

Appendix A. Instructions Main Experiment.

You are participating in an experiment. In this experiment, you can earn money. How much you earn depends on the decisions you make and on the decisions the other participants make in this experiment. In addition, you will receive a €7 show-up fee.

During the experiment you will gain points. Your earnings in points will be paid in Euros at the end of the experiment. This payment will be made confidentially to one participant at a time. The exchange rate used is 100 euro cents to 100 points.

It is important that you fully understand the instructions. For this reason, we ask you to read them carefully. In these instructions numerical examples are used. These serve only as an explanation; they have no special meaning with regard to the experiment itself.

Talking to other participants is not allowed during the experiment. If you have a question regarding any of the experimental tasks please raise your hand. A CREED employee will come by to assist you.

There will be many pages of instructions. You can move from one page to the next by clicking (with the mouse) on "next".

The experiment consists of two parts. We begin with the instructions for part 1.

Part 1 consists of three tasks.

During the experiment, we keep you informed about your progress, so that you know which task you are engaged in.

We now start with task 1. It involves answering a few questions.

In this task, there are no right or wrong answers.

Select the number that best describes how you feel right now. Do not reflect for too long, but give your immediate reaction.

This is the end of the instructions for task 1 of part 1.

When you've read these instructions, click on "done." When everyone is ready, we will start with task 1.

[Emotions 1 Measure]

Please read the following descriptions and indicate how much they are applicable to you right now, meaning *at this very moment*.

I feel anger

Not at all Very much

I feel shame

Not at all Very much

I feel guilt

Not at all Very much

I feel gratitude

Not at all Very much

I feel regret

Not at all Very much

[Risk Measure]

To conclude, we would like you to answer this question:

How willing are you to take risks, in general?

Not at all Very much

Everyone has now completed task 1 of part 1.

We continue with the second task of part 1.

During this task you are randomly paired with another person whom we will refer to as the “Other”. This “Other” person is someone you do not know and who you will not meet in the future.

During this task both you and the “Other” person will choose nine times between three options, which we refer to as A, B, and C.

Your own choices will generate points for both yourself and the “Other” person. Likewise, the “Other’s” choices will generate points for him/her and for you. Every point has a value: the more points you receive, the better for you, and the more points the “Other” receives, the better for him/her. The choices of the “Other” do not affect your earnings; they affect the earnings of one of the other participants to whom (s)he is matched. However, you can also earn points because you are the “Other” for someone else in the lab.

An example to illustrate:

- You are matched with “Robin”. Your choices determine the earnings of yourself and Robin.

- Robin is matched with "Sam". Robin's choices determine the earnings of Robin and Sam.
 - Finally, "Renee" is matched with you. Renee's choices determine the earnings of Renee and yourself.
- So, the points you earn are determined by Renee's and by your own choices.

Here is an example of how this task works:

	A	B	C
You get	500	500	550
The other gets	100	500	300

In this example, if you choose option A you would receive 500 points and the other would receive 100 points; if you chose B, you would receive 500 points and the other 500 points; and if you choose C, you would receive 550 points and the other 300 points.

You can thus see that your choices affect both the number of points you receive and the number of points the other receives.

In this same way you will choose nine times between A, B, and C options. One of these choices will be randomly selected to be paid out at the end of the experiment. This holds for each participant. You learn at the end of the experiment which of the choices is selected, and how much you have earned during this task.

Before you begin to make your choices, please keep in mind that there are no right or wrong answers.

Choose the option that you prefer the most.

This is the end of the instructions for task 2 of part 1.

When you have read these instructions, click on "done." When everyone is ready, we will start with task 2.

[Triple dominance measure 1 (SVO1)]

For each of the nine situations below, choose A, B, or C, depending on which column you prefer the most:

	A	B	C
(1) You get	480	540	480
The other gets 80	280	480	
	O	O	O

	A	B	C
(2) You get	560	500	500
The other gets	300	500	100
	O	O	O

	A	B	C
(3) You get	520	520	580
The other gets	520	120	320
	O	O	O

	A	B	C
(4) You get	500	560	490
The other gets	100	300	490
	O	O	O

	A	B	C
(5) You get	560	500	490
The other gets	300	500	90
	O	O	O

	A	B	C
(6) You get	500	500	570
The other gets	500	100	300
	O	O	O

	A	B	C
(7) You get	510	560	510
The other gets	510	300	110
	O	O	O

	A	B	C
(8) You get	550	500	500
The other gets	300	100	500
	O	O	O

	A	B	C
(9) You get	480	490	540
The other gets	100	490	300
	O	O	O

Everyone has completed task 2 of part 1.

