Online Appendix of
"Trust as a Decision under Ambiguity"

Chen Li, Uyanga Turmunkh, & Peter P. Wakker

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Appendix OA. Structure and instructions of the experiment

The experiment of this paper was computer-based. This appendix presents the structure and instructions of the experiment. The full experiment is available online at http://www.peterwakker.com/trustnew/begin.php. For testing, please use any 4-digit number starting with the digit 6 (e.g. 6067) as a subject ID.

Step 0. Distribution of sealed envelopes

The experiment was incentivized using a modification of the prior incentive system (Prince; Johnson et al. 2015). At the beginning of each session with n subjects, one volunteer was invited to randomly select $n/2$ pairs of sealed envelopes. The envelopes in the selected pile were un-paired by the experimenter by removing the clips holding each pair together. Each subject would then draw one envelope from the pile. Each subject's ID number was printed on the outside of the sealed envelope drawn by the subject.

Step 1. General instructions

Subjects began the experiment by entering their subject ID numbers and were presented with the general instructions informing them about the incentive mechanism and the partner matchings (shown below).

Welcome

You have just received a sealed envelope, not to be opened yet. It will be opened by the experimenters at the end of the experiment.

What is inside your envelope?

Inside your envelope there is a list of different (payment) options. One option from this list will be given to you for real. For example, one option in the list may be "Pay €15 to you" and a second option may be "Pay €15 to you with a 50% chance, pay €0 otherwise". If the experimenters give you the first option, you will get €15. If they give you the second option, you will get €15 only with a 50% chance.

How to get your most preferred option from the list inside your envelope?

Out of the payment options inside your envelope you want the experimenters to give you your most preferred one. You can ensure this as follows:

- During the experiment you will view various possible lists of options that can be inside your envelope. From each list you will be asked to instruct the experimenters which option to give you in case that list is the one inside your envelope.
- At the end of the experiment, the experimenters will open your envelope and show you the list inside. They will then find your instruction that refers to the list inside your envelope. This instruction will determine which option you will get.

So you will get your most preferred option from the list inside your envelope, if from all the lists viewed during the experiment you instruct the experimenters to give you the option that you prefer most. If you give wrong instructions during the experiment, you may end up receiving your least preferred option. In short, if you say what you want during the experiment, then you get what you want at the end.

You will be paid as follows:

€5 (fixed amount) for participation
+
€X (variable amount) depending on
(1) the list of options inside your envelope and
(2) your instructions.

Proceed to Next Page.

Please raise your hand if anything is unclear

Throughout this experiment you are matched with one other participant. This participant's ID number is specified inside your envelope. Similarly, your ID number is specified inside this participant's envelope. But you and your matched partner will never discover which person is behind each other's ID number.

On the next page you will see a list of two options that may be inside your envelope. You will be asked to instruct the experimenters which of the two options to give you in case that list is inside your envelope.

Proceed to Next Page.

Please raise your hand if anything is unclear

Step 2. Trustor decision

Subjects were reminded that they were matched with a partner, and told that the partner would choose one of three payment options: (€15, €15), (€10, €18), or (€8, €22), labeled A, B, or C. Subjects could either let the partner's choice determine the payment or choose themselves the payment of (€10, €10). It was ambiguous to the subjects whether the partner would choose payment option A, B, or C (the trustor decision situation is shown below).

The following may be inside your envelope.

Recall that you are matched with one other participant. You can instruct the experimenters to give you one of the following two options:

Option 1: Follow your partner's instruction for payment

Option 2: Pay **€10** to each of you

If you instruct the experimenters to give you Option 1,

your partner's instruction will determine the payments for the two of you. Your partner can instruct the experimenters to give you one of the following three options:

Option A: Pay **€15** to each of you;
Option B: Pay you **€10**, pay him/her **€18**;
Option C: Pay you **€8**, pay him/her **€22**.

