Online Appendix: Experimental Instructions, Quizzes, and Post-Game Surveys

Money and Credit with a Finite Horizon: Theory and Experimental Evidence

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Note to the Reader. This online appendix reproduces verbatim the on-screen experimental instructions, sample computer screens, comprehension quizzes, and post-game exit surveys presented to subjects in oTree across all seven treatments (B-0, B-1, M-0, M-1, H-0, H-1, and M-1*), followed by the screens common to every treatment: the Part I Summary, Part II (Social Value Orientation), the Demographic Survey, Part III (Cognitive Reflection Test), and the Payoff Summary. In every session, subjects progressed through oTree in the order: comprehension quiz, Part I game (15 rounds) and Part I summary, Part I exit survey, Part II (SVO), Demographic Survey, Part III (CRT), and Payoff Summary. As explained in Section 3 of the paper, the verbatim screens use neutral laboratory wording ("token" for fiat money and "suggestion" for strategy recommendations) and preserve the exact text, punctuation, and occasional minor typographical errors displayed to subjects on screen. Throughout the reproduced screens, `[N]` denotes the number of subjects in the session (9 or 12 in B-0, B-1, M-1, H-0, and H-1; 12 in M-0 and M-1*). During the comprehension quiz, each question appeared on a separate screen with a 60-second timer and the full instructions displayed below for reference; immediately after submitting each answer, subjects saw the shaded feedback card showing the correct answer and explanation, followed by a group review screen displaying all solutions before round 1 began. Timers shown in Part II (60 seconds per item), the Demographic Survey (180 seconds), and Part III (180 seconds) were soft countdown banners that prompted subjects to submit when time expired without automatically advancing the screen.

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I.A Treatment B-0 (No Money, No Public History, No Recommendation)

The experiment opens with the introductory paragraph below (displayed at the top of the opening screen directly above the Part I instructions), followed by the instructions, comprehension quiz, and exit survey.

Opening Screen Header (All Treatments)

Introduction

There are [N] participants in today's experiment. The experiment has three parts. The earnings you make are calculated in points and will be converted to dollars at the specified exchange rates. In addition, you also receive a $5 show-up payment regardless of your earnings during the experiment. If you follow the instructions carefully, you can earn a considerable amount of cash. You will also be required to complete two short surveys. Please refrain from talking for the duration of today's session. Kindly silence all mobile devices.

I.A.1 Instructions

Instructions

In part I of the experiment, you will play 15 rounds in groups of 3 people. At the beginning of the first round, each participant is randomly assigned a number 1, 2, or 3, which determines her/his position in the group for *all* 15 rounds. Each participant is informed about her/his position. The type of decisions you make depend on your position as described below.

Decisions in each round

In each round, there are two meetings. First, Player 1 and Player 2 meet. Then Player 2 and Player 3 meet. Player 3 does NOT observe decisions in meeting 1.

- **Decisions in meeting 1:**
  - **Player 1** does not make any decision.
  - **Player 2** decides whether to produce for Player 1.
- **Decisions in meeting 2:**
  - **Player 2** and **Player 3** simultaneously decide between two choices, X or Y. The corresponding payoffs are as follows:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

That is,

- If both Player 2 and Player 3 select X, then Player 2 receives 3 points and Player 3 receives 1 point
- If Player 2 selects X and Player 3 selects Y, then Player 2 receives 0 point and Player 3 receives 0 point
- If Player 2 selects Y and Player 3 selects X, then Player 2 receives 0 point and Player 3 receives 0 point
- If both Player 2 and Player 3 select Y, then Player 2 receives 1 point and Player 3 receives 3 points

Some observations:

- Player 1 earns 3 points from consumption if Player 2 decides to produce for her/him.
- Player 2 loses 1 point if he/she decides to produce for Player 1.
- Player 3 cannot observe whether Player 2 produced for Player 1.
- Player 2 and Player 3 choose between X and Y simultaneously, and receive points according to the payoff matrix provided in the table above.

Grouping and positions

There are 15 rounds. At the beginning of each round participants are randomly grouped in new groups of three, and thus group members may change from round to round. However, your position is *fixed* for the duration of the experiment. For example, if you are Player 3 in round 1, then you will remain Player 3 in all rounds.

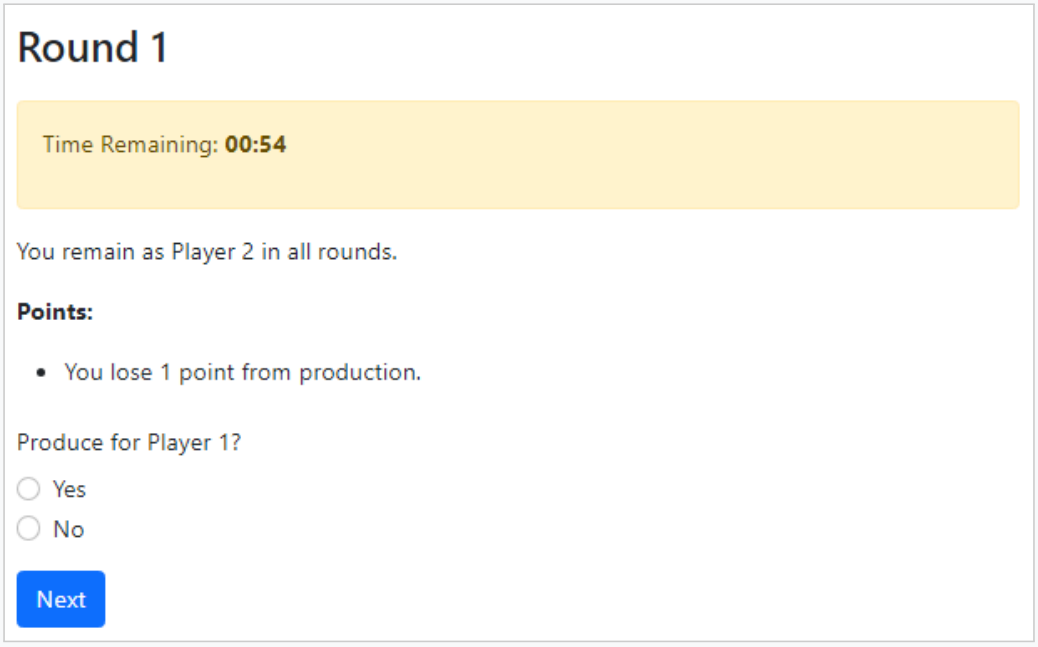
Earnings

You will start this part of the experiment with an endowment of 3 points. The computer will randomly select 3 rounds for payment. Your points from the 3 selected rounds plus the endowment points will be converted into dollars at rate 1 point = $2.

Computer Screens

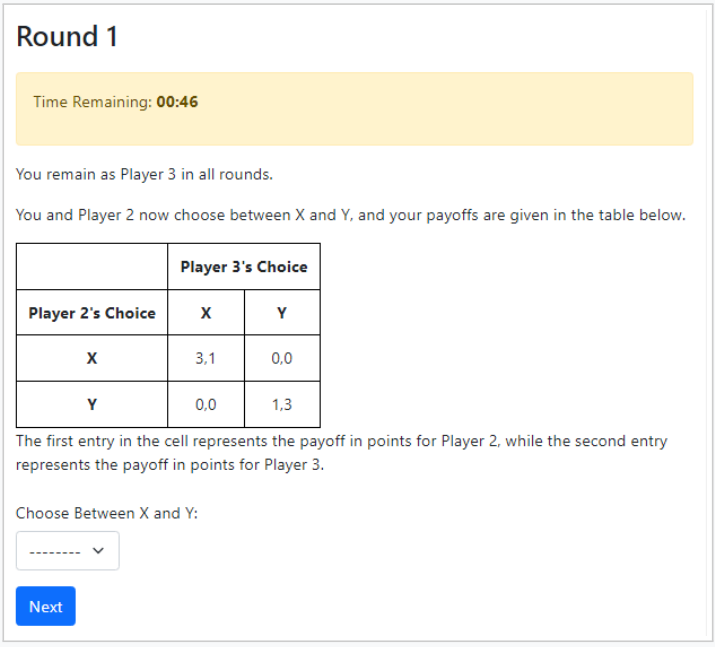
You will submit your decisions through a computer screen. For example, Player 2 will input her/his decision through the screen as shown in figure 1.

Figure 1: Sample Player 2 Decision Screen in Meeting 1



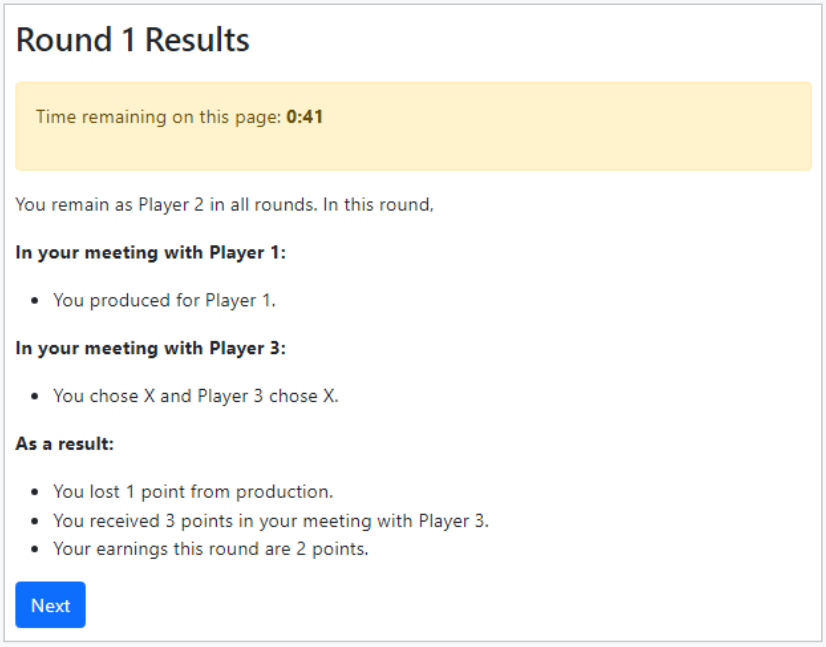
Player 3 inputs her/his decision through the screen as shown in figure 2.

Figure 2: Sample Player 3 Screen in Meeting 2



At the end of each round, you will also receive information on the results for the round. See figure 3 below for a sample result screen for Player 2.

Figure 3: Sample Round Summary for Player 2



Next

I.A.2 Comprehension Quiz

Quiz **Question 1:**

Suppose that you are Player 1 in round 1, then you will be Player 1 in all rounds.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Your position in the group will remain the same for all rounds.

Quiz **Question 2:**

Other players also keep their positions in each round.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Just like you, all other players will also remain in the same position in all rounds.

Quiz **Question 3:**

Suppose in round 2 you are grouped with two other participants. In all subsequent rounds you will be grouped for sure with the same two participants.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: Each round the groups will be shuffled randomly. Player positions will remain the same, but group members may change.

Quiz **Question 4:**

Suppose that you are Player 1. Suppose Player 2 decides to produce for you. How many points do you earn?

Answer:

Next

Correct Answer: 3

Explanation: Player 1 earns 3 points from consumption. Since Player 2 produces for you, you consume and earn 3 points.

Quiz **Question 5:**

Suppose that you are Player 2. Suppose you produce for Player 1. You and Player 3 then decide between X and Y, and your payoffs are given by the table below:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game you and Player 3 both chose X.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 1
Explanation: The correct answer is 1. Production costs 1 point therefore you lose 1 point from producing.

(b) **Correct Answer:** 3
Explanation: The correct answer is 3. The payoff for Player 2 when both Player 2 and Player 3 choose X is 3 points.

(c) **Correct Answer:** 2
Explanation: The correct answer is 2. You lose 1 point from production and receive 3 points in your meeting with Player 3.

Quiz **Question 6:**

Suppose again that you are Player 2. Suppose you decide not to produce for Player 1. You and Player 3 then choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game, you choose action Y and Player 3 chooses action Y too.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 0
Explanation: The correct answer is 0. You choose not to produce.

(b) **Correct Answer:** 1
Explanation: The correct answer is 1. The payoff for Player 2 when both players choose Y is 1.

(c) **Correct Answer:** 1
Explanation: The correct answer is 1. You lose 0 point from production, and earn 1 point in the meeting with Player 3.

Quiz **Question 7:**

Suppose that you are Player 3. You and Player 2 choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose you choose Y and Player 2 chooses X. How many points do you earn in this round?

Answer

Next

Correct Answer: 0

Explanation: The correct answer is 0. When Player 2 chooses X, and Player 3 chooses Y, Player 3 earns 0 point.

I.A.3 Exit Survey

Immediately after round 15 of Part I, each subject completed an unincentivized role-specific questionnaire titled *Questionnaire for Part I*.

Player 1 Screen

Questionnaire for Part I

Please write below any comments you have on this part of the experiment.

Additional comments:

Next

Player 2 Screen

Questionnaire for Part I

Question 1

How often did you produce?

———

Dropdown options: Always.; Never.; Sometimes.

Question 2

If you produced in a round for Player 1, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ To increase my payoff in the meeting with Player 3.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you decided not to produce for Player 1 in any round, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ It is costly to produce, and producing does not increase my payoff in the meeting with Plauer 3.
- ☐ I made a mistake.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 4
If you played X in any round in your meeting with Player 3, please explain why you chose X.

