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Effects of Perspective on Evaluative Conditioning

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Research Question:

Will perceptual distance reduce attribution changes that occur through evaluative conditioning?

Evaluative Conditioning (EC):

A process of attitude change toward a conditioned stimulus (CS) after it has been paired with an unconditioned stimulus (US) with positive or negative valence (Olson & Fazio, 2001). In this context, the conditioned stimulus is an item with neutral valence (it's not particularly liked or disliked), while the unconditioned stimulus is an item that has a strong positive or negative valence (it's really liked or disliked).

EC has been used to reduce racial stereotypes (Olson & Fazio, 2006), change attitudes towards commercial brands (Gibson, 2008), and inform treatments for body dysmorphic disorders (Martijn et al., 2013).

Jones, Fazio and Olson (2009) showed that EC is a process of misattribution, and the transfer of valence from the US to the CS can be altered by the US-CS size difference, spatial difference, eye saccades, and valence strength. They also suggested that two-dimensional distance and difference in size create differences in three-dimensional space that would alter EC effects. What if those two factors were held constant? Can distance created only by apparent depth also reduce EC effects?

Hypothesis:

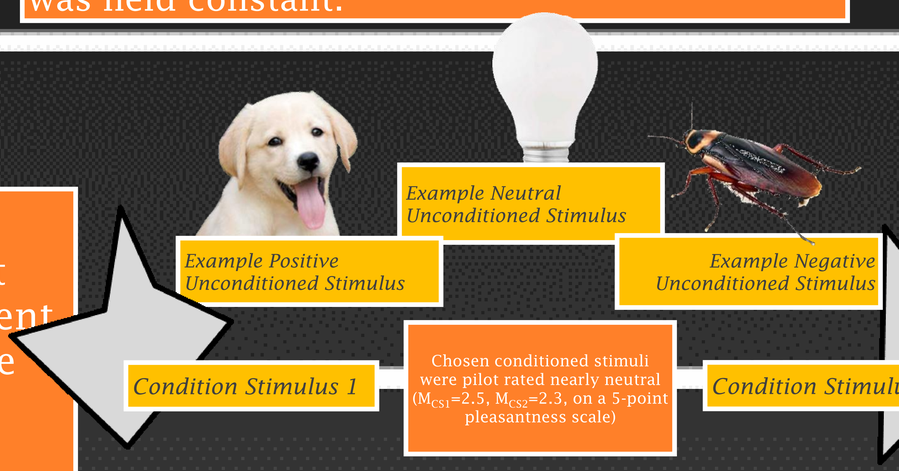
Distance created from a three-dimensional illusion (while holding two-dimensional distance and size constant) will reduce EC effects on a CS

Participants. 210 participants (120 female, M_{age} = 33.7) were recruited from Amazon's Mechanical Turk.

Conditioning procedure: Participants observed 80 trials, similar to the one depicted above, and judged the relative distance between the two stimuli. Forty trials contained a US-CS pairing (20 positive US and 20 negative US).

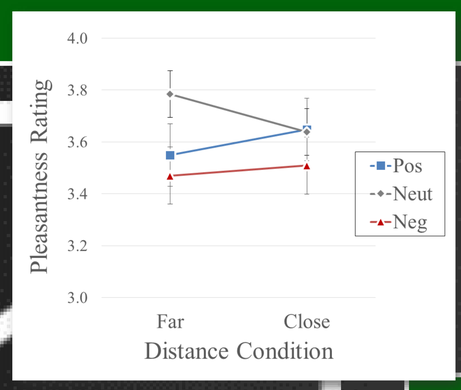
Perceptual distance. Participants were randomly assigned to one of two conditions; the CS and US appeared at the same depth, or the CS and US appeared at different depths. The size and 2-D space between the CS and US was held constant.

Measures. Participants rated both CS's and several distractors on pleasantness (7-point scale). A contingency awareness measurement was also completed to assess how aware the participants were of the valence-based pairings.



Results:

A 2 (pairing distance) x 3 (conditioning type) mixed ANOVA revealed a main effect of conditioning type, $F(2,207)=4.34$, $p < .05$, but the expected interaction of conditioning and pairing type was not significant, $F(2,207)=1.60$.



Subsequent contrasts revealed a significant difference between the neutral stimulus (M=3.71) and conditioned stimuli, as well as a marginal effect between positively (M=3.60) and negatively (M=3.49) conditioned CS.

Participants in the close condition over reported that US-CS pairs were farther apart than experimentally manipulated ($t(123)= 29.8$, $p<.05$).

Discussion:

There was no observed evaluative conditioning effect. This failure to replicate may have been due to a lack of US valence strength or suboptimal experimental procedures. Amazon's Mechanical Truk may be limited on its utility in testing experimental designs. An additional reason may be that there was too much perceptual distance between the US and CS. Participants also reported the CS and US to be far apart in both conditions.

Further research should investigate other perceptual manipulations, including size and 3-D depth.