

Belief-dependent Preferences and Reputation: Experimental Analysis of a Repeated Trust Game

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Online Appendix

Here we provide the translation from Italian of the experimental instructions. Sentences written in *Italics* within brackets are not part of the Instructions; they are just clarifying comments for the reader.

INSTRUCTIONS

Welcome to the Experimental Laboratory of Bocconi University, Milan. Thank you for participating in this experiment.

What you will earn at the end of the experiment depends on your decisions and those of the other participants.

If you have any questions, you can ask aloud now. We will answer your question publicly.

From this point on, you are no longer allowed to ask questions publicly. If you have a question after the experiment has started, please raise your hand and we will answer your question privately.

This experiment consists of **three** [*two for NoQ*] phases. For each phase, you will receive specific instructions before its beginning.

PHASE 1

Now we explain in detail the instructions of Phase 1.

You will be randomly paired with another participant.

In each pair, one participant will be in role **A** and the other will be in role **B**.

You will never know the identity of the participant being paired with you, nor he/she will ever know who you are.

There are 20 participants, thus there will be 10 participants in role **A** and 10 in role **B**.

You will be told which is your role before Phase 1 will start.

Now we explain what you are asked to do in Phase 1.

CHOICES

In each pair,

- the participant in role A chooses between two actions: **DISSOLVE** or **CONTINUE**;
- the participant in role B chooses between two actions: *SHARE* or *TAKE*.

The two participants choose simultaneously. Hence B, when choosing, does not know if A has chosen **DISSOLVE** or **CONTINUE** and vice versa.

Each participant will be paid according to his/her choice and to the choice of the participant paired with him/her, as described in the following Table of Payments.

	A receives	B receives
A DISSOLVE , (B <i>SHARE</i> or <i>TAKE</i>)	1€	1€
A CONTINUE , B <i>SHARE</i>	2€	2€
A CONTINUE , B <i>TAKE</i>	0€	4€

Table of Payments

Explanation of the Table of Payments:

At first, we assign 2€ to the pair.

If A chooses **DISSOLVE**, the 2€ are shared equally between the pair (1€ to A, 1€ to B), regardless of whether B has chosen *SHARE* or *TAKE*.

If A chooses **CONTINUE**, we add other 2€ to the pair. At this point, there are 4€ to be divided. In this case, the division depends on B's choice: if B has chosen *SHARE*, then A receives 2€ and B receives 2€; if B has chosen *TAKE*, then A receives 0€ and B receives 4€. Recall that the game is simultaneous: B chooses *SHARE* or *TAKE* without knowing what A has chosen and vice versa.

ESTIMATES and CONJECTURES

Before you choose the action, we will ask you to make an estimate (if you have role A) or two conjectures (if you have role B). In particular,

- A's ESTIMATE:

We will ask each A to guess the percentage of participants B choosing *SHARE*.

Recall that there are 10 participants having the role B, hence the only possible percentages are 0% (= 0/10 choosing *SHARE*), 10% (= 1/10 choosing *SHARE*), 20% (= 2/10), 30% (= 3/10), 40% (= 4/10), 50% (= 5/10), 60% (= 6/10), 70% (= 7/10), 80% (= 8/10), 90% (= 9/10), 100% (= 10/10 choosing *SHARE*). Every participant A has to indicate one of these percentages.

The accuracy of A's estimate depends on the choice made by all participants B.

- B's CONJECTURE 1:

We will ask each B to guess the estimate given by the participant A paired with him/her about the percentage of participants B choosing *SHARE*. This means that B has to guess whether the participant A paired with him/her said that 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or 100% of participants B choose *SHARE*.

The accuracy of B's "conjecture 1" depends only on the estimate made by the participant A paired with him/her.

- B's CONJECTURE 2:

We will ask each B to guess the action chosen by the participant A paired with him/her (**DISSOLVE** or **CONTINUE**).

The accuracy of B's "conjecture 2" depends only on the choice made by the participant A paired with him/her.

