When Do Comprehenders Mentalize for Pragmatic Inference? A Partial Replication Study

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Background

- This study examines mentalising involvement in pragmatic inference.
- **Mentalising** is the ability to understand and reason about the mental states of oneself and others.
- **Pragmatic inference** involves using contextual cues to interpret the meaning of an utterance.
- It has been proposed that comprehenders adopt the speaker’s perspective at three stages during pragmatic inference.

### Research Questions

- **RQ1.** Do people adopt the speaker’s perspective during sampling, maintenance, and deployment?
- **RQ2.** Does mentalising predict responses in the Knowledge or Inference Group, when using different mentalising and control methods?

### Method

207 adults aged 18-60 (M=35.97, SD=13.75) were recruited via Prolific and a university research participation scheme, 132 identified as female, 75 as male.

#### Materials

- **Pragmatic Inference Task**
  - Eight narratives described an interaction between two people.
  - In each narrative, the 2nd speaker learned of an obstacle (e.g., the car heater was broken).
  - The manipulation across each passage was whether the protagonist was AWARE or UNAWARE of this obstacle.
  - After reading each narrative, there was one yes/no question.

- **Mentalising Tasks**
  - Strange Stories (verbal), Frith Happé animations (non-verbal).

- **Control Tasks**
  - Reading comprehension, working memory, age.

#### References:


Results

- **RQ1.** We replicated Trott & Bergen’s data. Manipulating speaker knowledge states through the Awareness condition, modulates how people sample, maintain and deploy speaker information.

- **RQ2.** An interaction between the Awareness condition and group was found indicating that the effect of Awareness was larger for the knowledge group than the inference group.

### Discussion

- This study replicated the results of Trott and Bergen (2020).
- The significant interaction indicated that better mentalisers were more likely to select a correct answer in the Knowledge but not the Inference Group.

- Post hoc analyses found a significant interaction between working memory and awareness in the inference group.

- We have further shown a lack of coherence between different mentalising tasks (Strange Stories and Frith-Happé animations), indicating the tasks are measuring different facets of mentalising or tap different associated skills.