Replication attempt to evaluate a claim from Rozenkrants_JournConsRes_2017_5JE

Replication team: Savannah C. Lewis & Christopher R. Chartier

SCORE RR ID: z189

OSF Project: https://osf.io/agv64

Description of generalizability

We did not depart from the original study in any meaningful way. We used the original materials, the original procedure, and sampled from the same participant population as the original study.

Claim evaluation

Single-trace claim

Coded claim 4 text (original paper): "we found a significant effect of the clarity x rating distribution interaction on desirability (M_Bimodal/Clear = 3.8 vs. M_Bimodal/Conflicted = 4.2 vs. M_Unimodal/Clear = 4.2 vs. M_Unimodal/Conflicted = 3.7; b = –.17, SE = .08, t(123) -= –2.15, p = .03"

This claim was replicated using new data from our study.

We averaged the three desirability questions (evaluation of the movie on a seven-point scale of perceived quality [good/bad], the likelihood of purchasing the movie [likely/unlikely], and the likelihood of seeing the movie [likely/unlikely]) into a single desirability index. We conducted a Cronbach's Alpha analysis to assess the internal consistency of the three items and the results were of Chronbach's alpha of (α =0.835).

The results of the regression indicated that distribution, clarity, and the interaction between distribution and clarity collectively accounted for the variance in desirability ratings (R^2= 0.039, F(3,372) = 5.038, p=.002, two-tailed). Self-concept did not significantly predict desirability [Unstandardized β = -.046, p>.05 (p = .472, two-tailed)]. Rating distribution did significantly predict desirability [Unstandardized β = .180, p<.05 (p = .005, two-tailed)]. The self-concept X rating distribution interaction did significantly predict desirability [Unstandardized β = -.146, p<.05(p=.022, two-tailed)].

Condition	***n***	***Mean Desirability Rating***	***Std. Deviation***
Conflicted, Unimodal	86	4.3294	1.2508

Clear, Unimodal	95	4.5298	1.2683
Conflicted, Bimodal	112	4.9821	1.2054
Clear, Bimodal	83	4.5984	1.1730

Table 1. Shows the descriptive statistics for each condition.

Replication outcome: Simple test

Inferential criteria: Criteria for a successful replication attempt for the SCORE project is a statistically significant effect (alpha = .05, two tailed) in the same pattern as the original study. For this replication attempt, this criteria is met by finding clarity x rating distribution interaction term is a significant predictor of desirability, AND a pattern of descriptive statistics such that desirability is higher in bimodal/conflicted than bimodal clear, AND, unimodal/clear is higher than unimodal/conflicted.

Result: This claim was replicated using new data from our study. We did find that the clarity x rating distribution interaction term was a significant predictor.

Deviations from the preregistration:

Deviation to the Pre-registration Masking- Our original Pre-registration stated that masking would be done by qualtrics, however, this replication used Formr to administer and create the link for participants. Participants and the Experimenter were both still masked from the assigned condition.

Deviation to the Pre-registration Stopping rule- Our original Pre-registration stated that once we had collected our stage 1 analytic sample size of 377 usable participants (recruiting 500 participants to account for attrition) we would stop and analyze the data. However, after collecting 504 participants and applying exclusion criteria, we did not meet the analytical sample size (377). We then ran 251 more participants to attempt to meet 377. Running a total of 755 mturkers through the full experiment. However, you will notice our data has 899 respondents, this is due to the software, formr, maintaining participant data that was in fact a test run, or did not have the participant finish fully (which would lead to them being excluded from analyses). After exclusion criteria, we ended with 376 usable participants. Our stopping rule also stated that if we did not meet the analytical sample size we would run “batches” of 50 until successfully reaching 377. Due to budget constraints, we were not able to run additional "batches'' of 50 to attempt to recruit more participants after exclusion criteria.

Deviation from the exclusion criteria- Our original Pre-registration stated that we had three exclusion criteria. However, since formr kept test runs or data run before the link was posted to mturk and after the last mturk session was completed, we excluded these cases as they were not legitimate participant responses.

Discussion: The specific claim of interest was replicated using new data from our study.

Description of materials provided

All materials, analysis description, results output, data, and data dictionary from this project are publicly available on OSF. All materials on this OSF project may be shared publicly.

Conflicting Bimodal Condition- R Markdown excel sheet ready to implement on formr. For participants in the Conflicting self-expressive condition and the bimodal rating disruption condition.

Conflicting Unimodal Condition- R Markdown excel sheet ready to implement on formr. For participants in the Conflicting self-expressive condition and the unimodal rating disruption condition.

Clear Unimodal Condition- R Markdown excel sheet ready to implement on formr. For participants in the Clear self-expressive condition and the Unimodal rating disruption condition.

Clear Bimodal Condition- R Markdown excel sheet ready to implement on formr. For participants in the Clear self-expressive condition and the bimodal rating disruption condition.

Score_consent- R Markdown excel sheet ready to implement on formr of the Consent form all participants viewed.

SCORE Data- Excel sheet with 11 tabs that has both cleaned and raw data that has no identifying variables. All described in the data dictionary.

Data dictionary- PDF file with a description of all dataset sheets and variables.

Analysis pipeline- PDF with detailed instructions for all analysis steps.

Results Output- PDFs (two files, two links) with SPSS output for the key regression results.

References

Arslan, R. C., Walther, M. P., & Tata, C. S. (2020). formr: A study framework allowing for automated feedback generation and complex longitudinal experience-sampling studies using R. *Behavior Research Methods*, 52, 376–387. https://doi.org/10.3758/s13428-019-01236-y

Rozenkrants, Bella & Wheeler, S & Shiv, Baba. (2017). Self-expression cues in product rating distributions: when people prefer polarizing products. *Journal of Consumer Research. 44. 759-777*. doi: 10.1093/jcr/ucx067.