

Appendix B: Supplementary Information (not for publication)

Table B1: Distribution and persistence of donor role

Rounds as donor	Percentile				
	10	25	50	75	90
Total Number of rounds					
Rounds 2, . . . , 9	1	2	3	4	5
Rounds ≥ 10	5	6	8	9	11
No. of consecutive rounds					
Rounds 2, . . . , 9	0	0	0	1	2
Rounds ≥ 10	0	0	1	2	3

Notes: One observation = one donor in a round > 1 ($N = 160$ per round). First two rows: number of rounds in which the subject has been a donor (including the current one). Last two rows: number of consecutive previous rounds in which subject has been a donor (0=switched role in this round, 1=switched to donor in previous round, etc.). No appreciable difference exists across treatments.

Table B2: Distribution of types of meetings (past roles)

	DD	DA	AD	AA
Rounds < 10	0.14	0.27	0.28	0.31
Rounds ≥ 10	0.15	0.29	0.30	0.25
All rounds	0.15	0.29	0.29	0.28

Notes: One obs.=one donor in a round > 1 . Each cell reports the average proportion of the four possible classifications are AA, AD, DA, and DD in the treatment, where the first letter indicates the donor's circumstances (A=Advantaged, D=Disadvantaged) and the second letter indicates the recipient's. The cutoff point 100 is included in the definition of Advantaged, hence we have more A than D, which explains why the fraction of DD meetings is smaller than AA meetings.

Table B3: Past roles & cooperation: marginal effects (all treatments)

Dep. var.: =1 if <i>C</i> <i>chosen</i>	Baseline	Roles	Wealth	History
<i>Blue Ranking in Group</i>				
Top	0.025 (0.019)	-0.023 (0.046)	0.044 (0.036)	0.041*** (0.006)
Bottom	-0.020 (0.028)	-0.033 (0.022)	-0.006 (0.018)	0.002 (0.026)
<i>Donor, Recipient meeting</i>				
DD	-0.053** (0.024)	-0.014 (0.009)	-0.074*** (0.028)	-0.012 (0.026)
DA	-0.077*** (0.029)	-0.054** (0.023)	-0.105*** (0.027)	-0.061** (0.029)
AD	-0.004 (0.019)	0.004 (0.016)	0.022** (0.011)	0.022 (0.021)
<i>Punishment regressors</i>				
Grim trigger	-0.298*** (0.046)	-0.190*** (0.055)	-0.194*** (0.064)	-0.246*** (0.075)
Choice 1	0.135*** (0.047)	0.083* (0.047)	0.088** (0.035)	0.136*** (0.028)
Choice 2	0.088** (0.036)	0.041 (0.030)	0.057 (0.056)	0.119*** (0.030)
Choice 3	0.057* (0.030)	0.049 (0.033)	0.023 (0.049)	0.081*** (0.030)
Choice 4	0.018 (0.028)	0.029 (0.033)	0.025 (0.030)	0.046* (0.027)
Supergame	0.024** (0.011)	0.037*** (0.006)	0.041*** (0.010)	0.012 (0.016)
Controls	Yes	Yes	Yes	Yes
N	2672	2680	2720	2856

Notes: Logit panel regression with random effects at the individual level and robust standard errors (in parentheses) adjusted for clustering at the session level. Dependent variable = 1 if donor chooses C, 0 otherwise. One observation = choice of a donor in a round > 1. Base case = donor and recipient are both advantaged (AA meeting).

The factor variable *Blue Ranking in Group* classifies the donor based on her position in the group's distribution of blue index; it takes the value 1 if the donor had the uniquely highest blue index in her group in the round ("Top"), 3 if it was the uniquely lowest index in her group ("Bottom"), and 2 in all other circumstances including when her index was the same as someone else's in the group (which we take as the base in the regression). *Controls* include round fixed effects through a series of dummy variables (a single dummy variable for rounds 19 and above), duration of previous supergame (set to 18 rounds, in supergame 1), two measures of understanding of instructions (response time and wrong answers in the quiz), and a self-reported measure of sex and risk attitudes. Symbols ***, **, and * indicate significance at the 1%, 5% and 10% level, respectively.

