

## **Replication of McCall et al. 2017**

**“Exposure to rising inequality shapes Americans’ opportunity beliefs and policy support”**  
**PNAS 114(36), 9593-9598.**

<http://www.pnas.org/content/114/36/9593>

*The original paper includes several studies. We randomly chose study 1. In this between-subject experiment, participants are randomized to one of two conditions: an inequality treatment condition (where participants read a realistic, accurate, and nonpartisan article about the trend of rising economic inequality in the US) or a comparable control condition (of similar length but instead on baseball). Participants are asked to rate the importance of structural and individual factors in “getting ahead”. Participants exposed to inequality compared to a control are more likely to rate structural factors as more important and individual factors as less important in “getting ahead”. We focus on the structural factors result.*

**Hypothesis to replicate and bet on:** Participants exposed to inequality compared to a control are more likely to rate structural factors as more important in “getting ahead”. To evaluate this hypothesis, the authors perform a regression analysis ( $\beta = 0.353$ ,  $SE = 0.076$ ,  $p < 0.001$ , root-mean-squared error (RMSE) = 0.828 for structural factors); p. 9594. We randomly picked the structural factors result.

**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 regression analysis.

**Power analysis:** The original study had 480 participants after exclusions (inequality condition  $n = 244$ , control condition  $n = 236$ ). The standardized effect size (Cohen’s  $d$ ) was  $d = 0.423$ . To have 90% power to detect 67% of the original effect size, a sample size of  $n = 529$  is required.

**Sample:** Only participants from the US were allowed to participate in the original study. Moreover, workers were required to have a HIT approval rate of 99% or higher. We will use the same inclusion criteria. Participants were excluded from the analysis if they did not complete the questions on perceptions of opportunity, policy preferences, partisan identification, and key demographic characteristics (income, age, education, gender, and race), and if they incorrectly answered an attention check question. The replication experiment will implement the same criteria. Moreover, we will make sure that participants can only participate once from the same account in this specific study. 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  $\geq 85$ ; 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. In particular, the experiment will be conducted using the original *Qualtrics* survey.

**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 article (p. 9594), the section “Methods” (pp. 9597–9598) and the Supporting Information (pp. 1-4).

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 randomly assigned to an inequality treatment condition or to a comparable control condition. In the inequality condition, participants will be asked to read a realistic, accurate, and nonpartisan article about the trend in rising economic inequality in the United States that will be accompanied by a simple bar chart. This article will not highlight any particular social group or mention any explanation or consequence of inequality or reference the issue of opportunity, which is crucial given that opportunity beliefs are the primary dependent variable. Participants in the control condition will read an article of similar length, format, and numerical content pertaining to baseball.

After participants have read the article, they will be asked to respond to questions that measure the importance of structural and individual factors in “getting ahead,” the phrase used in the battery of questions about economic opportunity repeated in various years since 1987 in the General Social Survey (GSS). Two items (rated from 1 to 5, with 1 being “not at all important” and 5 being “essential”) assess perceived importance of structural factors related to class background (“coming from a wealthy family,” “having well-educated parents,”); and two items assess the perceived importance of purely individual factors (“hard work,” “ambition,”). We will focus on the answers to the two questions about structural factors. The answers to these two questions will be averaged.

Participants will be asked to answer questions on income, education, race, gender, age, and partisanship. They will also be asked questions on trust, policy preferences and various manipulation checks, but these will not be included in our replication analysis as they are not used for the main test in the original study.

**Analysis:** The analysis will be performed as in the original paper. In particular, the importance of structural factors will be regressed on the inequality condition and control variables.

**Subject payments:** 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.