So if your partner has instructed to give Option A, you and your partner will get €15 each. If your partner has instructed to give Option B, you will get €10 and your partner €18. Finally, if your partner has instructed to give Option C, you will get €8 and your partner €22.

If you instruct the experimenters to give you Option 2,

you and your partner will get €10 each (and your partner's instruction will play no role).

In case the above list of two options is inside your envelope, what is your instruction?

○ **Option 1**

○ **Option 2**

Confirm

Step 3. Instructions for eliciting matching probabilities

Subjects were presented with a description of the decision situations to be encountered in the next section. Following the instructions, subjects were asked 4 comprehension questions. Subjects needed to answer all 4 questions correctly to be able to proceed.

The lists of options that you will see next are related to which option (A, B, or C) you think your partner may have chosen from his/her list on the previous page (if you cannot recall the list of options for your partner, you will be able to look it up in a reminder).

Here is an example of the lists that you will see next:

Option 1: Pay you **€15** if your partner chose option **B or C**, pay **€0** otherwise

Option 2: Pay you **€15** with **57%** chance, pay **€0** otherwise

Click to see the reminder of the options for your partner .

EXPLANATION

Suppose that the list in this example is inside your envelope.

What happens if you instructed the experimenters to give you Option 1? The experimenters will follow your instruction and give you Option 1. To determine whether to pay you €15 or €0, they will show you the option that your partner chose from his/her list on the previous page. If your partner chose Option B or C, you will get €15; otherwise (if your partner chose option A), you will get €0.

What happens if you instructed the experimenters to give you Option 2? The experimenters will let you throw two ten-sided dice (see the picture, where the number thrown is 38). If you throw any number smaller than 57, you will get €15; otherwise (if you throw a number equal to or larger than 57), you will get €0. Since each number between 0 and 99 has a 1% chance of being thrown, you will face exactly 57% chance of throwing a number smaller than 57. Other winning chances later in the experiment will be determined in a similar way.

We will now test your understanding of the instructions.

Question 1

Suppose that the list in this example is inside your envelope. Suppose that your instruction for this list is to give you Option 1. If your partner has chosen Option C, what is your payment (not counting your participation fee of €5)?

- €10
- €8
- €0
- €15

Question 2

Suppose that the list in this example is inside your envelope. Suppose that your instruction for this list is to give you Option 2. If you throw the number 61, what is your payment (not counting your participation fee of €5)?

- €10
- €8
- €0
- €15

Question 3

Suppose that not the list in this example, but the list on the previous page is inside your envelope. Suppose that your instruction for that list was to give you Option 1. If your partner has chosen Option C from the list on the previous page, what is your payment (not counting your participation fee of €5)?

Click to see the reminder of the list on the previous page.

- €10
- €8
- €0
- €15

Question 4

Suppose that the list inside your envelope is another list, different both from the list on the previous page and from this example. What is your payment (not counting your participation fee of €5)?

- €10
- €8
- €0
- €15
- Can't say. It will depend on my instruction relevant for that other list.

Check my answers

Step 4. Elicitation of matching probabilities and demographic questions

Subjects faced 24 decision situations designed to elicit their matching probabilities of the following six events: partner chooses A, B, C, (A or B), (A or C), (B or C). All 24 matching-probability decision situations were identical in type: subjects chose between two options, with Option 1 being an ambiguous prospect paying €15 contingent on one of the six ambiguous events, and Option 2 being a risky prospect paying €15 with a specified chance (a sample matching-probability decision situation is shown below).

For each event, subjects faced 4 decision situations, where the event-contingent Option 1 stayed fixed and the winning chance in Option 2 varied depending on the choices in the preceding situation (explained in detail in the paper). We refer to the four decision situations for each event as a block. The 24 decision situations for eliciting matching probabilities thus constituted of 6 blocks. The blocks appeared in a random order, and between two consecutive blocks, a demographic question was asked to refresh subjects' thinking mode. We asked 5 demographic questions about subjects' gender, drinking habits (weekly average number of alcoholic drinks consumed), subjective well-being, nationality (Dutch or non-Dutch), and number of siblings. The demographic questions also appeared in a random order (the demographic questions are shown below).