We cannot reject the hypothesis that the Top and Bottom coefficients are equal: in column 1, Top=Bottom (Wald test, p-value= 0.174); in column 2, Top=Bottom (Wald test, p-value= 0.798); in column 3, Top=Bottom (Wald test, p-value= 0.217); in column 4, Top=Bottom (Wald test, p-value= 0.132);

Table B4: Cooperation at the group level: marginal effects (other treatments)

Dep. variable:	Coop.	Full Coop.
<i>Treatment dummies</i>		
Wealth	-0.054 (0.073)	-0.074 (0.059)
History	-0.068 (0.071)	-0.123* (0.066)
Supergame	0.056*** (0.009)	0.073*** (0.015)
<i>Controls</i>		
Male	-0.005 (0.027)	-0.005 (0.029)
Duration	-0.035*** (0.012)	-0.055* (0.029)
Previous duration	-0.007 (0.017)	0.005 (0.035)
Response Time	-0.014 (0.018)	-0.057 (0.051)
Incorrect Answers	-0.018 (0.016)	-0.035 (0.032)
Risk attitude	0.075*** (0.025)	0.034 (0.049)
N	240	240

Notes: 1 obs. = one group in a supergame. Data from *Baseline*, *Wealth* and *History* treatments. Column 1: GLM regression, dependent variable = average cooperation; Column 2: Logit panel regression, dependent variable = 1 if the group coordinated on full cooperation, 0 otherwise. *Controls* include standardized values of supergame duration, current and previous (set to 18 rounds, in supergame 1), two measures of understanding of instructions (response time and wrong answers in the quiz), and self reported measures of sex and attitudes toward risk. Marginal effects are computed at the mean value of regressors of continuous variables. Robust standard errors (S.E.) adjusted for clustering at the session level. Symbols ***, **, and * indicate significance at the 1%, 5% and 10% level, respectively.

Table B5: Choice when no defection observed or experienced: marginal effects (other treatments)

Dep. var.=1 if C chosen:	Coeff.	S.E.
Wealth dummy	-0.092*	(0.052)
History dummy	-0.130**	(0.064)
Supergame	0.030***	(0.004)
Controls	Yes	
N	1331	

Notes: Logit panel regression with random effects at the individual level and robust standard errors (S.E.) adjusted for clustering at the session level. Dependent variable = 1 if C chosen, 0 otherwise. One obs. = choice of a donor in a round > 1, *Baseline*, *Wealth* and *History* data only, in meetings in which the donor has not previously suffered or observed a defection in their group (other than their own, possibly). *Controls* include round fixed effects through a sequence of dummy variables (one per each round 1-18 and one for rounds 19 and above), duration of previous supergame (set to 18 rounds, in supergame 1), two measures of understanding of instructions (response time and wrong answers in the quiz), a self-reported measure of sex and of risk attitudes. The supergame regressor is interacted with the treatment dummy. Symbols ***, **, and * indicate significance at the 1%, 5% and 10% level, respectively.

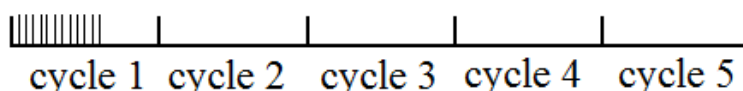
Appendix C: Experiment Directions
(not for publication)

Instructions Baseline treatment

This is an experiment in decision-making. You will earn money based on the decisions you and others make in the experiment, and you will be paid in cash at the end of the experiment. Different participants may earn different amounts.

Overview of the experiment

The experiment is divided into **five cycles**. Each cycle is a separate section with **many periods**:



There are 16 participants. At the start of each **cycle**, a computer program will form groups of four persons each. In each period of the cycle you will interact with a random person **in your group**.



Groups change in each cycle so that **you cannot interact with anyone for more than one cycle**.

How do you earn money in a period?

You will earn points that depend on your choices and the choices of others **in your group**. Points will be converted into dollars at the end of the experiment in a manner that we explain later.

In each period you interact with another participant called your **“match.”** Your match is a **randomly selected person** from your group. In each period you are equally likely to meet anyone from your group and you will never know who you meet.

In each pair, one person will be **red** and the other **blue**. The **red** person must choose either outcome **Y** or **Z**. This choice determines the point **earnings** in the pair

- if **Y** is the outcome: **red** earns **6** points and **blue** earns **4** points.
- if **Z** is the outcome: **red** earns **0** points and **blue** earns **25** points.

What happens in each period?

