

Technical Appendix to
**FAIR PROCEDURES: EVIDENCE FROM GAMES
INVOLVING LOTTERIES**

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Appendix A. Laboratory Protocol

This Section contains a description of all procedures, as well as verbal and written instructions given to subjects for the ASYM treatment. Other treatments were run with minimal changes. The experimenter read all verbal instructions directly from the protocol. The only experimenter-subject communication not included in the protocol is answers to individual subject questions (answer were given in private). The protocol has been translated from Spanish. The Spanish text is available from the authors upon request. Written instructions to subjects appear in standard case type. Monitor procedures and verbal instructions to subjects appear in SMALL CAPS TYPE.

SEATING. UPON ENTERING THE ROOM EACH PARTICIPANT IS RANDOMLY DIRECTED TO A SEAT. HALF THE SEATS HAVE RED FOLDERS AND HALF HAVE BLUE. RED FOLDER SEATS ON THE RIGHT SIDE OF THE ROOM, AND BLUE FOLDER SEATS ON THE LEFT SIDE. MAY I HAVE YOUR ATTENTION PLEASE. WE ARE READY TO BEGIN. THANK YOU FOR COMING. WITH THE EXCEPTION OF THE FOLDER, PLEASE REMOVE ALL MATERIALS FROM YOUR DESK. OPEN YOUR FOLDER AND TAKE OUT THE SHEET MARKED 'INSTRUCTIONS'. AT THIS TIME PLEASE READ THE INSTRUCTIONS. PARTICIPANTS READ SILENTLY.

General The purpose of this session is to study how people make decisions in a particular situation. If you have any questions, feel free to raise your hand and a monitor will assist you. From now until the end of the session, unauthorised communication of any nature with other participants is prohibited.

During the session you will play a game that gives you an opportunity to make money. Upon completion of the session the amount you make will be paid to you in cash. Payments are confidential: no other participant will be told the amount of money you make.

Description of the game The game involves two players, *A* and *B*. There are three possible proposals for how *A* and *B* might divide 2000 pesetas:

Proposal 1:	<i>A</i> receives 200 and <i>B</i> receives 1800.
Proposal 2:	<i>A</i> receives 1000 and <i>B</i> receives 1000.
Proposal 3:	<i>A</i> receives 1800 and <i>B</i> receives 200.

The game has two steps.
Step 1: One proposal is selected at random. *A* throws two ten-sided die resulting in a number between 1 and 100. The red die determines the units and the green die determines the tenths. For example, if the red die comes up 5 and the green die comes up 0, then the number is 50. The number 00 is read as 100.

<i>If the throw of the die results in the number ...</i>	<i>... then the proposal selected is ...</i>	<i>Chance this proposal is selected.</i>
1	1: A receives 200 and B receives 1800	1%
2	2: A receives 1000 and B receives 1000	1%
3 to 100	3: A receives 1800 and B receives 200	98%

Step 2: *B*, who does not yet know the proposal selected in step 1, states whether he or she will accept or reject each of the three possible proposals.

After steps 1 and 2 are complete, the results of the two steps are matched together. If the selected proposal was accepted, the money is divided between *A* and *B* according to the selected proposal. If the selected proposal was rejected, both *A* and *B* receive zero for the game.

Conduct of the session You will participate in two games, one played after the other. Both games are identical to the description above. For each game, you will be paired with a different person. No one, however, will know the identity of the persons they are paired with, nor will these identities be revealed after the session is complete.

In game 1, those with red folders will have the role of *A*, and those with blue folders will have the role of *B*. For game 2, those with blue folders will be *A*, and those with red folders will be *B*. The results for game 1 will not be revealed prior to completion of game 2.

Payment You will be paid a show-up fee of 500 pesetas plus your earnings for one of the two games. The game for payment will be chosen by a coin flip after both games have been completed. You should therefore play each game as if it is the game to be paid. Once you are paid, you may leave.

AFTER A FEW MINUTES, THE EXPERIMENTER STARTS READING THE DIRECTIONS. I WILL NOW READ THE INSTRUCTIONS OUT LOUD. STEPS OF THE GAME ARE PROJECTED ON AN OVERHEAD SCREEN AND INSTRUCTIONS ARE READ. ARE THERE ANY QUESTIONS?

DECISION MAKING PROCEDURE. PASS OUT FORMS FOR GAME 1. WE ARE READY TO BEGIN GAME 1. THOSE WITH RED FOLDERS WILL RECEIVE THE FORM FOR ROLE A, AND THOSE WITH BLUE FOLDERS WILL RECEIVE THE FORM FOR ROLE B. IN STEP 1, ONE OF THE THREE PROPOSALS FOR DIVIDING 2000 PESETAS IS SELECTED. PLAYERS A PLEASE REVIEW THE FORM WITH ME. THE FORM IS PROJECTED ON AN OVERHEAD SCREEN AND THE FORM IS READ ONLY.

