

Replication files

“The Attraction and Compromise Effects in Bargaining: Experimental Evidence”

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Overview:

The files contained in this replication package allow replicating the results reported in the main paper and online appendix. A do-file contains all Stata commands necessary to replicate the analysis and is expected to run for about 10 minutes.

The experimental instructions are reproduced in the Online Appendix.

We used the software z-Tree (Fischbacher, 2007) to program and conduct the experiment, and ORSEE (Greiner, 2015) to recruit the participants. Subjects were students from the University of Nottingham (UK). We did not exclude any subjects from participating. Demographics for Experiment 1: 45.22% males, 92.65% native English speakers, 91.91% undergraduates, mean age = 20.30, S.D. = 2.18, most representative country of origin = UK (83.03%). Demographics for Experiment 2: 40.43% males, 53.86% native English speakers, 69.24% undergraduates, mean age = 22.25, S.D. = 3.22, most representative country of origin = UK (37.07%).

Data Availability and Provenance Statements:

The authors collected the data used to support the findings of this study via two laboratory experiments. A full description of the procedures adopted to collect these data is provided in the main paper and in the Online Appendix.

The data from Experiment 1 are balanced across sessions. Due to a connectivity problem between the server and the clients, we lost the data for a few bargaining interactions in Experiment 2. This resulted in an unbalanced dataset for Experiment 2. Also, in half of the sessions of Experiment 2, we dropped the data from G5 and G6 because we realized that the two base contracts were identical instead of being symmetrical (due to an error in the computer script). A software fix resolved this problem for the other sessions.

In each dataset of the two experiments, each line corresponds to one subject in a given period. Also, the payoffs of the games are listed as they are presented in the paper and not by player label or in the order in which they were displayed on the subjects' screens. Since we pool the data across player labels, we decided to arbitrarily indicate the agreements on perfectly symmetric contracts (see G1 and G10 of Experiment 1; G1, G4, G7, G18, and G20 of Experiment 2) on the first of these contracts (see variable `agreement_contract1`). This should be taken into account when analyzing the data by session.

Description of the files:

The files are organized in four folders: 'Data', 'Do', 'Results' and 'zTree'.

The folder ‘Data’ contains the following files:

- `experiment1.dta` contains the data from Experiment 1 in stata format
- `experiment2.dta` contains the data from Experiment 2 in stata format
- `chat_coding_data.dta` contains the data from the coding analysis of the chat conversations of Experiment 1 (see Online Appendix C)
- `experiment1.csv` contains the data from the Experiment 1 in comma separated value format, readable with most spreadsheets
- `experiment2.csv` contains the data from the Experiment 2 in comma separated value format, readable with most spreadsheets
- `chat_coding_data.csv` contains the data from the coding analysis of the chat conversations of Experiment 1 (see Online Appendix C)

The folder ‘Do’ contains the following files:

- `Data_analysis_202101.do` is the do-file for the replication of the data analysis
- `variables_codebook.xlsx` describes all the variables used in the data analysis

The do-file `Data_analysis_202101.do` extracts and reformats all datasets contained in the folder ‘Data’, and runs the analysis reported in the main body of the article and in the online appendix.

The folder ‘Results’ contain the output files—in .png format for figures, in .csv, .rtf or .tex for tables—that are generated by running the do-file `Data_analysis_202101.do`. It also contains the files `Figure5.xlsx` and `Figure7.xlsx`. These are the excel files with the data used to produce Figures 5 and 7. Output files are called appropriate names (e.g. `Table2.csv`) and should be easy to correlate them with the manuscript.

The folder ‘zTree’ contains the following files:

- `Unrestricted_Bargaining_Compromise.ztt` is the main zTree program used to run the experiment
- `Demographics_questionnaire.ztq` is the zTree program used to collect demographic information on the participants
- `GAMES.txt` is an example of the file imported into zTree to randomize the games. This file was different in each session
- `MATCHING.txt` is an example of the file imported into zTree to randomize the matching between participants. This file was different in each session
- `practice.jpg` is an image file imported into zTree
- `How_to_run_the_experiment.pdf` provides the instructions on how to conduct a session of the experiment

Computational requirements:

Software requirements:

- Stata (code was last run with version 14.2). The following additional ado files (as of 2021-01-13) are required:
 - `estout`

Memory and Runtime Requirements:

Approximate time needed to reproduce the analyses on a standard (2021) desktop machine: <10 minutes.

