

## TEAM - LABRATS - UPDATE REPORT - 14/04/23

OUR CURRENT STATUS IS STATED BELOW:

### 1. REPLICATION GAME:

We have uploaded the code for our original replication game. We have also uploaded the code for a revised version of the replication game to fit with the trial requirements and themes of the extension game that we have designed. The number of rounds of this game is 16, with each round having 20 trials.

### 2. EXTENSION GAME:

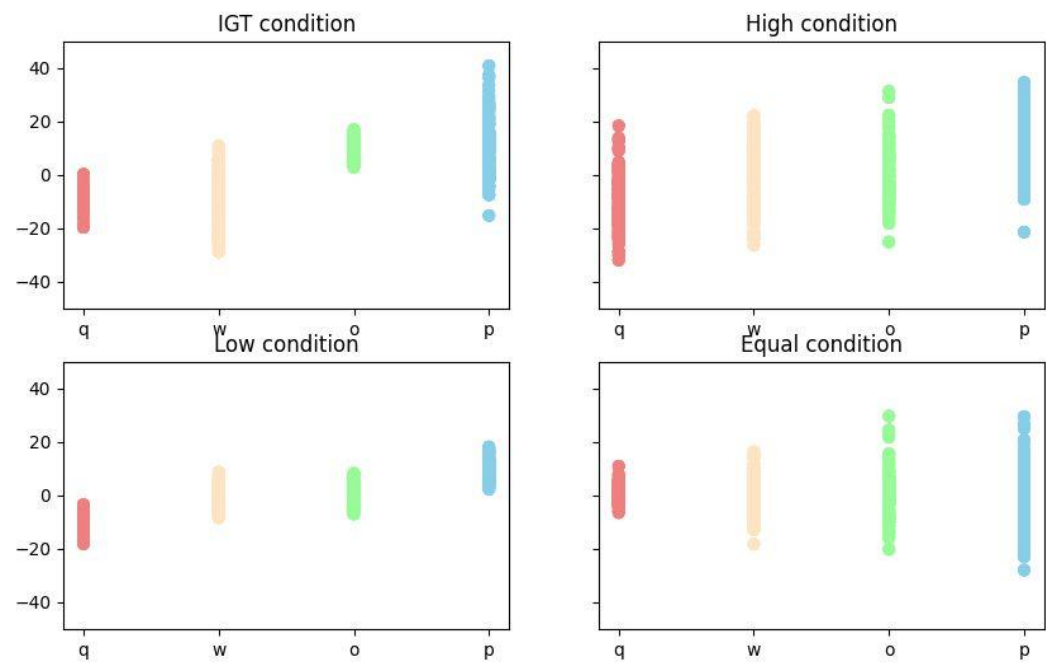
The extension game has the following modifications:

- a. We only implemented 2 time pressure conditions - 400ms and 800 ms.(and one unlimited condition). This was because having that many cases weren't feasible with the no of rounds we needed to play for sufficient data. It was suggested that we only have two time pressure cases.
- b. The graph updates automatically after each trial to show performance. Showing loss domain by implementing negative rewards doesn't seem like an extension but a diff experiment. So an indicator of performance within a round is a safer loss domain implementation. It also turns red when our current choice is worse than the previous one and turns green if it is better or equal.
- c. The number of rounds is 24. There are 3x4 payoff conditions, and so each payoff condition has data worth 2 rounds.
- d. Two csv files, requiredData.csv and bonus.csv, are generated, containing all the relevant data required for analysis.

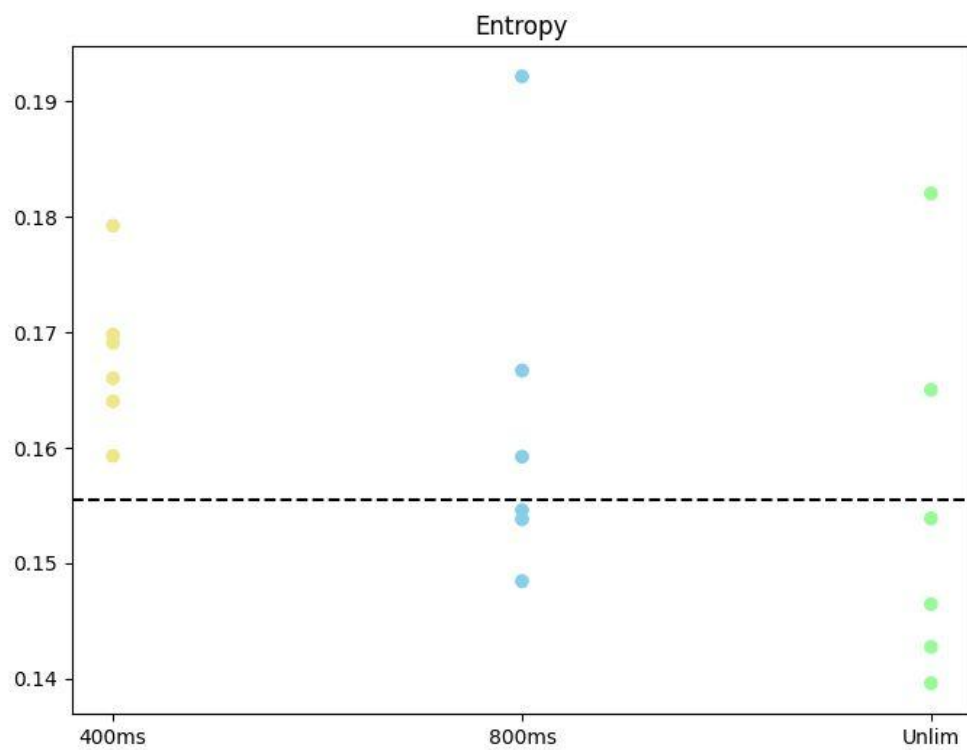
### 3. ANALYSIS OF DATA:

- We do not have datasets from our revised replication game, but we have 6 datasets for the extension game.
- We have used these six datasets to perform data analysis corresponding to images 1c, 2b, 2c and 2d in the original paper assigned to us.
- The codes used for these analysis plots are named generate1c.py, generate2b.py, generate2c.py, and generate2d.py.
- The images for each of the above are shown below:

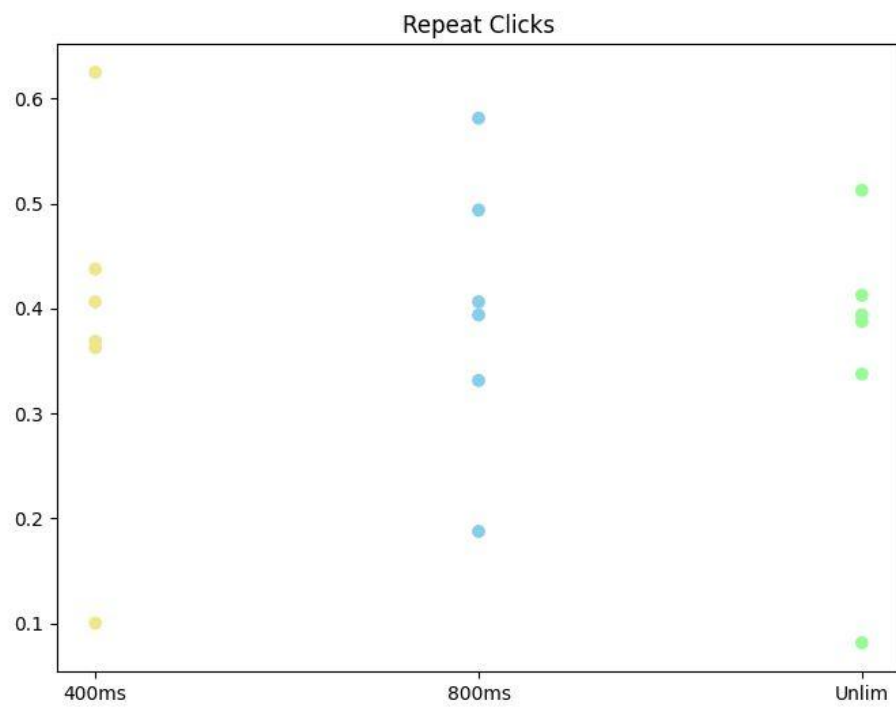
1. corresponding to fig 1c



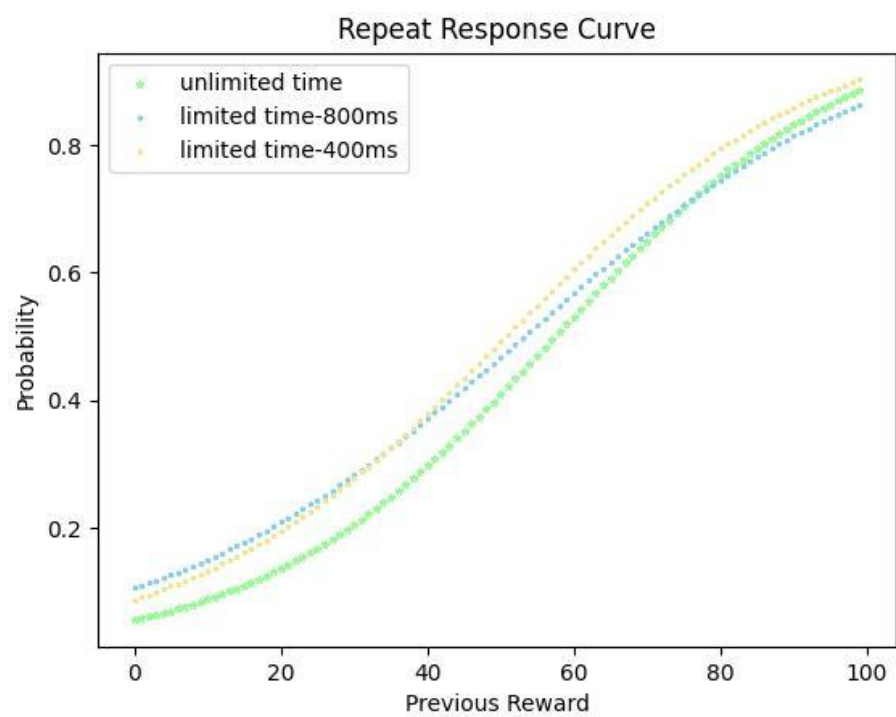
2. Corresponding to Fig 2b



### 3. Corresponding to Fig 2c



### 4. Corresponding to Fig 2d:



The analysis done until now shows a substandard quality of datasets and do not show accurate results. For example, in the 2nd image, a large number of participants have a choice entropy above that of a random choice generator (indicated by the dotted black line). We will collect more datasets and finish modelling the rest of the analysis plots shown in the paper.

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