

**PLEASE GIVE THIS MATERIAL TO THE**  
**EXPERIMENTER AT THE END OF THE SESSION**

## INSTRUCTIONS

This is an experiment in the economics of decision-making. Carnegie Mellon University and Northwestern University have provided the funds for this research.

In this experiment you will be asked to play an economic decision-making computer game and to make decisions in several rounds. The experiment currency is the “token”. The instructions are simple. If you follow them closely and make appropriate decisions, you may make an appreciable amount of money. At the end of the experiment you will be paid your total game earnings in CASH along with your participation fee. If you have any questions at any time, please raise your hand and the experimenter will go to your desk.

## SESSION AND PLAYERS

The session is made up of 15 rounds. The first 3 rounds are practice-rounds and will not be counted in the determination of your final earnings.

- 1) Before the beginning of each practice round, the computer will randomly form groups of three people: one **Player A** and two **Players B (B1 and B2)**. The roles will be randomly assigned. During the practice rounds, each person will play at least once the roles of **Player A** and **Player B (B1 or B2)**.
- 2) After the third practice round, twelve rounds of the game will be played. Every participant will be randomly assigned a role. The role of **Player A** will remain the same during the twelve rounds. At the beginning of each round, new groups of three people, one **Player A** and two **Players B (B1 and B2)**, will be randomly formed.

You will not know the identity of the other two players who pertain to your group in any round.

# THE ROUND

Each round has two stages.

## STAGE 1

- 1) Player A **simultaneously makes proposals** to Players **B1** and **B2**. Both proposals **might be different**. The possible proposals are **100, 650, 800, or 1100** tokens. If the proposal is accepted, there will a transfer from Player A to the Player(s) **B** who accepted the proposal. Note that, if one or both offers are accepted, the round payoff for Player A will be equal to 1,950 tokens minus the amount of offers accepted. Hence, the sum of both offers should **NOT** be greater than 1,950 tokens. If both proposals are rejected, the round payoff for EACH Player **B** will be equal to 1000 tokens, and Player A's round payoff will be equal to 0 tokens. Before deciding his/her proposals, Player A should note that the possible outcomes are as follows.

If **BOTH PLAYERS B ACCEPT** the offers:

Player A's payoff = 1950 tokens – Offer to Player B1 – Offer to Player **B2**

Player **B1**'s payoff = Offer to Player B1

Player **B2**'s payoff = Offer to Player B2

If **BOTH PLAYERS B REJECT** the offers:

Player A's payoff = 0 tokens

Player **B1**'s payoff = 1000 tokens

Player **B2**'s payoff = 1000 tokens

If **ONLY PLAYER B1 ACCEPTS** the offer:

Player A's payoff = 1950 tokens – Offer to Player **B1**

Player **B1**'s payoff = Offer to Player B1

Player **B2**'s payoff = 0 tokens

If **ONLY PLAYER B2 ACCEPTS** the offer:

Player A's payoff = 1950 tokens – Offer to Player **B2**

Player **B1**'s payoff = 0 tokens

Player **B2**'s payoff = Offer to Player B2

- 2) Both proposals are **immediately** revealed to players **B1** and **B2**.

## **STAGE 2**

- 1) After observing **A**'s proposals, each Player **B** should **send a message** to the other Player **B** about his/her **intended choice**, i.e., whether he/she **plans to accept or reject** the proposal **A** made to him/her).
- 2) After receiving the message from the other Player **B**, each Player **B** should **decide whether to accept or reject** Player **A**'s proposal. If the proposal(s) is(are) accepted, there will a transfer from Player **A** to the Player(s) **B** who accepted the proposal. Note that, if one or both offers are accepted, the round payoff for Player **A** will be equal to 1,950 tokens minus the amount of offers accepted. If both proposals are rejected, the round payoff for EACH Player **B** will be equal to 1000 tokens, and Player **A**'s round payoff will be equal to 0 tokens.