Question 5
If you played Y in any round in your meeting with Player 3, please explain why you chose Y.

Question 6
Please explain what determined your decision to play X or Y in your meeting with Player 3.

Additional comments:

Next

Player 3 Screen

Questionnaire for Part I

Question 1
If you played X in any round in your meeting with Player 2, please explain why you chose X.

Question 2
If you played Y in any round in your meeting with Player 2, please explain why you chose Y.

Question 3
Please explain what determined your decision to play X or Y in your meeting with Player 2.

Additional comments:

Next

I.B Treatment B-1 (No Money, No Public History, With Recommendation)

The experiment opens with the introductory paragraph below (displayed at the top of the opening screen directly above the Part I instructions), followed by the instructions, comprehension quiz, and exit survey.

Opening Screen Header (All Treatments)

Introduction

There are [N] participants in today's experiment. The experiment has three parts. The earnings you make are calculated in points and will be converted to dollars at the specified exchange rates. In addition, you also receive a $5 show-up payment regardless of your earnings during the experiment. If you follow the instructions carefully, you can earn a considerable amount of cash. You will also be required to complete two short surveys. Please refrain from talking for the duration of today's session. Kindly silence all mobile devices.

I.B.1 Instructions

Instructions

In part I of the experiment, you will play 15 rounds in groups of 3 people. At the beginning of the first round, each participant is randomly assigned a number 1, 2, or 3, which determines her/his position in the group for *all* 15 rounds. Each participant is informed about her/his position. The type of decisions you make depend on your position as described below.

Decisions in each round

In each round, there are two meetings. First, Player 1 and Player 2 meet. Then Player 2 and Player 3 meet. Player 3 does NOT observe decisions in meeting 1.

- **Decisions in meeting 1:**
  - **Player 1** does not make any decision.
  - **Player 2** decides whether to produce for Player 1.
- **Decisions in meeting 2:**
  - **Player 2** and **Player 3** simultaneously decide between two choices, X or Y. The corresponding payoffs are as follows:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

That is,

- If both Player 2 and Player 3 select X, then Player 2 receives 3 points and Player 3 receives 1 point

- If Player 2 selects X and Player 3 selects Y, then Player 2 receives 0 point and Player 3 receives 0 point
- If Player 2 selects Y and Player 3 selects X, then Player 2 receives 0 point and Player 3 receives 0 point
- If both Player 2 and Player 3 select Y, then Player 2 receives 1 point and Player 3 receives 3 points

Some observations:

- Player 1 earns 3 points from consumption if Player 2 decides to produce for her/him.
- Player 2 loses 1 point if he/she decides to produce for Player 1.
- Player 3 cannot observe whether Player 2 produced for Player 1.
- Player 2 and Player 3 choose between X and Y simultaneously, and receive points according to the payoff matrix provided in the table above.

A Suggestion:

Each player in a group may consider making the following choices:

- Player 2 produces for Player 1.
- Both Player 2 and Player 3 choose X.

This is simply a suggestion. Feel free to follow it or not.

Grouping and positions

There are 15 rounds. At the beginning of each round participants are randomly grouped in new groups of three, and thus group members may change from round to round. However, your position is *fixed* for the duration of the experiment. For example, if you are Player 3 in round 1, then you will remain Player 3 in all rounds.

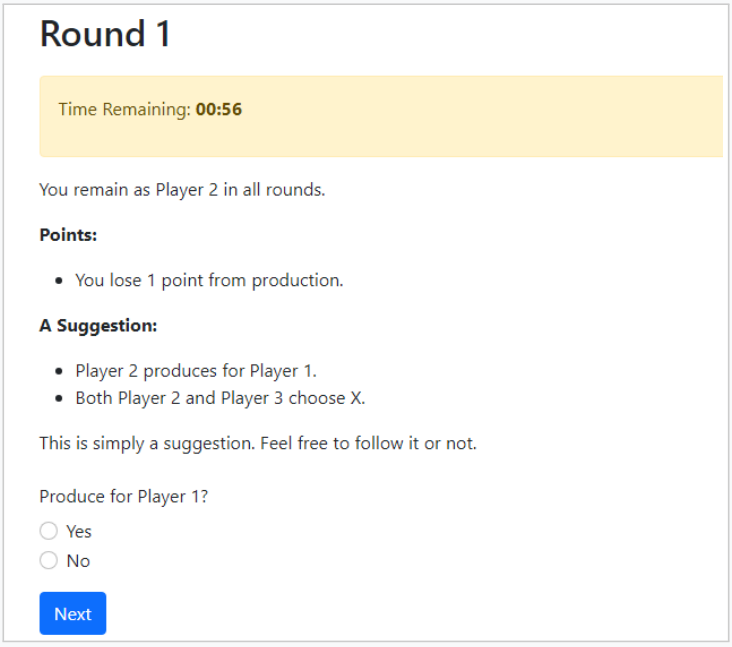
Earnings

You will start this part of the experiment with an endowment of 3 points. The computer will randomly select 3 rounds for payment. Your points from the 3 selected rounds plus the endowment points will be converted into dollars at rate 1 point = $2.

Computer Screens

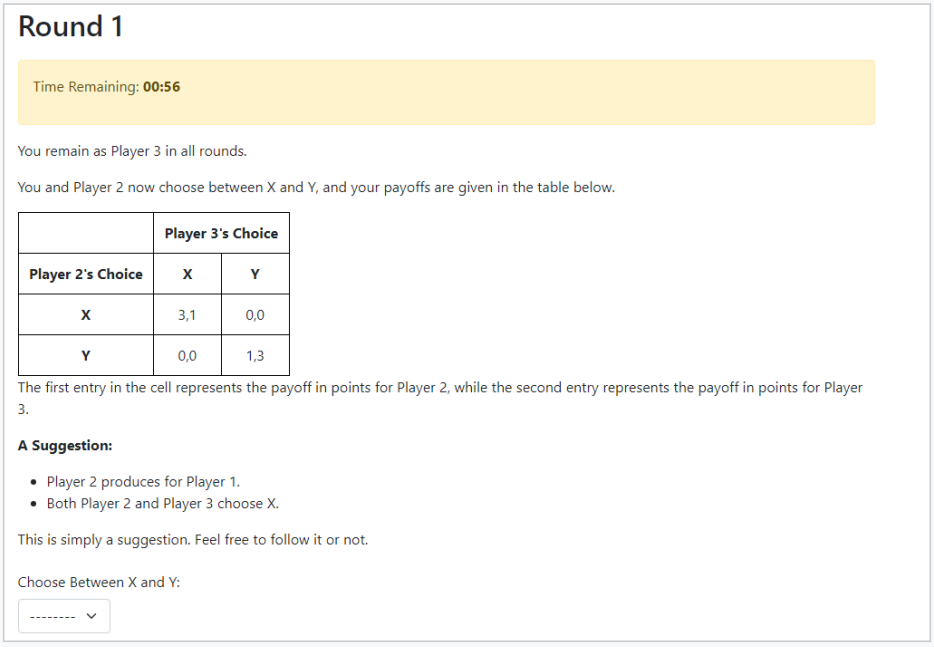
You will submit your decisions through a computer screen. For example, Player 2 will input her/his decision through the screen as shown in figure 1.

Figure 1: Sample Player 2 Decision Screen in Meeting 1



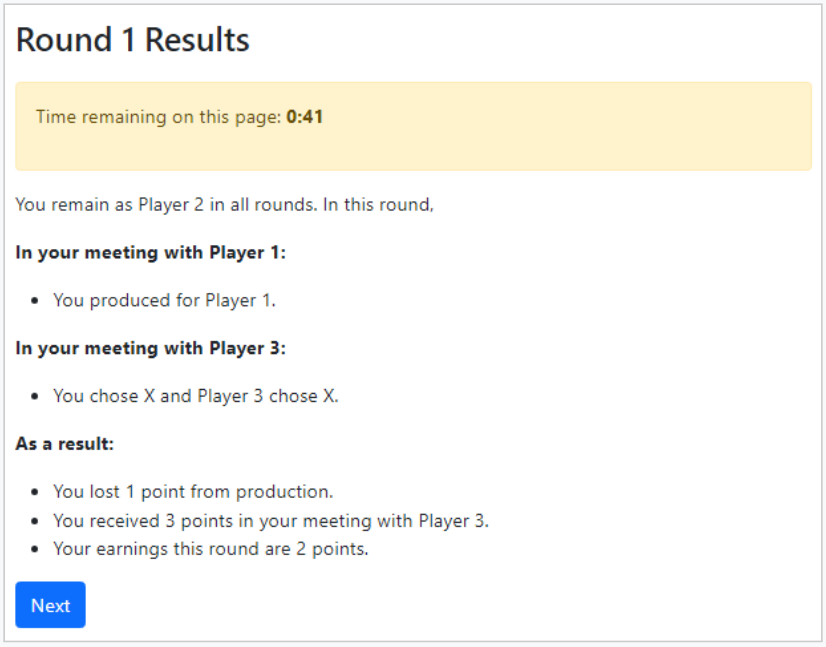
Player 3 inputs her/his decision through the screen as shown in figure 2.

Figure 2: Sample Player 3 Screen in Meeting 2



At the end of each round, you will also receive information on the results for the round. See figure 3 below for a sample result screen for Player 2.

Figure 3: Sample Round Summary for Player 2



Next

I.B.2 Comprehension Quiz

Quiz **Question 1:**

Suppose that you are Player 1 in round 1, then you will be Player 1 in all rounds.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Your position in the group will remain the same for all rounds.

Quiz **Question 2:**

Other players also keep their positions in each round.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Just like you, all other players will also remain in the same position in all rounds.

Quiz **Question 3:**

Suppose in round 2 you are grouped with two other participants. In all subsequent rounds you will be grouped for sure with the same two participants.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: Each round the groups will be shuffled randomly. Player positions will remain the same, but group members may change.

Quiz **Question 4:**

Suppose that you are Player 1. Suppose Player 2 decides to produce for you. How many points do you earn?

Answer:

Next

Correct Answer: 3

Explanation: Player 1 earns 3 points from consumption. Since Player 2 produces for you, you consume and earn 3 points.

Quiz **Question 5:**

Suppose that you are Player 2. Suppose you produce for Player 1. You and Player 3 then decide between X and Y, and your payoffs are given by the table below:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game you and Player 3 both chose X.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 1
Explanation: The correct answer is 1. Production costs 1 point therefore you lose 1 point from producing.

(b) **Correct Answer:** 3
Explanation: The correct answer is 3. The payoff for Player 2 when both Player 2 and Player 3 choose X is 3 points.

(c) **Correct Answer:** 2
Explanation: The correct answer is 2. You lose 1 point from production and receive 3 points in your meeting with Player 3.

Quiz **Question 6:**

Suppose again that you are Player 2. Suppose you decide not to produce for Player 1. You and Player 3 then choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game, you choose action Y and Player 3 chooses action Y too.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 0
Explanation: The correct answer is 0. You choose not to produce.

(b) **Correct Answer:** 1
Explanation: The correct answer is 1. The payoff for Player 2 when both players choose Y is 1.

(c) **Correct Answer:** 1
Explanation: The correct answer is 1. You lose 0 point from production, and earn 1 point in the meeting with Player 3.

Quiz **Question 7:**

Suppose that you are Player 3. You and Player 2 choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose you choose Y and Player 2 chooses X. How many points do you earn in this round?

Answer

Next

Correct Answer: 0

Explanation: The correct answer is 0. When Player 2 chooses X, and Player 3 chooses Y, Player 3 earns 0 point.

Quiz **Question 8:**

Player 3 can observe whether Player 2 has produced for Player 1.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: Player 3 **cannot** observe whether Player 2 has produced for Player 1.

Quiz **Question 9:**

Consider the following suggestion:

- Player 2 produces for Player 1.
- Both Player 2 and Player 3 choose X.

You must follow this suggestion.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: You are not required to follow this suggestion. You can choose to follow it or not.

I.B.3 Exit Survey

Immediately after round 15 of Part I, each subject completed an unincentivized role-specific questionnaire titled *Questionnaire for Part I*.

Player 1 Screen

Questionnaire for Part I

Please write below any comments you have on this part of the experiment.

Additional comments:

Next

Player 2 Screen

Questionnaire for Part I

Question 1

How often did you produce?

———

Dropdown options: Always.; Never.; Sometimes.

Question 2

If you produced in a round for Player 1, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ To increase my payoff in the meeting with Player 3.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ To follow the suggestion.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you decided not to produce for Player 1 in any round, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ It is costly to produce, and producing does not increase my payoff in the meeting with Player 3.
- ☐ I made a mistake.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 4

If you played X in any round in your meeting with Player 3, please explain why you chose X.

Question 5

If you played Y in any round in your meeting with Player 3, please explain why you chose Y.

Question 6

Please explain what determined your decision to play X or Y in your meeting with Player 3.

Additional comments:

Next

Player 3 Screen

Questionnaire for Part I

Question 1

If you played X in any round in your meeting with Player 2, please explain why you chose X.

Question 2

If you played Y in any round in your meeting with Player 2, please explain why you chose Y.

Question 3

Please explain what determined your decision to play X or Y in your meeting with Player 2.

