

Moral Rules and Social Preferences in Cooperation problems

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Online Appendix B: Instructions of the Experiment

Thank you for participating in our experiment.

In this experiment we will ask you to answer several questions. You will be paid a flat fee of £2.50 for completing this experiment. Additionally, provided you complete all elements of the experiment, you can win a bonus of up to £16.67 depending on your decisions and the decisions of other participants. We'll let you know which tasks may determine your bonus (and how) once you reach them.

Click >> to continue.

BEFORE YOU START!

1. Try to ensure that you will not be interrupted during the survey - close other applications and put other devices aside, so that you will not be distracted while completing the experiment. You will need to complete several tasks and it is important that you take them seriously.

2. Some general points on what to expect during the experiment:

- We will confront you with several decision situations and, in each of them, you will be paired at random with another participant.
- In each decision situation you can win points according to your and the other person's decisions.
- One of the decision situations will be picked at random.
- The one that is picked will be the one determining your payoff and the payoff of the person paired with you.
- The points you earned in the decision situation that is picked will be converted into pounds at the following rate: **Earnings in pounds = earnings in points / 6**
- In addition to completing those decision tasks, you must also answer some questions designed to gather some information about you and your views.
- We will wait until all participants have finished the experiments to make the pairs. Then, your payoff will be calculated and transferred to you.

Thank you.

Please, enter below your University of Nottingham email address and the email address to which your PayPal account is linked. We will use this information solely for the purposes of transferring your earnings from this experiment to your PayPal account. Double check that you enter them correctly, as otherwise we will not be able to process your payment!

Your PayPal account email address:

Your University of Nottingham email address:

[Each subject exposed to both the social dilemma game and the common interest game. *Different wording used for common interest game is introduced between brackets to avoid unnecessary repetition*]

Description of the Social Dilemma [Common Interest Game]

Please read the description below of the '*Group Project Dilemma*' decision problem

In this decision problem, Person A will interact with Person B.

Person A and Person B share a **group project**. Initially, there are 0 tokens in the project, but each person can contribute some tokens to it. Each person has control of 30 tokens and has four options: either contribute 0, 10, 20 or 30 tokens to the **group project**. Tokens someone does not contribute to the project are left in their **private account**.

Each person will receive an income from their private account and from the group project.

Income from their private account

Each person will receive 1 point for each token they leave in their private account. No one else receives anything from tokens that they leave in their own private account.

If, for example, Person A leaves 10 tokens in their private account, then Person A will receive 10 points from their private account and Person B will receive no points from Person A's private account.

Income from the group project

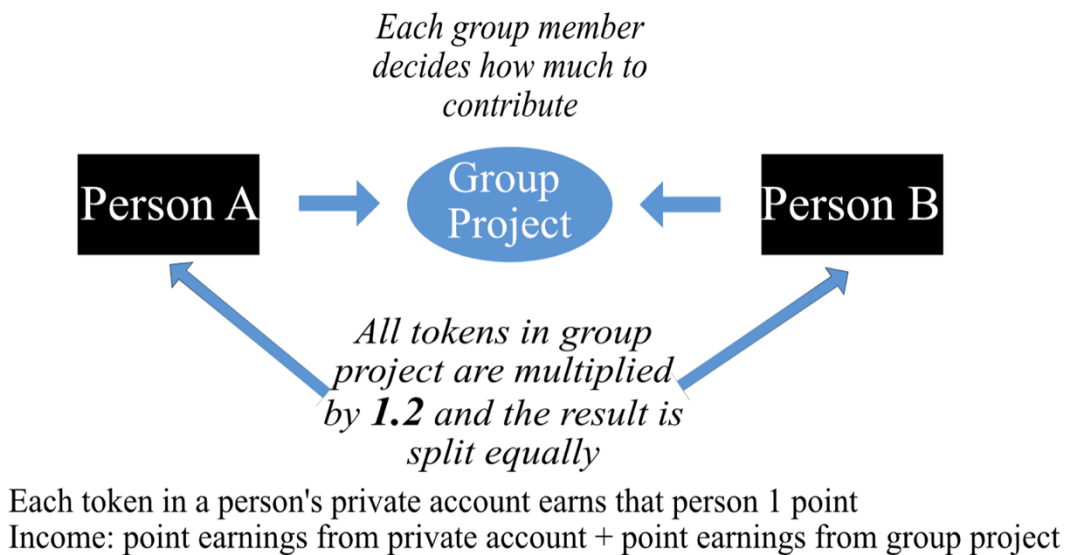
Each person benefits equally from tokens in the group project, regardless of who put them there. All tokens put in the project will be multiplied by 1.2 [2.4], and the result will be split equally among the two persons interacting.

If, for example, Person A contributes 10 tokens and Person B contributes 10 tokens to the project, then each of them will receive $(10 + 10) \times 1.2 [2.4] / 2 = 20 \times 0.6 = 12 [24]$ points from the project.

