

General Instructions

Welcome to the experiment! This is a study of decision-making behavior. It will last about two hours. Before we begin, we will read some instructions. You have the opportunity to make money in this experiment. These instructions will explain how to earn money, so please read carefully.

Complete Privacy

This experiment is structured so that no one, including the experimenters and the other participants, will ever know the decisions or earnings of anyone in the experiment. You will collect your earnings, in a sealed envelope, from a numbered mailbox that only you will have the key for. Your privacy is guaranteed because neither your name nor your student ID number will appear on any form that records your decisions or your earnings. The only identifying mark that will be used is the identification number on the mailbox key that you will select. Each numbered key opens a matching mailbox in the hallway adjacent to this room. After the experiment, you will each collect your payment from your mailbox alone and privately. You are the only person who will know your identification number.

Random Group Assignments and Anonymity

Each person will be randomly matched with 3 other people to form a 4-person group. No one will learn the identity of the people in his/her group. The composition of your group will change after eight rounds, and you will be randomly matched in a new group. You will be notified when the groups have been rearranged. In total, you will play in 2 different groups, each for eight rounds.

Your Payment

In each round of the experiment, you will make a decision. What you earn in each round will depend on decisions that you and other people in the experiment make. Your payment for this experiment will be the sum of your earnings in all rounds plus additional earnings you will receive for a final questionnaire you will complete.

The Task

In each round, you and your group members will each choose how to divide 20 tokens between two funds: the Personal Fund and the Group Fund. You may contribute some of your tokens to the Personal Fund and some to the Group Fund. Alternatively, you can contribute all of them to the Personal Fund, or all of them to the Group Fund. The amount of money you and the rest of your group earn depends on the number of tokens you put in each fund (below we explain how). There may be people outside your group who are also affected by your contributions, and your earnings may be affected by decisions made in another group; we will explain how this happens before any part of the experiment in which that is the case. Your total earnings for each round is the sum of your earnings from the Personal Fund plus your earnings from the Group Fund.

In each round, your group will have three **Non-Stakeholders** and one **Stakeholder**. Throughout the rounds, your role will change. You will know ahead of time which role you will play in which round.

Personal Fund Earnings

Your **Personal Fund** always pays you \$0.02 per token you put in it.

Example: Suppose you contribute 0 tokens to your Personal Fund. Then you would earn \$0.00 (0 tokens times \$0.02 per token) from your Personal Fund.

Example: Suppose you contribute 10 tokens to your Personal Fund. Then you would earn \$0.20 (10 tokens times \$0.02 per token) from your Personal Fund.

Example: Suppose you contribute 20 tokens to your Personal Fund. Then you would earn \$0.40 (20 tokens times \$0.02 per token) from your Personal Fund.

Group Fund Earnings

All members of your group earn money from each token contributed to the Group Fund by all members of the group. That is, everyone's earnings from the Group Fund depends on the total number of tokens his group has contributed to the Fund.

The amount you earn from the Group Fund depends on your role. Remember that your role may change from round to round. We will explain the roles one at a time.

The Non-Stakeholders

If you are a **Non-Stakeholder**, you will earn \$0.01 per token you or any other group member contributed to the Group Fund.

The Stakeholders

If you are a **Stakeholder**, you will earn \$0.03 per token you or any other group member contributed to the Group Fund.

Example: Suppose you contribute 0 tokens to the Group Fund and 20 tokens to your Personal Fund. Suppose no one else contributes any tokens to the Group Fund.

- If you are a Non-Stakeholder or a Stakeholder, you would earn:

$$\begin{array}{r} \$0.00 \text{ (0 tokens times } \$0.01 \text{ or } \$0.03 \text{ per token)} \quad \text{from the Group Fund} \\ + \quad \$0.40 \text{ (20 tokens times } \$0.02 \text{ per token)} \quad \text{from your Personal Fund} \\ \hline = \quad \$0.40 \text{ Total earnings} \end{array}$$

- The other members of your group would also earn \$0.00 from the Group Fund.

Example: Suppose you contribute 20 tokens to the Group Fund and 0 tokens to your Personal Fund. Suppose no one else contributes any tokens to the Group Fund.

