(In)Visible Dimensions: Implicit Affect and Basic Emotion Categorizations in Emotion Terms

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59th Annual Meeting of The Psychonomic Society, November 2018, New Orleans, LA, USA

Introduction

Implicit vs. Explicit Emotion Evaluation and Categorization:
- expressions of basic emotions (e.g., happiness, sadness) vary but share certain prototypical features as words and their synonyms do (Ekman 1994)
- words denoting emotions carry implicit and measurable valence (positivity/negativity) (Russell 1980)
- words denoting basic emotions have synonyms which share the prototypical basic emotion meaning
- explicit evaluations of valence on a scale and forced choice categorization tasks are the most popular emotion research paradigms
- emotion words (words which name emotional states) carry implicit valence and basic emotion meanings

Gender, Emotions, and Cues Thereto:
- perceptions of valence and basic emotions are thought to be immune from the variable of gender of the individual expressing them
- women appear to integrate emotional cues more efficiently than men (Schirmer & Kotz 2003)
- emotion recognition is usually assumed to be equally effective regardless of the nature of the cue(s) to emotion
- new evidence suggests emotion processing is preferentially dependent on different cues (Bąk 2016)

Hypotheses:
- There will be strong positive correlations between implicit and explicit emotion evaluations and categorizations.
- There will be stronger positive correlations for emotions expressed by women.

Method

Participants:
- N = 107 (43 male; 64 female); age (M = 19.2, SD = 2.8)
- native speakers of English
- randomly assigned to one of three procedures:
  o explicit scalar evaluation of valence (positive-negative) in emotional expressions
  o explicit categorization of emotional expressions (happy-neutral/sad)
  o naming emotions based on expressions (implicitly evaluating and categorizing)

Procedure & Data Processing:

- audio-video clips of male and female speakers expressing happiness or sadness;
- manipulated to create 4 types of stimuli with different sets of vocal, verbal, and visual cues to emotion available;

Stimuli Design

Tagging the implicit valence and categorization in the responses on the naming task:
- for valence: based on affective corpus (Warriner, Kuperman, & Brysbaert 2013)
- for basic emotion category: based on lexicographic data (lists of synonyms of basic emotions extracted from the Oxford English Dictionary and the Merriam-Webster Dictionary)

We tested for correlations between the explicit emotion evaluation, categorization, and implicit emotion evaluation/ categorization tasks and the implicit emotion evaluation/categorization tagged in the naming task.

Results

Discussion

- We found positive correlations between implicit and explicit emotion evaluations of happiness for female and male speakers whenever visual and/or verbal cues were available. We found a similar pattern of positive correlations for categorizations of happiness. However, we also found significant correlations for the expressions of sadness in male and female speakers in stimuli where vocal and/or verbal cues were available. Furthermore, for male speakers, the absence of visual cues in sadness resulted in a negative correlation between the implicit and explicit emotion processing.

- These results indicate that emotion stereotyping by gender may be implicitly influencing emotion recognition rates. Likewise, the results suggest that emotion perception may be preferentially geared to focus on different cues for different emotions. This would furthermore suggest that emotion cues are not perceptually equal, which constitutes a key issue in ecologically valid emotion research using multimodal stimuli.

Credits

The authors thank Gabrielle Roy for her hard work on data collection.

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