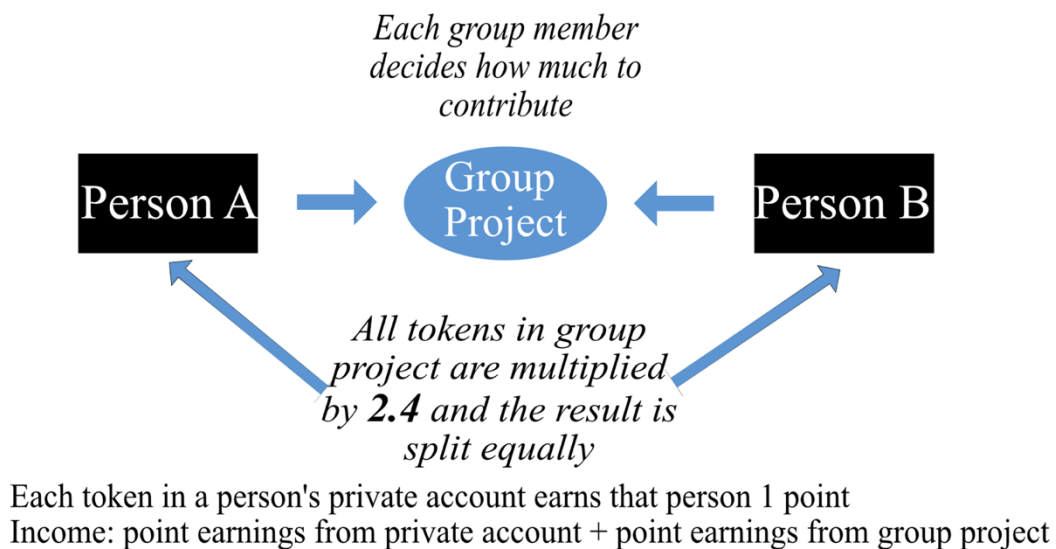
Total income

Each person receives the income from their own private account plus their share of income from the group project.

The figure below shows a summary of the interaction:



(figure for the social dilemma game)



(figure for the common interest game)

Please answer the following questions to check your understanding of the group decision problem.

Question 1.

Assume that Person A contributes 0 tokens to the group project and Person B contributes 0 tokens to the group project.

A) What will Person A's total point earnings be (total point earnings = point earnings from Person A's private account + point earnings from the group project)?

B) What will Person B's total point earnings be (total point earnings = point earnings from Person B's private account + point earnings from the group project)?

Question 2.

Assume that Person A contributes 30 tokens to the group project and Person B contributes 30 tokens to the group project.

A) What will Person A's total point earnings be (total point earnings = point earnings from Person A's private account + point earnings from the group project)?

B) What will Person B's total point earnings be (total point earnings = point earnings from Person B's private account + point earnings from the group project)?

Question 3.

Assume that Person A contributes 0 tokens to the group project and Person B contributes 30 tokens to the group project.

A) What will Person A's total point earnings be (total point earnings = point earnings from Person A's private account + point earnings from the group project)?

B) What will Person B's total point earnings be (total point earnings = point earnings from Person B's private account + point earnings from the group project)?

Question 4.

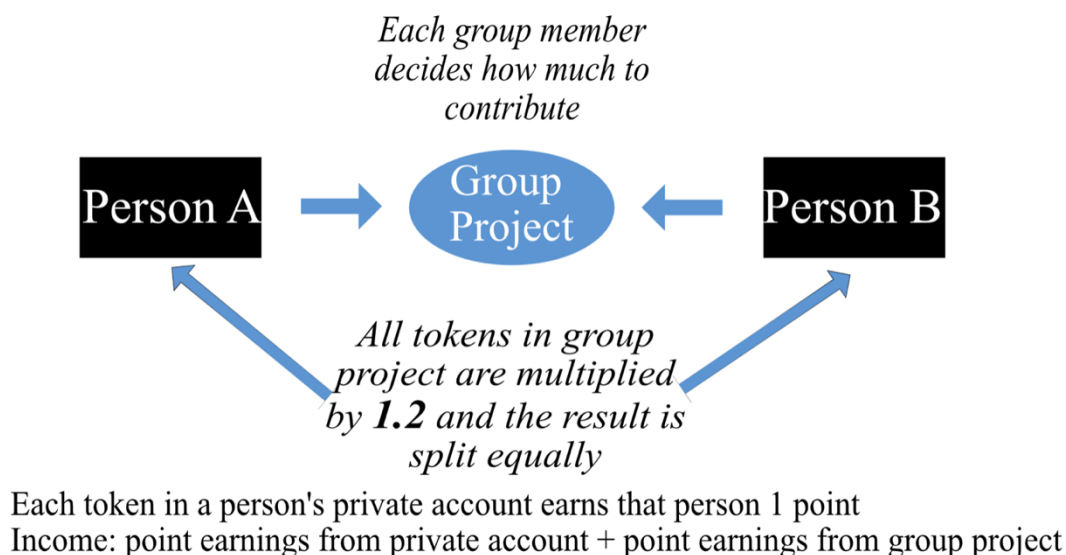
Assume that Person A contributes 20 tokens to the group project and Person B contributes 10 tokens to the group project.