Additional comments:

Next

I.C Treatment M-0 (Money, No Public History, No Recommendation)

The experiment opens with the introductory paragraph below (displayed at the top of the opening screen directly above the Part I instructions), followed by the instructions, comprehension quiz, and exit survey.

Opening Screen Header (All Treatments)

Introduction

There are [N] participants in today's experiment. The experiment has three parts. The earnings you make are calculated in points and will be converted to dollars at the specified exchange rates. In addition, you also receive a $5 show-up payment regardless of your earnings during the experiment. If you follow the instructions carefully, you can earn a considerable amount of cash. You will also be required to complete two short surveys. Please refrain from talking for the duration of today's session. Kindly silence all mobile devices.

I.C.1 Instructions

Instructions for part I of the experiment

In part I of the experiment, you will play 15 rounds in groups of 3 people. At the beginning of the first round, each participant is randomly assigned a number 1, 2, or 3, which determines her/his position in the group for *all* 15 rounds. Each participant is informed about her/his position. There are two objects: a token and a good. The token itself does not yield points directly, but may affect the points you earn if other participants condition their choices on whether they are offered the token. The type of decisions you make depend on your position as described below.

Decisions in each round

In each round, there are two meetings. First, Player 1 and Player 2 meet. Then Player 2 and Player 3 meet.

- **Decisions in meeting 1:**
  - **Player 1** is endowed with a token and decides whether or not to offer the token to Player 2 in exchange for the good.
  - Then **Player 2** observes whether Player 1 has offered the token or not and Player 2 decides whether to produce for Player 1. If Player 1 offered the token and Player 2 produces for Player 1, then Player 2 receives the token.
- **Decisions in meeting 2:**
  - **Player 2** decides whether to offer the token to Player 3 if he/she has the token.
  - **Player 3** observes whether Player 2 has offered the token or not.
  - Then **Player 2** and **Player 3** simultaneously decide between two choices, X or Y. The corresponding payoffs are as follows:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

That is,

- If both Player 2 and Player 3 select X, then Player 2 receives 3 points and Player 3 receives 1 points
- If Player 2 selects X and Player 3 selects Y, then Player 2 receives 0 points and Player 3 receives 0 points
- If Player 2 selects Y and Player 3 selects X, then Player 2 receives 0 points and Player 3 receives 0 points
- If both Player 2 and Player 3 select Y, then Player 2 receives 1 points and Player 3 receives 3 points

Some observations:

- Player 1 earns 3 points from consumption if Player 2 decides to produce for him/her.
- If Player 1 offered the token to Player 2 and Player 2 decides to produce in exchange for the token, then Player 2 loses 1 point from production but receives the token.
- Player 3 observes whether Player 2 offered the token.
- Player 2 and Player 3 choose between X and Y simultaneously, and receive points according to the payoff matrix provided in the table above.
- The token does not yield points directly. It can be passed to the next player within a round, but cannot be carried from one round to another.

Grouping and positions

There are 15 rounds. At the beginning of each round participants are randomly grouped in new groups of three, and thus group members may change from round to round. However, your position is *fixed* for the duration of the experiment. For example, if you are Player 3 in round 1, then you will remain Player 3 in all rounds.

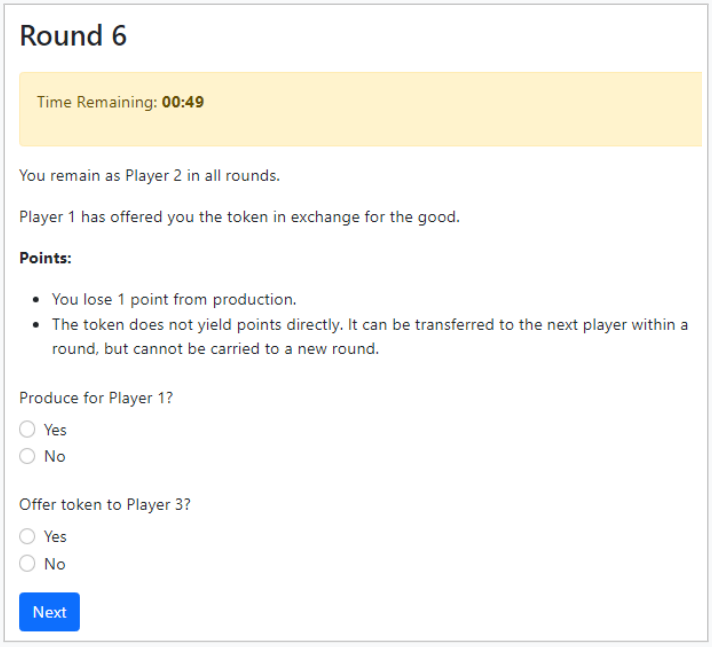
Earnings

You will start this part of the experiment with an endowment of 3 points. The computer will randomly select 3 rounds for payment. Your points from the 3 selected rounds plus the endowment points will be converted into dollars at rate 1 point = $2.

Computer Screens

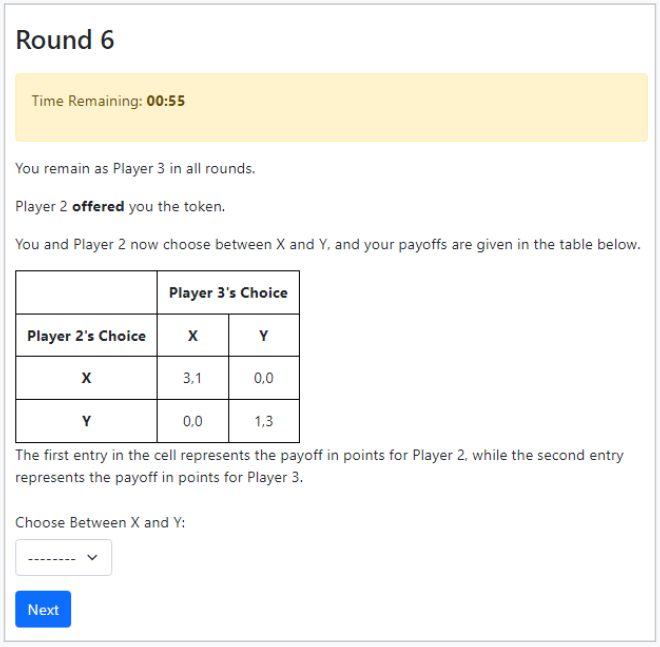
You will submit your decisions through a computer screen. For example, Player 2 will input her/his decision through the screen as shown in figure 1.

Figure 1: Sample Player 2 Decision Screen in Meeting 1



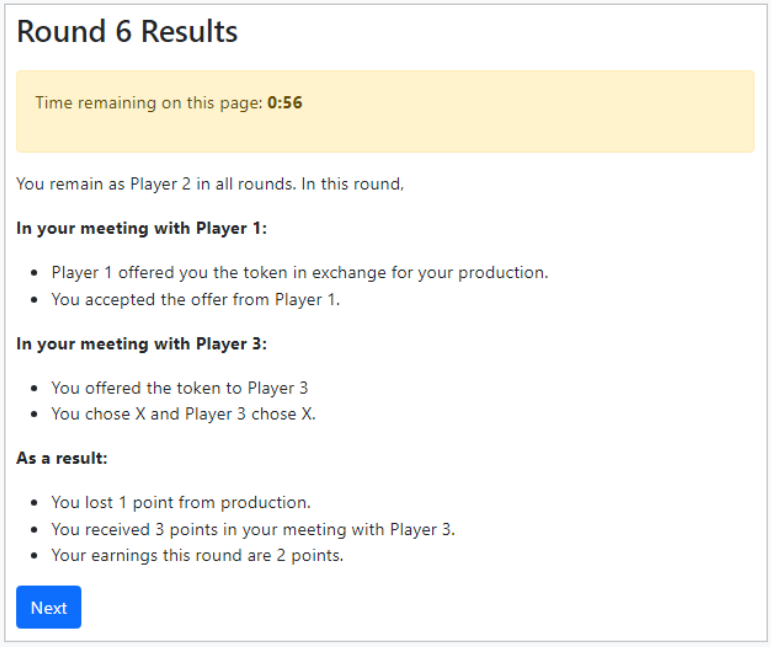
Player 3 inputs her/his decision through the screen as shown in figure 2.

Figure 2: Sample Player 3 Screen in Meeting 2



At the end of each round, you will also receive information on the results for the round. See figure 3 below for a sample result screen for Player 2.

Figure 3: Sample Round Summary for Player 2



Next

I.C.2 Comprehension Quiz

Quiz **Question 1:**

Suppose that you are Player 1 in round 1, then you will be Player 1 in all rounds.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Your position in the group will remain the same for all rounds.

Quiz **Question 2:**

Other players also keep their positions in each round.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Just like you, all other players will also remain in the same position in all rounds.

Quiz **Question 3:**

Suppose in round 2 you are grouped with two other participants. In all subsequent rounds you will be grouped for sure with the same two participants.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: Each round the groups will be shuffled randomly. Player positions will remain the same, but group members may change.

Quiz **Question 4:**

Suppose that you are Player 1. Suppose you offer the token to Player 2, who decides to accept the token in exchange for her/his production. How many points do you earn?

Answer:

Next

Correct Answer: 3

Explanation: Player 1 earns 3 points from consumption. Since Player 2 accepted your offer and produced for you in exchange for the token, you consumed and earned 3 points.

Quiz **Question 5:**

Suppose that you are Player 2. Suppose Player 1 offers you the token in exchange for the good, you produce for Player 1, acquire the token, and offer it to Player 3. You and Player 3 then decide between X and Y, and your payoffs are given by the table below:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game you and Player 3 both chose X.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 1
Explanation: The correct answer is 1. Production costs 1 point therefore you lose 1 point from producing.

(b) **Correct Answer:** 3
Explanation: The correct answer is 3. The payoff for Player 2 when both Player 2 and Player 3 choose X is 3 points.

(c) **Correct Answer:** 2
Explanation: The correct answer is 2. You lose 1 point from production and receive 3 points in your meeting with Player 3.

Quiz **Question 6:**

Suppose again that you are Player 2. Suppose Player 1 offers you the token in exchange for your production, but you decide not to produce for Player 1 so you do not acquire the token. Since you do not have the token you can't offer it to Player 3. Player 3 observes that you do not offer the token. You and Player 3 then choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game, you choose action Y and Player 3 chooses action Y too.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 0
Explanation: The correct answer is 0. You choose not to produce.

(b) **Correct Answer:** 1
Explanation: The correct answer is 1. The payoff for Player 2 when both players choose Y is 1.

(c) **Correct Answer:** 1
Explanation: The correct answer is 1. You lose 0 point from production, and earn 1 point in the meeting with Player 3.

Quiz **Question 7:**

Suppose that you are Player 3. Suppose that Player 2 offers you the token. You and Player 2 choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose you choose Y and Player 2 chooses X. How many points do you earn in this round?

Answer

Next

Correct Answer: 0

Explanation: The correct answer is 0. When Player 2 chooses X, and Player 3 chooses Y, Player 3 earns 0 point.

Quiz **Question 8:**

The token will be converted into money and paid to you in cash at the end of the experiment.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: The token does not yield points directly and does not convert to cash.

I.C.3 Exit Survey

Immediately after round 15 of Part I, each subject completed an unincentivized role-specific questionnaire titled *Questionnaire for Part I*.

Player 1 Screen

Questionnaire for Part I

Question 1

How often did you offer the token in exchange for the good?

———

Dropdown options: Always; Never; Sometimes

Question 2

If you offered the token, why did you do it? Select all that apply.

- ☐ Not applicable, I never offered the token.
- ☐ To increase the chance of trading it for the good with Player 2.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ I had no other use of the token.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you did not offer the token, why not? Select all that apply.

- ☐ Not applicable, I always offered the token.
- ☐ It did not increase the chance of trading it for the good with Player 2.
- ☐ I made a mistake.
- ☐ I wanted to keep the token.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Additional comments:

Next

Player 2 Screen

Questionnaire for Part I

Question 1

When Player 1 offered you the token in exchange for the good, how often did you produce?

———

Dropdown options: Not applicable: I was never offered the token.; Always.; Never.; Sometimes.

Question 2

If you were offered the token and you produced in exchange for the token, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ To increase my payoff in the meeting with Player 3.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ I wanted the token for the sake of it.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you were offered the token and decided not to produce in exchange for the token, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ It is costly to produce, and the token would not change my payoff in the meeting with Player 3.
- ☐ It is costly to produce, and the token would not be converted into cash.
- ☐ I made a mistake.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 4

If the previous player did not offer you the token and you decided to produce for him/her, why did you do it?

- ☐ Not applicable, I was never in this situation.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 5

If you played X in any round in your meeting with Player 3, please explain why you chose X.

Question 6
If you played Y in any round in your meeting with Player 3, please explain why you chose Y.

Question 7
Please explain what determined your decision to play X or Y in your meeting with Player 3.

Additional comments:

Next

Player 3 Screen
Questionnaire for Part I

Question 1
If you played X in any round in your meeting with Player 2, please explain why you chose X.

Question 2
If you played Y in any round in your meeting with Player 2, please explain why you chose Y.

Question 3
Please explain what determined your decision to play X or Y in your meeting with Player 2.

