

Zhang, Zhe; Putterman, Louis G.; Zhang, Xu

**Working Paper**

## Trust and cooperation at a confluence of worlds: An experiment in Xinjiang, China

Working Paper, No. 2018-4

**Provided in Cooperation with:**

Department of Economics, Brown University

*Suggested Citation:* Zhang, Zhe; Putterman, Louis G.; Zhang, Xu (2018) : Trust and cooperation at a confluence of worlds: An experiment in Xinjiang, China, Working Paper, No. 2018-4, Brown University, Department of Economics, Providence, RI

This Version is available at:

<https://hdl.handle.net/10419/202596>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

Appendix to Zhang, Putterman and Zhang  
"Trust and Cooperation at a Confluence of Worlds:  
An Experiment in Xinjiang, China"

**Appendix A1. Subjects Instructions<sup>1</sup>**  
**For an Experimental Research of Investment**

Thank you all again for your participation. To start, there is some information that we want to announce here. Please listen carefully to the instructions, which are to help you understand the experiment. If you have questions of clarification during the explanation, please raise your hand, and we will come to your desk to answer your questions.

The experiment you are participating in includes two parts, investment game and public investment game, and the research is to study your economic behaviors and decision-making under certain circumstances. In this study you will have the opportunity to make money by engaging in economic interactions with different partners.

***Language***

All the instructions are prepared in both Mandarin and Uyghur, and you can choose either one to read. In the games, the experimenter will read and explain the instruction first in Mandarin, and then assistants will translate it into Uyghur.<sup>2</sup> Whenever you have question, you can ask in either Mandarin or Uyghur, and the experimenter and assistants would answer accordingly. If you are instructed to have communication with partners, you can use whatever language you are comfortable with. For example, if you prefer using Uyghur for discussion, feel free to do so.

***Payment***

The whole experiment process will take about one hour to one hour and a half. You will each

---

<sup>1</sup> Chinese and Uyghur versions of the instructions, response sheets and the exit survey (Appendix A1-A3) are available on request [and will be posted and linked here prior to publication].

<sup>2</sup> Note to reader [not included in subject instructions]: The Chinese and Uyghur written versions of this sentence that were handed out to the subjects stated that the instructions would be read aloud in Mandarin only. However, the experimenter stated orally what is indicated by this translation, and that is the procedure actually followed during the sessions.

be given an equal amount of 30 RMB as a participation fee. Plus, as mentioned before, you will be playing games for real money that you will take away. The specific payments you can earn from that will be explained in the “task” section. You will use pencil to mark the task sheets in the game, and your payment will be given in cash after finishing all the games, not during the process.

You should understand that this is not the experimenters’ personal money. It is money from Brown University, U.S.A., to use to do the research study. This is research designed by Zhe Zhang and Prof. Louis Putterman, a professor from that university’s Department of Economics who has carried out similar kinds of games in different places around the world.

After the experiment ends, we will calculate the total money you have earned in the two parts, plus the 30 RMB participation fee, and pay you in cash before you leave. You will also be informed how you earned the money through your tasks, but you will not be informed about any individual partner’s decision-making. We also request that you not ask your partners about their decisions, and that you do not ask about the amounts of others’ earning in the experiment. Thanks!

### ***General Rules***

1. During the whole time of experiment, we ask that you do not talk with each other unless we instruct that you can have certain communication. Please do not use cell phones, laptops or any other electronic devices.
2. You have been given a ticket with a letter from A to H, and you will be addressed with the letter during the experiment.
3. In some rounds of the game, you will see who your partners are; in some rounds the partner(s) is mutually unknown, which means you won’t know who are the person(s) you are paired/grouped with, and the other person won’t know your identity either.
4. In any part of the game, we do NOT want to have subjects interact who are very familiar with each other. If you are paired/grouped with your friend, roommate, or another person you know very well, please let us know and we will try to re-arrange the grouping.
5. In the experiment, the monetary unit would be noted as ECU (Experimental Currency Unit). After the experiment finishes, the ECU you have earned will be exchanged into RMB in cash, where the exchange rate is  $1 \text{ ECU} = 0.8 \text{ RMB}$ .
6. Please remember that there is no “correct” answer to judge your decision-making, and you can just make the best choices based on your own thoughts.

7. After finishing all experimental games, you will be given a sheet of paper that requires you to answer some very basic questions. They are all single choice questions, and it should not take you more than 3 or 4 minutes. The experimenters will use the time to calculate your earnings.

### ***Privacy Protection***

We guarantee that the data collected from the experiment are purely for collective statistics in academic study, and no one could retrieve your individual identities through the experiment results, plus none of the personal information of subjects will be released in any publication regarding the experiment. Even for the experimenters, we will not be able to maintain a linkage from individual names to individual decisions in our records, since during the whole experiment, we do not record participants' names at all; in other words, experimenters only know what one of the eight subjects in a specific session did, but we are not able to name the specific subject.

### ***Contacts:***

If you have any further questions regarding the experiment, feel free to directly contact the researchers. In addition, the researchers would like to do some qualitative interviews, which can be anonymous, regarding the experiment topic. If you would like to be interviewed and talk through your thoughts about the games, please send an Email to Zhang Zhe, who would respond and make an appointment with you.

Zhang Zhe: [zhangzhe@brown.edu](mailto:zhangzhe@brown.edu)

Louis Putterman: [louis\\_putterman@brown.edu](mailto:louis_putterman@brown.edu)

## Instruction for Task 1: Investment

In this session, you will be paired with another participant and play the investment game together. One of the paired participants will play as “sender” (as an investor), who will make decisions on investing in another partner; the other participant will play the “responder” role, which means he/she will receive a certain amount of money from the sender, and then he/she can decide how to respond, which is to send a certain amount of the money back. NO communication with each other is allowed in this whole game.