A) What will Person A's total point earnings be (total point earnings = point earnings from Person A's private account + point earnings from the group project)?

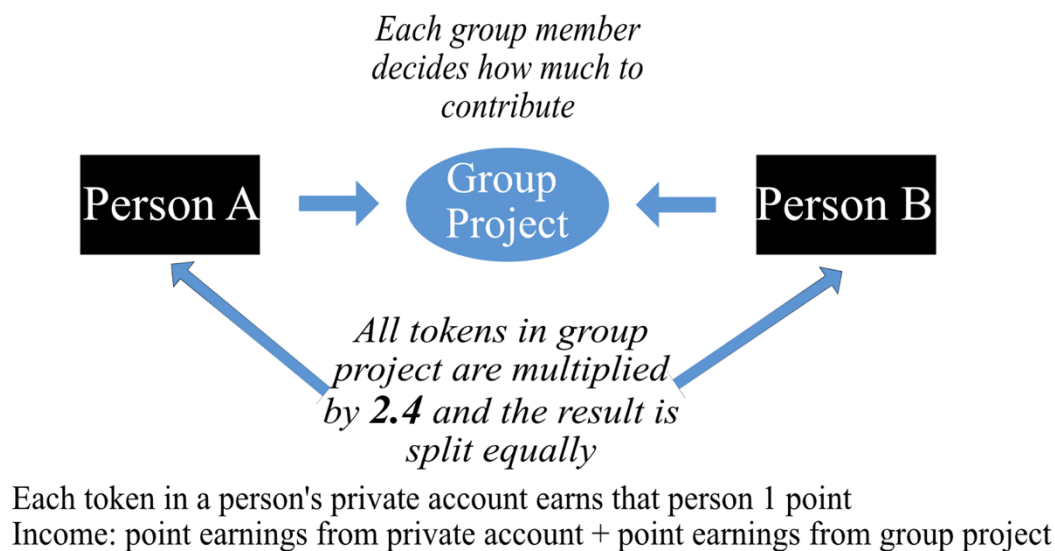
B) What will Person B's total point earnings be (total point earnings = point earnings from Person B's account + point earnings from the group project)?

Instructions for the P-experiment

Your tasks here are based on the 'Group Project Dilemma' decision problem, which is summarised in the following figure:



(figure for the social dilemma game)



(figure for the common interest game)

In this decision situation, you interact with another person completing the experiment. You and the other person have two tasks, called the “**unconditional contribution**” and the “**contribution table**”.

In the **unconditional contribution** task you simply decide the amount of tokens (either 0, 10, 20 or 30) you want to contribute to the group project.

In the **contribution table** task you indicate the amount of tokens **you want to contribute to the group project for each possible contribution of the other person**. Here, you can condition your contribution on that of the other person.

This is a one-off situation that is finished once you have made both decisions.

How your bonus from this decision situation, and the bonus of the other person you are paired with, will be determined (if this decision is chosen for payment)

The **unconditional contribution** task will be relevant for one of you and the **contribution table** task will be relevant for the other of you. Once you have finished the experiment, we will randomly decide which of you has the **unconditional contribution** task as relevant. If this decision situation is randomly chosen for payment, your choices in the relevant tasks will determine your payoffs as follows:

Example:

- The **unconditional contribution** task has been chosen to be relevant to Person A.
- Hence, Person B's **contribution table** will be relevant to Person B.
- Person A contributes 20 in the **unconditional contribution** task.
- In the **contribution table** task, Person B contributes 30 if Person A contributes 20.
- Hence, the total sum of contributions to the group project are $20 + 30 = 50$ tokens.
- As a result, Person A earns $10 + 50 \times 1.2 / 2 = 40$ [72] points and Person B earns $0 + 50 \times 1.2 / 2 = 30$ [60] points.

Press continue when you are ready.

The unconditional contribution

How many tokens out of 30 do you contribute to the group project, i.e. 0, 10, 20 or 30?

The contribution table

Now we ask you to think about your contribution depending on how much the other person contributes. Please indicate for each possible contribution of the other person how much you contribute, i.e. 0, 10, 20 or 30.

