**Design of the Experiment**

**Between-subjects design:**

**Design**: 2 (*CS-US color matching:* CS1[CS2] matching positive[negative]USs vs. CS2[CS1] matching positive[negative]USs) between-subject design. Method factors varied between participants:

* + - *Stimulus assignment*: CS1/CS2 identity assigned to same color as positive/negative words
    - *US identity*: set 1 vs. set 2 of positive and negative USs presented in CS1[CS2] trials.
    - *Order of evaluative measures*: IAT before vs. after self-reports
    - *IAT block order* (consistent vs. inconsistent with learning phase).

**Stimuli.** Two nonsense words (MORAG and STRUAN) will serve as CS1 and CS2. Six positive (*Rainbow, Pleasure, Smile, Love, Paradise, Joy*) and six negative adjectives (*War, Cancer, Hate, Hell, Misery, Vomit*), divided in four sets (two sets of positive words and two sets of negative words) will serve as USs.  
**Participants.** Data-collection will be via the Prolific website (prolific.achttps://prolific.ac/). We will stop data-collection as soon as 110 participants have completed the experiment on the Prolific website. This will allow us to have good power (> 0.80) to observe an EC effect (*d* = 0.50) driven by US-CS color matching, at alpha = 0.05.

**Procedure.**  EC 🡪 Evaluative measures 🡪 Exploratory Questions

*EC training phase*. Participants receive three blocks of 16 trials (48 total) consisting of two different types of trials: one type of trial wherein CS1 is eventually presented in the same color as positive words, and another trial in which CS2 is eventually presented in the same color as negative words. Note that each trial will contain three stimuli simultaneously presented onscreen: a neutral word (MORAG or STRUAN) and positive and negatively valenced words. All three stimuli will initially be presented in the same color (e.g., blue). Then after 3000ms, depending on the CS present on that trial, one US will turn change to a different color (e.g., purple), while the CS and the other US will maintain the same color (e.g., blue). The stimuli will remain onscreen for another 3000ms before all stimuli are removed, an inter-trial interval of 1250ms, and the next trial. Stimulus color will be varied across each trial, so that none of the colors can assume any specific positive or negative value. Four different colors (i.e., blue, green, yellow and purple) will be used.

*Same Color (CS1 trial) Same Color (CS2 trial)*

**JOY HELL**

**MORAG STRUAN**

**SMILE**

**CANCER**

*Implicit attitude*

Participants will perform an IAT measuring implicit evaluations of CS1 vs. CS2:   
The IATs involve categories “CS1” and “CS2” and “Good” and “Bad”  
  
IAT Procedure:

a. Instructions: “In the next part you will have to categorize items into groups as fast as you can.”

b. 20 practice trials sorting CS1 on the left and CS2 on the right.   
  
c. 20 practice trials sorting positive words on the left and negative words on the right.

d. 20 test trials CS1 and positive words using one key and CS2 and negative words using another key.

e. 40 test trials CS1 and positive words using one key and CS2 and negative words using another key.

f. 20 practice trials CS2 on the left and CS1 on the right.

g. 20 test trials CS2 and positive on the left and CS1 and negative on the right.

h. 40 test trials CS2 and positive on the left and CS1 and negative on the right.

NOTE: IAT stimuli are:

* + - CS1
    - CS2
    - Positive words: *Fantastic, Great, Nice, Good, Pleasant, Wonderful, Amazing, Happy*
    - Negative words: *Terrible, Disgusting, Nasty, Horrible, Sick, Awful, Sad, Unpleasant*

*Explicit attitude*. Participants give explicit ratings of the two CSs by answering the question:

*“Please rate the above item using the scale below*  
options: -5 =Negative, 5= Neutral, +5= Positive

options: -5 =I Dislike it, 5= Neutral, +5= I Like it

options: -5 =Bad, 5= Neutral, +5= Good

options: -5 =Unpleasant, 5= Neutral, +5= Pleasant

*Intention measure*. Participants are presented with two brand products labeled with either CS1 or CS2. They are asked to indicate which of these products they would try and given the following options: “I would try CS1, I would try CS2, I would try CS1 and CS2, I would try neither, I don’t know”.

Finally, participants answer the following exploratory questions about the EC task:  
  
 *Contiguity memory*: CS1, CS2, was presented onscreen and participants asked: “In the first part of the experiment was MORAG[STRUAN] presented together with.”

"positive words only", "negative words only", "both positive and negative words", "neither positive or negative words" "I don’t remember")

*Color memory 1*. “During the first part of the study, with the colored words, did you notice that the color of one of the two words presented on the right side of the screen switched, while the word on the left side of the screen (MORAG/STRUAN) stayed the same? Please be honest here "

“Did this influence how you responded to MORAG and STRUAN? Please be honest here"

*Color memory 2*: “In the first part of the experiment, when MORAG[STRUAN] appeared on the screen, which words switched to a different color”

("The positive words", "The negative words", "I don’t remember")

Manipulation check. “Think back to the first part of the experiment (i.e., when three words were paired onscreen). Did you ever take notes (or write down) what happened in order to help you figure out what was going on? Please be honest here (you will receive payment regardless of what you say).”

*Demand Compliance (explicit):* Earlier you rated MORAG and STRUAN as being either positive, neutral, or negative. Did you base your ratings NOT on how you actually felt about those words but ONLY on what you thought the researchers wanted you to say?"

("Yes", "No", "I don’t know")

*Demand compliance (implicit).* Earlier you completed the Implicit Association Test (see below). Did you base your performance in that task NOT on your best efforts to perform the categorizations as quickly and accurately as possible but on your attempt to influence your speed or accuracy in order to go along with what you thought the researchers wanted you to feel about the words?

("Yes", "No", "I don’t know")

*Reactance. (Explicit).* Earlier you rated MORAG and STRUAN as being either positive, neutral, or negative. Did you consciously resist what you thought the researchers wanted you to feel about those words?"

("Yes", "No", "I don’t know")

*Reactance (implicit).* Earlier you completed the Implicit Association Test (see below). Did you try to influence your speed or accuracy in order to consciously resist what you thought the researchers wanted you to feel about those words"

("Yes", "No", "I don’t know")