When making their decisions, Players **B1** and **B2** should take into account that their round payoff will depend on their decision and on the decision of the other Player **B**. Players **B1** and **B2** should also check the final payoffs of the round associated to **their decisions and the decision of the other player B.**

- 3) The **round ends**.

# ROUND PAYOFF

The Payoff Table shows the possible round payoffs for players **A**, **B1**, and **B2**.

## Payoff Table

<b>Role</b>	<b>PAYOFFS IF B1 AND B2 ACCEPT</b>	<b>PAYOFFS IF B1 AND B2 REJECT</b>	<b>PAYOFFS IF B1 ACCEPTS AND B2 REJECTS</b>	<b>PAYOFFS IF B1 REJECTS AND B2 ACCEPTS</b>
<b>A</b>	1950 – (OFFER B1 + OFFER B2)	0	1950 – OFFER B1	1950 – OFFER B2
<b>B1</b>	OFFER B1	1000	OFFER B1	0
<b>B2</b>	OFFER B2	1000	0	OFFER B2

Four exercises related to the Payoff Table are presented below. Please fill the blanks.

### Exercise 1. Column 1 of Payoff Table (B1 AND B2 ACCEPT)

Suppose Player **A** offers **X** tokens to **B1** and **Y** tokens to **B2**, and both, **B1** and **B2**, **accept** the offers. Then, A's round payoff is equal to \_\_\_\_\_ tokens, B1's round payoffs is equal to \_\_\_\_\_ tokens, and B2's round payoff is equal to \_\_\_\_\_ tokens.

### Exercise 2. Column 2 of Payoff Table (B1 AND B2 REJECT)

Suppose Player **A** offers **X** tokens to **B1** and **Y** tokens to **B2**, and both, **B1** and **B2**, **reject** the offers. Then, A's round payoff is equal to \_\_\_\_\_ tokens, B1's round payoffs is equal to \_\_\_\_\_ tokens, and B2's round payoff is equal to \_\_\_\_\_ tokens.

### Exercise 3. Column 3 of Payoff Table (B1 ACCEPTS AND B2 REJECTS)

Suppose Player **A** offers **X** tokens to **B1** and **Y** tokens to **B2**, and **B1 accepts** the offer and **B2 rejects** the offer. Then, A's round payoff is equal to \_\_\_\_\_ tokens, B1's round payoffs is equal to \_\_\_\_\_ tokens, and B2's round payoff is equal to \_\_\_\_\_ tokens.

### Exercise 4. Column 4 of Table (B1 REJECTS AND B2 ACCEPTS)

Suppose Player **A** offers **X** tokens to **B1** and **Y** tokens to **B2**, and **B1 rejects** the offer and **B2 accepts** the offer. Then, A's round payoff is equal to \_\_\_\_\_ tokens, B1's round payoffs is equal to \_\_\_\_\_ tokens, and B2's round payoff is equal to \_\_\_\_\_ tokens.

## SESSION PAYOFF

The game earnings in tokens will be equal to the sum of payoffs for the 12 rounds. The game earnings in dollars will be equal to (Game Earnings in tokens)/650 (650 tokens = 1 dollar). Hence, the total earnings in dollars will be equal to the participation fee plus the game earning in dollars.

## GAME SOFTWARE

The game will be played using a computer terminal. You will need to enter your decisions by using the mouse. In some instances, you will need to wait until the other players make their decisions before moving to the next screen. Please **be patient**. There will be two boxes, displayed in the upper right-hand side of your screen, that indicate the “Round Number” and “Your Role.”

Press the NEXT >> button to move to the next screen. Please, **do not try to go back** to the previous screen and **do not close the browser**: the software will stop working and you will lose all the accumulated tokens.

Next, the **3 PRACTICE ROUNDS** will begin. After that, 12 rounds of the game will be played. **You can consult these instructions at any time during the session.**

**THANKS FOR YOUR  
PARTICIPATION IN THIS  
STUDY!!**

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