In all, there will be three rounds in this part. In every round, all the eight subjects are randomly paired in four units, and in each there are two subjects who can play both sender and responder roles. You will imagine that you are the sender, while the other subject is the responder, and make your decision as the sender; and then you will imagine that you are the responder, while the other is the sender, and you will make decisions as the responder. You will make decisions for both roles, but when the experiment ends, the results of one role of the two will be randomly chosen and used to determine your payment, with your partner automatically being assigned the other role. Please notice that the partner’s decision will definitely affect what you earn, but you will not learn about it separately from your overall earnings in the whole part.

At the beginning of each round, both sender and responder will be equally given an endowment of 9 ECU (Experimental Currency Unit). You automatically have it.

**If you are the sender**, now you can choose how you would like to send money to your partner----the responder. As you can see in the *Task-1* sheet, you have the following choices to send: 0, 3, 6, and 9 ECU. You should be aware that the amount you invest would be tripled by the experimenters, i.e., if you invest 3 ECU, the responder would receive 9 ECU; if you invest 6 or 9 ECU, he/she will receive 18 or 27 ECU, respectively. If you like, you can also keep all the 9 ECU and choose to send 0. You have the right to choose independently from among all of these options, and you must mark your choice on the *Task-1* Sheet. Note please that once you have made your investing decision, you have no right to give any opinion on the responder’s return. You will not be informed about the individual responder’s decision, either.

**If you are the responder**, you have three decisions to make to respond to the sender’s choice. Please find them on the *Task-1* Sheet. (The sender has four options to choose among, but the responder only has three to respond to, because if the sender sends 0, you have nothing to return). Your three options are: if the sender sent 3, 6, or 9 ECU, after the amount has been tripled by the experimenters, you will have 9, 18, or 27 ECU, and you must make decisions on what to return to the investor for each of the scenarios. You have the right to choose any amount from 0 to the total amount you receive, which means 0-9 for first choice,

0-18 for the second, and 0-27 for the third. The number 0 is included among your options because you can keep all the investment and return 0; likewise, the tripled amount sent by your counterpart is included, because you can, if you wish to, return all of it.

Example 1:

If in this round a sender sends 3 ECU to the responder, and the responder's decision for the option is to return 0, that means at the end of this round, the sender has earned:

$$(9 - 3) + 0 = 6 \text{ ECU}$$

And the responder has:

$$9 + (3*3) - 0 = 18 \text{ ECU}$$

Example 2:

If the sender sends all 9 ECU, and the responder chooses to return 15 ECU for this option, after the round the sender will earn:

$$(9 - 9) + 15 = 15 \text{ ECU}$$

The responder will earn:

$$9 + (3*9) - 15 = 21 \text{ ECU}$$

Example 3:

If the sender sends 0 ECU, and the responder has no choice to make regarding a return on that, after the round the sender will earn:

$$9 - 0 = 9 \text{ ECU}$$

The responder will earn:

$$9 + 0 = 9 \text{ ECU}$$

In Round 1 and Round 2, please listen to the grouping announcement by the experimenters and be seated accordingly. You will be sitting in the place that you and your partner can see each other, but you are not allowed to communicate. Notice that if you are friends, roommates, or are very familiar with each other, please let us know and we will adjust the grouping.

In Round 3, you have been re-grouped, but in this time every subject will be playing anonymously. That is to say, only experimenters know your paired partner, who could be anyone of the other seven players in the room. You can only play with the unknown player and make your decisions for both sender and responder. There is no communication allowed.

Now the first part of today's experiment is over! Thanks and let's continue.

## Instruction for Task 2: Public Investment

In the real world, sometimes people invest together and distribute the profit. In this session, all participants are playing same role as both investor and benefit-receiver. The basic setting is that you will be grouped with 3 other partners together. At the beginning of each round, both sender and responder will be equally given an endowment of 10 ECU. You automatically have it.

To each of you in the group, there are two accounts/programs in which you can choose to invest: one is your private account, and the other is the public. If you choose to invest a certain amount of money in your own private account, basically you are just keeping the money for yourself--that money will remain unchanged in amount and will not be affected by other partners' behaviors; however, if you choose to put money into the public account, what you earn will be related to other partners' decisions. After all the four members make their decision, the total investment in public account will be doubled by the experimenters, and then it will be evenly distributed to the four partners in the group.

To simplify choices about the money amount to distribute, you will have to choose from only the following ways of dividing the 10 ECU between the private and public accounts, respectively:

10\_0    8\_2    6\_4    4\_6    2\_8    0\_10

where the former (left) number is the amount put in the private account, and the latter (right) one is the amount put in the public account.<sup>3</sup> Here are some examples of your earning results:

Example 1:

If all of you invest all the 10 ECU in the public account, there is  $10 \times 4 = 40$  ECU in the account. Experimenters will double the number, making it to 80 ECU. At the end of the game, each of you will earn:

$$(10 - 10) + [(10 + 10 + 10 + 10) \times 2 \div 4] = 20 \text{ ECU}$$

---

<sup>3</sup> Note to reader [not included in subject instructions]: The Chinese and Uyghur instructions handed out to participants included two additional sentences at this point, which translate as: "Notice that at the end of the experiment, we will let you know your earnings in each round. You will not be informed about any individual partner's decision-making in each round, but beside your own decision, we will tell you the total amount of the public account in each round." As stated in our paper, neither round-by-round earnings in the PGG nor the sum of others' contributions in given rounds were announced to the subjects, nor were they told in oral instructions that these would be announced. Nevertheless, we cannot rule out that the written sentences left on the instruction sheets in error were read by some subjects.

