Is Happiness Facilitated in Discrete Emotion Word Processing?

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Introduction

• Discrete emotion categories (e.g., anger, disgust) affect word processing beyond valence and arousal (Briesemeister et al., 2011a; 2011b)

• Prior research shows facilitation for happiness-related words (Briesemeister et al., 2011a), though recent work has not (Spencer et al., 2021)
Current Study

• **Hypothesis**: in a blocked design, facilitation for happiness-related words relative to other discrete categories will emerge in a lexical decision task (LDT)

• **Participants**: N = 67 undergraduate students (age: \( M = 19.05, SD = 1.10 \))

• **Design**: within-subjects (word category: anger, disgust, fear, happiness, neutral), target trials blocked by word category

• **Materials**: word stimuli used were 32 nouns from Stevenson et al.’s (2011) normed set, eight per category (happiness, anger, fear, disgust). Eight neutral words from ELP database (Balota et al., 2007), with 40 pronounceable nonwords
Method

• Data were collected online via PsyToolkit (Stoet, 2010, 2017)

• LDT Procedure:
  • Participants were instructed to respond as fast and as accurately as possible
  • “A” and “L” key mapping for word and nonword decisions counterbalanced
  • Nine practice trials
  • 80 target trials, stimuli presented in randomized blocks
  • Fixation cross present for 500 ms, word present for 500 ms
  • No feedback

• Analysis: Repeated measures ANOVA for correct RTs and errors
Results

• Main effect of word category observed for errors:
  • $F(1, 72) = 11.35, p < .000, \eta_p^2 = 0.15$
  • More errors made for disgust-related words than all other categories
Conclusions and Future Directions

• Facilitation of happiness-related words did not emerge in a blocked design
  • Participants made more errors to disgust-related words, consistent with prior work

• Future work should make use of a larger pool of items per category, limiting control of lexical characteristics

• Use of an evaluation or naming task to examine discrete category differences with less semantic access

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