Behavioural Economics and Consumer Decision Making

Third experimental problem set

Academic Year 2023-24

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- Due date: December 8, 2023 at 23.59 PM. Assignments must be uploaded on Luiss Learn. Late submissions will be awarded zero points.
- The files you should upload are:
  1. A pdf file with your answers to the questions.
  2. A stata do file (with comments describing your steps).
- Each file must be named after your group in the following way:

  `Groupname_assignment_3`

  For example, group Barney must upload two files, named `Barney_assignment_3.pdf` and `Barney_assignment_3.do`.
- Be sure to write the names of all group members at the top of page 1 of the pdf file.
- This assignment is worth up to 5 points.
- *Buon lavoro!*

The data

In this assignment you will examine experimental data from a take-it-or-leave-it bargaining game known as the ultimatum game. Subjects were randomly and anonymously paired, one as proposer and one as responder, and told they would play a game exactly once. The proposer was given an endowment of 10 tokens by the experimenter and had to propose a division of the endowment between themself and the responder. The responder observed the proposal and then decided whether to accept or reject it. If the division was accepted, then each member of the pair received the amount implied by the proposer's offer. If it was rejected, then both the proposer and the responder earned nothing.

The dataset contains data for the academic years 2022-23 and 2023-24. It consists of the following variables

- `player_id`: Subject identifier.
- `canale`: Subject's canale (A or B).
- `pair_id`: Pair identifier.

- `year`: Academic year (2022-23 or 2023-24).
- `player_role`: Subject's role (proposer or responder).
- `proposer_choice`: Proposer's division suggestion.
- `responder_choice`: Responder's decision (accept or reject).
- `player_final_payoff`: Subject's payoff.
- `decision_time`: time taken by the subject to make a choice (in seconds).

Questions

1. Create a table and a graph to describe the distribution of proponents' choices. What could be a possible explanation for your result?

   Hint: add the option "`, discrete width(1) xla(0(1)10) freq`" at the end of the command line used to generate the graph.

2. Create a table and a graph to describe the distribution of responders' choices. What could be a possible explanation for your result?

   Hint: add the option "`, discrete width(1) xla(0(1)1) freq`" at the end of the command line used to generate the graph.

3. What is the proportion of responders who rejected an offer of at least 4, and what is the proportion of responders who rejected an offer of less than 4?

4. Create a table and a graph to describe the distribution of players' final payoffs.

5. Is there a statistically significant difference between the average offer made by proponents in the academic years 2022-23 and 2023-24?

6. Is there a statistically significant difference between the time taken by the responder to decide whether to accept or reject (a) an offer less than or equal to 4 and (b) an offer greater than 4 but less than or equal to 6? Suggest a plausible explanation for this finding.

   Hint: to test this question, first create a new variable named `low_medium_offer`. The variable must take the value zero if the proposer's choice is less than or equal to 4, the value 1 if the proposer's choice is greater than 4 but less than or equal to 6, and a missing value otherwise.