CONFIDENTIAL - FOR PEER-REVIEW ONLY

Attraction in the wild II (#9637)

Created: 04/05/2018 08:45 AM (PT)
Shared: 11/20/2018 02:08 AM (PT)

1) Have any data been collected for this study already?
It's complicated. We have already collected some data but explain in Question 8 why readers may consider this a valid pre-registration nevertheless.

2) What's the main question being asked or hypothesis being tested in this study?
Can we replicate the attraction effect using real-world, complex stimuli? In a previous experiment (#8353), we failed to replicate this effect, and we are interested in whether this is still the case if we use a different method to establish similarity between pairs of stimuli.

3) Describe the key dependent variable(s) specifying how they will be measured.
This is a follow-up experiment on the experiment described in #8353. Changes implemented: we are using 231 movies instead of 200; we are only using the genre information about movies to establish similarity and dissimilarity between them; we will only include participants for whom we can create at least 3 quadruplets; we will ask participants to rate the similarity of each decoy-target and target-competitor pair after the choice phase. The dependent variable is still the proportion of trials in which the participant chooses the target which was favoured by the decoy out of all trials where participants do not choose a decoy.

4) How many and which conditions will participants be assigned to?
In the choice stage, all participants will face same attraction effect choice situation (target, competitor, decoy movies), but the exact movies will depend on the ratings the participant gave in the screening stage. The movie pairs presented in the similarity rating task will also be specific to the participant.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
We are combining estimation and NHST approaches. For the estimation, we will calculate a 95% confidence interval for the proportion of trials upon which the target movie is chosen (after excluding trials where the decoy was chosen). For the NHST, we will conduct a one-sample t-test to test whether the proportion of trials upon which the target movie is chosen is higher than 0.5 (after excluding trials where the decoy was chosen). Using the trials upon which the decoy was not chosen, we will also run the following mixed effects logistic regression model:
Target_chosen = Read_movie + Target_Competitor_distance + Target_Decoy_distance + Target_Decoy_rating_difference
We aim to run this regression with as full a set of random effects (slopes and intercepts) as the final data allow.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
We will exclude participants who completed the ratings task unusually quickly (fastest 5%), whose ratings were unrealistically skewed (lowest 5% of the entropy distribution) or showed a distinct (including random) time trend (lowest and highest 5% of the autocorrelation distribution). We will exclude participants for whom we cannot create at least 3 quadruplets. We will also exclude any trials where the subject selected the decoy.

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 will collect the data in batches of 50 until we have choice data for 100 participants (after the exclusion criteria have been applied).

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)
We have so far collected similarity ratings from 60 people for pairs of movies (207 each) to select the stimuli for this experiment. Based on this data, we are using 253 movie pairs in this experiment (these are the movies that had a mean similarity rating of 4.5 or above). We have not collected any choice data yet.