- If you are a Non-Stakeholder, you would earn:

$$\begin{array}{r} \$0.20 \text{ (20 tokens times } \$0.01 \text{ per token)} \quad \text{from the Group Fund} \\ + \quad \$0.00 \text{ (0 tokens times } \$0.02 \text{ per token)} \quad \text{from your Personal Fund} \\ \hline = \quad \$0.20 \text{ Total earnings} \end{array}$$

- The other Non-Stakeholders of your group would also earn \$0.20 from the Group Fund. The Stakeholder of your group would earn \$0.60 (20 x \$0.03) from the Group Fund.

- If you are a Stakeholder, you would earn:

$$\begin{array}{r} \$0.60 \text{ (20 tokens times } \$0.03 \text{ per token)} \quad \text{from the Group Fund} \\ + \quad \$0.00 \text{ (0 tokens times } \$0.02 \text{ per token)} \quad \text{from your Personal Fund} \\ \hline = \quad \$0.60 \text{ Total earnings} \end{array}$$

- The other Non-Stakeholders of your group would each earn \$0.20 from the Group Fund.

Example: Suppose you contribute 0 tokens to the Group Fund and 20 tokens to your Personal Fund. Suppose the other members of your group contribute 20 tokens each (a total of 60 tokens) to the Group Fund.

- If you are a Non-Stakeholder, you would earn:

| | | |
|---|---|-------------------------|
| | \$0.60 (60 tokens times \$0.01 per token) | from the Group Fund |
| + | \$0.40 (20 tokens times \$0.02 per token) | from your Personal Fund |
| | | |
| = | \$1.00 Total earnings | |

- The other Non-Stakeholders of your group would also earn \$0.60 from the Group Fund. The Stakeholder of your group would earn \$1.80 (60 x \$0.03) from the Group Fund.

- If you are a Stakeholder, you would earn:

| | | |
|---|---|-------------------------|
| | \$1.80 (60 tokens times \$0.03 per token) | from the Group Fund |
| + | \$0.40 (20 tokens times \$0.02 per token) | from your Personal Fund |
| | | |
| = | \$2.20 Total earnings | |

- The other Non-Stakeholders of your group would each earn \$0.60 from the Group Fund.

Let's review:

- You earn \$0.02 for each token you place in your own Personal Fund.
- The **Non-Stakeholders** earn \$0.01 for each token contributed to the Group Fund, by them or any other member of the group.
- The **Stakeholder** earns \$0.03 for each token contributed to the Group Fund, by them or any other member of the group.

Decision Panel

For each decision, you will enter your Group Fund contribution in the Decision Panel. The Decision Panel is a box at the bottom of the screen:

DECISION PANEL

How much would you like to put in the **GROUP FUND**? (0-20)

Your **PERSONAL FUND** contribution will be 20 minus your **GROUP FUND** contribution.

RETURNS:

| | |
|----------------|---|
| Personal fund: | \$0.02 per token to you |
| Group fund: | \$0.03 per token to Stakeholder \$0.01 per token to non-Stakeholders (including YOU) |

CLICK TO SUBMIT

SUBMIT

Type the amount you want to put in the **Group Fund** in the box. This must be a number between 0 and 20. The amount that goes into your Personal Fund is 20 minus the amount you type. For example, if you type the number 0, 0 tokens go into the Group Fund and 20 into the Personal Fund. If you type 7, 7 tokens go into the Group Fund and 13 into the Personal Fund.

When you are satisfied with the allocation of tokens you entered, you will click the “SUBMIT” button to submit your allocation.

Contributions Table

The Contributions Table gives you information about what has happened in past rounds and what will happen in future rounds. The table will show all of the rounds you will play with your current group, and will indicate when you will be the Stakeholder. Also, after everyone has made their decisions for a round, the table will tell you what the Group Fund contributions were in that round, and what your earnings were.

The table will change slightly in different parts of the experiment. Before each part starts, you will receive specific instructions and you will see what the table will look like.

Each Round Has Two Steps

In each round, you will proceed through two screens, one after the other. The first screen is the decision screen. In the decision screen, you will make your decision and click the “SUBMIT” button when you are done. After everyone has clicked “SUBMIT”, everyone will proceed to the review screen.