Each **period** has the following timeline:

1. You see your color and you are paired with another participant from your group.
2. You may be called to make a choice.
3. You observe the outcome.
4. The cycle may continue or may end.

We now discuss these points in detail.

1. Your color and your match

In each period you are **equally likely** to have one of **two possible roles**. Each role corresponds to a color, either **blue** or **red**. Your match always has a color different than yours. Hence, in each period two persons in your group are **red** and two are **blue**. Since roles are randomly assigned in every period, some of you may be **red** more often than **blue**, and others may be **blue** more often than **red**.

2. Your choices

- If you are **blue**, then you have no choice to make.
- If you are **red**, then you must select one of the following two options (see figure below):
 - Y
 - Z

The screenshot shows a game interface for a red player. At the top left, it displays: "Your ID : 16", "Cycle : 2", and "Period : 2". The main area contains the text: "This period you are RED" and "Your BLUE match is random". Below this is an "EARNINGS TABLE" with the following content:

OUTCOMES	EARNINGS
Y	You get 6 points BLUE gets 4 points
Z	You get 0 points BLUE gets 25 points

Below the earnings table, it says "Please make a choice:" followed by radio buttons for Y and Z, and a "Submit" button. A large red arrow labeled "YOUR CHOICES" points to the choice options. Another large red arrow labeled "EARNINGS TABLE" points to the earnings table. A third large red arrow labeled "PAST OUTCOMES IN YOUR GROUP" points to a table at the bottom of the screen.

Period	Your color	Match ID	Outcome	Your earnings	Same outcome in both pairs?
1	RED	unknown	Y	6	No

To make your choice, select the relevant option and click the "Submit" button. You can review results of **past periods of the cycle** by scrolling down the table at the bottom of the screen. Each line reports your color, the **outcome** Y or Z in your pair and your **earnings** in a past period. The last column reports whether the outcome was the same in all pairs of your group.

3. Outcome of choices

The results for the period will be displayed after everyone who is **red** makes a choice (see figure below). You will see the **outcome** and the points you **earned**. You can write the results on your record sheet.

Results from past periods of that cycle will be visible at the bottom of the screen. Everyone will also be informed whether or not each of the pairs in the group had the same outcome.

Your ID : 16
Cycle : 2
Period : 16

This period you were RED

OUTCOMES	EARNINGS
Y	You get 6 points BLUE gets 4 points
Z	You get 0 points, BLUE gets 25 points

This period you were RED

RESULTS OF PERIOD 16

The outcome was: Y
Your earnings are: 6 points

CONTINUATION OR END OF THE CYCLE

The random draw is: 27
The cycle will continue

Period	Your color	Match ID	Outcome	Your earnings	Same outcome in both pairs?
11	BLUE	unknown	Z	25	No
12	BLUE	unknown	Z	25	Yes
13	RED	unknown	Y	6	No
14	RED	unknown	Z	0	No
15	RED	unknown	Y	6	No
16	RED	unknown	Y	6	Yes

4. Ending of a cycle

Each cycle has many periods but their number is **unknown** because it is **random**. Hence:

- We never know for sure which period will be the last in a cycle.
- Some cycles may end up being longer and others shorter.

Each cycle will have at least 15 periods. From period 15 on, at the end of each period a computer selects with equal probability a number between 1 and 100. If the number selected is less than or equal to 75, then the cycle will continue. Otherwise, the cycle will end. This number is the same for every participant.

So, starting in period 15, the cycle always has a $75/100 = 75\%$ chance to continue. The results screen will inform you whether the cycle continues or not: you will see the randomly selected number.

Note: The number of past periods does not influence the chance that a cycle will end. In every period, **every number** between 1 and 100 has an equal chance of being selected. Hence, the chance that a cycle will end, say, after period 20, is 25%, which is identical to the chance that the cycle will end after period 15. As soon as a cycle ends, different groups are formed and a new cycle starts.

Payments

When the experiment ends, **one** of the five cycles completed will be randomly selected. The points you have earned **in that cycle** will be converted into dollars: **1 point is worth 18 cents** (\$0.18).

To choose the cycle for which you will be paid, we publicly roll a ten-faced “virtual” die at <http://www.bgfl.org/virtualdice>.

The numbers on the die’s faces identify the cycles as follows: 1&2=cycle 1, 3&4=cycle 2, 5&6=cycle 3, 7&8=cycle 4, 9&10=cycle 5. Each cycle is equally likely to be selected.