The code was last run on an Intel(R) Core(TM) i7-6820HQ CPU @ 2.70GHz 2.70 GHz with Windows 2017 Professional installed.

Instructions to replicators:

- Open `Data_analysis_202101.do` with the Stata do-file editor
- Install needed ado packages (if not already present)
- Edit the file to adjust the default path
- Execute the do-file to run all commands in sequence
 - It reproduces the figures, tables and analyses reported in the paper and online appendix (all figures and some tables are saved in the folder ‘Results’)
 - If running a single or a set of commands, note that ORDER IS IMPORTANT
 - The program was last run top to bottom in February, 2021
 - The do-file follows approximately the order of the paper and online appendix

List of tables and programs:

The provided code reproduces:

- All numbers provided in text in the paper and online appendix
- All tables and figures in the paper and online appendix except:
 - Figures 1, 2 and 4 (not from data)
 - Tables 1, 3, B1, B2, D1, D2, E1 and E2 (not from data)

Figure/Table #	Program	Line Number	Output file	Note
Table 1	n.a. (no data)	n.a.	n.a.	List of games used in Experiment 1
Table 2	<code>Data_analysis_202101.do</code>	95	<code>Table2.csv</code>	
Table 3	n.a. (no data)	n.a.	n.a.	List of games used in Experiment 2
Table 4	<code>Data_analysis_202101.do</code>	371	<code>Table4.csv</code>	
Table B.1	n.a. (no data)	n.a.	n.a.	Calculations for the Kalai-Smorodinsky bargaining

				solution (Experiment 1)
Table B.2	n.a. (no data)	n.a.	n.a.	Calculations for the Kalai-Smorodinsky bargaining solution (Experiment 2)
Table C.1	Data_analysis_202101.do	761	TableC1.csv	
Table C.2	Data_analysis_202101.do	809	TableC2.csv	
Table C.3	Data_analysis_202101.do	823	TableC3.rtf	
Table C.4	Data_analysis_202101.do	888	TableC4.csv	
Table C.5	Data_analysis_202101.do	947	TableC5.csv	
Table H.1	Data_analysis_202101.do	1364	TableH1.tex	
Table D.1	n.a. (no data)	n.a.	n.a.	Calculations for inequity averse preferences (experiment 1)
Table D.2	n.a. (no data)	n.a.	n.a.	Calculations for inequity averse preferences (experiment 2)
Table E.1	n.a. (no data)	n.a.	n.a.	Calculations for social welfare preferences (experiment 1)
Table E.2	n.a. (no data)	n.a.	n.a.	Calculations for social welfare preferences (experiment 2)
Figure 1	n.a. (no data)	n.a.	n.a.	Example of attraction and compromise effects in individual choice
Figure 2	n.a. (no data)	n.a.	n.a.	Example of attraction and compromise effects in bargaining
Figure 3	n.a. (no data)	n.a.	n.a.	Graphical illustration of the bargaining games used in Experiment 1
Figure 4	n.a. (no data)	n.a.	n.a.	Example of decision screen
Figure 5	Figure5.xlsx	n.a.	n.a.	
Figure 6	n.a. (no data)	n.a.	n.a.	Graphical illustration of the bargaining games used in Experiment 2
Figure 7	Figure7.xlsx	n.a.	n.a.	
Figure F1	Data_analysis_202101.do	1050	FigureF1a.png FigureF1b.png	
Figure F2	Data_analysis_202101.do	1050	FigureF2a.png FigureF2b.png	

References

Fischbacher, U., 2007, z-Tree: Zurich toolbox for ready-made economic experiments, *Experimental Economics* 10, 171–178.

Greiner, B., 2015, Subject pool recruitment procedures: organizing experiments with ORSEE, *Journal of the Economic Science Association* 1, 114–125.