The review screen will look very much like the decision screen, but you will have no decision to make. You will see information about the decisions that were made in that round and previous rounds, and you will learn how much money you earned in that round. In the Decision Panel of the review screen, you will see exactly how your earnings for that round were calculated. When you are done reviewing this information, you must click “DONE” to continue.

The information in the Contributions Table will stay in the table through all rounds you play with the group, in both the decision and review screens

Questionnaire and Payment

After you have finished all of your contribution decisions, you will complete a questionnaire. You will be paid to complete this questionnaire. You will then receive payment anonymously and privately, and the session will be over. You will collect your payment with no one watching, and no one else will learn your earnings.

QUIZ

Case 1: Suppose out of your 20 tokens you contributed 10 tokens to your Personal Fund and 10 tokens to the Group Fund. Suppose that the other 3 members of your group together contribute a total of 40 tokens to the Group Fund. Returns for the two Funds are:

Personal Fund: \$0.02 per token to you
Group Fund: \$0.01 per token to Non-Stakeholders
 \$0.03 per token to Stakeholders

a) How many tokens in total were contributed by your group to the Group Fund? _____

Suppose you are a **Non-Stakeholder**.

b) How much do you earn from the Personal Fund? _____

c) How much do you earn from the Group Fund? _____

d) How much do you earn in total? _____

Suppose you are a **Stakeholder**.

e) How much do you earn from the Personal Fund? _____

f) How much do you earn from the Group Fund? _____

g) How much do you earn in total? _____

Case 2: Suppose out of your 20 tokens you contributed 20 tokens to your Personal Fund and 0 tokens to the Group Fund. Suppose that the other 3 members of your group together contribute a total of 18 tokens to the Group Fund. Returns for the two Funds are:

Personal Fund: \$0.02 per token to you
Group Fund: \$0.01 per token to Non-Stakeholders
 \$0.03 per token to Stakeholders

a) How many tokens in total were contributed by your group to the Group Fund? _____

Suppose you are a **Non-Stakeholder**.

b) How much do you earn from the Personal Fund? _____

c) How much do you earn from the Group Fund? _____

d) How much do you earn in total? _____

Suppose you are a **Stakeholder**.

e) How much do you earn from the Personal Fund? _____

f) How much do you earn from the Group Fund? _____

g) How much do you earn in total? _____

Instructions for the Next Set of Rounds

Ir-nsc

You will now be randomly assigned by the computer into groups of 4 people.

You will be with the same group for 8 rounds.

Each member of your group will be randomly assigned a letter code that you will keep for these 8 rounds: A, B, C, or D.

The Stakeholder position will rotate through all 4 members of the group, in alphabetical order (A, then B, then C, etc.). Each member of the group will be Stakeholder twice.

You will always know who is currently Stakeholder, when you are going to be Stakeholder, and when each other member of your group (identified by their letter code) will be Stakeholder, because the Stakeholder position will be marked in the Contributions Table and in the status bar.

In each round, you must decide how many of 20 tokens to put in the Personal Fund and how many in the Group Fund.

When you have made your decision (by typing how many tokens (0 to 20) you want to put in the Group Fund), you must click “SUBMIT”.

Earnings are:

- Personal Fund: \$0.02 per token to you
- Group Fund: \$0.01 per token to Non-Stakeholders
 \$0.03 per token to the Stakeholder

The Contributions Table will show, for each past round:

- what each member (identified by letter code) has contributed to the Group Fund; that is, there will be a column in the table corresponding to each group member, and that member’s contributions for each round will be filled in after the round
- the total number of tokens in the Group Fund
- your earnings

You will be able to tell what each group member contributed in each round; they will also be able to tell what you contributed in each round.

The table will indicate in which rounds each person will be the Stakeholder by marking those rounds in each person's column with **red**, underlined S's (**SSSS**).

You will see which column corresponds to you because your column will say the word **YOU** above it. Each person has **YOU** marked at the top of their own column.

Also at the top of each table, in each round, the word **Stakeholder** will appear in red above the column of the person who is the Stakeholder in this round.

After everyone has made their decisions for each round, you may examine the Contributions Table and the calculation of your earnings in the review screen. Click "DONE" when you are ready to move on to the next round.

