of you and your partner. We will first describe how the *final choices* affect your earnings, and then describe how your *choices* may be carried out as *final choices*.

If both you and your partner have the *A final choice* then you will both receive \$18. If your *final choice* is *B*, you will receive \$10 regardless of the *final choice* of your partner. If your *final choice* is ‘A’ but your partner’s *final choice* is *B* then you will receive \$0 while your partner receives \$10. Table 1 describes your earnings in all possible combinations of your *final choice* and your partner’s *final choice*. Table 2 describes your partner’s earnings in all possible combinations of your *final choice* and your partner’s *final choice*.

Table 1: Your earnings.

|                          |          | Partner’s <i>final choice</i> |          |
|--------------------------|----------|-------------------------------|----------|
|                          |          | <i>A</i>                      | <i>B</i> |
| Your <i>final choice</i> | <i>A</i> | 18                            | 0        |
|                          | <i>B</i> | 10                            | 10       |

Table 2: Your partner’s earnings

|                          |          | Partner’s <i>final choice</i> |          |
|--------------------------|----------|-------------------------------|----------|
|                          |          | <i>A</i>                      | <i>B</i> |
| Your <i>final choice</i> | <i>A</i> | 18                            | 10       |
|                          | <i>B</i> | 0                             | 10       |

## How do *choices* translate into *final choices*?

Every time you make a *choice*, the possible modification of that choice is determined by the flip of a coin and the roll of a 6-sided die. The die roll determines whether your choice is modified. The coin flip determines how your choice is modified, if it is modified. Both the die and the coin are completely fair, meaning that there is a 50-50 chance that the coin comes up Heads, and a 1/6 chance that a particular side comes up on the die.

If the die rolls 1-4, your *choice* is not modified before it becomes a *final choice*. If the die rolls a 5 or 6 your choice is modified to *A* when your coin flip is Heads and to *B* when your coin flip is Tails. Table 3 summarizes all possible cases.

Table 3: The *final choice* carried out for you as a function of your actual *choice* and the outcome of the coin flip and die roll

|                |       | Your die roll      |   |   |   |   |   |
|----------------|-------|--------------------|---|---|---|---|---|
|                |       | 1                  | 2 | 3 | 4 | 5 | 6 |
| Your coin flip | Heads | Your <i>choice</i> |   |   |   | A |   |
|                | Tails | Your <i>choice</i> |   |   |   | B |   |

As you can see in Table 3, a coin flip of Heads makes it possible that your *choice* gets changed to an *A final choice*, and a coin flip of Tails makes it possible that your *choice* gets changed to a *B final choice*. The transformation from *choices* to *final choices* is the same for your partner.

Before making your *choice*, the computer will tell you the outcome of your own coin flip, but not the outcome of your partner's coin flip. Your partner learns the outcome of her own coin flip, but not yours. Neither you nor your partner will know the outcome of either die roll.

## Example

A screenshot showing the interface is shown on the projector. The choice between *A* and *B* is given as radio buttons. When you have made your selection, you must press "OK". Note how the line above tells you your own coin flip – here being Heads.

## Estimation Task 1 – Can you guess what others will *choose*?

In each round, after you have made your *choice* in the Decision Task, your task is to guess how many people in the room (yourself not included) *chose A* rather than *B* for their *choice*.

### Payment for Estimation Task 1

It is in your interest to report the number you think is most likely, as you will be rewarded \$3.00 for your guess if it is correct. You will not receive a reward if your guess is not exactly equal to the number of people who *chose A*.

### Example

A screenshot showing the interface is shown on the projector. There is a line with a box next to it. The line shows how many people there are in the room besides yourself (19). You will input your guess for how many of these people *chose A* in the box to the right.

### What will your partner's *final choice* be?

Your guess in Estimation Task 1 is about what other people will *choose*, but it also indicates how likely you think it is that your partner's *final choice* is *A*. The computer will assist you with the relevant probability calculations. The computer will use your answer to Estimation Task 1 to report onscreen the percentage chance you guess that your partner's *final choice* is *A*.

### Example

A screenshot showing the interface is shown on the projector. This screen shows what your guess in Estimation Task 1 implies about the likelihood that your partner's *final choice* is *A*. The computer has taken your guess from Estimation Task 1 to compute the likelihood here denoted “**calculated %**”.

## **Estimation Task 2 – Can you guess what others will guess?**

In each round, following Estimation Task 1, you will be asked to guess what you think others guessed about *choices* in Estimation Task 1. You will report this by filling out a column that will appear onscreen. The table on the projector illustrates. Each row represents a possible response to Estimation Task 1. For each of these numbers, you must guess how many of the 19 people in the room (besides yourself) reported that number in Estimation Task 1. The computer will ensure that your guesses add up to 19 before exiting this task.

It is in your interest to report the number you think is most likely for each response, as you will be rewarded \$0.25 for each response where your guess is correct. You will not receive a reward if your guess is not exactly equal to the number of people who reported that number in Estimation Task 1. Note that since there are 20 possible responses to Estimation Task 1, you can earn up to \$5.00 in Estimation Task 2 – if you guess the actual number of people who gave each response in Estimation Task 1.

### **Example**

A screenshot showing the interface is shown on the projector. This first screen shows all of the possible responses to Estimation Task 1. You must make sure that your guesses add up to 19 since all of you answered this question. Shown are some randomly generated numbers that satisfy this requirement.

At the end of the experiment, you will be able to see how your guesses on Estimation Task 2 compare with actual responses to Estimation Task 1. The next screenshot illustrates. The numbers we input are shown as bars on the above graph. Since the heights of the “0”, “2”, “4”, “10” and “12” bars match, with 2, 1, 1, 1 and 0 people having these guesses respectively, then these responses earn \$0.25 each, meaning your total earnings on Estimation Task 2 would be \$1.25 in this example.

### **Receipts**

At the end of the experiment you will learn which rounds have been selected for payment. After you learn which rounds are selected please fill out your receipt based on your earnings from the chosen rounds, plus your \$5 participation stipend. The computer will assist you in this calculation. If you have a question at any time, please raise your hand and an experimenter will come over to assist you.