Information after Phase 1

At the end of Phase 1, you will not receive any information about choices, estimates and conjectures of anybody.

At the end of the whole experiment, you will be told the choice made by the participant who is paired with you and whether your estimate (if you have the role A) or your conjectures (if you have the role B) were correct.

Payments for Phase 1

Choices: at the end of the whole experiment, you will be paid (according to the Table of Payments above) based on your choice and on the choice made by the participant who is paired with you.

Estimate: (only for role A): at the end of the whole experiment, if your estimate was correct, you will receive €5, otherwise you will receive € 0.

Conjectures: (only for role B): at the end of the whole experiment, if both your conjecture 1 and conjecture 2 were correct, you will receive €5, otherwise (in every other possible case) you will receive €0.

Therefore, in this phase you are asked to perform two tasks:

- a choice and an estimate (if your role is A);
- a choice and two conjectures (if your role is B).

Now the computer will randomly select your role (A or B).

Then, Phase 1 will start.

PHASE 2

[Only for QnoD and QD]

Your role is the same as in Phase 1.

The following refers only to participants in role B.

Participants in role A have in front of them the same instructions, in order to be informed about what we are asking to participants in role B.

Consider this hypothetical situation:

- Suppose that you have been paired with another participant A to play the same game described in the Table of Payments of Phase 1.
- Regardless of what you have actually chosen in Phase 1, suppose that new A chose **CONTINUE** and you chose *TAKE*, hence you got €4 and left A with €0 in his/her pocket.
- Suppose that, after obtaining €4, you have the opportunity to give back part of this €4 to A. What you give back to him/her can differ according to his/her guess about you choosing *SHARE*.

Look at the *Hypothetical Payback Scheme* in Sheet 1. In the left column, there are 11 possible A's guesses about you choosing *SHARE*.

Keeping in mind that we are assuming that the A paired with you has chosen **CONTINUE** and that you have chosen *TAKE*, we ask you to indicate how much (if any) of the €4 obtained you are willing to give him/her back. You have to indicate it for each possible guess of A about you choosing *SHARE*.

Please, fill in accordingly the right column of the *Hypothetical Payback Scheme* in "Role B - Sheet 1" and copy the entered values in the one that will appear on your computer screen once Phase 2 will start. Then answer the qualitative questions in "Role B - Sheet 2".

Important:

- You will not receive any payment for the values entered in the *Hypothetical Payback Scheme*, nor these values will bring any monetary transfer to any of the participants in role A;

[In QnoD]

- Once completed, your *Hypothetical Payback Scheme* will not be forwarded to anyone.

[In QD]

- Once completed, your *Hypothetical Payback Scheme* will be forwarded to a randomly chosen participant in role A.

Role B - Sheet 1

[Only for QnoD and QD]

Suppose A chose CONTINUE and you have chosen TAKE, hence getting €4, but now you can give part of this amount back to A. How much would you give, if A expected you to SHARE with some probability?

Before choosing CONTINUE, A thought that you would have chosen <i>SHARE</i> with probability:	You would give back to A the sum of:
0%	€
10%	€
20%	€
30%	€
40%	€
50%	€
60%	€
70%	€
80%	€
90%	€
100%	€

Hypothetical Payback Scheme

In each line of the right column of the Hypothetical Payback Scheme above (for each guess of A about you choosing *SHARE*), you have to enter a value between €0.00 and €4.00. Each value can be entered in decimal form, up to two decimal digits.

Role B - Sheet 2

[Only for QnoD and QD]

We ask you to comment on the values you entered in the Hypothetical Payback Scheme.

The following comments will not be passed on to any participant in the experiment.

- Explain the meaning of the values you entered in the Hypothetical Payback Scheme.

- Did you enter these values according to a specific feeling? Yes No

Keep on answering only if the answer to the previous question is “Yes”.

- Is this feeling dependent on your partner’s guess about you choosing *SHARE*?

Yes No

Keep on answering only if the answer to the previous question is “Yes”.