Game 1: Form for player A

You are player *A*. The person you are paired with is player *B*.

• *Step 1 of the game.* You will throw two ten-sided die. The proposal is then selected according to the table in the instructions.

A MONITOR BRINGS THE DICE TO EACH PROPOSER, ONE AT A TIME. WITH THE MONITOR ACTING AS VERIFYING OBSERVER, EACH PROPOSER THROWS THE DICE. THE PROPOSER RECORDS THE RESULT ON THE FORM.

STEP 1 IS NOW COMPLETE. HAND OUT FORMS TO PLAYERS B. IN STEP 2, players *B* INDICATE WHETHER THEY WILL ACCEPT OR REJECT EACH POSSIBLE PROPOSAL. PLAYERS *B* PLEASE REVIEW THE FORM WITH ME. READ THE FORM.

Game 1: Form for player B

You are player *B*. The person you are paired with is player *A*.

• *Step 2 of the game* Indicate whether you will accept or reject each of the three possible proposals by circling either accept or reject for each.

When finished, please turn this sheet over and wait quietly.

WHEN ALL ARE FINISHED, A MONITOR COLLECTS THE FORMS, CHECKING THAT EACH HAS

Proposal	1:	Accept	Reject
Proposal	2:	Accept	Reject
Proposal	3:	Accept	Reject

BEEN FILLED OUT ACCORDING TO INSTRUCTIONS. WE ARE NOW READY TO BEGIN GAME 2. REMEMBER, YOU WILL BE PAIRED WITH A DIFFERENT PERSON THAN YOU WERE IN GAME 1. THE GAME PROCEDURE IS THEN REPEATED, REVERSING THE ROLES OF THE SUBJECTS. ONCE COMPLETE, A COIN IS FLIPPED TO DETERMINE WHICH GAME WILL BE PAID. THEN, THE MONITOR WILL RANDOMLY MATCH EACH PLAYER A FORM WITH A PLAYER B FORM FROM THE CHOSEN GAME AND THIS WILL DETERMINE THE CASH PAYOFF FOR EACH.

Appendix B: Complete Data Set

Aggregated Data

<i>Ultimatum Games</i>	Nobs	Number of	Proposal <i>A</i> (200, 1800)	Proposal <i>B</i> (1000, 1000)	Proposal <i>C</i> (1800, 200)
UG	34	Offers	1	23	10
		Rejections	6	0	14 (41.2%)
SYM34	32	Rejections	1	1	6 (18.8%)
SYM98	32	Rejections	3	0	6 (18.8%)
ASYM	38	Rejections	6	3	13 (34.2%)
<i>Battle of the Sexes Games</i>	Nobs		Proposal <i>A</i> (200, 1800)	Proposal <i>B</i> $\Pr\{A\} = \Pr\{C\} = 50\%$	Proposal <i>C</i> (1800, 200)
BOS	36	offers	0	not applicable	36
		rejections	5		2 (5.6%)
BOSFP	32	offers	0	14	18
		rejections	5	1	13 (40.6%)

Individual Data

<i>Ultimatum Game (no randomisation)</i>	Number of proposers who proposed		
What is rejected?	Proposal <i>A</i>	Proposal <i>B</i>	Proposal <i>C</i>
Nothing	1	11	8
<i>C</i>	0	6	2
<i>A</i> and <i>C</i>	0	6	0
Sum	1	23	10
<i>Ultimatum Game with random proposal</i>			

What is rejected?	ASYM	SYM98	SYM34
Nothing	21	26	26
<i>C</i>	11	3	4
<i>A</i> and <i>C</i>	2	3	1
<i>B</i> and <i>C</i>	0	0	1
<i>A</i> and <i>B</i>	3	0	0
<i>A</i>	1	0	0
Sum	38	32	32
<i>BOS</i>	Number of proposers who proposed		
What is rejected?	Proposal <i>A</i>	Proposal <i>B</i>	Proposal <i>C</i>
Nothing	0	Not	29
<i>A</i>	0	Applicable	5
<i>C</i>	0		2
Sum	0		36
<i>BOSFP</i>	Number of proposers who proposed		
What is rejected?	Proposal <i>A</i>	Proposal <i>B</i>	Proposal <i>C</i>
Nothing	0	3	13
<i>C</i>	0	6	4
<i>A</i> and <i>C</i>	0	3	0
<i>B</i>	0	1	0
<i>A</i>	0	1	1
Sum	0	14	18