Please indicate your gender:

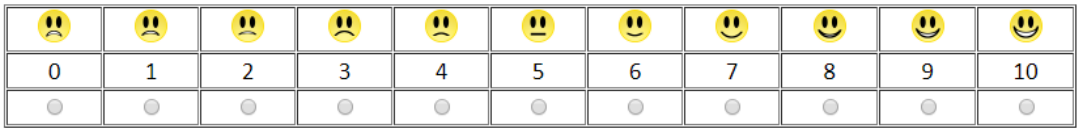
○ Female ○ Male

confirm

On average, how many glasses of alcoholic drinks do you consume per week?

confirm

Do you feel happy in general? Please answer this question on the scale from 0 to 10.



confirm

Are you Dutch?

○ Yes ○ No

confirm

How many siblings (brothers and sisters) do you have?

Please answer 0 if you don't have any.

confirm

Step 5. Trustee decision

Following the matching-probability decision situations, subjects made a decision as the trustee in the same trust game as before.

On the next page you will see a list of three options that may be inside your envelope. It is different from the lists that you have viewed until now. You will be asked to instruct the experimenters which of the three options to give you in case that list is inside your envelope.

Continue

The following may be inside your envelope.

Recall that you are matched with one other participant. You can instruct the experimenters to give one of the following three options:

Option A: Pay **€15** to each of you
Option B: Pay you **€18**, pay your partner **€10**
Option C: Pay you **€22**, pay your partner **€8**

Your partner can instruct the experimenters to give you one of the following two numbered (1 and 2) options:

Option 1: Follow your instruction for payment
Option 2: Pay **€10** to each of you

The experimenters will follow your instruction only if your partner instructed to give you Option 1. If your partner instructed Option 2, then you and your partner will get €10 each, and your instruction will play no role.

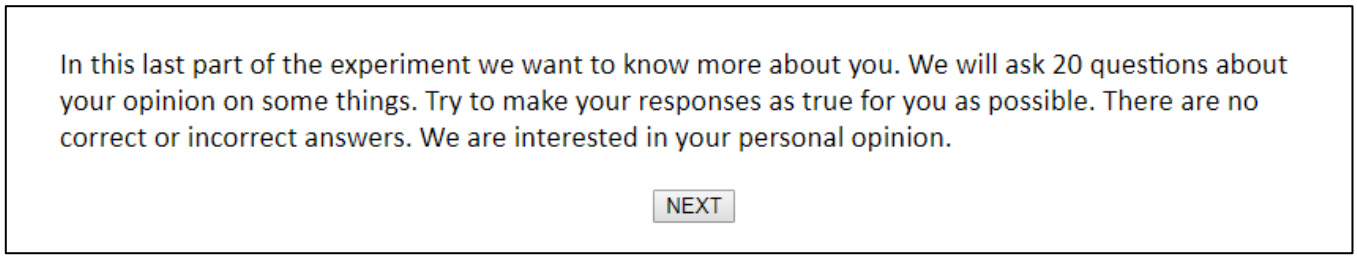
In case the above list of three options is inside your envelope, what is your instruction?