Final reminders

- The experiment is divided into five separate cycles; each cycle has many periods.
- In each period you interact with a match from your group. Your match **changes** from period to period and you are equally likely to meet anyone in your group.
- Your match always has a different color than yours.
- If you are **red**, then you must choose between outcome Y and Z. If you are **blue**, then you have no choice to make.
- The points you earn depend on the **outcome** in your pair, Y or Z.
- Each cycle has an **uncertain** number of periods. Starting in period 15, there is **always** a 75% chance of an additional period, and a 25% chance of ending.
- You **cannot** interact with anyone for more than one cycle.

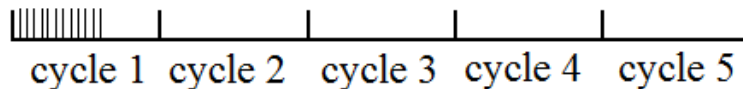
Before we start the experiment, we will answer any queries you may have. Then, you will be asked to answer ten questions designed to verify your understanding of the instructions. You will receive \$0.25 for each question you answer correctly. If you have a question during the experiment please raise your hand and someone will come to answer it.

Instructions Roles treatment

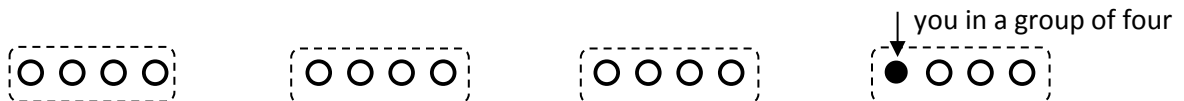
This is an experiment in decision-making. You will earn money based on the decisions you and others make in the experiment, and you will be paid in cash at the end of the experiment. Different participants may earn different amounts.

Overview of the experiment

The experiment is divided into **five cycles**. Each cycle is a separate section with **many periods**:



There are 16 participants. At the start of each **cycle**, a computer program will form groups of four persons each. In each period of the cycle you will interact with a random person **in your group**.



Groups change in each cycle so that **you cannot interact with anyone for more than one cycle**.

How do you earn money in a period?

You will earn points that depend on your choices and the choices of others **in your group**. Points will be converted into dollars at the end of the experiment in a manner that we explain later.

In each period you interact with another participant called your **“match.”** Your match is a **randomly selected person** from your group. In each period you are equally likely to meet anyone from your group and you will never know who you meet.

In each pair, one person will be **red** and the other **blue**. The **red** person must choose either outcome **Y** or **Z**. This choice determines the point **earnings** in the pair

- if **Y** is the outcome: **red** earns **6** points and **blue** earns **4** points.
- if **Z** is the outcome: **red** earns **0** points and **blue** earns **25** points.

What happens in each period?

Each **period** has the following timeline:

5. You see your color and you are paired with another participant from your group.
6. You may be called to make a choice.
7. You observe the outcome.
8. The cycle may continue or may end.

We now discuss these points in detail.

1. Your color and your match

In each period you are **equally likely** to have one of **two possible roles**. Each role corresponds to a color, either **blue** or **red**. Your match always has a color different than yours. Hence, in each period two persons in your group are **red** and two are **blue**. Since roles are randomly assigned in every period, some of you may be **red** more often than **blue**, and others may be **blue** more often than **red**.

2. Your choices

- If you are **blue**, then you have no choice to make.
- If you are **red**, then you must select one of the following two options (see figure below):
 - Y
 - Z

The screenshot displays the game interface for a red player. At the top left, it shows 'Your ID : 16', 'Cycle : 2', and 'Period : 6'. A red arrow labeled 'BLUE Index' points to a table titled 'BLUE Index in your group (past periods of this cycle)'. This table lists the BLUE Index for 'You' (80), 'Your match' (160), and 'Other' (40 and 120), with an 'Average' of 100. A red arrow labeled 'YOUR CHOICES' points to a 'Please make a choice:' section with radio buttons for 'Y' and 'Z', and a 'Submit' button. A red arrow labeled 'EARNINGS TABLE' points to a table showing outcomes and earnings for choices Y and Z. A red arrow labeled 'PAST OUTCOMES IN YOUR GROUP' points to a table at the bottom of the screen.