	I contribute
If other contributes 0	
If other contributes 10	
If other contributes 20	
If other contributes 30	

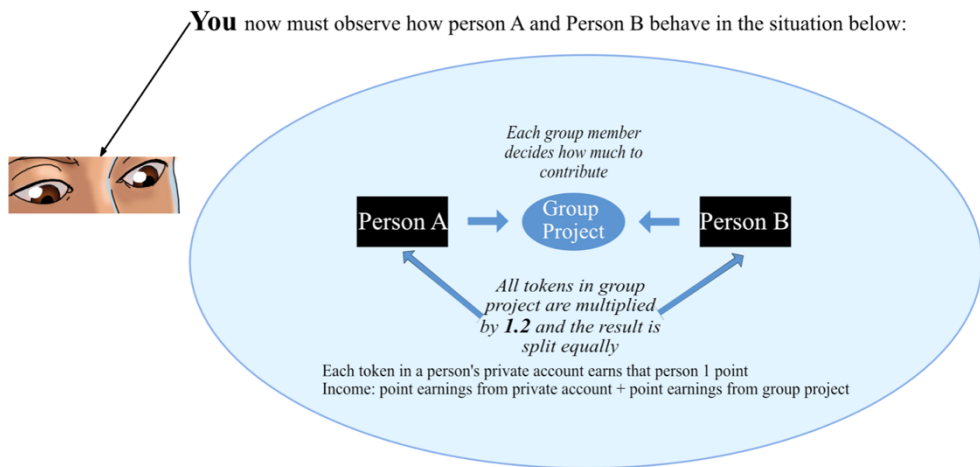
Instructions for the M-experiment

The goal of the following tasks is to investigate **your own** moral views of the '**Group Project Dilemma**' decision problem. These tasks will be presented in the next screens.

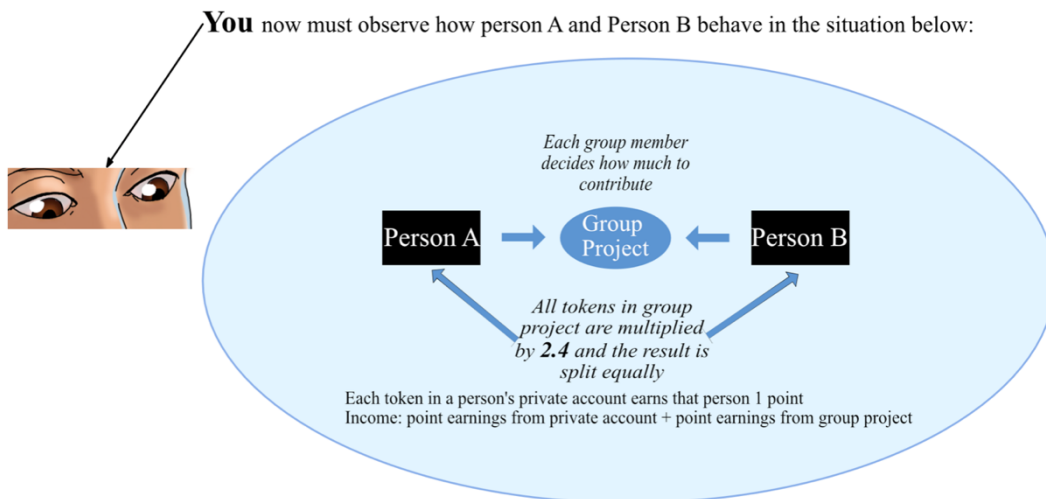
There are no correct or incorrect answers - just respond with what **you really think**

Press continue when you are ready.

You are now an outside OBSERVER of the 'Group Project Dilemma' decision problem described earlier and summarized in the following picture.



(figure for the social dilemma game)



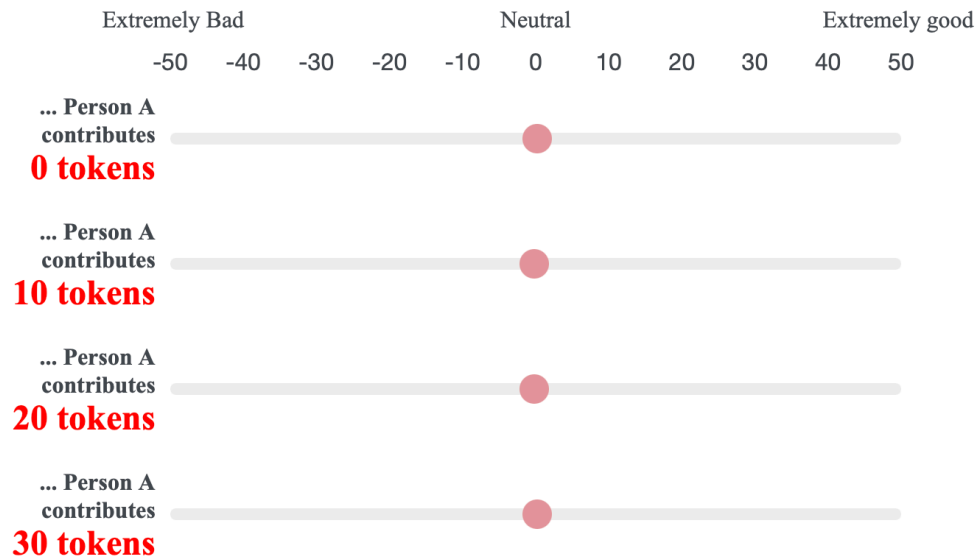
(figure for the common interest game)

Your task as an observer is to give your moral rating of Person A in scenarios that we'll present you in the following screens.