The first part is your private account money, which is 0 since you put your endowment of 10 into the public account. The second part is your earning from the public account, the total of everyone's investment amount is doubled by experimenter, and then evenly divided into 4 shares.

Example 2:

If you invest your 10 ECU in the public account while other three partners all choose to keep their 10 ECU in their private accounts, the results will be very different. Now there are 10 ECU in the public account. Experimenters will double the investment, making it 20 ECU. At the end of the game, each of you will gain  $20 \div 4 = 5$  ECU from the public account, plus the money you put in your private account. Your total gain is:

$$(10 - 10) + [(10 + 0 + 0 + 0) * 2 \div 4] = 5 \text{ ECU}$$

The other three partners will each have:

$$(10 - 0) + [(10 + 0 + 0 + 0) * 2 \div 4] = 15 \text{ ECU}$$

Example 3:

If all of you choose to invest 0 on public account, which is to keep 10 ECU in your private account, the public account will have 0 to be doubled. At the end of this round, everyone of you will earn the same amount:

$$(10 - 0) + [(0 + 0 + 0 + 0) * 2 \div 4] = 10 \text{ ECU}$$

The specific tasks in the four rounds are as below:

In the first round, you will be randomly grouped as the experimenters announce. Please sit according to the experimenters' instruction. You can see your group members, but no communication is allowed. Based on the previous instruction, please think and decide how to invest. After you have made your decision, please mark it on the *Task-2* sheet.<sup>4</sup>

In the second round, you will be randomly regrouped, but this time we will not tell you who your partners are. You will be playing with unknown partners, who could be any one among the other seven subjects in the classroom. No communication will be allowed. Please sit quietly by the table and make your own investment decision, mark the corresponding number on the *Task-2* sheet.

---

<sup>4</sup> Note to reader [not included in subject instructions]: there were pauses in the reading of instructions between the paragraphs about the first and second rounds, those about the second and third rounds, and those about the third and fourth rounds, so that subjects could make their decisions and mark them on the decision form. This makes it likely that the details of the later interactions were not prominently in mind when subjects made their decision for the first interaction, as might have been the case had the full set of instructions been read aloud in advance.



In the third round, you are regrouped as the experimenters announce. The rules are the same as in the first round.

In the fourth round, you will be re-grouped as the experimenters announce. Please sit according to the experimenters' instruction. Please notice that not only will you be able to see the partners in the group, but in this round you are also allowed to communicate with each other before making your decisions. You will have about 2 minutes, and you can argue, discuss, or debate your investment strategies in any way and in any language they prefer. After communication everyone should make your own decision and only keep the results to experimenters.

Now the second part of experiment is OVER! We are almost done.

### ***Before You Leave***

Thanks very much! The experiment is done now. Please sit for another 5 minutes while the experimenters are calculating your payment, which will include the 30 RMB participation fee for your participation, and all your gained money in every round. Again, the ECU will be paid in RMB with rate of 1:1.

At the same time, while you are waiting please take a couple of minutes to finish some very basic demographic information questions as below. It should only take you about 2 or 3 minutes. Same with the experiment results, none of the information would be linked to your individual identities, and none of your individual information would be released to anyone or at any publication. They will only be used as collective statistics.

After you finish, please hand in all your papers to the experimenter and claim your money in cash ☺ Please remember to sign the receipt and return it to experimenters.

Thank you again!

**THE END**

## Appendix A2. Response Sheets

### Task-1 Response Sheet (Trust Game)

Your Ticket Number: \_\_\_\_\_

Experiment Date and Time: \_\_\_\_\_

**Note:** According to the instructions, please choose ONE number in first column, and write down THREE numbers in the third column (within the given range), according to the three scenarios.

#### Round-1 (with Partner \_\_\_\_)

When You are Sender, You Choose to Send:	<i>After Tripled by Experimenters, the Responder Receive:</i>	When you are Responder, if you receive money in the second column, you choose to return:
0	0	0
3	9	(0-9)
6	18	(0-18)
9	27	(0-27)

#### Round-2 (with Partner \_\_\_\_)

When You are Sender, You Choose to Send:	<i>After Tripled by Experimenters, the Responder Receive:</i>	When you are Responder, if you receive money in the second column, you choose to return:
0	0	0
3	9	(0-9)
6	18	(0-18)
9	27	(0-27)

#### Round-3 (With Unknown Partner)

When You are Sender, You Choose to Send:	<i>After Tripled by Experimenters, the Responder Receive:</i>	When you are Responder, if you receive money in the second column, you choose to return:
0	0	0
3	9	(0-9)
6	18	(0-18)
9	27	(0-27)

## Task-2 Response Sheet (Public Goods Game)

Your Ticket Number: \_\_\_\_\_

Experiment Date and Time: \_\_\_\_\_

**Note:** According to the instructions, please choose ONE combination of the investment strategies and circle it.

### Round-1 (with Partners: \_\_\_\_\_)

Private	10	8	6	4	2	0
Public	0	2	4	6	8	10

### Round-2 (with Unknown Partners)

Private	10	8	6	4	2	0
Public	0	2	4	6	8	10

### Round-3 (with Partners: \_\_\_\_\_)

Private	10	8	6	4	2	0
Public	0	2	4	6	8	10

### Round-4 (COMMUNICATION with Partners: \_\_\_\_\_)

Private	10	8	6	4	2	0
Public	0	2	4	6	8	10

## Appendix A3. Exit Survey

1. Your age is: \_\_\_\_\_
2. Your gender is:
  - a. Male
  - b. Female
3. Your ethnicity is:
  - a. Uyghur
  - b. Han
  - c. Others
4. Are you a Party member?
  - a. Yes
  - b. No
5. Are you from a rural or an urban family?
  - a. Rural
  - b. Urban
6. In what position do you think your family's income per year would rank, relative to others in your city or county?
  - a. Top 10%
  - b. Above average (10% - 40%)
  - c. About average (40% - 60%)
  - d. Below average (60%-90%)
  - e. Under 90%
7. Have you ever lived outside of Xinjiang for six months or longer?
  - a. Yes
  - b. No
8. Do you have at least one parent with college education or higher?
  - a. Yes
  - b. No
9. All things considered, how satisfied are you with your life as a whole these days? Select a number on a scale where 1 = Very Dissatisfied and 10 = Very Satisfied.