You are now: **MAKING YOUR CONTRIBUTION FOR ROUND 2**

Your Letter Code: **B** Stakeholder: **YOU**

CONTRIBUTIONS TO THE GROUP FUND

| | YOU | | | | | |
|----------------|-------------|-------------|-------------|-------------|----------------------------|-------------|
| | Stakeholder | | | | | |
| | A | B | C | D | TOTAL TOKENS IN GROUP FUND | MY EARNINGS |
| Round 1 | 6 | 19 | 11 | 1 | 37 | \$0.39 |
| Round 2 | | SSSS | | | | |
| Round 3 | | | SSSS | | | |
| Round 4 | | | | SSSS | | |
| Round 5 | SSSS | | | | | |
| Round 6 | | SSSS | | | | |
| Round 7 | | | SSSS | | | |
| Round 8 | | | | SSSS | | |

SSSS indicates that this person was/will be Stakeholder in the round indicated

DECISION PANEL

How much would you like to put in the **GROUP FUND**? (0-20)

Your **PERSONAL FUND** contribution will be 20 minus your **GROUP FUND** contribution.

RETURNS:

Personal fund: **\$0.02 per token** to you
 Group fund: **\$0.03 per token** to Stakeholder (YOU)
\$0.01 per token to non-Stakeholders

CLICK TO SUBMIT

SUBMIT

**Decision
Screen**

You are now: **REVIEWING RESULTS FOR ROUND 2**

Your Letter Code: **D** Stakeholder: **B**

CONTRIBUTIONS TO THE GROUP FUND

| | YOU | | | | | |
|----------------|-------------|-------------|-------------|-------------|----------------------------|-------------|
| | Stakeholder | | | | | |
| | A | B | C | D | TOTAL TOKENS IN GROUP FUND | MY EARNINGS |
| Round 1 | 6 | 19 | 11 | 1 | 37 | \$0.75 |
| Round 2 | 20 | 3 | 0 | 9 | 32 | \$0.54 |
| Round 3 | | | SSSS | | | |
| Round 4 | | | | SSSS | | |
| Round 5 | SSSS | | | | | |
| Round 6 | | SSSS | | | | |
| Round 7 | | | SSSS | | | |
| Round 8 | | | | SSSS | | |

SSSS indicates that this person was/will be Stakeholder in the round indicated

DECISION PANEL

REVIEW RESULTS FROM ROUND 2 IN THE TABLE ABOVE.

YOUR EARNINGS WERE:

Your Personal Fund contribution (11) times \$0.02 per token = \$0.22
PLUS: The total number of tokens in the Group Fund (32) times \$0.01 per token = \$0.32
EQUALS: **TOTAL = \$0.54**

CLICK WHEN DONE

DONE

**Review
Screen**

Instructions for the Next Set of Rounds

lr-sc

You will now be randomly assigned by the computer into groups of 4 people.

You will be with the same group for 8 rounds.

Each member of your group will be randomly assigned a letter code that you will keep for these 8 rounds: A, B, C, or D.

The Stakeholder position will rotate through all 4 members of the group, in alphabetical order (A, then B, then C, etc.). Each member of the group will be Stakeholder twice.

You will always know who is currently Stakeholder, when you are going to be Stakeholder, and when each other member of your group (identified by their letter code) will be Stakeholder, because the Stakeholder position will be marked in the Contributions Table and in the status bar.

Your group's contribution decisions will affect the earnings of two other people who are NOT members of your group (the Outside People). The Outside People's earnings are decreased by your group's contributions to the Group Fund.

You may be the Outside Person for another group.

You will not know whether you are the Outside Person for another group (or, if you are an Outside Person, how your earnings are affected by that group's decisions) until after all decision-making rounds are complete and you see your final earnings.

In each round, you must decide how many of 20 tokens to put in the Personal Fund and how many in the Group Fund.

When you have made your decision (by typing how many tokens (0 to 20) you want to put in the Group Fund), you must click "SUBMIT".