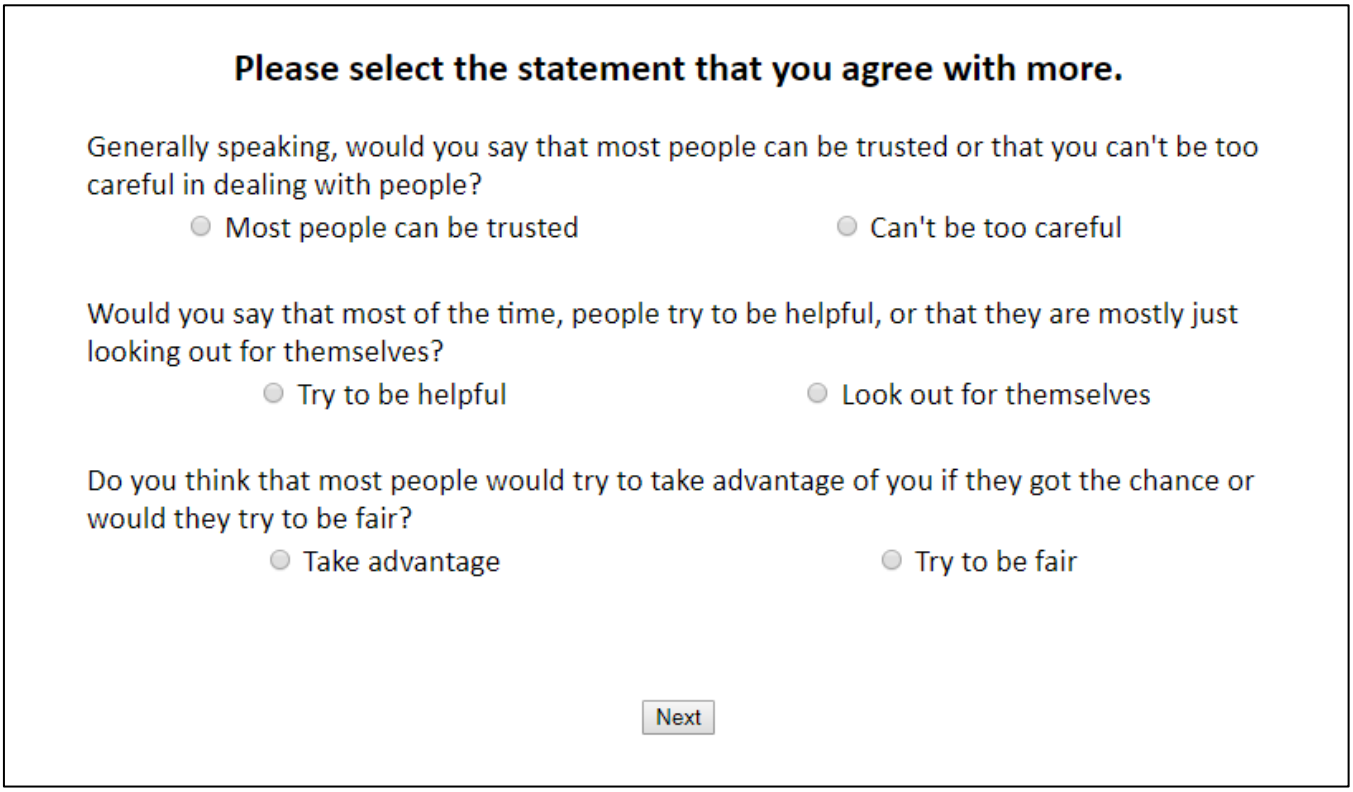
- **Option A**
- **Option B**
- **Option C**

Confirm

Step 6. Introspective survey questions

In the final part of the experiment, subjects answered 20 non-incentivized introspective survey questions, including three about their general trust attitudes. The three general trust questions were identical to the general trust questions used in the World Values Survey and the General Social Survey (shown below).





Step 7. Payment

After all subjects finished the experiment, they were called to the payment desk one by one. Each subject opened her envelope. If it was the trust game decision situation (either as the trustor or the trustee), her decision and her partner's choice would be used to determine her final payment. If the envelope contained a matching probability decision situation that she had encountered during the experiment, then her partner's trustee decision determined her final payment in case she had chosen the ambiguous option 1. Otherwise, the winning probability of option 2 decided on her payment (explained in detail in the paper).

Appendix OB. Results excluding subjects who failed the comprehension test more than 3 times.

During the experiment, subjects had to pass a comprehension test to proceed with the experiment. Table OB.1 presents the frequency of number of failures. Out of 162 subjects, 121 never failed the comprehension test. It took only 8 subjects more than 3 times to pass the test. Tables OB.2 and OB.3 and Figure OB.1 report results removing these 8 subjects from the analysis. Removing them does not affect our results.