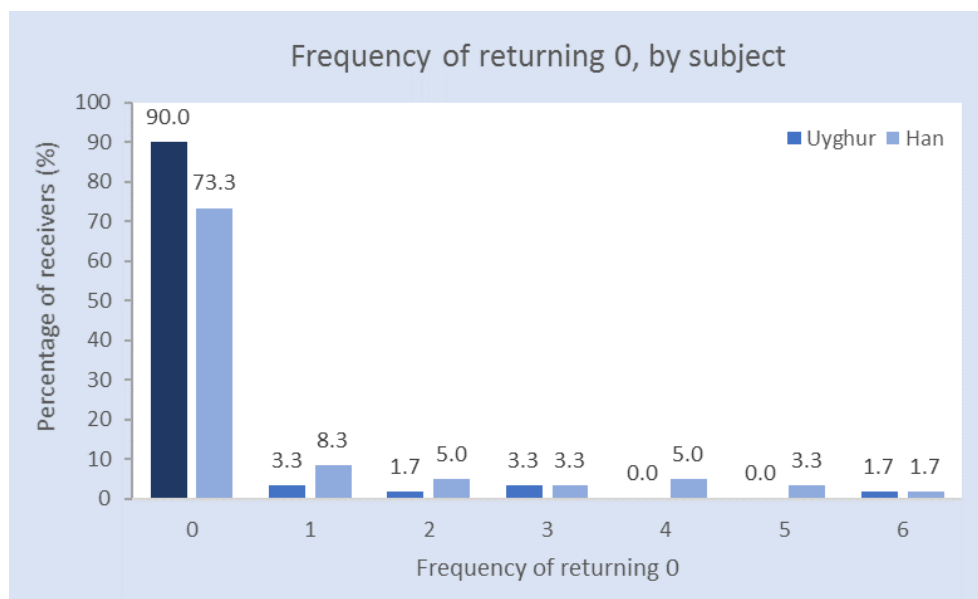
1    2    3    4    5    6    7    8    9    10
10. Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?
  - a. You can't be too careful.
  - b. Most people can be trusted.
11. Your grade is:
  - a. 1st
  - b. 2nd
  - c. 3rd

## Appendix B. Seat Arrangement



Notes: All sessions of our experiment were conducted in a common classroom of a college in Urumqi Xinjiang. The above picture was taken during one session and was blurred to maintain confidentiality. As shown in the picture, the students were situated in two rows, facing one another at a distance of approximately 15 feet. The subject could see the face of his or her partner in the opposite row, but could not see that person's decisions on the response sheet.

## Appendix C. Supplementary Figures and Tables



*Figure A1. Frequency of returning 0 in TG*

Notes: Each subject makes nine decisions about how much to return as the second mover. This figure displays the proportions of who return nothing for 0 time, 1 time, etc. Returning nothing 7, 8 or 9 times is not observed. Fisher's exact test indicates that the difference between the two distributions (Uyghur v.s. Han) is not significant,  $p = 0.204$ .