- What kind of relationship is there between this feeling and your partner’s guess about you choosing *SHARE*?

Role A - Sheet 1

[Only for QD, after all participants in role B have filled in their Hypothetical Payback Scheme:
At this point participants in role A receive on their computer screen a filled-in Hypothetical Payback Scheme by a randomly chosen participant B (different for each participant A)]

The following refers only to participants in role A.

Participants in role B have in front of them the same instructions, in order to be informed about what we are asking to participants in role A.

Now that all participants in role B have filled in their Hypothetical Payback Scheme, you will see on the screen of your computer the one filled in by a randomly chosen participant B (different for each participant A).

We kindly ask you to copy in the Scheme below the values entered by the randomly chosen participant B and to answer the questions in “Role A - Sheet 2”.

In case you choose CONTINUE , your guess that B would choose <i>SHARE</i> could be:	The sum (between €0.00 and €4.00) that B would give you back in case you would choose CONTINUE and he/she would choose <i>TAKE</i> is:
0%	€
10%	€
20%	€
30%	€
40%	€
50%	€
60%	€
70%	€
80%	€
90%	€
100%	€

Hypothetical Payback Scheme filled in by a randomly chosen participant B

Role A - Sheet 2

[Only for QD, after all participants in role B have filled in their Hypothetical Payback Scheme: At this point participants in role A receive on their computer screen a filled-in Hypothetical Payback Scheme by a randomly chosen participant B (different for each participant A)]

We ask you to comment on the values entered in the Hypothetical Payback Scheme by the randomly chosen participant B.

The following comments will not be passed to any participant in the experiment.

- Write what you think is the meaning of the values that the randomly chosen participant B has entered in the Hypothetical Payback Scheme that you have been forwarded.

- Do you think that the randomly chosen participant B entered these values according to a specific feeling?

Yes

No

Keep on answering only if the answer to the previous question is “Yes”.

- According to the values he/she has entered in the Hypothetical Payback Scheme, if the randomly chosen participant B were asked to play the game in Phase 1 with you, what kind of feeling do you think he/she would feel had you chosen **CONTINUE** and had he/she chosen *TAKE*?

- Do you think that his/her feeling could depend on your guess about he/she choosing *SHARE*? If yes, in which way?

PHASE 3 [PHASE 2 for NoQ]

[Participants have instructions of Phase 1 in front of them.]

[Only for QnoD and QD: Participants in role B also have their Sheet 1 of Phase 2 with the filled-in Hypothetical Payback Scheme in front of them.]

[Only for QD: Participants in role A also have their Sheet 1 of Phase 2 with the received filled-in Hypothetical Payback Scheme in front of them.]

Your role is the same as in Phase 1 and Phase 2 [as in Phase 1 for NoQ].

Now we explain in detail what you will be asked to do in Phase 3 *[Phase 2 for NoQ]*.

The participant paired with you during Phase 3 *[Phase 2 for NoQ]* is not the same as in Phase 1. At the end of Phase 2 *[Phase 1 for NoQ]*, the pairs have been randomly re-matched and you have been paired with another participant, with whom you will interact in Phase 3 *[Phase 2 for NoQ]*.

[Only for QD]

Indeed, during Phase 3, each participant A is paired with the randomly chosen participant B in Phase 2, namely the one from whom A has been forwarded the filled-in Hypothetical Payback Scheme. Each participant A can keep the paired B's filled-in Hypothetical Payback Scheme in paper form ("Role A - Sheet 1" of Phase 2) in front of him/her during Phase 3.

[Only for QnoD and QD]

Each participant B can keep his/her previously filled-in Hypothetical Payback Scheme in paper form ("Role B - Sheet 1" of Phase 2) in front of him/her during Phase 3. Note that the payments in Phase 3 do not depend on the values that a participant B has entered in the Hypothetical Payback Scheme during Phase 2.

In Phase 3 *[Phase 2 for NoQ]*, you will play the same game played in Phase 1, the one described in the Table of Payments.