We continue with the third and last task of part 1.

A few weeks ago, other people, who are registered at the creedexperiment.nl pool, participated in a study.

Firstly we will describe to you the situation that was presented to them, as well as the choice they were asked to make. Then, we will ask you to predict what these people chose.

Please read the instructions carefully and try to empathize with these participants.

What follows are the instructions that were presented to these participants. These instructions consist of several pages. You can start by clicking on "next page".

Imagine the following situation:

You are part of a team of five people. Each team member receives an income of 10 points. You have to decide how many of these 10 points you want to contribute to a team project and how many you want to keep for yourself. Each team member must make this same decision.

The contributions are added up and multiplied by two by the organizers of this experiment. Thereafter, the pot is divided equally among the five team members. For every euro contributed you get paid $2/5 = 0.4$ euro, regardless of who made the contribution.

Your contribution to the team project thus leads to an income increase for the other team members. On the other hand, you also earn income through the contribution of the other team members to the team project.

Your income (in points) is therefore:

$(10 \text{ points} - \text{your contribution to the team project}) + 0.4 * (\text{total contribution to the team project})$.

The income of each team member is calculated in the same way, so that each team member receives the same income from the team project.

Below three examples are given, where each team member has an income of 10 points per round:

1) You contribute 8 points to the team project. Every other team member also contributes 8 points. In total, 40 points are contributed.

Your income is $(10-8) + 0.4 * 40 = 18$ points. Also the income of each individual team member is 18 points.

2) You contribute 2 points to the team project. Every other team member also contributes 2 points. In total, 10 points are contributed.

Your income is $(10-2) + 0.4 * 10 = 12$ points. Also the income of each individual team member is 12 points.

3) You contribute 5 points to the team project. Two other team members contribute 2 points each whereas the last two contribute 8 points each. In total, 25 points are contributed.

Your income is $(10-5) + 0.4 * 25 = 15$ points. The income of each team member who contributed 2 points is 18 points. The income of the other two team members who contributed 8 points is 12 points each.

To sum up: each participant may contribute 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 points to the team project.

We asked the participants to indicate which contribution to the team project they found “socially appropriate” and “in accordance with moral and correct social behaviour”.

With “socially appropriate” behaviour we mean behaviour that most people consider as the correct, proper and ethical behaviour.

If a contribution decision of a participant (a number between 0 and 10) matched the modus of other decisions, this participant received a bonus.

Now we want to know from you what you think the modal response was of this group of participants. The modal response is the most frequently chosen response by the participants. In this case, it is the modal response given by participants a few weeks ago.

If your answer matches the modal response of this group of participants you will receive a bonus of 500 points.

[Norm measure]

Indicate which contribution to the team project (a number between 0 and 10) was most frequently mentioned as “socially appropriate”.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0	1	2	3	4	5	6	7	8	9	10

Before we continue with the instructions of part 2, we will give you feedback on the previous task.

The modal response (the answer that most participants gave) of the participants in the study a few weeks ago was 5.

This means that the contribution that is most frequently mentioned as “socially appropriate” is 5.

This brings us to part 2 of the experiment.

Part 2 consists of 4 tasks.

The first and the last tasks consist of 10 rounds each. The second and the third tasks consist of a short assignment.

During the first and the last tasks you will be grouped with four other participants. Together you form a team of five members.

The composition of this team will not change: you will remain with the same five members in the same team for all 20 rounds of these two tasks. You will remain anonymous during and after the tasks. Team members are assigned a number.

We now begin with the first task. Click on "next" to continue.

The first task consists of 10 rounds. In each one of these rounds, everyone in your team should decide about contributing to a team project. This occurs in exactly the same way as described in the instructions for the people who participated a few weeks ago.

To summarize, this is what will happen:

At the beginning of each round, each team member will receive 10 points. Every team member must

decide how many of these points to contribute to the team project and how many points to keep for themselves.

Your income in one round:

$(10 \text{ points} - \text{your contribution to the team project}) + 0.4 * (\text{total contribution to the team project})$.

Each team member receives the same income from the team project, irrespective of what (s)he has contributed.

At the end of each round you will be informed as to the total contribution of all team members to the team project.

Click on "next" to continue

In the left hand corner of the screen you will soon see the round number and your total earnings of previous rounds.

To indicate how many points you want to contribute to the team project, enter the number (typically a number between 0 and 10) in the input field at the top center of the screen and confirm it.

By deciding on how many points you want to contribute to the team project you automatically decide on how many points you keep for yourself. The number of points that you can contribute to the team project is 10.

Once you confirm your decision, you cannot change it.

After all team members have made their decision, the screen for the next round will appear.

