Guesses about upcoming content reflect awareness of speakers as intentional communicators

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BACKGROUND

COMPREHENSION
Comprehenders make guesses based on real world knowledge:
- taking a sip from the waterfall > taking a sip from the transmitter
- the man will ride the motorbike > the man will ride the carousel

PRODUCTION
Speakers omit typical content, and include atypical content when optional to do so:
- stabbing with an icepick > stabbing with a knife

Comprehenders are aware of this.

HYPOTHESIS
Comprehenders’ guesses about upcoming content depend on (at least) two kinds of expectations: one about the real world and one about speakers’ production preferences.

That is, comprehenders should expect the kind of content that cooperative speakers are likely to mention, not just the kind of content that is likely to be the case in the real world.

EXPERIMENT 1

1 Are comprehenders’ guesses about upcoming content influenced by their awareness of an intentionally communicating speaker?

METHODS
- Sentence completions in a Cloze task about what one can find at different locations (N=400)
- Manipulate the salience of the speaker across 4 conditions:
  - [bare] At the train station, there’s _____
  - [third person] They’re at the train station, and there’s _____
  - [first person] I’m at the train station, and there’s _____
  - [visible speaker] I’m at the train station, and there’s _____

RESULTS

Participants expect more informative content the more aware they are of the speaker.

EXPERIMENT 2

2 Is this expectation for informativity malleable depending on properties of the speaker?

METHODS
- Sentence completions like in Exp1, but with an initial exposure phase, introducing two speakers with different ‘filters’: chatty v. reticent
- Continuations from Exp1 ‘bare’ and ‘visible speaker’ conditions as training items

1: EXPOSURE PHASE

MONDAY 09:20

Hi Anna!

MONDAY 18:00

Hi Suzy!

2: TEST PHASE

Example trial for the chatty speaker

I’m in the library, and there’s ______

Example trial for the reticent speaker

At the train station, there’s ______

RESULTS

Participants adapt to individual speakers; more informative continuations for reticent speaker compared to chatty.

TAKEAWAY

Contrary to what comprehension studies would suggest, comprehenders not only predict real-world plausible content when guessing what words are coming next: they also expect speakers to be informative. Further, this expectation adapts to different speaker styles.

Models of language processing should take into account comprehenders’ informativity-driven reasoning about the speaker, including reasoning about individual speaker’s preferences for informativity.

REFERENCES


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