How Does Context Change Your Perception of Emotion?

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Abstract
In recent years, there has been demand for the use of naturalistic stimuli when running studies based on social cognition. In past studies, technology and guided instructions have created the face stimuli used in emotion recognition. However, this does not address the fact that these "typical" expressions are in fact not encountered in everyday situations. A person who is feeling sad in real life, such as when attending a funeral, will typically not stick out their bottom lip, but when told to make a sad face, that is a common response. In order to address this issue, our study uses naturalistic stimuli of emotions portrayed by actors who typically act in supporting roles. We used an alternating subjects design, in which participants were asked to make judgments about emotions of a face alone, context alone, or a face and context. Our study evaluated when judgments were asked in a forced-choice situation by comparing the face alone emotions and the face and context condition. We hypothesized that perceptions of naturalistic facial expressions will vary depending on situational context. Over 50% of the face alone stimulus showed a categorical shift in perception when placed in context for future directions, eye tracking software will utilize these stimuli to evaluate eye movements in context and non-contextual situations.

Introduction
- Despite our experience that we can read emotions in faces, research indicates that "context" (e.g., the social situation or a tone of voice) can shape our perceptions (for review, see Hwang and Matsumoto, 2010).
- The face-context integration occurs efficiently and rapidly, indicating this is an automatic process (Aviezer et al., 2011).
- But most studies of context in emotion perception use "caricatured" or extreme versions of facial expressions. This research may undermine the importance of context in perceiving emotion in everyday life.
- Indeed the most "realistic" portrayals of emotion in Hollywood films are actually extremely subtle (Carroll and Russell, 1997).
- Past research using less caricatured expressions has generally relied on artificially generated "morphs" (e.g., Halberstadt et al., 2009).
- In the present research, we test the role of context in emotion perception for portrayals of emotion by respected character actors. These faces address the limitations of artificial or caricatured stimuli used in past research.

Methods
- Participants were recruited and completed the task online.
- The study was restricted to US IP addresses, and people 18 years or older.
- 50 participants completed one of three task conditions.
- The stimuli used were obtained from the book in Character: Actors Acting by Howard Schatz, published in 2006.

Results
- Participants judged the emotion of 76 stimuli pairs in a forced choice settings (chose from a list of emotion words provided).
- The option of saying "none of the above" was also provided in the list of emotion words.
- The participants were divided into three conditions where they judged emotion with 30 different participants in each:
- Emotion based on a given facial expression, emotion based on a situational context and emotion based on both a facial expression and a situational context.

Conclusions
- Our research demonstrates that when naturalistic facial expressions are used, the context is extremely important in determining our perceptions of emotion.
- Past research that has de-emphasized the role of context heavily relied on artificially constructed faces, limiting the applicability of prior results for everyday life.
- The contributions of context were strikingly strong in the present study, indicating that context shapes how we view emotions in everyday life.
- These results have implications for emotion training programs in security and clinical domains, where the face is strongly emphasized, but context is largely ignored.
- Future work will examine how exposure to contexts shifts basic aspects of sensory sampling of faces, using eye-tracking technology.

References