In this phase, you will play that game for **four rounds**, always with the **same participant**.

In particular, what we will ask you to do in each round is, as in Phase 1,

- a choice and an estimate (if your role is A);
- a choice and two conjectures (if your role is B).

Information after each round

After you and the participant paired with you have made your choices, estimate and conjectures in a round, you will be told his/her choice in that round and he/she will be told yours.

You will be told the choice of the other participant who is paired with you independently of the choice you have made in the round; and he/she will be told yours independently of the choice he/she has made in the round.

Information after Phase 3 [Phase 2 for NoQ]

At the end of Phase 3 *[Phase 2 for NoQ]*, you will not receive further information about choices, estimates and conjectures of anybody in this phase.

At the end of the whole experiment, you will be told whether, for each round of Phase 3 *[Phase 2 for NoQ]* your estimate (if you have the role A) or your conjectures (if you have the role B) in Phase 3 *[Phase 2 for NoQ]* were correct.

Payments for Phase 3 [Phase 2 for NoQ]

Choices, Estimates and Conjectures of each of the four rounds will be paid according to the same rules established for Phase 1.

Final Questionnaire - Role B

So far you have played the game described in the Table of Payments five times (one time in Phase 1, four times in Phase 3 [*Phase 2 for NoQ*]).

[For NoQ: see the instructions of Phase 2 in QnoD]

[For QnoD and QD: see the following instructions]

Now we ask you to imagine again the same hypothetical situation described in Phase 2. Please fill in the *Final Hypothetical Payback Scheme*, which has the same structure of the Hypothetical Payback Scheme that you have filled in Phase 2.

Important:

- For any line in the *Final Hypothetical Payback Scheme*, you can enter, if you wish, a value which is different from the one entered in the corresponding line of the *Hypothetical Payback Scheme* you have filled in Phase 2;
- You will not receive any payment for the values entered in the *Final Hypothetical Payback Scheme* nor these values will bring any monetary transfer to any of the participants with role A;

[In QnoD]

- As for the Hypothetical Payback Scheme of Phase 2, once completed, your *Final Hypothetical Payback Scheme* will not be forwarded to anyone.

[In QD]

- Differently from the Hypothetical Payback Scheme of Phase 2, once completed, your *Final Hypothetical Payback Scheme* will not be forwarded to anyone.

Suppose A chose CONTINUE and you have chosen TAKE, hence getting €4, but now you can give part of this amount back to A. How much would you give, if A expected you to SHARE with some probability?

Before choosing CONTINUE , A thought that you would have chosen <i>SHARE</i> with probability:	You would give back to A the sum of:
0%	€
10%	€
20%	€
30%	€
40%	€
50%	€
60%	€
70%	€
80%	€
90%	€
100%	€

Final Hypothetical Payback Scheme

Explain the meaning of the values you entered in the *Final Hypothetical Payback Scheme*.

- Are these values different from those you entered in the Hypothetical Payback Scheme in Phase 2?

Yes No

Keep on answering only if the answer to the previous question is “Yes”.

- Which of the following statements better explains why the values you entered in the *Final Hypothetical Payback Scheme* are different from those you entered in the *Hypothetical Payback Scheme* in Phase 2? [You can indicate more than one motivation.]

I. At the moment I have *the same* kind of feeling that I expressed by filling in the Hypothetical Payback Scheme in Phase 2. But now that feeling is “*stronger*”.
Why? _____

II. At the moment I have *the same* kind of feeling that I expressed by filling in the Hypothetical Payback Scheme in Phase 2. But now that feeling is “*weaker*”.
Why? _____

III. At the moment I *do not* have *the same* kind of feeling that I expressed by filling in the Hypothetical Payback Scheme in Phase 2.
Which is the new feeling? _____

IV. [Only for QD] Contrarily to the Hypothetical Payback Scheme in Phase 2, this time the Final Hypothetical Payback Scheme *will not* be forwarded to any participant in this experiment.
Additional Comments: _____

V. Other motivations