Additional comments:

Next

I.D Treatment M-1 (Money, No Public History, With Recommendation)

The experiment opens with the introductory paragraph below (displayed at the top of the opening screen directly above the Part I instructions), followed by the instructions, comprehension quiz, and exit survey.

Opening Screen Header (All Treatments)

Introduction

There are [N] participants in today's experiment. The experiment has three parts. The earnings you make are calculated in points and will be converted to dollars at the specified exchange rates. In addition, you also receive a $5 show-up payment regardless of your earnings during the experiment. If you follow the instructions carefully, you can earn a considerable amount of cash. You will also be required to complete two short surveys. Please refrain from talking for the duration of today's session. Kindly silence all mobile devices.

I.D.1 Instructions

Instructions for part I of the experiment

In part I of the experiment, you will play 15 rounds in groups of 3 people. At the beginning of the first round, each participant is randomly assigned a number 1, 2, or 3, which determines her/his position in the group for *all* 15 rounds. Each participant is informed about her/his position. There are two objects: a token and a good. The token itself does not yield points directly, but may affect the points you earn if other participants condition their choices on whether they are offered the token. The type of decisions you make depend on your position as described below.

Decisions in each round

In each round, there are two meetings. First, Player 1 and Player 2 meet. Then Player 2 and Player 3 meet.

- **Decisions in meeting 1:**
  - **Player 1** is endowed with a token and decides whether or not to offer the token to Player 2 in exchange for the good.
  - Then **Player 2** observes whether Player 1 has offered the token or not and Player 2 decides whether to produce for Player 1. If Player 1 offered the token and Player 2 produces for Player 1, then Player 2 receives the token.
- **Decisions in meeting 2:**
  - **Player 2** decides whether to offer the token to Player 3 if he/she has the token.
  - **Player 3** observes whether Player 2 has offered the token or not.
  - Then **Player 2** and **Player 3** simultaneously decide between two choices, X or Y. The corresponding payoffs are as follows:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

That is,

- If both Player 2 and Player 3 select X, then Player 2 receives 3 points and Player 3 receives 1 points
- If Player 2 selects X and Player 3 selects Y, then Player 2 receives 0 points and Player 3 receives 0 points
- If Player 2 selects Y and Player 3 selects X, then Player 2 receives 0 points and Player 3 receives 0 points
- If both Player 2 and Player 3 select Y, then Player 2 receives 1 points and Player 3 receives 3 points

Some observations:

- Player 1 earns 3 points from consumption if Player 2 decides to produce for him/her.
- If Player 1 offered the token to Player 2 and Player 2 decides to produce in exchange for the token, then Player 2 loses 1 point from production but receives the token.
- Player 3 observes whether Player 2 offered the token.
- Player 2 and Player 3 choose between X and Y simultaneously, and receive points according to the payoff matrix provided in the table above.
- The token does not yield points directly. It can be passed to the next player within a round, but cannot be carried from one round to another.

A Suggestion

Each player in a group may consider making the following choices:

- Player 1 offers the token to Player 2.
- Player 2 produces ONLY if he/she is offered the token, and offers the token to Player 3 if he/she has it.
- If Player 2 offers the token, then both Player 2 and Player 3 choose X. If Player 2 does not offer the token, then both Player 2 and Player 3 choose Y.

This is simply a suggestion. Feel free to follow it or not.

Grouping and positions

There are 15 rounds. At the beginning of each round participants are randomly grouped in new groups of three, and thus group members may change from round to round. However, your position is *fixed* for the duration of the experiment. For example, if you are Player 3 in round 1, then you will remain Player 3 in all rounds.

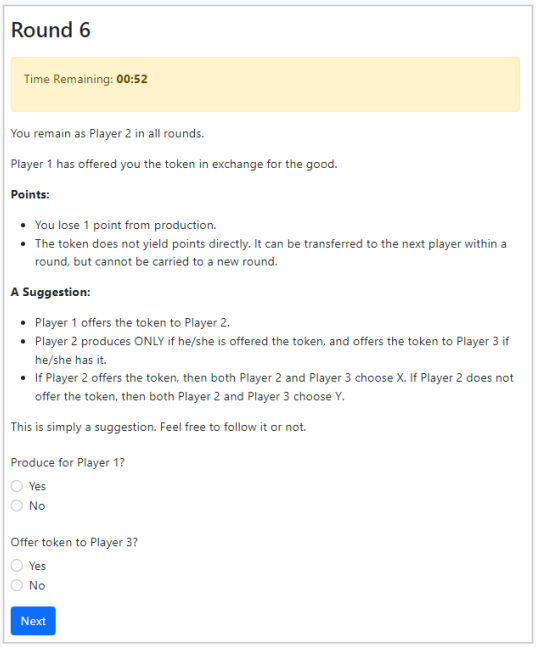
Earnings

You will start this part of the experiment with an endowment of 3 points. The computer will randomly select 3 rounds for payment. Your points from the 3 selected rounds plus the endowment points will be converted into dollars at rate 1 point = $2.

Computer Screens

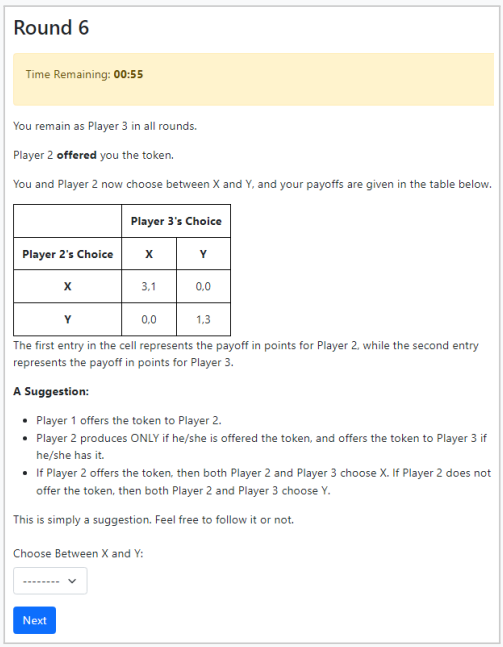
You will submit your decisions through a computer screen. For example, Player 2 will input her/his decision through the screen as shown in figure 1.

Figure 1: Sample Player 2 Decision Screen in Meeting 1



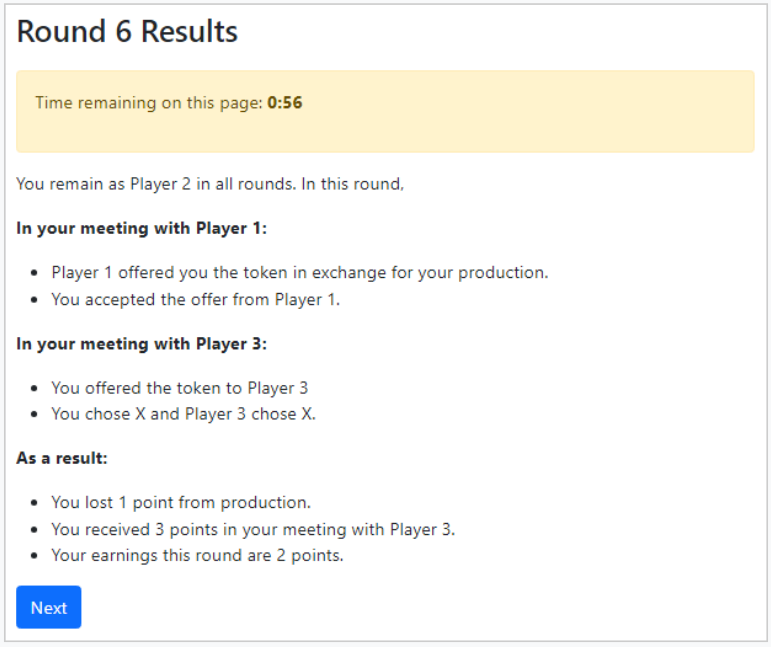
Player 3 inputs her/his decision through the screen as shown in figure 2.

Figure 2: Sample Player 3 Screen in Meeting 2



At the end of each round, you will also receive information on the results for the round. See figure 3 below for a sample result screen for Player 2.

Figure 3: Sample Round Summary for Player 2



Next

I.D.2 Comprehension Quiz

Quiz **Question 1:**

Suppose that you are Player 1 in round 1, then you will be Player 1 in all rounds.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Your position in the group will remain the same for all rounds.

Quiz **Question 2:**

Other players also keep their positions in each round.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Just like you, all other players will also remain in the same position in all rounds.

Quiz **Question 3:**

Suppose in round 2 you are grouped with two other participants. In all subsequent rounds you will be grouped for sure with the same two participants.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: Each round the groups will be shuffled randomly. Player positions will remain the same, but group members may change.

Quiz **Question 4:**

Suppose that you are Player 1. Suppose you offer the token to Player 2, who decides to accept the token in exchange for her/his production. How many points do you earn?

Answer:

Next

Correct Answer: 3

Explanation: Player 1 earns 3 points from consumption. Since Player 2 accepted your offer and produced for you in exchange for the token, you consumed and earned 3 points.

Quiz **Question 5:**

Suppose that you are Player 2. Suppose Player 1 offers you the token in exchange for the good, you produce for Player 1, acquire the token, and offer it to Player 3. You and Player 3 then decide between X and Y, and your payoffs are given by the table below:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game you and Player 3 both chose X.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 1
Explanation: The correct answer is 1. Production costs 1 point therefore you lose 1 point from producing.

(b) **Correct Answer:** 3
Explanation: The correct answer is 3. The payoff for Player 2 when both Player 2 and Player 3 choose X is 3 points.

(c) **Correct Answer:** 2
Explanation: The correct answer is 2. You lose 1 point from production and receive 3 points in your meeting with Player 3.

Quiz **Question 6:**

Suppose again that you are Player 2. Suppose Player 1 offers you the token in exchange for your production, but you decide not to produce for Player 1 so you do not acquire the token. Since you do not have the token you can't offer it to Player 3. Player 3 observes that you do not offer the token. You and Player 3 then choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game, you choose action Y and Player 3 chooses action Y too.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 0
Explanation: The correct answer is 0. You choose not to produce.

(b) **Correct Answer:** 1
Explanation: The correct answer is 1. The payoff for Player 2 when both players choose Y is 1.

(c) **Correct Answer:** 1
Explanation: The correct answer is 1. You lose 0 point from production, and earn 1 point in the meeting with Player 3.

Quiz **Question 7:**

Suppose that you are Player 3. Suppose that Player 2 offers you the token. You and Player 2 choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose you choose Y and Player 2 chooses X. How many points do you earn in this round?

Answer

Next

Correct Answer: 0

Explanation: The correct answer is 0. When Player 2 chooses X, and Player 3 chooses Y, Player 3 earns 0 point.

Quiz **Question 8:**

The token will be converted into money and paid to you in cash at the end of the experiment.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: The token does not yield points directly and does not convert to cash.

Quiz **Question 9:**

Consider the following suggestion:

- Player 1 offers the token to Player 2.
- Player 2 produces ONLY if they are offered the token, and offers the token to Player 3 if he/she has it.
- If Player 2 offers the token, then both Player 2 and Player 3 choose X. If Player 2 does not offer the token, then both Player 2 and Player 3 choose Y.

You must follow this suggestion.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: You are not required to follow this suggestion. You can choose to follow it or not.

I.D.3 Exit Survey

Immediately after round 15 of Part I, each subject completed an unincentivized role-specific questionnaire titled *Questionnaire for Part I*.

Player 1 Screen

Questionnaire for Part I

Question 1

How often did you offer the token in exchange for the good?

———

Dropdown options: Always; Never; Sometimes

Question 2

If you offered the token, why did you do it? Select all that apply.

- ☐ Not applicable, I never offered the token.
- ☐ To increase the chance of trading it for the good with Player 2.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ I had no other use of the token.
- ☐ To follow the suggestion.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you did not offer the token, why not? Select all that apply.

- ☐ Not applicable, I always offered the token.
- ☐ It did not increase the chance of trading it for the good with Player 2.
- ☐ I made a mistake.
- ☐ I wanted to keep the token.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 4

If you folowed the suggestion to transfer the token in any round, please explain why:

Question 5

If you did **not** follow the suggestion to transfer the token in any round, please explain why:

Additional comments:

Next

Player 2 Screen

Questionnaire for Part I

Question 1

When Player 1 offered you the token in exchange for the good, how often did you produce?

———

Dropdown options: Not applicable: I was never offered the token.; Always.; Never.; Sometimes.

Question 2

If you were offered the token and you produced in exchange for the token, why? Select all that apply.

- [ ] Not applicable, I was never in this situation.
- [ ] To increase my payoff in the meeting with Player 3.
- [ ] I made a mistake.
- [ ] To help the other player.
- [ ] I wanted the token for the sake of it.
- [ ] To follow the suggestion.
- [ ] Other reason.

If you selected **Other reason**, please explain:

Question 3

If you were offered the token and decided not to produce in exchange for the token, why> Select all that apply.

- [ ] Not applicable, I was never in this situation.
- [ ] It is costly to produce, and the token would not change my payoff in the meeting with Player 3.
- [ ] It is costly to produce, and the token would not be converted into cash.
- [ ] I made a mistake.
- [ ] Other reason.

If you selected **Other reason**, please explain:

Question 4

If the previous player did not offer you the token and you decided to produce for him/her, why did you do it?