Rate the morality of Person A on a scale from -50 (extremely bad) to +50 (extremely good) with the sliders provided. In each case you must click on the slider to activate it and then move it to the rating you decide on.

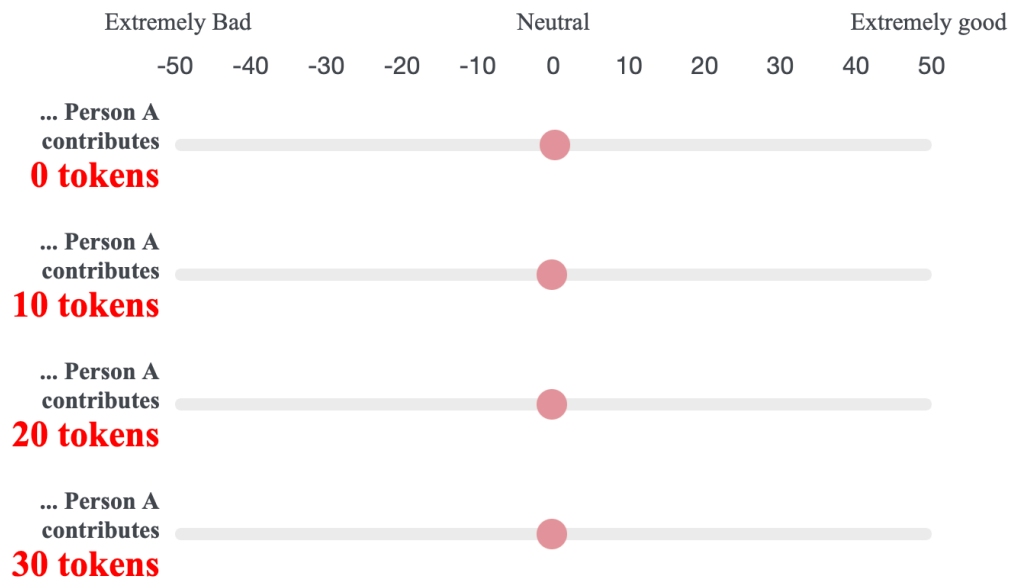
Person B contributes **0 tokens** to the group project.

Please rate Person A's morality if ...



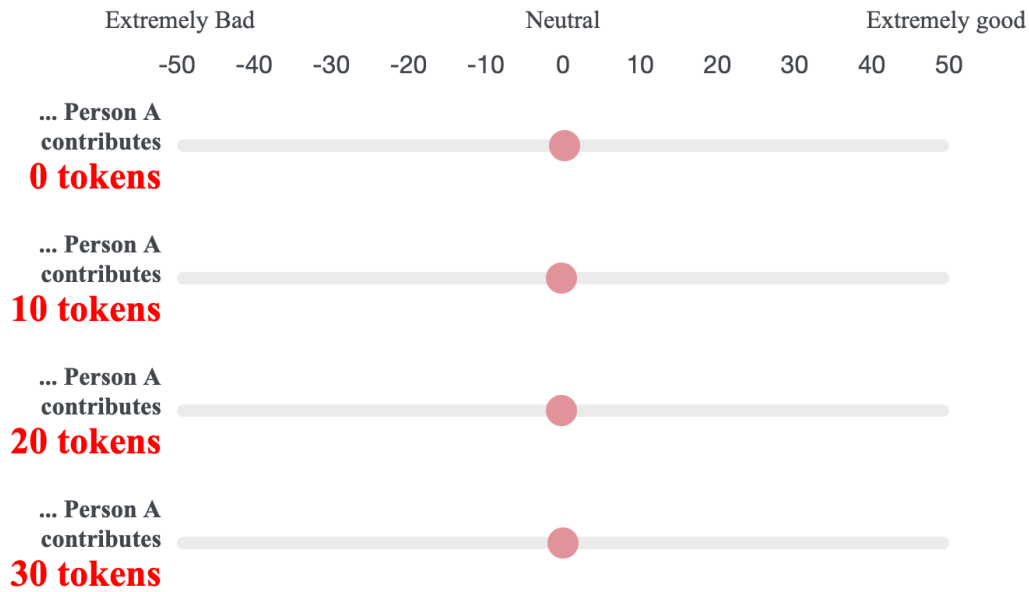
Person B contributes **10 tokens** to the group project.