At the center of the screen you will see your contribution and the overall team contribution of the previous round.

In addition, you will be able to see your earnings from the previous round (10 points - your contribution to the team project) + 0.4 * (total contribution to the team project).

Finally, a special rule will be applied today:

In each of the 10 rounds, each team member must contribute at least 2 (8) points. You will see that it is impossible to enter a lower number than 2 (8).

If you have read and understood the instructions, click on "done" so we can start with the team project.

[PGG1]

This brings us to the end of the first task of part 2.

We now start with the second task of part 2.

This task again consists of answering a few questions.

There are no right or wrong answers.

Always select the number that best describes how you feel right now. Do not reflect too long but give your immediate reaction.

[Emotions 2]

Please read the following descriptions and indicate how much they are applicable to you right now, meaning *at this very moment*.

I feel anger

Not at all Very much

I feel shame

Not at all Very much

I feel guilt

Not at all Very much

I feel gratitude

Not at all Very much

I feel regret

Not at all Very much

For the third task, you are re-paired with another person whom we call the “Other”. This is not the same person with whom you were paired in part 1. It is also unlikely that (s)he will be a member of your team of five. This “Other” person is someone you do not know and who you will not meet in the future.

As in part 1, both you and the “Other” person will choose nine times between three options: A, B, or C.

Your own choices will generate points for both yourself and the “Other” person. You also earn points because you are the “Other” for someone else in the lab.

To clarify, we repeat the example from part 1:

- You are matched with “Robin”. Your choices determine the earnings of yourself and Robin.
- Robin is matched with ”Sam”. Robin’s choices determine the earnings of Robin and Sam.

- Finally, “Renee” is matched with you. Renee’s choices determine the earnings of Renee and yourself.
 So, the points you earn are determined by Renee’s and by your own choices.

Before you begin to make your choices, please keep in mind that there are no right or wrong answers.

Choose the option that you prefer the most.

[Triple dominance measure 2 (SVO2)]

For each of the nine situations below, choose A, B, or C, depending on which column you prefer the most:

	A	B	C
(1) You get	480	540	480
The other gets 80	280	480	
	O	O	O

	A	B	C
(2) You get	560	500	500
The other gets	300	500	100
	O	O	O

	A	B	C
(3) You get	520	520	580
The other gets	520	120	320
	O	O	O

	A	B	C
(4) You get	500	560	490

The other gets	100	300	490
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O	O	O
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	A	B	C
(5) You get	560	500	490

The other gets	300	500	90
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O	O	O
---	---	---

	A	B	C
(6) You get	500	500	570

The other gets	500	100	300
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O	O	O
---	---	---

	A	B	C
(7) You get	510	560	510

The other gets	510	300	110
----------------	-----	-----	-----

O	O	O
---	---	---

	A	B	C
(8) You get	550	500	500

The other gets	300	100	500
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O	O	O
---	---	---

	A	B	C
(9) You get	480	490	540

The other gets	100	490	300
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O	O	O
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This brings us to the final task of part 2.

During this final task you will be grouped again with four other participants. Together you will thus form the same team of five members as in the first task of part 2.

This final task of part 2 consists again of a team project of 10 rounds, similar to the first task of part 2.

Please remember that the rule which applied in the first 10 rounds of the team project was that team members had to contribute a minimum of 2 (8) points in each round.

We will now allow you to propose to your team members to vote for a change of this rule into a new rule, which ensures that each team member has to contribute a minimum of 8 (2) points in each round.

Note that voting will take place only if at least one of the team members proposes to vote for a change of the rule. The one who proposes to vote bears a cost of 10 points. If several members make a proposal to vote, each one has a cost of 10 points.

If no one proposes to vote for a change of the rule, the same rule will apply as before. That means that each team member has to contribute a minimum of 2 (8) points in each round.

If at least one team member proposes to vote for a change of the rule, voting will take place:

- If no majority (i.e. two or fewer team members) supports the proposal, the same rule will apply as before, meaning that each team member contributes a minimum of 2 (8) points in each round.
- If a majority (i.e. three or more team members) supports the proposal, the rule will change and each team member must henceforth contribute at least 8 (2) points per round.

Participants in the Communication treatment read in this case the following instructions:

If at least one team member proposes to vote for a change of the rule, there is first the opportunity to have a discussion within the team via a chat box for 90 seconds. After this, voting will take place:

- If no majority (i.e. two or fewer team members) supports the proposal, the same rule will apply as before, meaning that each team member contributes a minimum of 2 (8) points in each round.

- If a majority (i.e. three or more team members) supports the proposal, the rule will change and each team member must henceforth contribute at least 8 (2) points per round.

