

Replication of Côte et al., 2015

“High economic inequality leads higher-income individuals to be less generous”

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The original paper includes two studies but only one on MTurk. In this between-subject experiment, participants are first asked about their income and then shown a pie chart claiming to show the income distribution in their home state. The data is simulated, and participants are randomized to one of two treatments: they are either shown a chart of high inequality or low inequality. Participants are then told they have received 10 lottery tickets to win \$500 and are asked to split the lottery tickets with another participant who has not received any tickets. When inequality is high compared to low, high-income participants are less generous than low-income participants.

Hypothesis to replicate and bet on: High economic inequality (as compared to low economic inequality) reduces the generosity of high-income individuals (as compared to low-income individuals). The above hypothesis is tested using an OLS regression, interacting the high inequality treatment with a dummy for high-income participants. Specifically, we replicate the result on the interaction coefficient of Model 1 in Table 2 ($B = -0.08$, $SE = 0.04$, t -value = -2.15).

Criteria for replication: The criteria for replication are an effect in the same direction as the original study and a p -value < 0.05 in a two-sided t -test of the interaction coefficient in the regression.

Power analysis: The original study had 704 participants. The standardized effect size (Cohen’s d) was $d = 0.324$. To have 90% power to detect 67% of the original effect size, a sample size of $n = 3601$ is required.

Sample: As the experiment is set in an American political context, we restrict subjects to the United States (this restriction was not mentioned in the paper). Participants who did not report their income or performed worse than chance on attention checks were excluded from the analysis – we will do the same. We will make sure that participants can only participate once from the same account in this specific study, and we will only recruit participants with a HIT approval rate of 95% or above. We will also check all IP addresses via <https://www.ipqualityscore.com/>; and we will remove any participants where one or more of the following is true: fraud score ≥ 85 ; TOR = True; VPN = True; Bot = True; abuse velocity = high. The replication sample size is the sample size after any exclusions of participants.

Materials: We will use the same material as in the original study, kindly provided by the original authors.

Procedure: We will closely follow the procedure of the original experiment. The following summary of the experimental procedure is therefore largely based on the description of the experiment in the “Methods” section (p. 15842).

Participants will first be shown a Captcha, and will thereafter provide informed consent. After this we will include an attention check that participants will need to pass to continue to the study. This attention check is in addition to any other potential attention check(s) used in the original study. Participants will be asked to complete a survey about their thoughts and opinions

about various topics. Then, they will be asked to answer demographic questions, including income and their state of residence.

Participants will then be randomly assigned to view one of two versions of a pie chart portraying simulated data showing that their home state featured a relatively high or low degree of inequality. To increase the believability of the charts, we will (as the original authors did) indicate that the charts have been constructed using data from the US Census Bureau's 2012 Economic Census, and that the Census is conducted by means of a representative stratified sampling of households.

In the higher-inequality graph, regardless of the state identified, the proportions of wealth owned by each quintile will be 1%, 3%, 4%, 11%, and 81%. This distribution is similar to, but somewhat less equal, than the actual distribution in the United States (at the time of the original study). In the lower-inequality graph, regardless of the state identified, the proportions are 11%, 15%, 18%, 21%, and 35%. This corresponds to the actual wealth distribution in Sweden (at the time of the original study).

Next, participants will be informed that they will be given a chance to win a \$500 bonus payment. They are told that based on the order in which they started the study relative to other participants, they have been assigned an odd-numbered participant ID, and that participants with odd numbered IDs have been designated to be deciders. Participants will be told that as a decider, they will automatically be given 10 raffle tickets for the \$500 prize. They will read that the participant following them will be in the role of receiver, and thus does not have any raffle tickets to start with, but will get any tickets that the decider transfers. Participants will then indicate how many of their tickets they wish to give the other participant by choosing a value between 0 and 10 from a drop-down menu.

When the experiment ends, in the debriefing, participants will be told that they have been given a false impression of the level of inequality in their home states so that we could examine the causal effects of perceived inequality on generosity. Participants will then be given information about the actual levels of inequality in their home states, other states, the United States, and other countries.

Analysis: The analysis will be performed as in the original article - the analysis code was kindly provided by the original authors. In particular, we conduct a *t*-test of the regression coefficient for the interaction between high-income and high inequality, i.e., the interaction coefficient of Model 1 in Table 2.

Subject payment: We are standardizing payments across all replications so that studies have a certain show-up fee depending on the expected length of the study, with an hourly wage from the show-up fee of \$8 and a minimum payment of \$1 (for studies with incentive payment we use the same incentive payment as in the original study; and this payment is paid in addition to the show-up fee). If we have problems recruiting, we will increase the show-up fee.