

# Does native speaker status influence comprehenders' guesses about the informativity of upcoming utterance content?



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## BACKGROUND

### Expectations of informativity

Comprehenders rely on real-world knowledge when anticipating upcoming content – bias towards typicality<sup>1,2</sup>

BUT they are also guided by what speakers typically produce – bias towards informativity<sup>3-6</sup>

- Visible speaker (over standard cloze task) ✓
- Reticent speaker (over chatty speaker) ✓
- Adult addressee (over child addressee) ✓
- Native speaker (over non-native speaker) ?

### Expectations for native and non-native speech

- Processing of ungrammatical sentences differs: Smaller neural response when uttered by non-native speakers<sup>7</sup>
- Expectations of informativity differ: Under-informative statements from
  - non-native speakers → inability
  - native speakers → unwillingness<sup>8</sup>

Suggests non-native speakers are not expected to make informative contributions on par with native speakers

## RESEARCH QUESTION

**Do expectations about non-native speech guide listeners' guesses about likely content?**

### Two competing outcomes

Non-native speakers are **less** informative, e.g. because they lack vocabulary for unexpected, non-typical content  
→ More mentions of real-world typical situations and events

Non-native speakers are **more** informative, as choosing to communicate in their L2 suggests higher likelihood the content to be conveyed is newsworthy and informative  
→ More mentions of non-typical, informative content

## METHODS

**Sentence continuation task (N=100):** Within-participant manipulation (native vs. non-native speaker) to index comprehenders' expectations about the content of conversation-initial utterances

**Typicality pre-test (N=22):** Elicitation of typical things one finds at 20 test-item locations

**Post-test survey:** Asking whether participants paid attention to native speaker status

4 measures to capture **different senses of informativity**:

- Typicality of main nouns (compared to pre-test)
- Use of modification
- Use of negation/marking absence
- Entropy (variability)

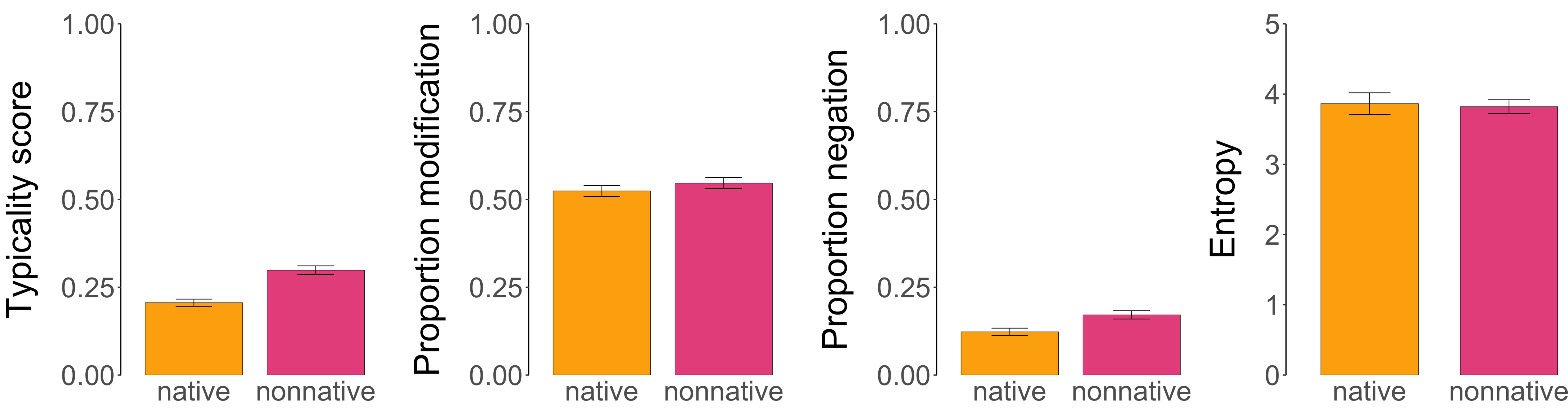


Example target item in the native speaker condition.



Example target item in the non-native speaker condition.

## RESULTS



- **No effect of condition**
- Non-native speakers:
  - Marginally **more negation** (↑ informativity)
  - and **more typicality** (↓ informativity)
- Native speakers:
  - Numerically (non-significant) **higher entropy** (↑ informativity)
- **No effect of speaker attention**

## DISCUSSION

True null effect

Not enough time/realistic enough portrayal of non-native speakers with limited vocabulary

- Future studies: Include grammatical errors or foreign-accented speech

Competing models of non-native speaker cancel each other out

- Expectation of low informativity due to assumed lower proficiency vs. higher likelihood for informative content due to a higher threshold for speaking in a non-native language

### Selected references

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<sup>2</sup>Kutas, M., & Hillyard, S. A. 1980. Reading senseless sentences: Brain potentials reflect semantic incongruity. *Science*, 207, 203–205.

<sup>3</sup>Degen, J., Hawkins, R.D., Graf, C., Kreiss, E. & Goodman, N.D. 2020. When redundancy is useful: A Bayesian approach to "overinformative" referring expressions. *Psychological review*, 127(4), 591–621.

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<sup>7</sup>Hanulíková, A., van Alphen, P. M., van Goch, M. M., & Weber, A. 2012. When one person's mistake is another's standard usage: The effect of foreign accent on syntactic processing. *Journal of Cognitive Neuroscience*, 24(4), 878–887.

<sup>8</sup>Fairchild, S., Mathis A., & Papafragou, A. 2020. Pragmatics and social meaning: Understanding under-informativeness in native and non-native speakers. *Cognition*, 200, 104171.