

Perceived Harmony, Similarity and Cooperation in 2 × 2 Games: An Experimental Study by Daniel John Zizzo and Jonathan Tan

Experimental Instructions

Notations: *[,] denotes text relevant exclusively to Experiment 1, and **[,] denotes text relevant exclusively to Experiment 2. When monetary amounts are mentioned, they are done so in terms of “x pounds/ y euros”, although of course only pounds were mentioned in the Oxford sessions, and only euros in the Frankfurt sessions. These notations are not found in the original instructions.

The experimental instructions used in Germany were German translations of the English version.

Instructions for the Practice Stage

*[You are about to participate in an experiment on decision-making. The experiment will be conducted in four stages. Stage 1 (the Practice Stage) is for practice only, while in the Payment Stage you are paid whatever amount you have earned in Stages 2 and 3, plus additional 4 pounds/5 euros for participation.]

**[You are about to participate in an experiment on decision-making. The experiment will be conducted in two parts, the first today (Part 1) and the next in 10-14 days time (Part 2).]

Today you will do Stage 1 and 2, and receive 5 euros for participation at the end. In Part 2, you will do Stage 3 and 4. There are four stages overall.

Stage 1 (the Practice Stage) is for practice only, while in Stage 4 (the Payment Stage) you are paid whatever amount you have earned in Stages 2 and 3, plus additional 5 euros for participation. You must participate to both parts of the experiment to be paid anything more than the 5 euros at the end of today’s Part 1.]

In the Practice Stage you will be asked to choose *actions* for twelve rounds. Each round your action will be paired with that of one other participant (your *coparticipant*), and this will determine the outcomes both for you and your coparticipant. The nature of the decision in the Practice Stage is discussed below. You will always be matched with the same coparticipant in the Practice Stage. After each round you will be told what actions were chosen by you and your coparticipant, and how many *experimental points* you and your coparticipant earned in the round as the result of your actions. You will receive *no information* about the actions of and points earned by the participants that are not your coparticipant, and similarly they will not be informed about your actions or the points you have earned. In the later stages of the experiment, you will *not* be matched with the same coparticipant as in the Practice Stage.

You should try to make the best decisions you can in the Practice Stage: by doing so you can get the greatest understanding on how to do well in the rest of the experiment.

The Decision Table in the Practice Stage

Each decision that you face will be described by a *Decision Table* consisting of eight numbers arranged in two rows and two columns. Decision Tables will appear also in

Stage 2 and Stage 3, and so it is quite important that you get a good understanding of what they represent.

An example (namely, the Decision Table for round 1) is currently on display on the computer screen. You and your coparticipant have two available actions, A and B. A yellow and a blue cell, in pairs, are placed in a grid in correspondence of each of the four combinations of possible actions by you and your coparticipant. Two numbers, one in the yellow cell and one in the blue cell, are placed in correspondence of each combination of possible actions. The number in the *yellow* cell is the amount of experimental points that *you* would get for each combination of possible actions; the number in the *blue* cell is the amount of experimental points that your *coparticipant* would get for each combination of possible actions. To make some examples based on the Decision Table on the computer display: if you choose A and your coparticipant chooses A, you get (*amount*) points and your coparticipant gets (*amount*); if you choose B and your coparticipant chooses B, you get (*amount*) points and your coparticipant gets (*amount*); finally, if you choose B and your coparticipant chooses A, you get (*amount*) points and your coparticipant gets (*amount*). The *point numbers* in all cells are always between 0 and 100.

To choose an action, you need to click one of the buttons labelled A and B. You should click A if you want to choose action A, and B if you want to choose action B. A message window will then appear asking you to confirm your choice. To do so, click OK on the window and then click the Confirm button. If you want to cancel your choice, click OK on the window and then click the Cancel button.

You will not get to know the choice of your coparticipant for the round until your coparticipant has chosen as well, and similarly he or she will not learn about your action until he or she has made his or her choice. In making your choices, you are not allowed to speak to other participants or communicate in any other way.

Before starting the practice, we ask you to answer a brief questionnaire, with the only purpose of checking whether you have understood the instructions. Raise your hand when you have completed the questionnaire.

Many thanks for your participation to the experiment, and good luck!

Please raise your hand if you have any questions.

Instructions for Stage 2

In Stage 2, you are asked to choose actions for twenty rounds in relation to Decision Tables.

At the start of Stage 2, you will be matched with a *different* coparticipant from the one you will have played the Practice Stage with. You will have to take decisions for twenty rounds, but you will receive no feedback on their outcome until the end of the experiment.

This is the last interactive stage of the experiment: your Stage 3 earnings will depend only on your choices, not on combinations of choices by you and some other participant, while Stage 4 is just for payment.

Your choices

You can choose an action exactly as you have done in the Practice Stage, first by clicking on the A or B button and then by confirming. You and your coparticipant will earn point numbers as the result of your actions, exactly as in the Practice Stage.