- ☐ Not applicable, I was never in this situation.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 5

If you played X in any round in your meeting with Player 3, please explain why you chose X.

Question 6

If you followed the suggestion to transfer the token and produce **only** for the token in any round, please explain why.

Question 7

If you followed the suggestion to play X if you obtained and offered the token, and Y otherwise, please explain why.

Question 8

If you did **not** follow the suggestion to play X if you obtained and offered the token, and Y otherwise, please exaplain why.

Question 9

If in any round you did not follow the suggestion to produce only for the token and transfer the token, please explain why.

Additional comments:

Next

Player 3 Screen

Questionnaire for Part I

Question 1

If you played X in any round in your meeting with Player 2, please explain why you chose X.

Question 2

If you followed the suggestion to play X if you were offered the token, and Y otherwise, please explain why.

Question 3

If you did **not** follow the suggestion to play X if you were offered the token, and Y otherwise, please explain why.

Next

I.E Treatment H-0 (No Money, Public History, No Recommendation)

The experiment opens with the introductory paragraph below (displayed at the top of the opening screen directly above the Part I instructions), followed by the instructions, comprehension quiz, and exit survey.

Opening Screen Header (All Treatments)

Introduction

There are [N] participants in today's experiment. The experiment has three parts. The earnings you make are calculated in points and will be converted to dollars at the specified exchange rates. In addition, you also receive a $5 show-up payment regardless of your earnings during the experiment. If you follow the instructions carefully, you can earn a considerable amount of cash. You will also be required to complete two short surveys. Please refrain from talking for the duration of today's session. Kindly silence all mobile devices.

I.E.1 Instructions

Instructions for part I of the experiment

In part I of the experiment, you will play 15 rounds in groups of 3 people. At the beginning of the first round, each participant is randomly assigned a number 1, 2, or 3, which determines her/his position in the group for *all* 15 rounds. Each participant is informed about her/his position. The type of decisions you make depend on your position as described below.

Decisions in each round

In each round, there are two meetings. First, Player 1 and Player 2 meet. Then Player 2 and Player 3 meet.

- **Decisions in meeting 1:**
  - **Player 1** does not make any decision.
  - **Player 2** decides whether to produce for Player 1.
- **Decisions in meeting 2:**
  - **Player 3** observes whether Player 2 has produced or not.
  - Then **Player 2** and **Player 3** simultaneously decide between two choices, X or Y. The corresponding payoffs are as follows:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

That is,

- If both Player 2 and Player 3 select X, then Player 2 receives 3 points and Player 3 receives 1 point
- If Player 2 selects X and Player 3 selects Y, then Player 2 receives 0 points and Player 3 receives 0 points
- If Player 2 selects Y and Player 3 selects X, then Player 2 receives 0 points and Player 3 receives 0 points
- If both Player 2 and Player 3 select Y, then Player 2 receives 1 point and Player 3 receives 3 points

Some observations:

- Player 1 earns 3 points from consumption if Player 2 decides to produce for him/her.
- Player 2 loses 1 point if he/she decides to produce for Player 1.
- Player 3 observes whether Player 2 produced for Player 1.
- Player 2 and Player 3 choose between X and Y simultaneously, and receive points according to the payoff matrix provided in the table above.

Grouping and positions

There are 15 rounds. At the beginning of each round participants are randomly grouped in new groups of three, and thus group members may change from round to round. However, your position is *fixed* for the duration of the experiment. For example, if you are Player 3 in round 1, then you will remain Player 3 in all rounds.

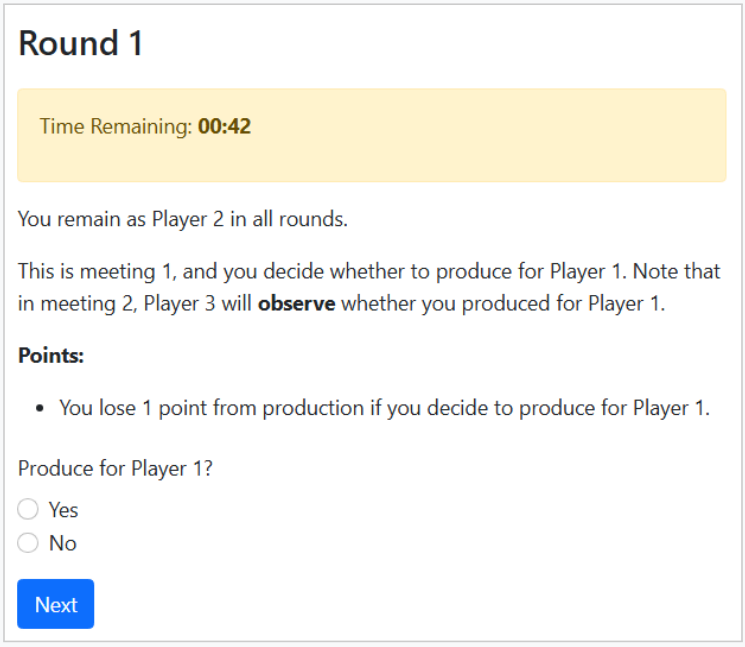
Earnings

You will start this part of the experiment with an endowment of 3 points. The computer will randomly select 3 rounds for payment. Your points from the 3 selected rounds plus the endowment points will be converted into dollars at rate 1 point = $2.

Computer Screens

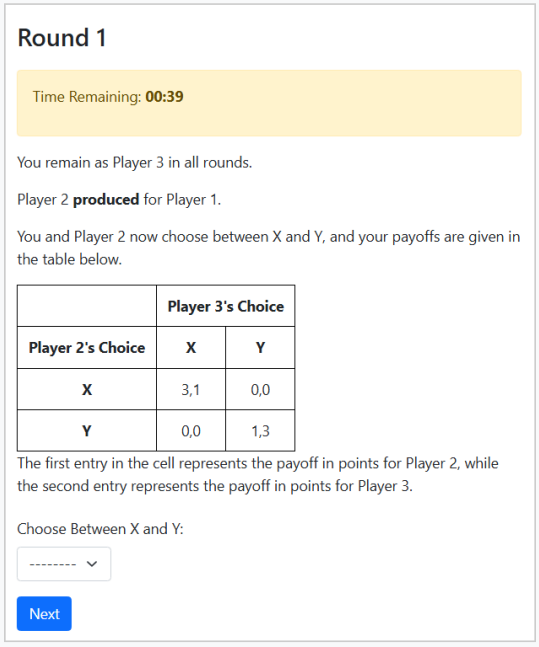
You will submit your decisions through a computer screen. For example, Player 2 will input her/his decision through the screen as shown in figure 1.

Figure 1: Sample Player 2 Decision Screen in Meeting 1



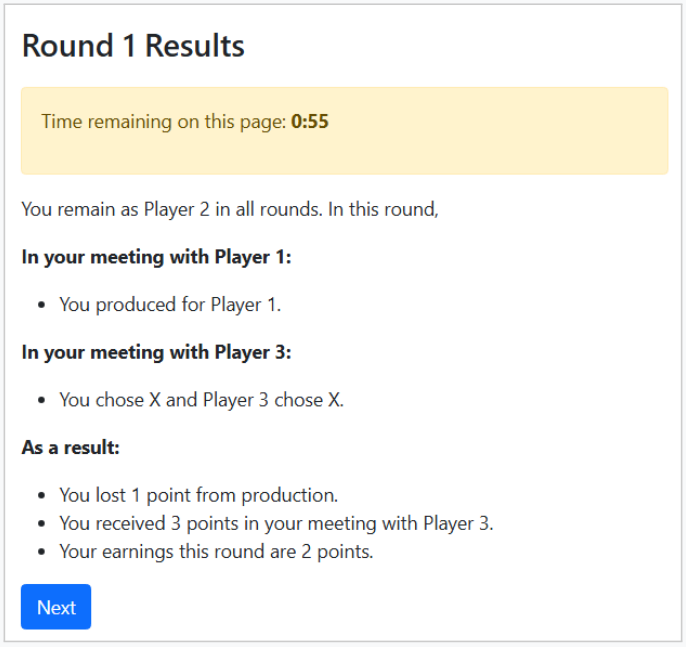
Player 3 inputs her/his decision through the screen as shown in figure 2.

Figure 2: Sample Player 3 Screen in Meeting 2



At the end of each round, you will also receive information on the results for the round. See figure 3 below for a sample result screen for Player 2.

Figure 3: Sample Round Summary for Player 2



Next

I.E.2 Comprehension Quiz

Quiz **Question 1:**

Suppose that you are Player 1 in round 1, then you will be Player 1 in all rounds.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Your position in the group will remain the same for all rounds.

Quiz **Question 2:**

Other players also keep their positions in each round.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Just like you, all other players will also remain in the same position in all rounds.

Quiz **Question 3:**

Suppose in round 2 you are grouped with two other participants. In all subsequent rounds you will be grouped for sure with the same two participants.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: Each round the groups will be shuffled randomly. Player positions will remain the same, but group members may change.

Quiz **Question 4:**

Suppose that you are Player 1. Suppose Player 2 decides to produce for you. How many points do you earn?

Answer:

Next

Correct Answer: 3

Explanation: Player 1 earns 3 points from consumption. Since Player 2 produced for you, you consumed and earned 3 points.

Quiz **Question 5:**

Suppose that you are Player 2. Suppose you produce for Player 1. You and Player 3 then decide between X and Y, and your payoffs are given by the table below:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game you and Player 3 both chose X.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 1
Explanation: The correct answer is 1. Production costs 1 point therefore you lose 1 point from producing.

(b) **Correct Answer:** 3
Explanation: The correct answer is 3. The payoff for Player 2 when both Player 2 and Player 3 choose X is 3 points.

(c) **Correct Answer:** 2
Explanation: The correct answer is 2. You lose 1 point from production and receive 3 points in your meeting with Player 3.

Quiz **Question 6:**

Suppose again that you are Player 2. Suppose you decide not to produce for Player 1. You and Player 3 then choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game, you choose action Y and Player 3 chooses action Y too.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 0
Explanation: The correct answer is 0. You choose not to produce.

(b) **Correct Answer:** 1
Explanation: The correct answer is 1. The payoff for Player 2 when both players choose Y is 1.

(c) **Correct Answer:** 1
Explanation: The correct answer is 1. You lose 0 point from production, and earn 1 point in the meeting with Player 3.

Quiz **Question 7:**

Suppose that you are Player 3. You and Player 2 choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose you choose Y and Player 2 chooses X. How many points do you earn in this round?

Answer

Next

Correct Answer: 0

Explanation: The correct answer is 0. When Player 2 chooses X, and Player 3 chooses Y, Player 3 earns 0 point.

Quiz **Question 8:**

Player 3 can observe whether Player 2 has produced for Player 1.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Player 3 can observe whether Player 2 has produced for Player 1.

I.E.3 Exit Survey

Immediately after round 15 of Part I, each subject completed an unincentivized role-specific questionnaire titled *Questionnaire for Part I*.

Player 1 Screen

Questionnaire for Part I

Please write below any comments you have on this part of the experiment.

Additional comments:

Next

Player 2 Screen

Questionnaire for Part I

Question 1

How often did you produce?

———

Dropdown options: Always.; Never.; Sometimes.

Question 2

If you produced in a round for Player 1, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ To increase my payoff in the meeting with Player 3.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you decided not to produce for Player 1 in any round, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ It is costly to produce, and producing does not increase my payoff in the meeting with Player 3.
- ☐ I made a mistake.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 4

Please explain what determined your decision to play X or Y in your meeting with Player 3.

Additional comments:

Next

Player 3 Screen

Questionnaire for Part I

Question 1

Please explain what determined your decision to play X or Y in the meeting with Player 2.

Additional comments:

Next

I.F Treatment H-1 (No Money, Public History, With Recommendation)

The experiment opens with the introductory paragraph below (displayed at the top of the opening screen directly above the Part I instructions), followed by the instructions, comprehension quiz, and exit survey.

Opening Screen Header (All Treatments)

Introduction

There are [N] participants in today's experiment. The experiment has three parts. The earnings you make are calculated in points and will be converted to dollars at the specified exchange rates. In addition, you also receive a $5 show-up payment regardless of your earnings during the experiment. If you follow the instructions carefully, you can earn a considerable amount of cash. You will also be required to complete two short surveys. Please refrain from talking for the duration of today's session. Kindly silence all mobile devices.

I.F.1 Instructions

Instructions for part I of the experiment

In part I of the experiment, you will play 15 rounds in groups of 3 people. At the beginning of the first round, each participant is randomly assigned a number 1, 2, or 3, which determines her/his position in the group for *all* 15 rounds. Each participant is informed about her/his position. The type of decisions you make depend on your position as described below.

Decisions in each round

In each round, there are two meetings. First, Player 1 and Player 2 meet. Then Player 2 and Player 3 meet.