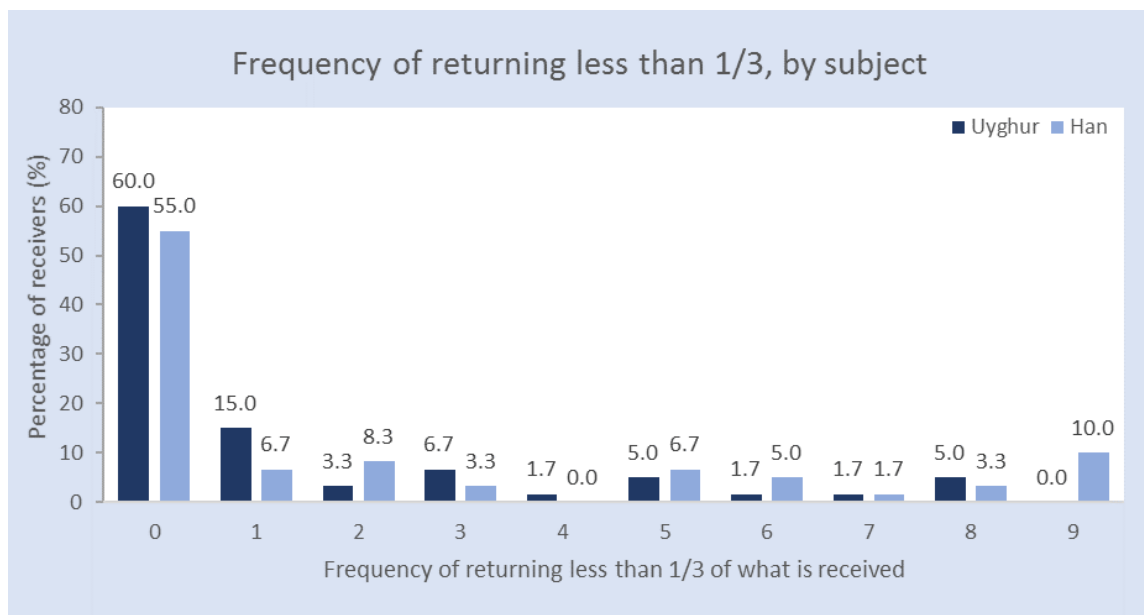
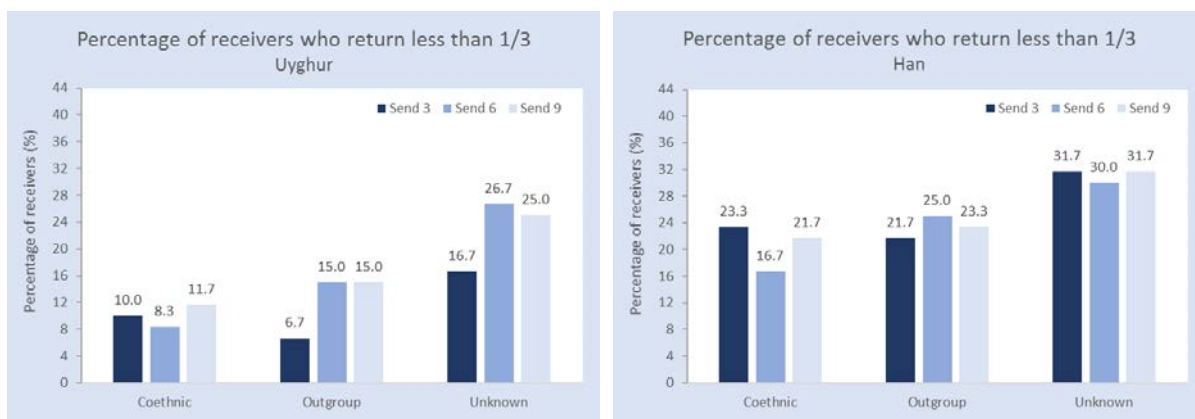


Figure A2. Frequency of returning less than 1/3 in TG

Notes: Each subject makes nine decisions about how much to return as the second mover. This figure displays the proportions of who return less than 1/3 of what is received for 0 time, 1 time, etc. Fisher's exact test indicates that the difference between the two distributions (Uyghur v.s. Han) is not significant,  $p = 0.144$ .

Figure A3. Percentage of receivers who return less than 1/3 in TG



*Table A1. Amount sent in TG regressions*

	(1)	(2)	(3)	(4)	(5)
Coethnic	1.500*** (0.287)	1.500*** (0.287)	1.500*** (0.288)	1.487*** (0.291)	1.487*** (0.292)
Outgroup	0.750*** (0.204)	0.750*** (0.205)	0.750*** (0.205)	0.731*** (0.217)	0.731*** (0.217)
Male		0.539* (0.326)	0.579* (0.305)	0.445 (0.289)	0.367 (0.287)
Han		-0.113 (0.332)	-0.386 (0.409)	-0.693* (0.401)	-0.695* (0.410)
Family income				-0.213 (0.205)	-0.213 (0.208)
Lived outside of Xinjiang > 6 Months				0.797 (0.570)	0.989* <b>(0.544)</b>
Han×Lived outside of Xinjiang > 6 Months				-0.0424 (0.791)	-0.206 (0.762)
Parent w/ college degree				-0.280 (0.602)	-0.360 (0.533)
Satisfaction				-0.117* (0.0670)	-0.0968 (0.0713)
WVS trust			0.639* (0.367)	0.585* (0.338)	0.676** (0.344)
2 <sup>nd</sup> year					1.320*** (0.471)
Constant	4.500*** (0.146)	4.278*** (0.317)	4.032*** (0.339)	5.630*** (0.821)	5.325*** (0.896)
Observations	360	360	360	357	357
R-squared	0.130				
Number of sub	120	120	120	119	119



Notes: Fixed individual effect model in column (1). Random individual effect model in column (2)-(5). Dependent variable is the amount (ECU) sent in TG. Unknown dummy is the omitted category. Robust standard errors (clustering by session) in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Table A2. Amount invested in PGG regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Homogeneous	2.312*** (0.314)	2.315*** (0.318)	2.315*** (0.319)	2.315*** (0.320)	2.312*** (0.314)	2.315*** (0.319)	2.315*** (0.321)	2.315*** (0.321)
Mixed	1.321*** (0.258)	1.249*** (0.265)	1.249*** (0.266)	1.249*** (0.266)	1.321*** (0.258)	1.296*** (0.259)	1.296*** (0.261)	1.296*** (0.261)
Communication	4.983*** (0.512)	4.932*** (0.509)	4.932*** (0.510)	4.932*** (0.511)				
Order				0.989* (0.566)				0.602 (0.579)
Interaction number	0.0670 (0.144)	0.0718 (0.150)	0.0718 (0.150)	0.0718 (0.150)	0.0670 (0.144)	0.0727 (0.150)	0.0727 (0.151)	0.0727 (0.151)
Male		-0.413 (0.253)	-0.420* (0.233)	-0.381* (0.212)		-0.381 (0.270)	-0.368 (0.249)	-0.344 (0.244)
Han		0.523 (0.557)	0.214 (0.530)	0.138 (0.555)		0.688 (0.629)	0.105 (0.585)	0.0591 (0.608)
Family income		0.0283 (0.226)	0.00322 (0.243)	0.0365 (0.207)		-0.0801 (0.221)	-0.128 (0.261)	-0.108 (0.239)
Lived outside of Xinjiang > 6 Months		1.067 (0.981)	1.236 (0.981)	1.291 (0.876)		1.316 (0.892)	1.570* (0.857)	1.603** (0.808)
Han×Lived outside of Xinjiang > 6 Months		-0.816 (1.346)	-0.959 (1.367)	-1.115 (1.265)		-1.231 (1.334)	-1.445 (1.311)	-1.540 (1.253)
Han×Mixed		0.103 (0.522)	0.103 (0.524)	0.103 (0.524)		-0.0277 (0.581)	-0.0277 (0.584)	-0.0277 (0.585)
Mixed×Lived outside of Xinjiang > 6 Months		0.847 (0.547)	0.847 (0.549)	0.847 (0.550)		0.591 (0.531)	0.591 (0.533)	0.591 (0.534)
Mixed×Han×Lived outside of Xinjiang > 6 Months		-1.025 (0.759)	-1.025 (0.762)	-1.025 (0.762)		-0.601 (0.820)	-0.601 (0.823)	-0.601 (0.825)
Parent w/ college degree		-0.629 (0.813)	-0.485 (0.818)	-0.678 (0.708)		-0.635 (0.767)	-0.340 (0.765)	-0.457 (0.704)
Satisfaction			-0.0393 (0.0885)	-0.0290 (0.0831)			-0.0825 (0.0994)	-0.0763 (0.0966)
WVS trust			0.596 (0.451)	0.866* (0.495)			1.086** (0.528)	1.251** (0.565)
2 <sup>nd</sup> year			0.390 (0.634)	0.573 (0.660)			0.301 (0.761)	0.413 (0.783)