Please rate Person A's morality if ...



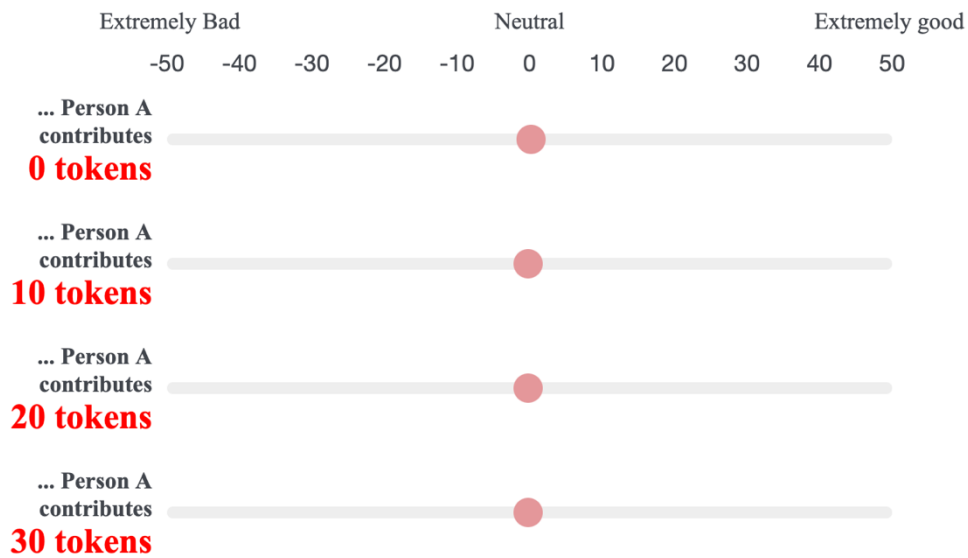
Person B contributes **20 tokens** to the group project.

Please rate Person A's morality if ...



Person B contributes **30 tokens** to the group project.

Please rate Person A's morality if ...



Instructions for the parameter-elicitation games

Instructions for the Ultimatum Game

Please read the description below of the '*proposal*' decision problem

In this decision problem, a *proposer* will interact with a *responder*. The decision problem is as follows:

- The proposer's decision is to propose a distribution of a fixed number of points between themselves and the responder.
- The responder can accept or reject the proposer's distribution.
- If the responder accepts, the proposer's distribution will determine the points each gets.
- If the responder rejects, both receive 0 points.

Press continue when you are ready.

Ultimatum Game: decision-making clarification

You are now taking part in a decision situation based on the '*proposal*' decision problem

- You will have two different tasks
- In the '*proposer task*', you will decide the distribution you want to propose to the responder
- In the '*responder task*', you will decide whether to accept or reject each proposal that the proposer could have made.
- One task will be relevant for one of you and the other task will be relevant for the other of you. Once you have finished the experiment, we will choose who of you has the '*proposer task*' as relevant. If this decision situation is randomly chosen for payment, your choices in the relevant tasks will determine your payoff and that of the participant you are paired with.

Press continue when you are ready.

Proposer task

Which of the following distributions do you want to propose to the responder?

- 14 points for me, 0 points for the responder
- 13 points for me, 1 point for the responder
- 12 points for me, 2 points for the responder
- 11 points for me, 3 points for the responder
- 10 points for me, 4 points for the responder
- 9 points for me, 5 points for the responder
- 8 points for me, 6 points for the responder
- 7 points for me, 7 points for the responder

Responder task

Will you accept or reject each of the following proposals if they were made by the proposer?

Choose Accept if you want to accept a given proposal and Reject otherwise

	Accept	Reject
14 points for the proposer, 0 points for me		
13 points for the proposer, 1 point for me		
12 points for the proposer, 2 points for me		
11 points for the proposer, 3 points for me		
10 points for the proposer, 4 points for me		
9 points for the proposer, 5 points for me		
8 points for the proposer, 6 points for me		
7 points for the proposer, 7 points for me		

Instructions for the Reciprocity Games

Please read the description below of the '*delegation*' decision problem

In this decision problem, the *first mover* will interact with the *second mover*. The decision problem is as follows:

- The first mover has to choose between selecting a ***Default Distribution*** or delegating to the second mover the decision of selecting between ***Distribution A*** and ***Distribution B***.
- The ***Default Distribution***, ***Distribution A*** and ***Distribution B*** are alternative distributions of points between the first mover and the second mover.
- If the first mover selects the ***Default Distribution***, then that distribution will determine the points of each of them. If the first mover delegates to the second mover the decision of selecting between ***Distribution A*** and ***Distribution B***, then the distribution that the second mover selects will determine the points of each of them

Press continue when you are ready.

Reciprocity Games: decision-making clarification

You are now taking part in several decision situations based on the 'Delegation' decision problem.

