

Ain't it Funny: A Replication of Caruso et al.'s (2013) Money Priming Experiment

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Abstract

This is a direct replication of Experiment 1 in [Caruso et al.'s](#) "Mere Exposure to Money Increases Endorsement of Free-Market Systems and Social Inequality" (2013). The original experiment asked participants to answer a survey in which they ranked aspects of the United States' social and political system on fairness and legitimacy. One group of participants was given a survey with a faint image of \$100 bills in the background. In contrast, the other group was given an otherwise identical survey with the same image in the background but blurred to be unrecognizable. This was intended to examine if being exposed to images of money could make people more supportive of inequality and the United States government's free-market system. We tested this same effect by replicating the experiment as closely as possible, copying the questions precisely, and altering the survey by adding minor spelling revisions, our own consent form, our own demographics questions, and a different numerical scale for the questions. We were unable to replicate the findings of Caruso et al.'s original experiment.

Introduction

[Eugene M. Caruso et al.](#)'s original experiment in 2013 tested whether exposure to images of money influenced people's beliefs about the U.S.'s free

market system and social hierarchies. We replicated Experiment 1, which explored the link between exposure to money and support for system justification. The original study included thirty participants.

Participants were either assigned to the money condition, in which they were exposed to a faint image of \$100 bills in the background of the instruction screen, or the control condition, which instead showed a blurred version of this image. Participants were instructed to answer demographics questions, and then completed the System Justification scale ([Kay & Jost, 2003](#)), which displayed 8 statements related to the social system in the United States that participants rated their agreement to on a 7-point scale. They were also asked to report their political ideology, religiosity, and wealth. The study found that money priming had a large effect: participants in the money condition more strongly endorsed system justification than participants in the control condition.

However, subsequent replication attempts did not find evidence of this effect. In 2014, the [Many Labs Replication Project](#), included the initial study by Caruso et al., and only one out of 36 labs were able to reproduce the effect. These findings suggest that the effect of money priming on attitudes and beliefs may be weaker than originally thought.

In 2015, [Rohrer et al.](#) replicated this study with 136 participants. There were two procedural differences between this replication and the original study. In the replication, the instructions were placed directly over the image, rather than in a textbox; and the three demographics questions were displayed on a different screen than the instructions. This replication found that the effect of money priming was “small and unreliable” ([Rohrer et al.](#)). Additionally, [Rohrer et al.](#) pointed out that the results of [Caruso et al.](#)’s study included multiple null effects that were unreported.

Methods

Our research included two online surveys with the System Justification questions from the original experiment, one using money priming visuals and another being a control survey. Participants were randomly assigned to one of the two surveys. The money priming group was exposed to an image of \$100 bills while answering the questions, and the control group was presented with a blurred version of this same image. The visuals can be found in Figure 1 below. To review all questions asked in our study, see Appendix A.

Due to some constraints within Qualtrics, we created two individual surveys that would function as our two corresponding survey variants. To randomly select between these options, we used a specialized link that assigned participants randomly to one of the two groups. This enabled us to accurately present our gathered data without intrusion or favoritism.

To enhance accuracy and usability, we made a few revisions to the survey from Caruso et al. First and foremost, some spelling errors were corrected. Secondly, the demographic data which was collected in the original study was omitted and different demographic data, such as college affiliation, was collected instead (see Appendix A). Lastly, due to incompatibility issues and to optimize users' experience on mobile devices (which would likely be most users' choice), Firealpaca was used instead of Qualtrics' default software to edit the money priming condition image in order for it to display correctly.

Our survey unintentionally used a 1-5 ranking scale instead of the 1-7 scale of the original, which it was intended to have instead. Unfortunately, this oversight was only noticed after the survey had been released to the public. Even so, we persisted and accounted for this discrepancy in the result interpretation. Furthermore, corrections were made while carefully assessing the results—ensuring we achieved time efficiency while delivering accurate results.



Money Prime



Control

Figure 1. Money Priming and Control group background images.

Results

Out of the 66 respondents to our survey, 39 were allocated to the money-priming group and 27 to the control group. This is a larger sample size than Caruso et al. (2013)'s original study.

Contrary to Caruso et al. (2013), the control group's mean was 2.12 (sd = 0.66), and the money priming group's mean was 2.06 (sd = 0.35), meaning people in the money priming group were slightly less system justifying than the people in the control group, $d = 0.08$. A t-test indicated that the difference between the two group means was not statistically significant, $t(36.50) = 0.424$, $p = .674$, 95% CI = [-0.222, 0.339].

Conclusion

The difference between the means of the two conditions was not statistically significant. Although there was a small difference between the means of the two conditions, it was in the opposite direction as the original study, and the difference did not reach significance.

Overall, the participants in both groups demonstrate an inclination toward rejecting systemic justification. This could be attributed to most participants coming from The 5 College Consortium, which includes many colleges typically regarded as very liberal. They are likely to be more open-minded, inclined to challenge traditional beliefs, and question whether current social, economic, and political systems are justifiable.

Author Contribution Statement

A.B. Introduction, Appendix, Data Analysis, Survey, recruited participants, manuscript editing, References.

A.Q. Introduction, Data Analysis, Manuscript Editing, Methods, Conclusion, Results, References.

C.W. Designed Flyers, Recruited Participants, Survey, Data Analysis, Editing Manuscript, Conclusion.

L.M. Abstract, Introduction, Methods, Results, Conclusion, Survey, Editing Manuscript

A.S.L. Put up posters, recruited participants, survey creation, manuscript editing

B. R. Manuscript editing, Survey

V.M. Methods, Survey Editing, Image Editing, Data Analysis, Results, Putting Up Posters, Recruiting

S.D. Manuscript edit, survey edit, participant recruitment.

T.R. and E.L.-P. Supervised the project.

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Appendix A

1. Consent Form
2. Age Check - I affirm that I am 18 years of age or older.
3. System Justification Scale Questions:
 - a. In general, you find society to be fair.
 - b. In general, the American political system operates as it should.
 - c. American society needs to be radically restructured.
 - d. The United States is the best country in the world to live in.
 - e. Most policies serve the greater good.
 - f. Everyone has a fair shot at wealth and happiness.
 - g. Our society is getting worse every year.
 - h. Society is set up so that people usually get what they deserve.
4. Familiarity Check:
 - a. What do you think this study is about?
5. Five College Student:
 - a. Check whatever applies:
 - i. I am a current student at one of the Five Colleges
 - ii. I am an alum of one of the Five Colleges
 - iii. I am faculty/staff at one of the Five Colleges
 - iv. I am family or friend of a Five College student
 - v. Other:
6. Age - How old are you?
7. Free Response - Do you have any final thoughts on the survey?