Constant	2.983*** (0.379)	2.811*** (0.802)	2.935*** (1.135)	2.119* (1.181)	2.983*** (0.346)	3.058*** (0.754)	3.411*** (1.214)	2.914** (1.224)
Observations	480	476	476	476	360	357	357	357
R-squared	0.466				0.257			
Number of sub	120	119	119	119	120	119	119	119

Notes: Fixed individual effect model in column (1) and (5). Random individual effect model in column (2)-(4) and (6)-(8). Dependent variable is the amount (ECU) invested in PGG. Unknown dummy is the omitted category. Order dummy denotes the first 8 sessions where the four public goods games played were under Mixed, Unknown, Homogeneous and Communication conditions respectively. Interaction number=1,2,3,4 denotes that the observation came from the *n*th public goods game played by the subject. Robust standard errors (clustering by session) in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

*Table A3. Amount invested in PGG separate regressions by order*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Homogeneous	2.875*** (0.412)	2.889*** (0.419)	2.889*** (0.422)	1.679*** (0.414)	1.679*** (0.422)	1.679*** (0.425)	2.889*** (0.425)	1.679*** (0.429)
Mixed	1.750*** (0.277)	1.506*** (0.290)	1.506*** (0.292)	0.821* (0.359)	0.941* (0.448)	0.941* (0.451)	1.556*** (0.234)	0.999* (0.469)
Communication	6.281*** (0.410)	6.222*** (0.408)	6.222*** (0.410)	3.786*** (0.653)	3.786*** (0.667)	3.786*** (0.672)		
Male		-0.653 (0.397)	-0.594 (0.476)		-0.0685 (0.215)	-0.186 (0.239)	-0.459 (0.555)	-0.258 (0.232)
Han		0.295 (0.638)	-0.200 (0.830)		0.866 (0.949)	0.725 (1.057)	-0.562 (0.930)	0.947 (1.113)
Family income		-0.182 (0.320)	-0.0580 (0.354)		0.207 (0.319)	0.0846 (0.398)	-0.0907 (0.473)	-0.0767 (0.381)
Lived outside of Xinjiang > 6 Months		1.368 (0.816)	1.586* (0.832)		0.0510 (1.750)	0.403 (1.818)	1.891* (0.974)	0.948 (1.611)
Han×Lived outside of Xinjiang > 6 Months		-1.281 (1.527)	-1.549 (1.518)		0.561 (2.253)	0.207 (2.409)	-1.467 (1.918)	-0.991 (2.016)
Han×Mixed		0.272 (0.667)	0.272 (0.671)		-0.0830 (0.870)	-0.0830 (0.876)	0.333 (0.811)	-0.382 (0.970)
Mixed×Lived outside of Xinjiang > 6 Months		0.0309 (0.388)	0.0309 (0.390)		1.991*** (0.518)	1.991*** (0.521)	-0.111 (0.494)	1.507 (1.010)
Mixed×Han×Lived outside of Xinjiang > 6 Months		0.419 (0.757)	0.419 (0.762)		-3.028** (0.852)	-3.028** (0.858)	0.238 (1.186)	-1.884 (1.217)
Parent w/ college degree		-0.0967 (0.790)	-0.111 (0.834)		-2.994*** (0.578)	-2.702*** (0.622)	0.108 (0.873)	-2.289** (0.827)
Satisfaction			-0.0313 (0.208)			0.0452 (0.128)	-0.120 (0.262)	0.00969 (0.125)
WVS trust			0.806 (0.803)			0.731 (0.841)	1.348 (0.843)	0.885 (1.162)
2 <sup>nd</sup> year			-0.0746 (1.410)			0.994* (0.449)	0.291 (1.540)	0.489 (0.849)
Constant	2.906*** (0.308)	3.588*** (0.689)	3.304 (1.962)	3.357*** (0.515)	2.373* (1.212)	1.886 (2.002)	3.762 (2.564)	2.599 (2.082)
Observations	256	252	252	224	224	224	189	168