- You will have two different tasks.
- In the '*first mover tasks*', you will choose, for each decision situation, between selecting the **Default Distribution** or delegating to the second mover the decision of selecting between **Distribution A** and **Distribution B**.
- In the '*second mover tasks*', you will act, in each decision situation, as if the first mover had delegated the decision of selecting between Distribution A and Distribution B to you. That is, you will select one of either distributions.

How you bonus from this decision situations, and the bonus of the person you are paired with, will be determined

- Once you have finished the experiment, we will choose who of you has the '*first mover tasks*' as relevant. And, also, which of all the decision situations will be relevant for both of you.
- For the relevant decision situation, if the person having the first mover tasks as relevant chooses the **Default Distribution**, then the **Default Distribution** will determine your payoffs.
- For the relevant decision situation, if the person having the first mover tasks as relevant chooses delegating, then the choice of the other person in the second mover tasks will be relevant for payment. And, your payoffs will be determined by the Distribution that this other person chooses (either **Distribution A** or **Distribution B**)

Press continue when you are ready

First mover tasks

The *Default Distribution* and *Distribution A* are the same in all decision situations, but *Distribution B* varies across decision situations.

The *Default Distribution* and *Distribution A* for all the decision situations are shown at the top of the table. Each row of the table represents a decision situation, and *Distribution B* for a given decision situation is provided at the left of each row.

RG_First_Choice Do you want to select the *Default Distribution* or delegate to the second mover the decision of selecting between *Distribution A* and *Distribution B*?

The *Default Distribution* and *Distribution A* are:

***Default Distribution*: 5 points for me, 95 points for the second mover**

***Distribution A*: 0 points for me, 0 points for the second mover**

	Select <i>Default Distribution</i>	Delegate to the second mover
<i>Distribution B</i>: 100 points for me, 0 points for the second mover		
<i>Distribution B</i>: 85 points for me, 15 points for the second mover		
<i>Distribution B</i>: 81 points for me, 19 points for the second mover		
<i>Distribution B</i>: 80 points for me, 20 points for the second mover		
<i>Distribution B</i>: 75 points for me, 25 points for the second mover		
<i>Distribution B</i>: 70 points for me, 30 points for the second mover		
<i>Distribution B</i>: 60 points for me, 40 points for the second mover		
<i>Distribution B</i>: 43 points for me, 57 points for the second mover		
<i>Distribution B</i>: 29 points for me, 71 points for the second mover		
<i>Distribution B</i>: 22 points for me, 78 points for the second mover		
<i>Distribution B</i>: 8 points for me, 92 points for the second mover		

Second mover tasks

The *Default Distribution* and *Distribution A* are the same in all decision situations, but *Distribution B* varies across decision situations.

The *Default Distribution* and *Distribution A* for all the decision situations are shown at the top of the table. Each row of the table represents a decision situation, and *Distribution B* for a given decision situation is provided at the left of each row.

If the first mover were to delegate the decision of selecting between *Distribution A* and *Distribution B*, which of them would you choose in each decision situation?

The *Default Distribution* and *Distribution A* are:

Default Distribution: 5 points for the first mover, 95 points for me

Distribution A: 0 points for the first mover, 0 points for me

	Select <i>Distribution A</i>	Select <i>Distribution B</i>
<i>Distribution B:</i> 100 points for the first mover, 0 points for me		
<i>Distribution B:</i> 85 points for the first mover, 15 points for me		
<i>Distribution B:</i> 81 points for the first mover, 19 points for me		
<i>Distribution B:</i> 80 points for the first mover, 20 points for me		
<i>Distribution B:</i> 75 points for the first mover, 25 points for me		
<i>Distribution B:</i> 70 points for the first mover, 30 points for me		
<i>Distribution B:</i> 60 points for the first mover, 40 points for me		
<i>Distribution B:</i> 43 points for the first mover, 57 points for me		
<i>Distribution B:</i> 29 points for the first mover, 71 points for me		
<i>Distribution B:</i> 22 points for the first mover, 78 points for me		
<i>Distribution B:</i> 8 points for the first mover, 92 points for me		

Instructions for the Modified Dictator Games

Please read the description below of the '*no-rejection*' decision problem

In this decision problem, the *first mover* will interact with the *passive person*. The decision problem is as follows:

- The first mover has to choose between two different distributions of points between themselves and the passive person.
- The passive person has no choice but to accept what the first mover chooses.
- Points each of them gets are determined by the first mover's chosen distribution Press continue when you are ready.

Modified Dictator Games: decision-making clarification

You are now taking part in several decision situations based on the '*no-rejection*' decision problem.

- You will choose between the two distributions of points available.
- If this decision problem is chosen for payment, only one of the decision situations will be chosen at random for payment.
- Once you have finished the experiment, we will choose who of you has the tasks as relevant and who acts as the passive person. If this decision problem is randomly chosen for payment, your choice (if you are chosen to act as the first mover) in the chosen decision situation will determine your payoffs.