Earnings are:

- Personal Fund: \$0.02 per token to you
- Group Fund: \$0.01 per token to each of 3 Non-Stakeholder group members
\$0.03 per token for the Stakeholder group member
-\$0.03 per token for each of 2 Outside People

Even though Outside People lose money as a result of Group Fund contributions, earnings for all parts of the experiment (including the questionnaire) make it impossible for Outside People to earn a negative payment (less than \$0) for the experiment.

The Contributions Table will show, for each past round:

- what each member (identified by letter code) has contributed to the Group Fund; that is, there will be a column in the table corresponding to each group member, and that member's contributions for each round will be filled in after the round
- the total number of tokens in the Group Fund
- your earnings

You will be able to tell what each group member contributed in each round; they will also be able to tell what you contributed in each round.

The table will indicate in which rounds each person will be the Stakeholder by marking those rounds in each person's column with **red**, underlined S's (**SSSS**).

You will see which column corresponds to you because your column will say the word **YOU** above it. Each person has **YOU** marked at the top of their own column.

Also at the top of each table, in each round, the word **Stakeholder** will appear in red above the column of the person who is the Stakeholder in this round.

After everyone has made their decisions for each round, you may examine the Contributions Table and the calculation of your earnings in the review screen. Click "DONE" when you are ready to move on to the next round.

You are now: **MAKING YOUR CONTRIBUTION FOR ROUND 2**
Your Letter Code: B Stakeholder: YOU Your Group Has 2 Outside People

CONTRIBUTIONS TO THE GROUP FUND

| | YOU | | | | | |
|----------------|-------------|-------------|-------------|-------------|----------------------------|-------------|
| | Stakeholder | | | | | |
| | A | B | C | D | TOTAL TOKENS IN GROUP FUND | MY EARNINGS |
| Round 1 | <u>7</u> | 1 | 19 | 16 | 43 | \$0.81 |
| Round 2 | | <u>SSSS</u> | | | | |
| Round 3 | | | <u>SSSS</u> | | | |
| Round 4 | | | | <u>SSSS</u> | | |
| Round 5 | <u>SSSS</u> | | | | | |
| Round 6 | | <u>SSSS</u> | | | | |
| Round 7 | | | <u>SSSS</u> | | | |
| Round 8 | | | | <u>SSSS</u> | | |

SSSS indicates that this person was/will be Stakeholder in the round indicated

DECISION PANEL

How much would you like to put in the **GROUP FUND**? (0-20)
 Your **PERSONAL FUND** contribution will be 20 minus your **GROUP FUND** contribution.

RETURNS:

Personal fund: \$0.02 per token to you
 Group fund: \$0.03 per token to Stakeholder (YOU)
 \$0.01 per token to non-Stakeholders
 -\$0.03 per token to each of the 2 Outside People attached to your group

CLICK TO SUBMIT

SUBMIT

**Decision
Screen**

You are now: **REVIEWING RESULTS FOR ROUND 2**
Your Letter Code: A Stakeholder: B Your Group Has 2 Outside People

CONTRIBUTIONS TO THE GROUP FUND

| | YOU | | | | | |
|----------------|-------------|-------------|-------------|-------------|----------------------------|-------------|
| | Stakeholder | | | | | |
| | A | B | C | D | TOTAL TOKENS IN GROUP FUND | MY EARNINGS |
| Round 1 | <u>7</u> | 1 | 19 | 16 | 43 | \$1.55 |
| Round 2 | 20 | <u>15</u> | 6 | 0 | 41 | \$0.41 |
| Round 3 | | | <u>SSSS</u> | | | |
| Round 4 | | | | <u>SSSS</u> | | |
| Round 5 | <u>SSSS</u> | | | | | |
| Round 6 | | <u>SSSS</u> | | | | |
| Round 7 | | | <u>SSSS</u> | | | |
| Round 8 | | | | <u>SSSS</u> | | |

SSSS indicates that this person was/will be Stakeholder in the round indicated

DECISION PANEL

REVIEW RESULTS FROM ROUND 2 IN THE TABLE ABOVE.

YOUR EARNINGS WERE:

Your Personal Fund contribution (0) times \$0.02 per token = \$0.00
PLUS: The total number of tokens in the Group Fund (41) times \$0.01 per token = \$0.41
EQUALS: TOTAL = \$0.41

CLICK WHEN DONE

DONE

**Review
Screen**