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Interpreting Text Messages

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Introduction

How does our mood, use of devices, ambiguity, and valence of text impact our interpretation of messages?

Devices
- Text miscommunication may be attributed to lack of shared affective meaning (Kelly & Miller-Ott, 2018)
- Ellipses […] often indicate irony
- Winking emoji [😉] is commonly associated with sarcasm (Garcia et al., 2022)

Sarcasm Detection
- Inferences about facts are important for detecting sarcasm (McDonald, 1999)
- Sarcasm detection is dependent on recognizing inconsistencies (Li et al., 2024)
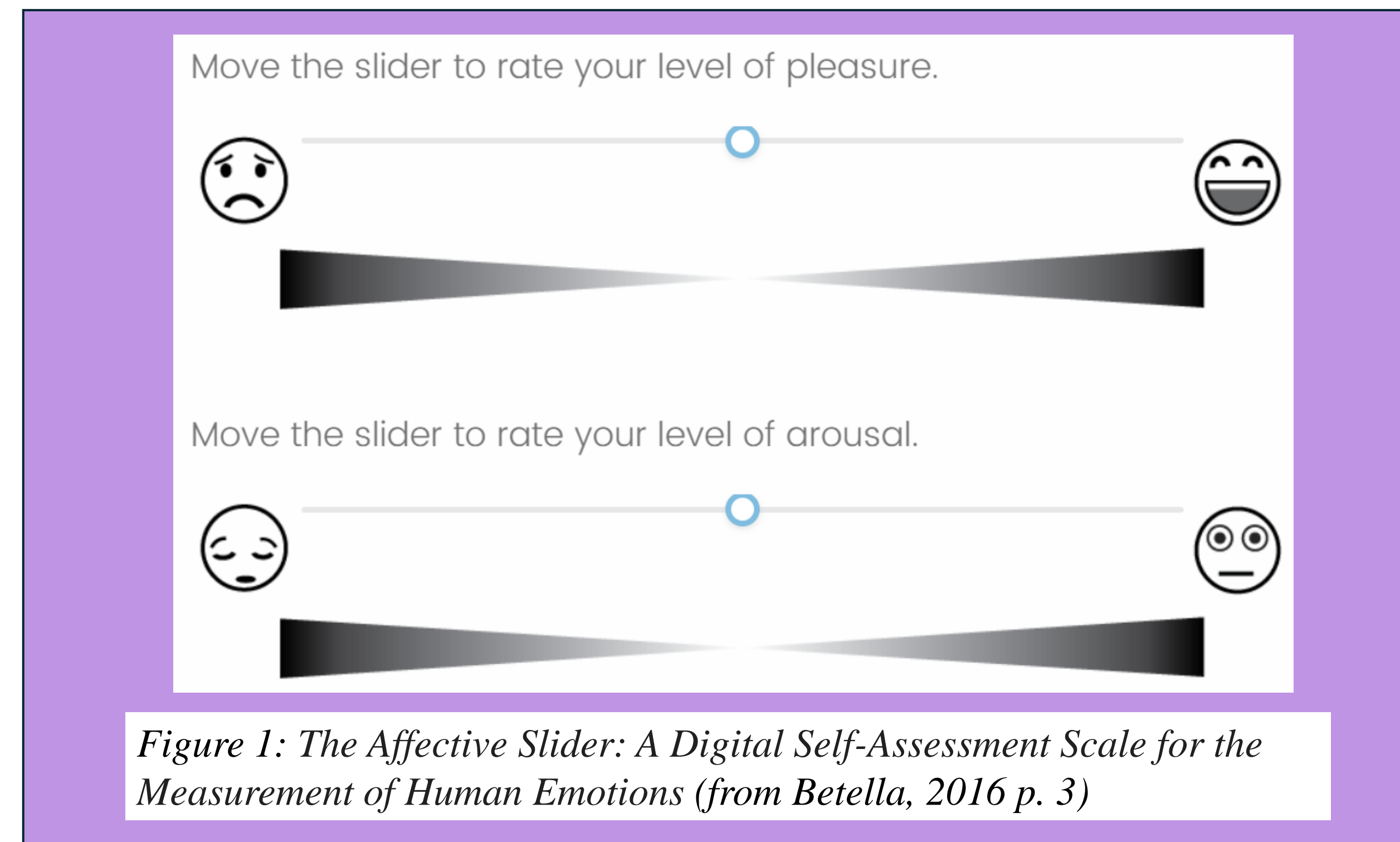
Emotion
- Mood of reader can impact comprehension:
  - Positive mood support generation of inferences while reading (Bohn-Gettler, 2019)
  - Negative mood focuses attention on detail, increase likelihood of noticing discrepancies
  - Negativity bias: We attend more to negative information (Egidi & Gerrig, 2009)
- Ambiguity may impact the effect emotions have on interpretation

Methods

- 75 Participants (data collection still ongoing)
- Online survey including:
  - Emotion induction videos
  - Affective Slider Scales (See *Figure 1*)
  - Text message stimuli (See *Figure 2*)
    - Questions about senders meaning and receivers emotion
  - Demographic information

Hypotheses

- **Hypothesis 1**: Device used will have a main effect on participants interpretation of sarcasm
- **Hypothesis 2**: Mood will interact with device to influence interpretation of sarcasm

Figure 1: The Affective Slider: A Digital Self-Assessment Scale for the Measurement of Human Emotions (from Betella, 2016 p. 3)

Positive stimuli	Negative stimuli
Person A: How did you find your presentation went earlier? **Person B**: I have no idea really. **Person A**: I thought it was so interesting [.] / [😉] / […]	**Person A**: How did you find your presentation went earlier? **Person B**: I have no idea really. **Person A**: I thought it was so boring [.] / [😉] / […]

Rate how interesting **Person A** found the presentation to be.
1- Very boring to 7- Very interesting

Rate how you think **Person B** will respond emotionally.
1- Very negatively to 7- Very positively

Figure 2: Sarcasm text message stimuli (from Filik et al., 2016 p. 3)

Proposed Analysis

- Linear mixed effects models will be conducted for each device (wink, ellipses, period) to see the effects of text valence (positive or negative) and mood induction (positive or negative)

Discussion

Mood Congruency:
- Will be demonstrated positive mood supports inferences of positive sarcasm, and negative mood supports inferences of negative sarcasm.

Inference vs. Inconsistencies:
- Inference processes support sarcasm detection if sarcasm is found when in a positive mood.
- Inconsistency processes support sarcasm detection if sarcasm is found when in a negative mood.

Device Effect:
- Device will have a main effect on sarcasm interpretation if messages ending in a wink are perceived as more sarcastic.

Implications:
- The findings will provide insight into how device, mood, valence of messages, and ambiguity interact to influence text message interpretation.

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