R-squared	0.400	0.413	0.421	0.181	0.254	0.266	0.195	0.160
-----------	-------	-------	-------	-------	-------	-------	-------	-------

---

Notes: Column (1)-(3) use data from the first 8 sessions where the four public goods games played were under Mixed, Unknown, Homogeneous and Communication conditions respectively. (4)-(6) use data from the last 7 sessions where the four public goods games played were under Homogeneous, Unknown, Mixed and Communication conditions respectively. Column (7) uses data from the first 8 sessions without Communication, i.e., only data collected under Mixed, Unknown and Homogeneous conditions. Column (8) uses data from the last 7 sessions without Communication, i.e., only data collected under Homogeneous, Unknown and Mixed conditions. Dependent variable is the amount (ECU) invested in PGG. Unknown dummy is the omitted category. Robust standard errors (clustering by session) in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

*Table A4. Amount sent in TG separate regressions by conditions*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Male	0.870* (0.432)	0.925** (0.428)	0.684 (0.490)	0.587 (0.400)	0.596 (0.387)	0.310 (0.356)	0.162 (0.591)	0.215 (0.567)	0.107 (0.509)
Han	0.187 (0.552)	-0.197 (0.628)	-0.575 (0.649)	-0.141 (0.353)	-0.208 (0.415)	-0.301 (0.535)	-0.384 (0.494)	-0.753 (0.572)	-1.209** (0.558)
Family income			-0.0399 (0.295)			-0.441* (0.240)			-0.158 (0.196)
Lived outside of Xinjiang > 6 Months			0.728 (1.282)			1.660** (0.619)			0.580 (0.667)
Han×Lived outside of Xinjiang > 6 Months			0.466 (1.165)			-1.054 (0.869)			-0.0312 (1.075)
Parent w/ college degree			0.421 (0.704)			-0.531 (0.746)			-0.971* (0.546)
Satisfaction			0.00843 (0.119)			-0.0955 (0.0982)			-0.203*** (0.0628)
WVS trust		0.898 (0.545)	1.026* (0.542)		0.155 (0.466)	0.196 (0.410)		0.864** (0.297)	0.807** (0.335)
2 <sup>nd</sup> year			1.818** (0.690)			1.205* (0.582)			0.938 (0.874)
Constant	4.707*** (0.413)	4.362*** (0.499)	4.129** (1.492)	5.768*** (0.371)	5.708*** (0.377)	7.621*** (1.086)	4.608*** (0.484)	4.276*** (0.478)	6.444*** (0.780)
Observations	120	120	119	120	120	119	120	120	119
R-squared	0.029	0.054	0.121	0.020	0.021	0.100	0.009	0.038	0.107

Notes: OLS estimations clustering by session. Dependent variable is the amount (ECU) sent in TG. Column (1)-(3) only use observations under Outgroup condition. Column (4)-(6) only use observations under Coethnic condition. Column (7)-(9) only use observations under Unknown condition. Robust standard errors in parentheses.

\*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1

Table A5. Amount invested in PGG separate regressions by conditions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Male	0.160 (0.341)	0.237 (0.304)	0.139 (0.262)	-0.238 (0.566)	-0.206 (0.544)	-0.184 (0.451)	-1.049** (0.434)	-0.989** (0.429)	-1.060** (0.421)	-0.575 (0.485)	-0.620 (0.506)	-0.575 (0.537)
Han	0.549 (0.623)	0.0110 (0.763)	-0.177 (0.811)	0.576 (0.597)	0.355 (0.576)	0.638 (0.696)	0.595 (0.508)	0.180 (0.501)	-0.173 (0.799)	0.409 (0.432)	0.715* (0.367)	0.670 (0.638)
Family income			-0.0963 (0.365)			-0.136 (0.405)			-0.152 (0.270)			0.397 (0.355)
Lived outside of Xinjiang > 6 Months			2.088* (1.149)			1.539 (1.217)			1.673* (0.852)			0.490 (1.577)
Han×Lived outside of Xinjiang > 6 Months			-1.954 (1.434)			-2.482 (1.418)			-0.500 (1.513)			0.0763 (2.011)
Parent w/ college degree			0.315 (0.642)			-0.477 (1.047)			-0.857 (0.896)			-0.921 (1.246)
Satisfaction			-0.138 (0.114)			-0.111 (0.162)			0.00163 (0.0867)			0.0903 (0.122)
WVS trust		1.260 (0.731)	1.545* (0.836)		0.518 (0.458)	0.643 (0.493)		0.971** (0.403)	1.072* (0.519)		-0.716 (0.657)	-0.874 (0.626)
2 <sup>nd</sup> year			0.482 (1.228)			-0.174 (0.839)			0.595 (0.785)			0.657 (0.984)
Constant	4.076*** (0.444)	3.591*** (0.483)	4.692*** (1.381)	5.268*** (0.496)	5.069*** (0.583)	6.281*** (1.909)	3.361*** (0.431)	2.987*** (0.434)	3.309*** (1.362)	8.326*** (0.573)	8.602*** (0.651)	6.674*** (1.809)
Observations	120	120	119	120	120	119	120	120	119	120	120	119
R-squared	0.008	0.040	0.076	0.011	0.017	0.049	0.061	0.089	0.148	0.014	0.025	0.055

Notes: OLS estimations clustering by session. Dependent variable is the amount (ECU) invested in PGG. Column (1)-(3) only use observations under Mixed condition. Column (4)-(6) only use observations under Homogeneous condition. Column (7)-(9) only use observations under Unknown condition. Column (10)-(12) only use observations under Communication condition. Robust standard errors in parentheses.