Table OB.1 Frequency of number of comprehension test failures

No. Failure	0	1	2	3	4	5	6	11
No. subjects	121	25	8	1	2	2	2	1

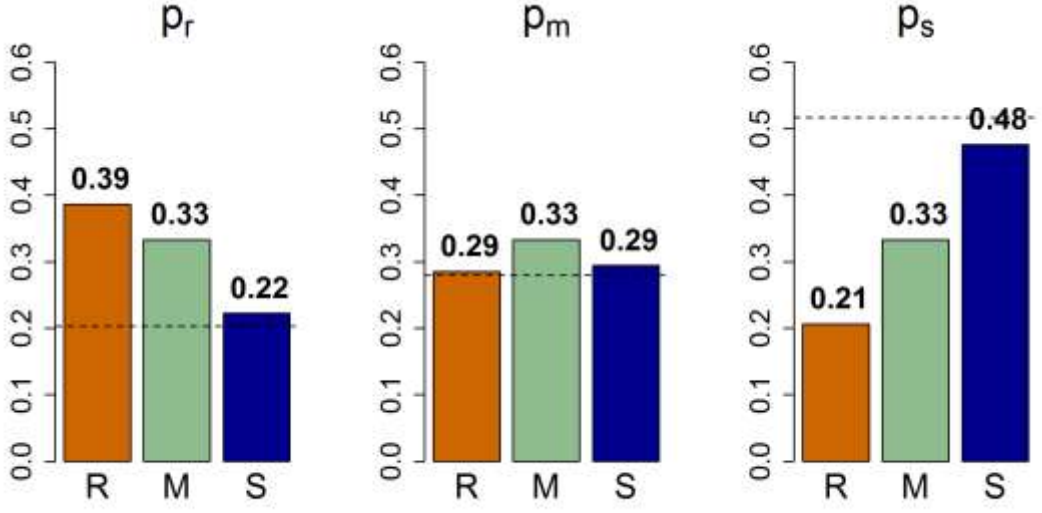
Table OB.2 Regression: What contributes to the decision to trust?

	Dependent variable:				
	Decision to Trust				
	(1)	(2)	(3)	(4)	(5)
a.aversion	-1.88*		-2.31*	-2.28*	-2.20*
	(1.06)		(1.22)	(1.21)	(1.33)
a.insensitivity	0.30		0.51	-0.44	-0.70
	(0.69)		(0.76)	(0.85)	(0.92)
pa-pc		1.98***	2.12***	3.89***	3.94***
		(0.47)	(0.50)	(0.94)	(0.96)
a.insensitivity:(pa-pc)				-6.34***	-6.47***
				(2.42)	(2.50)
Demo. Controls	No	No	No	No	Yes
Observations	154	153	153	153	153
Log Likelihood	-104.56	-95.08	-93.01	-89.17	-85.17
Akaike Inf. Crit.	215.11	194.15	194.01	188.35	190.34
Note:					*p<0.1; **p<0.05; ***p<0.01

Table OB.2 Regression: What is the general trust survey measuring?

	Dependent variable:			
	General Trust Survey			
	(1)	(2)	(3)	(4)
trusted	0.12**			
	(0.06)			
trustee		-0.07*		
		(0.04)		
a.aversion			-0.39**	-0.34*
			(0.17)	(0.18)
a.insensitivity			0.13	0.17
			(0.12)	(0.12)
pa-pc			0.17***	0.16**
			(0.06)	(0.06)
Demo. Controls	No	No	No	Yes
Observations	153	118	152	152
R^2	0.03	0.02	0.08	0.13
Note:				*p<0.1; **p<0.05; ***p<0.01

FIGURE OB.1 Belief about partner by own trustworthiness



NOTES: Each panel in Figure OB.1 presents the median a-neutral probabilities of an event (R, M, or S) split by subjects' own trustee decisions. The dashed horizontal line indicates the actual frequency.