- **Decisions in meeting 1:**
  - **Player 1** does not make any decision.
  - **Player 2** decides whether to produce for Player 1.
- **Decisions in meeting 2:**
  - **Player 3** observes whether Player 2 has produced or not.
  - Then **Player 2** and **Player 3** simultaneously decide between two choices, X or Y. The corresponding payoffs are as follows:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

That is,

- If both Player 2 and Player 3 select X, then Player 2 receives 3 points and Player 3 receives 1 point
- If Player 2 selects X and Player 3 selects Y, then Player 2 receives 0 points and Player 3 receives 0 points
- If Player 2 selects Y and Player 3 selects X, then Player 2 receives 0 points and Player 3 receives 0 points
- If both Player 2 and Player 3 select Y, then Player 2 receives 1 point and Player 3 receives 3 points

Some observations:

- Player 1 earns 3 points from consumption if Player 2 decides to produce for him/her.
- Player 2 loses 1 point if he/she decides to produce for Player 1.
- Player 3 observes whether Player 2 produced for Player 1.
- Player 2 and Player 3 choose between X and Y simultaneously, and receive points according to the payoff matrix provided in the table above.

A Suggestion

Each player in a group may consider making the following choices:

- Player 2 produces for Player 1.
- If Player 2 produced for Player 1, then both Player 2 and Player 3 choose X. If Player 2 did not produce for Player 1, then both Player 2 and Player 3 choose Y.

This is simply a suggestion. Feel free to follow it or not.

Grouping and positions

There are 15 rounds. At the beginning of each round participants are randomly grouped in new groups of three, and thus group members may change from round to round. However, your position is *fixed* for the duration of the experiment. For example, if you are Player 3 in round 1, then you will remain Player 3 in all rounds.

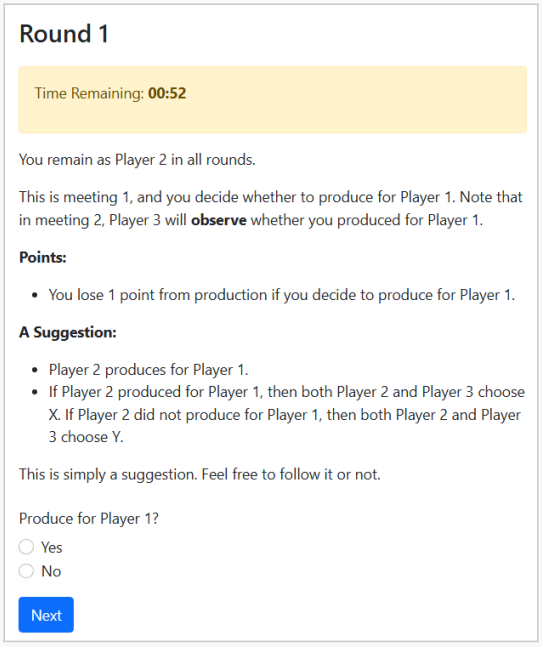
Earnings

You will start this part of the experiment with an endowment of 3 points. The computer will randomly select 3 rounds for payment. Your points from the 3 selected rounds plus the endowment points will be converted into dollars at rate 1 point = $2.

Computer Screens

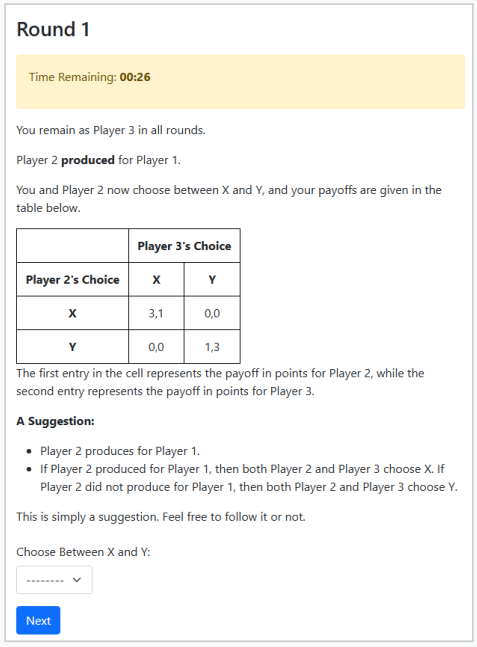
You will submit your decisions through a computer screen. For example, Player 2 will input her/his decision through the screen as shown in figure 1.

Figure 1: Sample Player 2 Decision Screen in Meeting 1



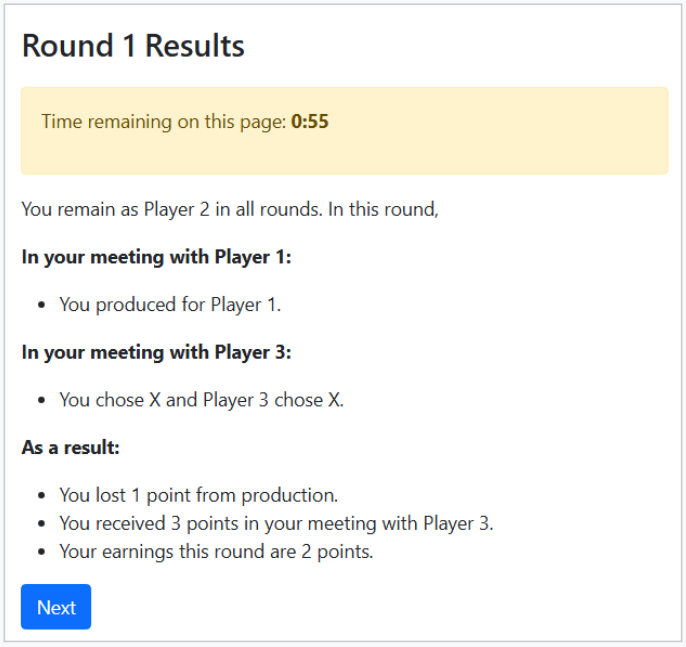
Player 3 inputs her/his decision through the screen as shown in figure 2.

Figure 2: Sample Player 3 Screen in Meeting 2



At the end of each round, you will also receive information on the results for the round. See figure 3 below for a sample result screen for Player 2.

Figure 3: Sample Round Summary for Player 2



Next

I.F.2 Comprehension Quiz

Quiz **Question 1:**

Suppose that you are Player 1 in round 1, then you will be Player 1 in all rounds.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Your position in the group will remain the same for all rounds.

Quiz **Question 2:**

Other players also keep their positions in each round.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Just like you, all other players will also remain in the same position in all rounds.

Quiz **Question 3:**

Suppose in round 2 you are grouped with two other participants. In all subsequent rounds you will be grouped for sure with the same two participants.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: Each round the groups will be shuffled randomly. Player positions will remain the same, but group members may change.

Quiz **Question 4:**

Suppose that you are Player 1. Suppose Player 2 decides to produce for you. How many points do you earn?

Answer:

Next

Correct Answer: 3

Explanation: Player 1 earns 3 points from consumption. Since Player 2 produced for you, you consumed and earned 3 points.

Quiz **Question 5:**

Suppose that you are Player 2. Suppose you produce for Player 1. You and Player 3 then decide between X and Y, and your payoffs are given by the table below:

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game you and Player 3 both chose X.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 1
Explanation: The correct answer is 1. Production costs 1 point therefore you lose 1 point from producing.

(b) **Correct Answer:** 3
Explanation: The correct answer is 3. The payoff for Player 2 when both Player 2 and Player 3 choose X is 3 points.

(c) **Correct Answer:** 2
Explanation: The correct answer is 2. You lose 1 point from production and receive 3 points in your meeting with Player 3.

Quiz **Question 6:**

Suppose again that you are Player 2. Suppose you decide not to produce for Player 1. You and Player 3 then choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose in that game, you choose action Y and Player 3 chooses action Y too.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 3?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 0
Explanation: The correct answer is 0. You choose not to produce.

(b) **Correct Answer:** 1
Explanation: The correct answer is 1. The payoff for Player 2 when both players choose Y is 1.

(c) **Correct Answer:** 1
Explanation: The correct answer is 1. You lose 0 point from production, and earn 1 point in the meeting with Player 3.

Quiz **Question 7:**

Suppose that you are Player 3. You and Player 2 choose between X and Y, and your payoffs are given in the table below.

	Player 3's Choice	
Player 2's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 2, while the second entry represents the payoff in points for Player 3.

Suppose you choose Y and Player 2 chooses X. How many points do you earn in this round?

Answer

Next

Correct Answer: 0

Explanation: The correct answer is 0. When Player 2 chooses X, and Player 3 chooses Y, Player 3 earns 0 point.

Quiz **Question 8:**

Player 3 can observe whether Player 2 has produced for Player 1.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Player 3 can observe whether Player 2 has produced for Player 1.

Quiz **Question 9:**

Consider the following suggestion:

- Player 2 produces for Player 1.
- If Player 2 produced for Player 1, then both Player 2 and Player 3 choose X. If Player 2 did not produce for Player 1, then both Player 2 and Player 3 choose Y.

You must follow this suggestion.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: You are not required to follow this suggestion. You can choose to follow it or not.

I.F.3 Exit Survey

Immediately after round 15 of Part I, each subject completed an unincentivized role-specific questionnaire titled *Questionnaire for Part I*.

Player 1 Screen

Questionnaire for Part I

Please write below any comments you have on this part of the experiment.

Additional comments:

Next

Player 2 Screen

Questionnaire for Part I

Question 1

How often did you produce?

———

Dropdown options: Always.; Never.; Sometimes.

Question 2

If you produced in a round for Player 1, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ To increase my payoff in the meeting with Player 3.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ To follow the suggestion.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you decided not to produce for Player 1 in any round, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ It is costly to produce, and producing does not increase my payoff in the meeting with Player 3.
- ☐ I made a mistake.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 4

If in any round you followed the suggestion to produce, please explain why:

Question 5

If in any round you did NOT follow the suggestion to produce, please explain why:

Question 6

Please explain what determined your decision to play X or Y in your meeting with Player 3.

Question 7

If in any round you followed the suggestions to play X if you produced, and Y otherwise, please explain why:

Question 8

If in any round you did NOT follow the suggestion to play X if you produced, and Y otherwise, please explain why:

Additional comments:

Next

Player 3 Screen

Questionnaire for Part I

Question 1

Please explain what determined your decision to play X or Y in the meeting with Player 2.

Question 2

If in any round you followed the suggestions to play X if Player 2 produced, and Y otherwise, please explain why:

Question 3

If in any round you did NOT follow the suggestion to play X if Player 2 produced, and Y otherwise, please explain why:

Additional comments:

Next

I.G Treatment M-1* (Four-Player Money, With Recommendation)

The experiment opens with the introductory paragraph below (displayed at the top of the opening screen directly above the Part I instructions), followed by the instructions, comprehension quiz, and exit survey.

Opening Screen Header (All Treatments)

Introduction

There are [N] participants in today's experiment. The experiment has three parts. The earnings you make are calculated in points and will be converted to dollars at the specified exchange rates. In addition, you also receive a $5 show-up payment regardless of your earnings during the experiment. If you follow the instructions carefully, you can earn a considerable amount of cash. You will also be required to complete two short surveys. Please refrain from talking for the duration of today's session. Kindly silence all mobile devices.

I.G.1 Instructions

Instructions

There are [N] participants in today's experiment. In the first part of the experiment, you will play 15 rounds in groups of 4 people. At the beginning of this part of the experiment, each participant is randomly assigned a number 1, 2, 3, or 4, which determines their position in the group for *all* 15 rounds. Each participant is informed about his/her position. There are two objects: a token and a good. The token itself does not yield points directly, but may affect the points you earn if other participants condition their choices on whether they are offered the token. The type of decisions you make depend on your position as described below.

Decisions in each round

In each round, there are three meetings. First, Player 1 and Player 2 meet. Then Player 2 and Player 3 meet, and finally Player 3 and Player 4 meet.

- **Decisions in meeting 1:**
  - **Player 1** is endowed with a token and decides whether or not to offer the token to Player 2 in exchange for the good.
  - Then **Player 2** observes whether Player 1 has offered the token or not, and Player 2 decides whether to produce for Player 1. If Player 1 offered the token and Player 2 produces for Player 1, then Player 2 receives the token.
- **Decisions in meeting 2:**
  - **Player 2** decides whether to offer the token to Player 3 in exchange for the good if he/she has the token.
  - **Player 3** observes whether Player 2 has offered the token or not, and Player 3 decides whether or not to produce for Player 2. If Player 2 offered the token and Player 3 produces for Player 2, then Player 3 receives the token.
- **Decisions in meeting 3:**
  - **Player 3** decides whether to offer the token to Player 4 if he/she has the token.
  - **Player 4** observes whether Player 3 has offered the token or not.

- Then **Player 3** and **Player 4** simultaneously decide between two choices, X or Y. The corresponding payoffs are as follows:

	Player 4's Choice	
Player 3's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 3, while the second entry represents the payoff in points for Player 4.

That is,

- If both Player 3 and Player 4 select X, then Player 3 receives 3 points and Player 4 receives 1 points
- If Player 3 selects X and Player 3 selects Y, then Player 3 receives 0 points and Player 4 receives 0 points
- If Player 3 selects Y and Player 4 selects X, then Player 3 receives 0 points and Player 4 receives 0 points
- If both Player 3 and Player 4 select Y, then Player 3 receives 1 points and Player 4 receives 3 points

Some observations:

- Player 1 earns 3 points from consumption if Player 2 decides to produce for him/her.
- If Player 1 offered the token to Player 2 and Player 2 decides to produce in exchange for the token, then Player 2 loses 1 point from production but receives the token.
- Player 2 earns 3 points from consumption if Player 3 decides to produce for him/her.
- If Player 2 offered the token to Player 3 and Player 3 decides to produce in exchange for the token, then Player 3 loses 1 point from production but receives the token.
- Player 4 observes whether Player 3 offered the token.
- Player 3 and Player 4 choose between X and Y simultaneously, and receive points according to the payoff matrix provided in the table above.
- The token does not yield points directly. It can be passed to the next player within a round, but cannot be carried from one round to another.