Press continue when you are ready

Dictator tasks

You can choose *Distribution 1* or *Distribution 2*, where *Distribution 2* is the same in all decision situations. *Distribution 1* is different in all decision situations.

Do you want to choose Distribution 1 or Distribution 2?

Distribution 2: 20 points for me, 0 points for the passive person

	Choose <i>Distribution 1</i>	Choose <i>Distribution 2</i>
<i>Distribution 1</i> : 0 points for me, 0 points for the passive person		
<i>Distribution 1</i> : 2 points for me, 2 points for the passive person		
<i>Distribution 1</i> : 4 points for me, 4 points for the passive person		
<i>Distribution 1</i> : 6 points for me, 6 points for the passive person		
<i>Distribution 1</i> : 8 points for me, 8 points for the passive person		
<i>Distribution 1</i> : 10 points for me, 10 points for the passive person		
<i>Distribution 1</i> : 12 points for me, 12 points for the passive person		
<i>Distribution 1</i> : 14 points for me, 14 points for the passive person		
<i>Distribution 1</i> : 16 points for me, 16 points for the passive person		
<i>Distribution 1</i> : 18 points for me, 18 points for the passive person		
<i>Distribution 1</i> : 20 points for me, 20 points for the passive person		
<i>Distribution 1</i> : 22 points for me, 22 points for the passive person		
<i>Distribution 1</i> : 24 points for me, 24 points for the passive person		
<i>Distribution 1</i> : 26 points for me, 26 points for the passive person		
<i>Distribution 1</i> : 28 points for me, 28 points for the passive person		
<i>Distribution 1</i> : 30 points for me, 30 points for the passive person		
<i>Distribution 1</i> : 32 points for me, 32 points for the passive person		

Sociodemographics Questionnaire

[Each sentence was displayed with Font Times New Roman, size 18, bold and left-aligned. Unless otherwise stated, The options for the respondent in each question of the sociodemographic questionnaire appeared on a dropdown list below each of the statements. We provide the options for each questions below the question itself]

Q1. Your Gender:

[Options to the respondent: Male, Female, Prefer not to say]

Q2. Your Age:

[Options to the respondent: from 15 to 100 in steps of 1]

Q3. Would you describe yourself as a left wing or a right wing?

[Options to the respondent: Neutral, Left, Very Left, Right, Very Right,, Prefer not to say]

Q4. How religious are you?

[Options to the respondent: Not at all, Somewhat religious, Very religious, Prefer not to say]

Q5. How large was the community where you have lived the most time of your life?

[Options to the respondent: Up to 2,000 inhabitants, Between 2,000 and 10,000 inhabitants, Between 10,000 and 100,000 inhabitants, More than 100,000 inhabitants]

Q6. What is your field of study?

[The question was open-ended: students introduced their subject directly]

Q7. Here are a number of personality traits that may or may not apply to you. Please indicate on the scale below the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

Extraverted, enthusiastic
 Critical, quarrelsome
 Dependable, self-disciplined
 Anxious, easily upset
 Open to new experiences, complex
 Reserved, quiet
 Sympathetic, warm
 Disorganised, careless
 Calm, emotionally stable

Conventional, uncreative

[Options to the respondent: Disagree strongly, Disagree moderately, Disagree a little, Neither agree nor disagree, Agree a little, Agree moderately, Agree strongly]

[This question was presented in a matrix table, with the personality traits in the y-axis and the options to the respondent in the x axis]

Last question before leaving

Which, if any, of the following concepts were you taking into account when making your choices in the decision problems we have presented to you earlier? Select as many as apply to you

Notes: You may have some doubts as to which option(s) to choose, as many of the different concepts we present were relevant for the decision situation. Below we provide you with two points to help you better assess your answer to the question.

It may happen that two or more concepts were relevant for your understanding of the decision problem, but that only one of those was the reason underlying your choices. In this case, you should choose only the concept that was the reason for your choice. It may happen that many concepts were underlying your choices, either because (i) you were taking into account different concepts for making your choices in different decision problems, or (ii) because you cared about different concepts when making your choices. If either (i) or (ii) apply to you, please choose all the concepts underlying your choices.

- Avoid inequality
 - Be reciprocal
 - Avoid doing what I consider to be morally bad
 - Do what I consider the most morally good
 - Increasing my own payoff
 - Increasing the payoff of the other person paired with me
 - Increasing the payoff of the person getting the lowest payoff from the interaction
 - Increasing the total payoff that I and the person paired with me get
 - Maximise my own happiness, regardless of how broadly my happiness is defined to be (e.g. your happiness can depend solely on your own payoff, but it can also be influenced by any concept that you can think of, such as the level of inequality that derives from your choice, by how morally good the action you think about doing is, etc).
 - Other. Please, specify
-