Click on "ready" to start with the project team.

[Call to Vote Measure]

Do you want to propose to your team members to vote for a change of the rule?

Yes

No

[Anticipated regret Measure]

To which extent are the following statements applicable to your decision to vote or not for a change of the rule?

I did not propose to vote for a change of the rule because I did not want to feel bad if the result of the vote was not as I want it to be.

Not at all Very much

I proposed to vote for a change of the rule because I did not want to regret not trying if the result of the vote were to turn out in my favor

Not at all O O O O Very much

[Vote Measure]

One or more of the team members has proposed to vote for a change of the rule.

Therefore you will now vote in favor or against the suggested rule change.

Participants in the Communication treatment read in this case the following instructions:

Before you vote, you have the opportunity to have a discussion with each other for 90 seconds.

Below a chat box will appear in which you can communicate for 1.5 minutes.

During the communication you cannot share your identity. Also you are requested to converse in a nice and polite manner.

Please indicate which of these rules you vote for.

- O Every team member has to contribute 8 points each round
- O Every team member has to contribute 2 points each round.

Remember that the majority (three or more members) determines the outcome.

We now begin with the last 10 rounds of the team project.

During these 10 rounds the following rule applies:

Each team member must contribute at least 2 (8) points per round. *(This depends on the result of the Vote)*

[PGG2] *(same as PGG1)*

Finally, we would like you to answer a few questions:

- What is your age? _____
- What is your gender? _____
- Year of starting your study _____
- Field of study _____
- Do you have a paid job for more than 2 days a week? _____

During this experiment you had the opportunity to propose a vote for a rule change. Why did you or did you not choose to do so?

“I proposed to vote because.....”
“I did not propose to vote because.....”

Your answers will be treated confidentially.

This is the end of the questionnaire. Please remain seated and do not communicate until the other participants have finished this questionnaire.

We would like to thank you for your cooperation.

Appendix B: Additional Information

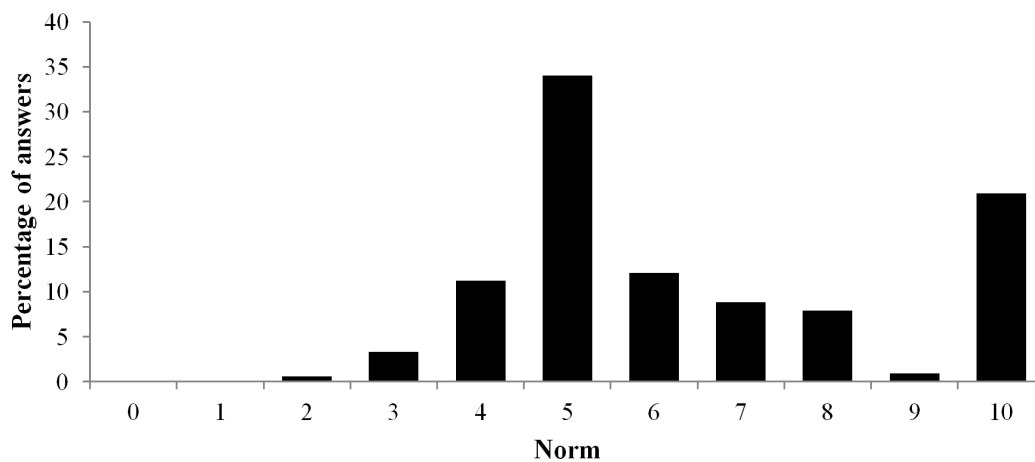
Socio-demographics

We checked all our variables of interest for differences across the socio-demographics of our participants. The only significant differences we found are as follows. First, men ($M = 6.71$, $SD = 1.51$) generally reported more willingness to take risks than women ($M = 5.94$, $SD = 1.70$), $t = 3.358$, $p = .001$). Second, age appears to correlate with mean contributions in PGG1 (ANOVA; $F(3, 193) = 4.040$, $p = .008$) and participants in a group of 20- to 23-year-olds more often show proself value orientations than in other age categories ($\chi^2(6, N = 194) = 7.985$, $p = .046$). To correct for these differences, we include gender and age as controls in our analyses.¹

Norm estimates

Figure B1 shows the distribution of estimates in the main experiment of the modal response in the pre-study. 34% of the participants correctly estimated the modal pre-study response to be five.

Figure B1. Norm measure.



¹ Our results are not qualitatively affected if we exclude the corrections for age and gender.

Note: Bars show the distribution of answers (in percentages) in the main experiment to the question “Which contribution to the team project do you think the participants of our earlier experiment find most socially appropriate?”.