You will not receive any feedback about the outcome of your choices after each round. No communication of any kind with the other participants is allowed.

Your winnings

The computer will randomly choose a payment round to determine the *action payment*. This payment round will be the same for you and your coparticipant.

The action payment depends on the point numbers you earn in this round, and so it depends on the actions by you and your coparticipant. More specifically, *each point earned in this round is worth 0.06 pounds/0.09 euros in the Payment Stage* (so, for example, 100 points are worth 6 pounds/9 euros).

Please do not take decisions in a hurry: you can improve your chances to do well by thinking carefully about each Decision Table.

Before starting making decisions, we ask you to answer a second brief questionnaire, once again with the only purpose of checking whether you have understood the instructions. Raise your hand when you have completed the questionnaire.

Please raise your hand if you have any questions.

Instructions for Stage 3

**[Welcome to Part 2 of this experiment. In Part 1 you did Stage 1 and 2, and now you are about to do Stage 3.

Reminder About Decision Tables

You will recall that in Part 1 of the experiment you chose actions in relation to Decision Tables. Decision Tables consist of eight numbers arranged in two rows and two columns.

Consider the Decision Table in the top part of the screen. Assume that you and your coparticipant had to choose actions in relation to this Decision Table. You and your coparticipant would have two available actions, A and B. A yellow and a blue cell, in pairs, are placed in a grid in correspondence of each of the four combinations of possible actions by you and your coparticipant. Two numbers, one in the yellow cell and one in the blue cell, are placed in correspondence of each combination of possible actions. The number in the yellow cell is the amount of experimental points that you would get for each combination of possible actions; the number in the blue cell is the amount of experimental points that your coparticipant would get for each combination of possible actions. To make some examples based on the Decision Table on the computer display: if you chose A and your coparticipant chose A, you would get (*amount*) points and your coparticipant would get (*amount*); if you chose B and your coparticipant chose B, you would get (*amount*) points and your coparticipant would get (*amount*); finally, if you chose B and your coparticipant chose A, you would get (*amount*) points and your coparticipant would get (*amount*). The point numbers in all cells are always between 0 and 100.

Similarity Evaluations]

In Stage 3 you are asked to *evaluate how similar two Decision Tables are* (a reminder about what Decision Tables is provided below). The screen displays two decision tables, a regular decision table at the top of the screen and a second decision table on the bottom of the screen. This second decision table is the Comparison Decision Table (CDT), and it is in monochrome. *For the CDT as for any decision table, for each combination of actions by you and your coparticipant, the left numbers are your points, whereas the right numbers are your coparticipant's points.* However, you are not asked to choose actions in this stage. Rather, you are asked to compare the CDT to the decision table that, round by round, appears on the computer screen.

Stage 3 has forty rounds. Each round you should assess the similarity of the Decision Table on the upper part of the computer display to the CDT you have on its bottom part: **you should evaluate similarity on a scale between 0 (virtually identical) to 9 (extremely different)**. Hence, the *more* similar you believe the two Decision Tables to be, the *lower* the similarity value you should assign. The similarity payment, discussed below, will depend the accuracy of your similarity evaluation, and can be up to 12 pounds.

Once you decide your similarity evaluation, you should:

- click on the white cell using the mouse (this action can only be made after 10sec into the round);
- write down your similarity evaluation, which must be between 0 and 9, and must be typed in its arabic (1, 2, 3...) rather than verbal (one, two, three...) form;
- click on the Confirm button;
- click OK on the message box that will then appear;
- if you are satisfied with your choice, click on the Confirm button again without changing the number. Otherwise, you can click Cancel or change the number.

If you make some mistake and want to reset the white cell, just double click on it with the mouse. Any choice you make will not be communicated to the other participants, and similarly you will not learn anything about their choices.

The Similarity Payment

At the end of Stage 3, the computer will randomly choose a round and compare your choice for that round with the correct answer. If you get the evaluation exactly right, you earn **12 pounds/18 euros**. The more incorrect is your evaluation, the less you gain: in particular, for every point by which your guess is incorrect, you lose **5 pounds/7.5 euros**. If your evaluation is wrong by 3 points or more, your similarity payment is zero. The table on the following page tells you what your similarity payment is for various levels of error:

Similarity Payment Table

Error (=gap between your valuation and correct answer)	Similarity Payment (in pounds /euros)
0	12/18
1	7/10.5

2	2/3
3 or more	0

Example: assume that your similarity evaluation is 8 but the correct answer is 6. Then the error (i.e., the gap between your similarity evaluation and the correct answer) is 2, and your similarity payment is equal to 2 pounds.

It is in your own best interest to choose a similarity evaluation as accurate as possible, because by doing so you are more likely to earn a higher similarity payment.

Before starting making decisions, we ask you to answer another brief questionnaire, with the only purpose of checking whether you have understood the instructions. Raise your hand when you have completed the questionnaire.

Please raise your hand if you have any questions.