A Suggestion

Each player in a group may consider making the following choices:

- Whenever you have the token, transfer it to the next player (if there is one).
- If you are Player 2 or 3 produce ONLY if you see that you are offered the token.
- If Player 3 offers the token to Player 4, then both Player 3 and Player 4 choose X. If Player 3 does not offer the token, then both Player 3 and Player 4 choose Y.

This is simply a suggestion. Feel free to follow it or not.

Grouping and positions

There are 15 rounds. At the beginning of each round participants are randomly grouped in new groups of three, and thus group members may change from round to round. However, your position is *fixed* for the duration of the experiment. For example, if you are Player 3 in round 1, then you will remain Player 3 in all rounds.

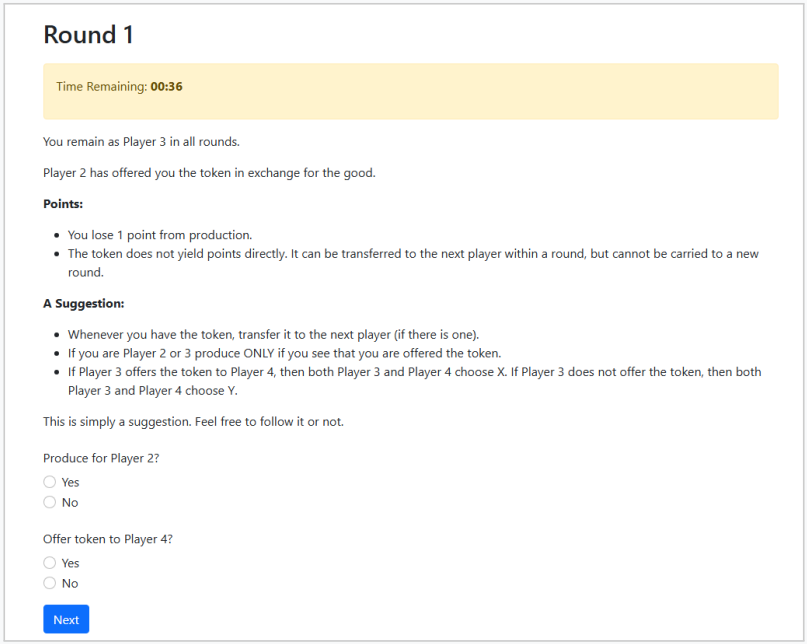
Earnings

You will start this part of the experiment with an endowment of 3 points. The computer will randomly select 3 rounds for payment. Your points from the 3 selected rounds plus the endowment points will be converted into dollars at rate 1 point = $2.

Computer Screens

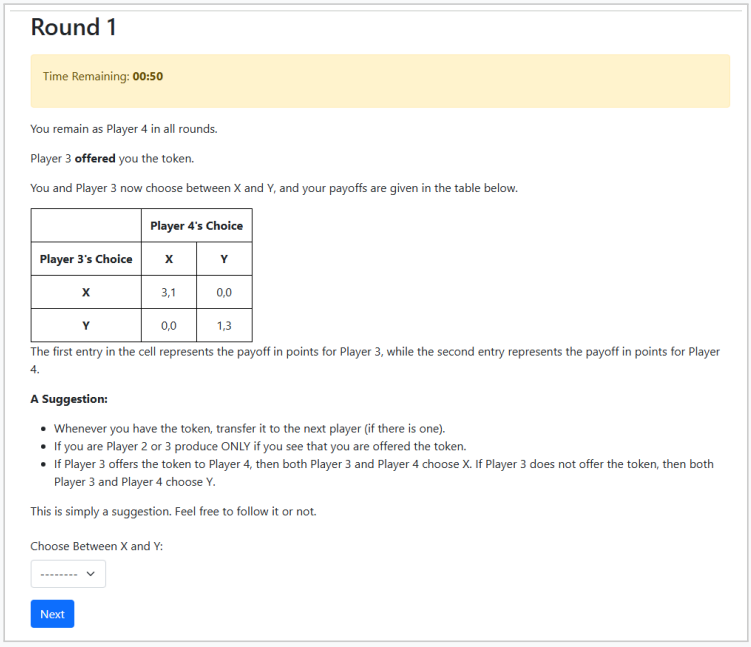
You will submit your decisions through a computer screen. For example, Player 3 will input his/her production decision in meeting 2 through the screen as shown in figure 1.

Figure 1: Sample Player 3 Decision Screen in Meeting 2



Player 4 inputs his/her decision in meeting 3 through the screen as shown in figure 2.

Figure 2: Sample Player 4 Screen in Meeting 3



Round 1

Time Remaining: **00:50**

You remain as Player 4 in all rounds.

Player 3 **offered** you the token.

You and Player 3 now choose between X and Y, and your payoffs are given in the table below.

	Player 4's Choice	
Player 3's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 3, while the second entry represents the payoff in points for Player 4.

A Suggestion:

- Whenever you have the token, transfer it to the next player (if there is one).
- If you are Player 2 or 3 produce ONLY if you see that you are offered the token.
- If Player 3 offers the token to Player 4, then both Player 3 and Player 4 choose X. If Player 3 does not offer the token, then both Player 3 and Player 4 choose Y.

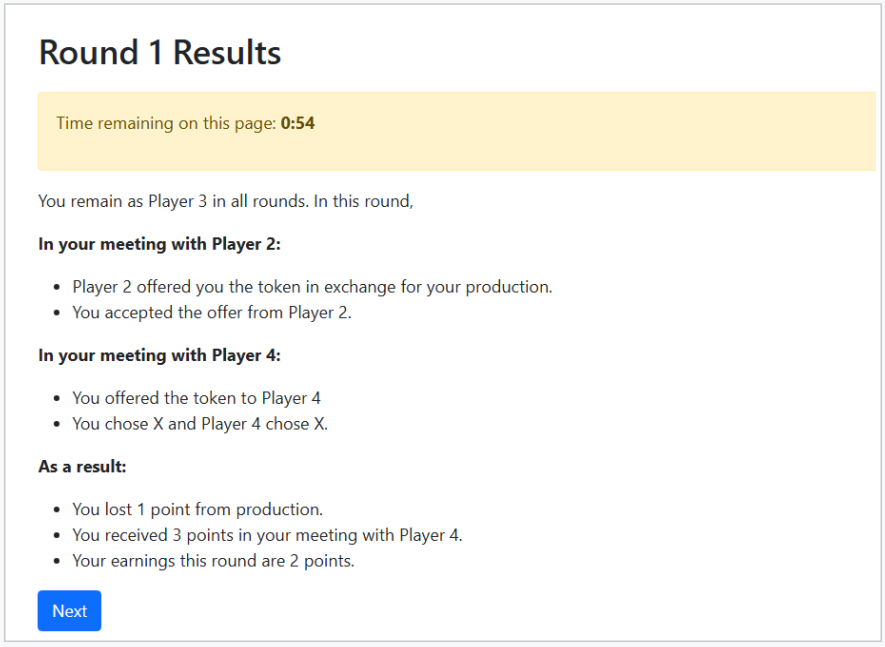
This is simply a suggestion. Feel free to follow it or not.

Choose Between X and Y:

Next

At the end of each round, you will also receive information on the results for the round. See figure 3 below for a sample result screen for Player 3.

Figure 3: Sample Round Summary for Player 3



Round 1 Results

Time remaining on this page: **0:54**

You remain as Player 3 in all rounds. In this round,

In your meeting with Player 2:

- Player 2 offered you the token in exchange for your production.
- You accepted the offer from Player 2.

In your meeting with Player 4:

- You offered the token to Player 4
- You chose X and Player 4 chose X.

As a result:

- You lost 1 point from production.
- You received 3 points in your meeting with Player 4.
- Your earnings this round are 2 points.

Next

Next

I.G.2 Comprehension Quiz

Quiz **Question 1:**

Suppose that you are Player 1 in round 1, then you will be Player 1 in all rounds.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Your position in the group will remain the same for all rounds.

Quiz **Question 2:**

Other players also keep their positions in each round.

Answer:

○ True ○ False

Next

Correct Answer: True

Explanation: Just like you, all other players will also remain in the same position in all rounds.

Quiz **Question 3:**

Suppose in round 2 you are grouped with three other participants. In all subsequent rounds you will be grouped for sure with the same three participants.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: Each round the groups will be shuffled randomly. Player positions will remain the same, but group members may change.

Quiz **Question 4:**

Suppose that you are Player 1. Suppose you offer the token to Player 2, who decides to accept the token in exchange for her/his production. How many points do you earn?

Answer:

Next

Correct Answer: 3

Explanation: Player 1 earns 3 points from consumption. Since Player 2 accepted your offer and produced for you in exchange for the token, you consumed and earned 3 points.

Quiz **Question 5:**

Suppose that you are Player 3. Suppose Player 2 offers you the token in exchange for the good, you produce for Player 2, acquire the token, and offer it to Player 4. You and Player 4 then decide between X and Y, and your payoffs are given by the table below:

	Player 4's Choice	
Player 3's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 3, while the second entry represents the payoff in points for Player 4.

Suppose in that game you and Player 4 both chose X.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 4?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 1
Explanation: The correct answer is 1. Production costs 1 point therefore you lose 1 point from producing.

(b) **Correct Answer:** 3
Explanation: The correct answer is 3. The payoff for Player 3 when both Player 3 and Player 4 choose X is 3 points.

(c) **Correct Answer:** 2
Explanation: The correct answer is 2. You lose 1 point from production and receive 3 points in your meeting with Player 4.

Quiz **Question 6:**

Suppose again that you are Player 3. Suppose Player 2 offers you the token in exchange for your production, but you decide not to produce for Player 2 so you do not acquire the token. Since you do not have the token you can't offer it to Player 4. Player 4 observes that you do not offer the token. You and Player 4 then choose between X and Y, and your payoffs are given in the table below.

	Player 4's Choice	
Player 3's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 3, while the second entry represents the payoff in points for Player 4.

Suppose in that game, you choose action Y and Player 4 chooses action Y too.

(a) How many points do you lose from production?

(b) How many points do you earn in your meeting with Player 4?

(c) How many points do you earn in total in this round?

(a):

(b):

(c):

Next

(a) **Correct Answer:** 0
Explanation: The correct answer is 0. You choose not to produce.

(b) **Correct Answer:** 1
Explanation: The correct answer is 1. The payoff for Player 3 when both players choose Y is 1.

(c) **Correct Answer:** 1
Explanation: The correct answer is 1. You lose 0 point from production, and earn 1 point in the meeting with Player 4.

Quiz **Question 7:**

Suppose that you are Player 4. Suppose that Player 3 offers you the token. You and Player 3 choose between X and Y, and your payoffs are given in the table below.

	Player 4's Choice	
Player 3's Choice	**X**	**Y**
X	3,1	0,0
Y	0,0	1,3

The first entry in the cell represents the payoff in points for Player 3, while the second entry represents the payoff in points for Player 4.

Suppose you choose Y and Player 3 chooses X. How many points do you earn in this round?

Answer

Next

Correct Answer: 0

Explanation: The correct answer is 0. When Player 3 chooses X, and Player 4 chooses Y, Player 4 earns 0 point.

Quiz **Question 8:**

The token will be converted into money and paid to you in cash at the end of the experiment.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: The token does not yield points directly and does not convert to cash.

Quiz **Question 9:**

Consider the following suggestion:

- Whenever you have the token, transfer it to the next player (if there is one).
- If you are Player 2 or 3 produce ONLY if you see that you are offered the token.
- If Player 3 offers the token to Player 4, then both Player 3 and Player 4 choose X. If Player 3 does not offer the token, then both Player 3 and Player 4 choose Y.

You must follow this suggestion.

Answer:

○ True ○ False

Next

Correct Answer: False

Explanation: You are not required to follow this suggestion. You can choose to follow it or not.

I.G.3 Exit Survey

Immediately after round 15 of Part I, each subject completed an unincentivized role-specific questionnaire titled *Questionnaire for Part I*.

Player 1 Screen

Questionnaire for Part I

Question 1

How often did you offer the token in exchange for the good?

———

Dropdown options: Always; Never; Sometimes

Question 2

If you offered the token, why did you do it? Select all that apply.

- ☐ Not applicable, I never offered the token.
- ☐ To increase the chance of trading it for the good with Player 2.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ I had no other use of the token.
- ☐ To follow the suggestion.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you did not offer the token, why not? Select all that apply.

- ☐ Not applicable, I always offered the token.
- ☐ It did not increase the chance of trading it for the good with Player 2.
- ☐ I made a mistake.
- ☐ I wanted to keep the token.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 4

If you followed the suggestion to transfer the token in any round, please explain why:

Question 5

If you did **NOT** follow the suggestion to transfer the token in any round, please explain why:

Additional comments:

Confirmation

Do you confirm you have fully answered all the above questions?

———

Dropdown options: Yes

Next

Player 2 Screen

Questionnaire for Part I

Question 1

When Player 1 offered you the token in exchange for the good, how often did you produce?

