Collabra Aware Unaware EC Experiment 3 (#120013)

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1) Have any data been collected for this study already?
No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?
We investigate to what extent the Valence Awareness Measure (VAM) by Stahl et al. (2009) underestimates unaware EC effects due to deviations of the subjective US valence from the objective/normed US valence.
Here, we tested the influence of the specific pairing procedure (i.e., identity vs. valence pairing).

3) Describe the key dependent variable(s) specifying how they will be measured.
To test if the paradigm produces any conditioning effects in the first place, evaluations of the different CSs will be assessed using a 7-point-Likert scale ranging from 1= "Very unpleasant" to 7= "Very pleasant".

Afterwards, participants will fill out the VAM for the CS. Participants are presented with a CS and asked "Which type of feeling did the picture(s) elicit that was (were) presented with this brand name?" (pleasant vs. unpleasant)

To assess whether the valence of some of the USs used in the experiment is evaluated differently from their normative valence, participants will be asked to indicate the pleasantness of every US on a dichotomous scale (pleasant vs. unpleasant).

4) How many and which conditions will participants be assigned to?
We will manipulate the normed US valence within participants (positive vs. negative). There will be 10 positively and 10 negatively conditioned CSs.
We will manipulate the pairing procedure (identity = IP vs. valence pairing = VP) between subjects. For IP, each CS will be paired consistently with one US. For VP, each CS will be paired with different USs of the same normed valence.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
Alpha = .05 for all analyses.
We will first examine to what extent subjective US valence deviates from the normed US valence. For that purpose, we will code a mismatch of normed and subjective US valence as a shift (coded with 1). We will analyze whether the shifts depend on the normed valence level with a multilevel binomial regression with the predictor normed valence (0.5 = positive, -0.5 = negative), group (0.5 = VP, -0.5 = IP), and the interaction. We do not expect an effect a priori here.

Next, we will examine EC effects as a function of the classical VAM. Trials will be classified as aware/unaware (or memory/no memory) as usual. We will conduct a multilevel regression with the predictors normed valence (0.5 = positive, -0.5 = negative), VAM (0 = unaware, 1 = aware), group (1 = VP, -1 = IP), and all interactions. We expect a significant VAM x valence interaction, such that the EC effect is stronger for aware trials. We further expect a three-way interaction, such that the VAM x valence interaction is stronger in the IP condition. We will repeat the analysis also with the reverse coding of the VAM.

Next, we will examine EC effects as a function of the corrected VAM. Trials will be classified as aware/unaware (or memory/no memory) based on the match of the subjective US valence and the response in the VAM. We will conduct a multilevel regression with the predictors normed valence (0.5 = positive, -0.5 = negative) and VAMcorrected (0 = unaware, 1 = aware), group (1 = VP, -1 = IP), and all interactions. We expect a significant VAMcorrected x valence interaction, such that the EC effect is stronger for aware trials. We will repeat the analysis also with the reverse coding of the VAMcorrected.

We also expect that the normed valence main effect in the VAM model is smaller (and potentially negative) than in the corrected-VAM model. This should be especially the case in the IP condition.

Last, we will also examine to what extent awareness coded with the VAM or the corrected VAM depends on normed valence and the pairing procedure. We will analyze this with two multilevel binomial regressions with the predictors normed valence (0.5 = positive, -0.5 = negative), group (0.5 = VP, -0.5 = IP), and the interaction.

For all multilevel models, we will use the highest converging random effect structure.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We do not plan any exclusions.

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 N = 150 finished interviews.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)
Nothing else to pre-register.