Period	Your color	Match ID	Outcome	Your earnings	Same outcome in both pairs?
1	BLUE	unknown	Y	4	Yes
2	RED	unknown	Y	6	Yes
3	BLUE	unknown	Z	25	Yes
4	RED	unknown	Z	0	No
5	RED	unknown	Z	0	Yes

To make your choice, select the relevant option and click the “Submit” button. You can review results of **past periods of the cycle** by scrolling down the table at the bottom of the screen. Each line reports your color, the **outcome** Y or Z in your pair and your **earnings** in a past period. The last column reports whether the outcome was the same in all pairs of your group.

Starting in period 2, before selecting Y or Z you will be shown a **Blue Index** that compares how often you and the other persons in your group have been **blue** in previous periods of that cycle. Only people in the **red** role see the Blue Index.

The index is made such that the average across your group always equals 100; this means that someone has been **blue** half of the previous periods of the cycle. **Your** Blue Index reports how often you have been **blue** relative to the average. For example, if your Blue Index is 125, then you have been **blue** 25% more often than the average person in your group. If your Blue Index is 50, then you have been **blue** 50% as often as the average person in your group. The Blue Index of **your match** reports the relative frequency that the person you are matched with has been **blue** in the past; the Blue Index is also reported for the **other** two persons in your group.

3. Outcome of choices

The results for the period will be displayed after everyone who is **red** makes a choice (see figure below). You will see the **outcome** and the points you **earned**. You can write the results on your record sheet. Results from past periods of that cycle will be visible at the bottom of the screen. Everyone will also be informed whether or not each of the pairs in the group had the same outcome.

Your ID : 16
 Cycle : 2
 Period : 16

This period you were RED

OUTCOME IN YOUR PAIR

OUTCOMES	EARNINGS
Y	You get 6 points BLUE gets 4 points
Z	You get 0 points, BLUE gets 25 points

RESULTS OF PERIOD 16

This period you were RED

The outcome was: Y
Your earnings are: 6 points

CONTINUATION OR END OF THE CYCLE

The random draw is: 27
The cycle will continue

Period	Your color	Match ID	Outcome	Your earnings	Same outcome in both pairs?
11	BLUE	unknown	Z	25	No
12	BLUE	unknown	Z	25	Yes
13	RED	unknown	Y	6	No
14	RED	unknown	Z	0	No
15	RED	unknown	Y	6	No
16	RED	unknown	Y	6	Yes

4. Ending of a cycle

Each cycle has many periods but their number is **unknown** because it is **random**. Hence:

- We never know for sure which period will be the last in a cycle.
- Some cycles may end up being longer and others shorter.

Each cycle will have at least 15 periods. From period 15 on, at the end of each period a computer selects with equal probability a number between 1 and 100. If the number selected is less than or equal to 75, then the cycle will continue. Otherwise, the cycle will end. This number is the same for every participant.

So, starting in period 15, the cycle always has a $75/100=75\%$ chance to continue. The results screen will inform you whether the cycle continues or not: you will see the randomly selected number.

Note: The number of past periods does not influence the chance that a cycle will end. In every period, **every number** between 1 and 100 has an equal chance of being selected. Hence, the chance that a cycle will end, say, after period 20, is 25%, which is identical to the chance that the cycle will end after period 15. As soon as a cycle ends, different groups are formed and a new cycle starts.

Payments

When the experiment ends, **one** of the five cycles completed will be randomly selected. The points you have earned **in that cycle** will be converted into dollars: **1 point is worth 18 cents** (\$0.18).

To choose the cycle for which you will be paid, we publicly roll a ten-faced “virtual” die at <http://www.bgfl.org/virtualdice>.

The numbers on the die’s faces identify the cycles as follows: 1&2=cycle 1, 3&4=cycle 2, 5&6=cycle 3, 7&8=cycle 4, 9&10=cycle 5. Each cycle is equally likely to be selected.

Final reminders

- The experiment is divided into five separate cycles; each cycle has many periods.
- In each period you interact with a match from your group. Your match **changes** from period to period and you are equally likely to meet anyone in your group.
- Your match always has a different color than yours.
- If you are **red**, then you must choose between outcome Y and Z. If you are **blue**, then you have no choice to make.
- The points you earn depend on the **outcome** in your pair, Y or Z.
- Each cycle has an **uncertain** number of periods. Starting in period 15, there is **always** a 75% chance of an additional period, and a 25% chance of ending.
- You **cannot** interact with anyone for more than one cycle.

