As Predicted:"*The Fair Side of Chance*" (#93947)

Created: 04/12/2022 11:35 AM (PT)

Author(s)
Andrew Cullen (Student Researcher Upenn) - atcullen@sas.upenn.edu
Jordan Selesnick (University of Pennsylvania) - jselesni@sas.upenn.edu
Steven Jacobs (University of Pennsylvania) - shjacobs@sas.upenn.edu

1) Have any data been collected for this study already?
No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?
The guiding research question for this study is 'how does uncertainty effect contributions to a public good?' Specifically, we are investigating contributions under different types of uncertainty and whether people's perceptions of power and parity moderate this effect.
This question will be specifically tested using the following hypotheses:
H1: Contribution rates for individuals in the Agent Equal condition will be significantly greater than those in control condition.
H2: Contribution rates for individuals in Agent Unequal will be significantly less than control.
H3: Contribution rates for individuals in Systemic Equal condition will be significantly greater than those in the control condition.
H4: Contribution rates for individuals in Systemic Unequal condition will be significantly less than those in the control condition.
H5: Contribution rates for individuals in Equal conditions will be significantly greater than Unequal conditions.
H6: Contribution rates for individuals in the Systemic condition will be significantly greater than those in the Agent condition.
H7: Equal conditions will give higher fairness scores than unequal conditions.
H8: Systemic conditions will give higher mean fairness scores than in Agent conditions.
H9: Fairness scores will be positively correlated with contribution rates across conditions.

3) Describe the key dependent variable(s) specifying how they will be measured.
The primary dependent variable is contribution rates to the public good. These will be measured across 8 rounds. A secondary dependent variable is fairness, which will be measured using survey questions following the experiment.

4) How many and which conditions will participants be assigned to?
There will be 5 conditions total. They are:
Control: Players read no uncertainty statement and simply play an eight round public goods game.
Equal Systemic: Players are told the multiplier will vary each round and that this variation is performed randomly by a computer. The multiplier is the same for both participants.
Equal Agent: Players are told the multiplier will vary each round and that this variation has been deliberately chosen by the experimenters. The multiplier is the same for both participants.
Unequal Systemic: Players are told the multiplier will vary each round and that this variation is performed randomly by a computer. One player is randomly chosen to see the multiplier (favored) and the other does not see the multiplier (unfavored).
Unequal Agent: Players are told the multiplier will vary each round and that this variation has been deliberately chosen by the experimenters. One player is randomly chosen to see the multiplier (favored) and the other does not see the multiplier (unfavored).

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
The primary dependent variable is contribution rates in the public goods game. H1-H8 will be tested using two way Wilcoxon Mann-Whitney tests. H9 will be tested using an OLS regression.
Additionally we will run another OLS regression to determine if perceptions of fairness and equity impacted contribution rates. This regression will also test to see if demographic variables (age, race, gender) impacted contribution rates.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
We do not expect any outliers in our data because contribution rates will be bounded (0-20). In public goods games, contributing the maximum (20) and minimum (0) each round can be considered 'strategic'. Therefore collecting data on these participants will still be valuable. Observations will be excluded from analysis on the basis of any of the following conditions:

Observation durations longer than 45 minutes
Failing to complete all elements of the experiment
Failing the bot check
Failing the attention check
Getting matched with a bot in the lobby of the of the PGG rather than another player

7) How many observations will be collected or what will determine sample size?
No need to justify decision, but be precise about exactly how the number will be determined.
We aim to collect 1500 observations total. This is based on an a priori power analysis conducted in G*power and pretest data.

8) Anything else you would like to pre-register?
(e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)
Nothing else to pre-register.