

Instructions

- Please read these instructions carefully!
- Please do not talk to your neighbours and remain quiet during the entire experiment.
- If you have a question, please raise your hand. We will come up to you to answer it.

Introduction

In this experiment you can earn money by interacting with other participants.

- Your earnings will be measured in “Points.” The number of points that you will earn will depend on the decisions that you and the other participants make.
- At the beginning of the experiment, every participant will receive 100 Points as an initial endowment.
- Your total number of points at the end of the experiment will be equal to the sum of the points you have earned in each round plus your initial endowment.
- For every 50 Points you will be paid 1 Euro in cash.
- Your identity will remain anonymous to us as well as to the other participants.

Description of the experiment

The experiment will consist of 2 phases. We describe below the instructions for the first phase—you will receive the instructions for the second phase once the first phase ends.

The first phase will consist of 6 rounds. The events in each round are as follows:

- At the beginning of each round, you will be first randomly assigned into one of 4 groups of 3 participants each. In each group, two participants will be assigned to act in role A and one participant will be assigned to act in role B.
- After the 4 groups were formed, a random draw for each group will determine the “state”: with probability $\frac{1}{2}$, the state will be “**state 1**” and with probability $\frac{1}{2}$ it will be “**state 2**.”
- The realized state (state 1 or state 2) will be announced to the two A participants in each group. Then, each A participant will be asked to choose one of the numbers **1, 2, 3, 4, 5, or 6**.
- After the two A participants have chosen their numbers, the B participant will be informed about the two numbers chosen by the two A participants in his/her group, but **not** about which state was realized. Then, the B participant will have to choose between option “**X**” and option “**Y**”.
- The payoff in each round is described below.

Payoffs

- The payoff of each A participant in each round will depend on the state, on the numbers chosen by the two A participants, and on the option chosen by the B participant.
- The payoff of each B participant in each round will depend on his/her own decision and on the state, but **not** on the numbers chosen by the two A participants in his/her group.
- All necessary information about the precise payoffs is included in the 5 tables that appear at the end of these instructions.
- All A participants have the same payoff tables, and all B participants have the same payoff tables.

The payoffs of the A participants

- The 4 tables that specify the payoffs of the A participants result from the realized state and the decision of the B participant with whom the two A participants are grouped in the relevant round.
- Each of the 4 tables corresponds to one possible combination of the realized state and the option chosen by the B participant. One table corresponds to the case where the realized state is **1** and participant B chose option **X**, the second table corresponds to the case where the realized state is **1** and participant B chose option **Y**, the third table corresponds to the case where the realized state is **2** and participant B chose option **X**, and the fourth table corresponds to the case where the realized state is **2** and participant B chose option **Y**.
- The rows in the A participants' payoff tables correspond to the participant's own chosen number (each row corresponds to one of the 6 possible choices that the participant can make) and the columns correspond to the choice made by the other A participant (each column corresponds to one of the 6 possible choices that the other A participant can make). The upper left number in each cell (in blue) corresponds to the participants' own payoff and the bottom right number in each cell (in red) corresponds to the other A participant's payoff.
- Note that since the B participant in each group chooses between options X and Y **after** the two A participants in their group have chosen their numbers, the A participants will not know, when making their choice, which payoff table is relevant for them. (Given the announced state there could be two relevant payoff tables depending on the B participant's choice.)

The payoffs of the B participants

- The rows in participant B's payoff table correspond to the option that the B participant chooses (X or Y) and the columns correspond to the realized states (state 1 or state 2).

Therefore, each of the 4 cells specifies the B participant's payoff for a specific combination of the B participant's own choice and the realized state.

Role assignment and information during the experiment

- The first phase will consist of 6 rounds.
- Your role in the first phase will alternate between role A and role B. The roles are fixed for 2 consecutive rounds. After 2 rounds, new roles are assigned to all participants and these roles remain fixed for another 2 rounds.
- Each participant will act exactly 4 rounds in role A and exactly 2 rounds in role B.
- Your computer screen (see the top line) indicates in every round which role you have in that round.
- Please remember that in every round, 4 groups of 3 participants are randomly selected from the pool of all participants in the room. We will make sure that each of the 4 groups will always consist of two A-participants and one B-participant.
- At the end of each round, you will be given the following information about what happened in **your own group** during the round: what was the realized state, what were the numbers chosen by the two A participants for the realized state, what was the option chosen by the B participant for the pair of numbers chosen by the A participants for the realized state, and what was your own payoff.

Instructions for the second phase

This phase is similar to the first phase 1 but with some changes. In the instructions below, we indicate the new items of the second phase by adding [**New**] before each new item. Parts of the instructions that are not indicated as new are exactly as in the first phase.

The second phase 2 will consist of 48 rounds. The events in each round are as follows.

- At the beginning of each round, you will be first randomly assigned into one of 4 groups of 3 participants each. In each group, two participants will be assigned to act in role A and one participant will be assigned to act in role B.
- After the 4 groups were formed, a random draw for each group will determine the “state”: with probability $\frac{1}{2}$, the state will be “**state 1**” and with probability $\frac{1}{2}$ it will be “**state 2.**”
- [**New**] The A participants will **not know** the state when making their decisions: each A participant will be asked to choose one of the numbers 1, 2, 3, 4, 5, or 6 for the case that “state 1” has been selected **and** one of the numbers 1, 2, 3, 4, 5, or 6 for the case that “state 2” has been selected. That is, each A participant must now choose **two** numbers—one for “state 1” and one for "state 2".
- [**New**] The B participant will **not** be informed about the choices of the two A participants in his/her group, nor will the B participant be informed about which state was realized. At the same time when the A participants make their decisions, the B participant will have to choose between option “**X**” and option “**Y**” **for each possible combination** of numbers that could be chosen by the two A participants.
 - Since each A participant can choose among six numbers, there are altogether $6 \times 6 = 36$ possible combinations of numbers that the two A participants can make. However, some of these combinations are the same since the order of the two numbers does not matter. For instance, the combination ("number 1", "number 2") is the same as ("number 2, "number 1"). Hence, there are only 21 distinct combinations of choices of A participants. The B participant will have to chose between "X" and "Y" for each of these 21 combinations.
 - To make things easier for B participants, the most recent choices for each pair of numbers will be displayed as a default. B participants will then be free to change these default choices as they see fit.
- At the end of each round, you will be given the following information about what happened in **your own group** during the round: what was the realized state, what were the numbers chosen by the two A participants for the realized state, what was the option chosen by the B participant for the pair of numbers chosen by the A participants, and what was your own payoff.
- The payoff in each round is determined according to the instructions of the first phase.

- [New] Your role in the second phase will alternate between role A and role B. The roles are fixed for 8 consecutive rounds. After 8 rounds, new roles are assigned to all participants and these roles remain fixed for another 8 rounds.
- [New] Each participant will act exactly 32 rounds in role A and exactly 16 rounds in role B.
- Your computer screen (see the top line) indicates in every round which role you have in that round.
- Please remember that in every round, 4 groups of 3 participants are randomly selected from the pool of all participants in the room. We will make sure that each of the 4 groups will always consist of two A-participants and one B-participant.
- At the end of each round, you will be given the following information about what happened in **your own group** during the round: what was the realized state, what were the numbers chosen by the two A participants for the realized state, what was the option chosen by the B participant for the pair of numbers chosen by the A participants for the realized state, and what was your own payoff.