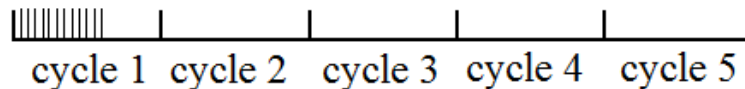
Before we start the experiment, we will answer any queries you may have. Then, you will be asked to answer ten questions designed to verify your understanding of the instructions. You will receive \$0.25 for each question you answer correctly. If you have a question during the experiment please raise your hand and someone will come to answer it.

Instructions—History Treatment

This is an experiment in decision-making. You will earn money based on the decisions you and others make in the experiment, and you will be paid in cash at the end of the experiment. Different participants may earn different amounts.

Overview of the experiment

The experiment is divided into **five cycles**. Each cycle is a separate section with **many periods**:



There are 16 participants. At the start of each **cycle**, a computer program will form groups of four persons each. In each period of the cycle you will interact with a random person **in your group**.



Groups change in each cycle so that **you cannot interact with anyone for more than one cycle**.

How do you earn money in a period?

You will earn points that depend on your choices and the choices of others **in your group**. Points will be converted into dollars at the end of the experiment in a manner that we explain later.

In each period you interact with another participant called your **“match.”** Your match is a **randomly selected person** from your group. In each period you are equally likely to meet anyone from your group and you will never know who you meet.

In each pair, one person will be **red** and the other **blue**. The **red** person must choose either outcome **Y** or **Z**. This choice determines the point **earnings** in the pair

- if **Y** is the outcome: **red** earns **6** points and **blue** earns **4** points.
- if **Z** is the outcome: **red** earns **0** points and **blue** earns **25** points.

What happens in each period?

Each **period** has the following timeline:

9. You see your color and you are paired with another participant from your group.
10. You may be called to make a choice.
11. You observe the outcome.
12. The cycle may continue or may end.

We now discuss these points in detail.

1. Your color and your match

In each period you are **equally likely** to have one of **two possible roles**. Each role corresponds to a color, either **blue** or **red**. Your match always has a color different than yours. Hence, in each period two persons in your group are **red** and two are **blue**. Since roles are randomly assigned in every period, some of you may be **red** more often than **blue**, and others may be **blue** more often than **red**.

2. Your choices

- If you are **blue**, then you have no choice to make.
- If you are **red**, then you must select one of the following two options (see figure below):
 - Y
 - Z

The screenshot displays the game interface for a player with ID 3, in cycle 2, period 11. The player is currently in the **RED** role. The interface is divided into several sections:

- BLUE Index and Earnings Index:** A table showing the performance of the player and others in the group over the past periods of the cycle.
- Current Status:** A message stating "This period you are RED" and "Your BLUE match is random".
- Earnings Table:** A table showing the points earned by the player and their match based on the chosen outcome (Y or Z).
- YOUR CHOICES:** Radio buttons for selecting between options Y and Z, with a "Submit" button.
- PAST OUTCOMES IN YOUR GROUP:** A table showing the history of outcomes and earnings for the player and their group over the last six periods.

People	BLUE Index	Earnings Index
You	80	66
Your match	100	128
Other	120	143
Other	100	63
Average	100	100

OUTCOMES	EARNINGS
Y	You get 6 points BLUE gets 4 points
Z	You get 0 points BLUE gets 25 points

Period	Your color	Match ID	Outcome	Your earnings	Same outcome in both pairs?
5	BLUE	unknown	Y	4	No
6	RED	unknown	Y	6	Yes
7	RED	unknown	Z	0	No
8	RED	unknown	Z	0	Yes
9	RED	unknown	Z	0	No
10	BLUE	unknown	Z	25	No

To make your choice, select the relevant option and click the "Submit" button. You can review results of **past periods of the cycle** by scrolling down the table at the bottom of the screen. Each line reports your color, the **outcome** Y or Z in your pair and your **earnings** in a past period. The last column reports whether the outcome was the same in all pairs of your group.

Starting in period 2, before selecting Y or Z you will be shown a **BLUE frequency Index** that compares how often you and the other persons in your group have been **blue** in previous periods of that cycle. You will also be shown an **Earnings Index** that compares how much you and the other persons in your group have earned so far in the previous periods of the cycle. Only people in the **red** role see the BLUE and Earnings Index.