\*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1

Table A6. Pearson Correlation Table, Full Sample

	TG_Co	TG_Ou	TG_Un	APR_Co	APR_Ou	APR_Un	PGG_Ho	PGG_Mi	PGG_Un
TG_Co	1.0000								
TG_Ou	0.3898*** (0.0000)	1.0000							
TG_Un	0.2729*** (0.0026)	0.2323*** (0.0025)	1.0000						
APR_Co	0.2277** (0.0124)	0.2323** (0.0107)	0.0436 (0.6362)	1.0000					
APR_Ou	0.1932** (0.0345)	0.3101*** (0.0006)	0.1570* (0.0868)	0.8008*** (0.0000)	1.0000				
APR_Un	0.1995** (0.0289)	0.2466*** (0.0006)	0.2267** (0.0128)	0.6884*** (0.0000)	0.8431*** (0.0000)	1.0000			
PGG_Ho	0.2415*** (0.0079)	0.2889*** (0.0014)	0.2562*** (0.0047)	0.2084** (0.0224)	0.2241** (0.0139)	0.1839** (0.0444)	1.0000		
PGG_Mi	0.2421*** (0.0077)	0.3376*** (0.0002)	0.2704*** (0.0028)	0.2133** (0.0194)	0.2576*** (0.0045)	0.1616* (0.0779)	0.5788*** (0.0000)	1.0000	
PGG_Un	0.1698* (0.0637)	0.3287*** (0.0002)	0.3425*** (0.0001)	0.1766** (0.0537)	0.2887*** (0.0014)	0.2381*** (0.0088)	0.5223*** (0.0000)	0.5182*** (0.0000)	1.0000

Notes: Variables in the table represent amount sent in TG under Coethnic, Outgroup and Unknown conditions, average percentage returned in TG under under Coethnic, Outgroup and Unknown conditions, and amount invested in PGG under Homogenous, Mixed and Unknown conditions, respectively. *p* value in the parentheses.



Table A7. Pearson Correlation Table, Uyghur

	TG_Co	TG_Ou	TG_Un	APR_Co	APR_Ou	APR_Un	PGG_Ho	PGG_Mi	PGG_Un
TG_Co	1.0000								
TG_Ou	0.3227** (0.0119)	1.0000							
TG_Un	0.2144* (0.1000)	0.1724 (0.1877)	1.0000						
APR_Co	0.2893** (0.0250)	0.3025** (0.0188)	0.2877** (0.0258)	1.0000					
APR_Ou	0.1788 (0.1716)	0.2983** (0.0206)	0.2442* (0.0601)	0.8183*** (0.0000)	1.0000				
APR_Un	0.2400* (0.0648)	0.2471* (0.0570)	0.2590** (0.0457)	0.8235*** (0.0000)	0.8347*** (0.0000)	1.0000			
PGG_Ho	0.2891** (0.0251)	0.4055*** (0.0013)	0.2784** (0.0312)	0.3649*** (0.0041)	0.2806** (0.0299)	0.3178** (0.0134)	1.0000		
PGG_Mi	0.0973 (0.4594)	0.2782** (0.0314)	0.3080** (0.0167)	0.2452* (0.0590)	0.2142 (0.1003)	0.1254 (0.3397)	0.6423*** (0.0000)	1.0000	
PGG_Un	0.1182 (0.3684)	0.3730*** (0.0033)	0.3932*** (0.0019)	0.2972** (0.0211)	0.3332*** (0.0093)	0.2782** (0.0314)	0.5305*** (0.0000)	0.5167*** (0.0000)	1.0000

Notes: Variables in the table represent amount sent in TG under Coethnic, Outgroup and Unknown conditions, average percentage returned in TG under under Coethnic, Outgroup and Unknown conditions, and amount invested in PGG under Homogenous, Mixed and Unknown conditions, respectively. *p* value in the parentheses.

Table A8. Pearson Correlation Table, Han

	TG_Co	TG_Ou	TG_Un	APR_Co	APR_Ou	APR_Un	PGG_Ho	PGG_Mi	PGG_Un
TG_Co	1.0000								
TG_Ou	0.4583*** (0.0002)	1.0000							
TG_Un	0.3270** (0.0108)	0.3976*** (0.0017)	1.0000						
APR_Co	0.1792 (0.1708)	0.1845 (0.1583)	-0.1855 (0.1559)	1.0000					
APR_Ou	0.1957 (0.1340)	0.3420*** (0.0075)	0.0447 (0.7344)	0.7879*** (0.0000)	1.0000				
APR_Un	0.1554 (0.2357)	0.2653** (0.0405)	0.1662 (0.2045)	0.5818*** (0.0000)	0.8404*** (0.0000)	1.0000			
PGG_Ho	0.2116 (0.1046)	0.1637 (0.2115)	0.2557** (0.0486)	0.1103 (0.4013)	0.2199* (0.0914)	0.1011 (0.4419)	1.0000		
PGG_Mi	0.3657*** (0.0041)	0.3956*** (0.0018)	0.2555** (0.0488)	0.2114 (0.1049)	0.3332*** (0.0093)	0.2350* (0.0707)	0.5164*** (0.0000)	1.0000	
PGG_Un	0.2187* (0.0931)	0.3020** (0.0190)	0.3422*** (0.0074)	0.1333 (0.3100)	0.3186** (0.0131)	0.2746** (0.0337)	0.5139*** (0.0000)	0.5136*** (0.0000)	1.0000

Notes: Variables in the table represent amount sent in TG under Coethnic, Outgroup and Unknown conditions, average percentage returned in TG under under Coethnic, Outgroup and Unknown conditions, and amount invested in PGG under Homogenous, Mixed and Unknown conditions, respectively. *p* value in the parentheses.