———

Dropdown options: Not applicable: I was never offered the token.; Always; Never; Sometimes

Question 2

If you were offered the token and you produced in exchange for the token, why? Select all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ To increase the chance of trading it for the good with Player 3.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ I wanted the token for the sake of it.
- ☐ To follow the suggestion.
- ☐ Other reason.

If you selected **Other reason**, please explain:

Question 3

If you were offered the token and you decided NOT to produce in exchange for the token, why? Check all that apply.

- ☐ Not applicable, I was never in this situation.
- ☐ It is costly to produce, and the token did not increase the chance of trading it for the good with Player 3.
- ☐ It is costly to produce, and the token would not be converted into cash.
- ☐ I made a mistake.
- ☐ Other reason. Please explain.

If you selected **Other reason**, please explain:

Question 4

If the previous player did NOT offer you the token and you decided to produce for him/her, why? Check all that apply.

- ☐ Not applicable: I was never in this situation.
- ☐ I made a mistake.
- ☐ To help the other player.
- ☐ Other reason. Please explain.

If you selected **Other reason**, please explain:

Question 5

If in any round you followed the suggestion to produce **only** for the token and transfer it, please explain why.

Question 6

If in any round you did NOT follow the suggestion to produce **only** for the token and transfer it, please explain why.

Additional comments:

Confirmation

Do you confirm you have fully answered all the above questions?

———

Dropdown options: Yes

Next

Player 3 Screen

Questionnaire for Part I

Question 1

When Player 2 offered you the token in exchange for the good, how often did you produce?

———

Dropdown options: Not applicable: I was never offered the token.; Always.; Never.; Sometimes.

Question 2

If you were offered the token and you produced in exchange for the token, why? Select all that apply.

- [ ] Not applicable, I was never in this situation.
- [ ] To increase my payoff in the meeting with Player 4.
- [ ] I made a mistake.
- [ ] To help the other player.
- [ ] I wanted the token for the sake of it.
- [ ] To follow the suggestion.
- [ ] Other reason.

If you selected **Other reason**, please explain:

Question 3

If you were offered the token and decided not to produce in exchange for the token, why? Select all that apply.

- [ ] Not applicable, I was never in this situation.
- [ ] It is costly to produce, and the token would not change my payoff in the meeting with Player 4.
- [ ] It is costly to produce, and the token would not be converted into cash.
- [ ] I made a mistake.
- [ ] Other reason.

If you selected **Other reason**, please explain:

Question 4

If the previous player did not offer you the token and you decided to produce for him/her, why did you do it?

- [ ] Not applicable, I was never in this situation.
- [ ] I made a mistake.
- [ ] To help the other player.
- [ ] Other reason.

If you selected **Other reason**, please explain:

Question 5

If in any round you followed the suggestion to produce **only** for the token and transfer it, please explain why.

Question 6
If in any round you did NOT follow the suggestion to produce **only** for the token and transfer it, please explain why.

Question 7
Please explain what determined your decision to Play X or Y in the meeting with Player 4.

Question 8
If in any round you followed the suggestion to play X if you obtained and offered the token, and Y otherwise, please explain why.

Question 9
If in any round you did **not** follow the suggestion to play X if you obtained and offered the token, and Y otherwise, please exaplain why.

Additional comments:

Confirmation
Do you confirm you have fully answered all the above questions?

———

Dropdown options: Yes

Next

Player 4 Screen

Questionnaire for Part I

Question 1
Please explain what determined your decision to play X or Y in your meeting with Player 3.

Question 2
If in any round you followed the suggestion to play X if you were offered the token, and Y otherwise, please explain why.

Question 3
If in any round you did **not** follow the suggestion to play X if you were offered the token, and Y otherwise, please explain why.

Additional comments:

Confirmation
Do you confirm you have fully answered all the above questions?

———

Dropdown options: Yes

Next

Part I Summary

Immediately after round 15 of Part I (just before the Part I exit survey), subjects see the Part I summary screen below. This screen is identical across all seven treatments.

End of Part I Screen (All Treatments)

Part I summary

You have completed Part I of today's session. Your earnings (in points) in each round are shown in the table below:

Round	Points	Selected for payment
1	[points_1]	[True / False]
2	[points_2]	[True / False]
⋮	⋮	⋮
15	[points_15]	[True / False]

Payoff Calculation:

- You were initially endowed with 3 points before round 1 started.
- Your earnings in each round are listed in the table above.
- The computer has randomly selected three rounds to pay you, marked "True" in the last column of the table.
- Together with the endowment points, your total points for this part of the experiment are [payoff_points] points, which will be converted to dollars at a rate of 1 point = 2 dollars.
- You have earned a payoff of **$**[payoff_dollars]**.00**

Next

Part II: Social Value Orientation

Part II of the experiment is identical across all seven treatments. After the Part I exit survey, subjects see an introduction screen with the Part II instructions (in M-0 and M-1 the screen included a *Next* button; in all subsequent treatments the experimenter advanced the room together after reading the instructions aloud), followed by 15 sequential allocation screens (`1/15` through `15/15`) with a 60-second soft countdown timer and the instructions card repeated beneath the slider. Each slider has 11 discrete positions and initializes at the center position (step 6 of 11). After all subjects finish, oTree matches participants anonymously in a ring, randomly selects one of the 15 scenarios for payment, converts total points at 100 pts $=$ \$3, and displays the Part II summary screen. (In B-0 and B-1, "receiver" is spelled correctly throughout the Part II instructions; in M-0, M-1, H-0, H-1, and M-1*, its second occurrence appeared as "receier".)

Introduction Screen

Part II of today's experiment

Instructions for part II of the experiment:

This is Part II of today's experiment. You will be paired with two other persons, whom we will refer to as your receiver and your sender, respectively. You will be deciding how to allocate resources between you and your receiver (how much to keep for yourself and how much to send to your receiver) in a series of scenarios. For each scenario, please indicate the allocation you prefer by using a slider. You select only one allocation per scenario. You, your receiver and your sender will reamain mutually anonymous. All of your choices are completely confidential to other participants.

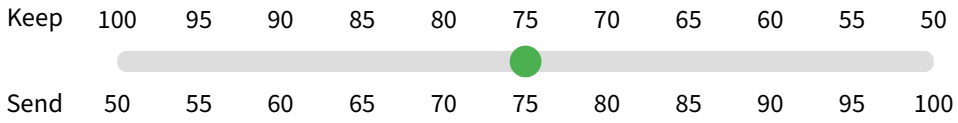
There are no right or wrong answers; this is all about personal preferences. Your choices will influence both the amount of money you receive, as well as the amount of money your receiver receives. After all choices have been submitted, one of your choices will be randomly selected to determine your payoff as a sender. At the same time, you will also receive a payoff as a receiver from your sender. The points will be converted at a rate of 100pts = \$3.

Sample Decision Screen (Scenario 1 of 15)

Part II of today's session

Time Remaining: **01:00**

1/15



Next

Instructions for part II of the experiment:

This is Part II of today's experiment. You will be paired with two other persons, whom we will refer to as your receiver and your sender, respectively. You will be deciding how to allocate resources between you and your receiver (how much to keep for yourself and how much to send to your receiver) in a series of scenarios. For each scenario, please indicate the allocation you prefer by using a slider. You select only one allocation per scenario. You, your receiver and your sender will reamain mutually anonymous. All of your choices are completely confidential to other participants.

There are no right or wrong answers; this is all about personal preferences. Your choices will influence both the amount of money you receive, as well as the amount of money your receiver receives. After all choices have been submitted, one of your choices will be randomly selected to determine your payoff as a sender. At the same time, you will also receive a payoff as a receiver from your sender. The points will be converted at a rate of 100pts = $3.

All 15 Slider Scenarios. Screens 1/15 through 15/15 share the exact layout shown above, changing only the progress label (1/15–15/15) and the 11 *Keep* / *Send* point pairs displayed above and below the slider. The table below lists all 15 scenarios verbatim; the slider initializes at column 6 (boxed in the table header).

Screen	Row	1	2	3	4	5	6	7	8	9	10	11
1/15	Keep	100	95	90	85	80	75	70	65	60	55	50
	Send	50	55	60	65	70	75	80	85	90	95	100
2/15	Keep	85	86	88	90	91	92	94	96	97	98	100
	Send	15	18	22	26	29	32	36	40	43	46	50
3/15	Keep	50	54	57	60	64	68	71	74	78	82	85
	Send	100	98	97	96	94	92	91	90	88	86	85
4/15	Keep	50	54	57	60	64	68	71	74	78	82	85
	Send	100	92	83	74	66	58	49	40	32	24	15
5/15	Keep	85	85	85	85	85	85	85	85	85	85	85
	Send	85	78	71	64	57	50	43	36	29	22	15
6/15	Keep	100	98	97	96	94	92	91	90	88	86	85
	Send	50	54	57	60	64	68	71	74	78	82	85
7/15	Keep	100	95	90	85	80	75	70	65	60	55	50
	Send	50	55	60	65	70	75	80	85	90	95	100
8/15	Keep	100	95	90	85	80	75	70	65	60	55	50
	Send	70	73	76	79	82	85	88	91	94	97	100
9/15	Keep	100	95	90	85	80	75	70	65	60	55	50
	Send	90	91	92	93	94	95	96	97	98	99	100
10/15	Keep	100	97	94	91	88	85	82	79	76	73	70
	Send	50	55	60	65	70	75	80	85	90	95	100
11/15	Keep	100	97	94	91	88	85	82	79	76	73	70
	Send	70	73	76	79	82	85	88	91	94	97	100
12/15	Keep	100	97	94	91	88	85	82	79	76	73	70
	Send	90	91	92	93	94	95	96	97	98	99	100
13/15	Keep	100	99	98	97	96	95	94	93	92	91	90
	Send	50	55	60	65	70	75	80	85	90	95	100
14/15	Keep	100	99	98	97	96	95	94	93	92	91	90
	Send	70	73	76	79	82	85	88	91	94	97	100
15/15	Keep	100	99	98	97	96	95	94	93	92	91	90
	Send	90	91	92	93	94	95	96	97	98	99	100

Results Screen

Part II summary

Round	Points Kept	Points Received	Round Points
1	[keep_1]	[receive_1]	[keep_1 + receive_1]
2	[keep_2]	[receive_2]	[keep_2 + receive_2]
⋮	⋮	⋮	⋮
15	[keep_15]	[receive_15]	[keep_15 + receive_15]

Payoff round: Round [payoff_round]
Payoff (points): [payoff_points] points
Payoff ($): $[payoff_dollars]

Demographic Survey

Immediately after Part II, subjects complete an unincentivized five-question demographic and risk-attitude survey with a 180-second soft countdown timer. This screen is identical across all seven treatments.

Single Screen (All Treatments)

Demographic Survey

Time Remaining: **03:00**

Question 1

What is your gender?

- ○ Female
- ○ Male
- ○ Other
- ○ Prefer not to say

Question 2

What is your age?

Question 3

Rate your English.

- ○ Native
- ○ Fluent
- ○ Proficient

Question 4

What is your intended major/field of study?

Question 5

How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks? Please choose a number between 0 and 10, where the value 0 means: 'not at all willing to take risks' and the value 10 means: 'very willing to take risks.'

○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Next

Part III: Cognitive Reflection Test

Part III follows the Demographic Survey and is identical across all seven treatments. Subjects answer three multiple-choice dropdown questions within a 180-second soft countdown timer, earning $0.50 per correct answer (up to $1.50). Immediately after submitting, they see a results screen reporting their accuracy on each question and their Part III earnings.

Questions Screen (All Treatments)

Part III of today's experiment

Time Remaining: **03:00**

For each of the following question you get correct, you will receive $0.50.

Question 1

A bat and a ball cost $110 in total. The bat costs $100 more than the ball. How much does the ball cost?

———

Dropdown options: $0.00; $1.00; $2.00; …; $15.00 (in $1.00 increments; correct answer: $5.00)

Question 2

If it takes 2 nurses 2 minutes to measure the blood pressure of 2 patients, how long would it take 200 nurses to measure the blood pressure of 200 patients?

———

Dropdown options: 0 minutes; 1 minutes; 2 minutes; …; 200 minutes (in 1-minute increments; correct answer: 2 minutes)

Question 3

In a lake, there is a patch of lily pads. Every day, the patch doubles in size every day. If it takes 40 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?

———

Dropdown options: 0 days; 1 days; 2 days; …; 40 days (in 1-day increments; correct answer: 39 days)

Next

Results Screen (All Treatments)

Part III of today's session

Question 1:
You answered question 1 correct and earned $0.50. *[or: You did not answer question 1 correct.]*

Question 2:
You answered question 2 correct and earned $0.50. *[or: You did not answer question 2 correct.]*

Question 3:
You answered question 3 correct and earned $0.50. *[or: You did not answer question 3 correct.]*

You've earned a total of $`[0.00 / 0.50 / 1.00 / 1.50]` **in this part of today's session.**

Next

Payoff Summary

The final screen of the experiment displays each subject's earnings from Parts I, II, and III, the $5.00 show-up payment, and the resulting total payoff. This screen is identical across all seven treatments.

Final Screen (All Treatments)

Payoff Summary

Payoff earned in today's session:

- Part I: $[game_payoff]
- Part II: $[svo_payoff]
- Part III: $[crt_payoff]
- Show up payment: $5.00

Total Payoff: $[total_payoff]