The BLUE Index is made such that the average across your group always equals 100. **Your** BLUE Index reports how often you have been **blue** relative to the average. For example, if your Blue Index is 125, then you have been **blue** 25% more often than the average person in your group. If your Blue Index is 50, then you have been **blue** 50% as often as the average person in your group. The Blue Index of **your match** reports the relative frequency that the person you are matched with has been **blue** in the past; the Blue Index is also reported for the **other** two persons in your group.

The Earnings Index is made such that the average across your group always equals 100. **Your** Earnings Index reports how much you have earned relative to the average. For example, if your Earnings Index is 125, then you have earned 25% more than the average person in your group. If your Earnings Index is 50, then you have earned 50% as much as the average person in your group. The Earnings Index of **your match** reports the relative earnings of the person you are matched with; the Earnings Index is also reported for the **other** two persons in your group.

3. Outcome of choices

The results for the period will be displayed after everyone who is **red** makes a choice (see figure below). You will see the **outcome** and the points you **earned**. You can write the results on your record sheet. Results from past periods of that cycle will be visible at the bottom of the screen. Everyone will also be informed whether or not each of the pairs in the group had the same outcome.

Your ID : 16
 Cycle : 2
 Period : 16

This period you were RED

OUTCOMES	EARNINGS
Y	You get 6 points BLUE gets 4 points
Z	You get 0 points, BLUE gets 25 points

OUTCOME IN YOUR PAIR

RESULTS OF PERIOD 16
 This period you were RED

The outcome was: Y
 Your earnings are: 6 points

CONTINUATION OR END OF THE CYCLE

The random draw is: 27
 The cycle will continue

Period	Your color	Match ID	Outcome	Your earnings	Same outcome in both pairs?
11	BLUE	unknown	Z	25	No
12	BLUE	unknown	Z	25	Yes
13	RED	unknown	Y	6	No
14	RED	unknown	Z	0	No
15	RED	unknown	Y	6	No
16	RED	unknown	Y	6	Yes

4. Ending of a cycle

Each cycle has many periods but their number is **unknown** because it is **random**. Hence:

- We never know for sure which period will be the last in a cycle.
- Some cycles may end up being longer and others shorter.

Each cycle will have at least 15 periods. From period 15 on, at the end of each period a computer selects with equal probability a number between 1 and 100. If the number selected is less than or equal to 75, then the cycle will continue. Otherwise, the cycle will end. This number is the same for every participant.

So, starting in period 15, the cycle always has a $75/100 = 75\%$ chance to continue. The results screen will inform you whether the cycle continues or not: you will see the randomly selected number.

Note: The number of past periods does not influence the chance that a cycle will end. In every period, **every number** between 1 and 100 has an equal chance of being selected. Hence, the chance that a cycle will end, say, after period 20, is 25%, which is identical to the chance that the cycle will end after period 15. As soon as a cycle ends, different groups are formed and a new cycle starts.

Payments

When the experiment ends, **one** of the five cycles completed will be randomly selected. The points you have earned **in that cycle** will be converted into dollars: **1 point is worth 18 cents** (\$0.18).

To choose the cycle for which you will be paid, we publicly roll a ten-faced “virtual” die at <http://www.bgfl.org/virtualdice>.

The numbers on the die’s faces identify the cycles as follows: 1&2=cycle 1, 3&4=cycle 2, 5&6=cycle 3, 7&8=cycle 4, 9&10=cycle 5. Each cycle is equally likely to be selected.

Final reminders

- The experiment is divided into five separate cycles; each cycle has many periods.
- In each period you interact with a match from your group. Your match **changes** from period to period and you are equally likely to meet anyone in your group.
- Your match always has a different color than yours.
- If you are **red**, then you must choose between outcome Y and Z. If you are **blue**, then you have no choice to make.
- The points you earn depend on the **outcome** in your pair, Y or Z.
- Each cycle has an **uncertain** number of periods. Starting in period 15, there is **always** a 75% chance of an additional period, and a 25% chance of ending.
- You **cannot** interact with anyone for more than one cycle.

Before we start the experiment, we will answer any queries you may have. Then, you will be asked to answer ten questions designed to verify your understanding of the instructions. You will receive \$0.25 for each question you answer correctly. If you have a question during the experiment please raise your hand and someone will come to answer it.

