The Role of Semantic Predictability in Adaptation to Nonnative Speech

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Background

- Nonnative speech is more difficult to understand than native speech.[1]
- Nonnative speech requires higher effort from listeners and is processed differently from other types of unfamiliar speech.[2]
- Through practice, native listeners can adapt to nonnative speech, improving at transcription tasks, though a number of factors impact adaptation.[3]
- Listeners transcribing only high predictability sentences use less effort and are more accurate than those transcribing only low predictability sentences.[4]
- Increased difficulty could modulate adaptation to untrained sentence types.
- Alternately, high predictability could create scaffolding for learning.

- **How does the semantic content of nonnative-accented speech impact native listener adaptation?**

Methodology

Stimuli are high predictability, low predictability, and semantically anomalous English sentences in noise spoken by a native Mandarin speaker.

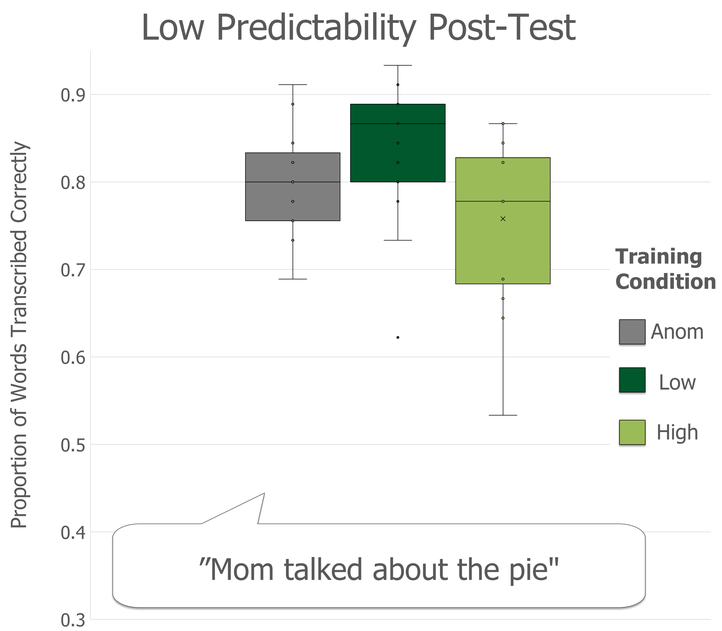
Participants are 51 native English speakers ages 18-35 from the University of Oregon human subjects pool.

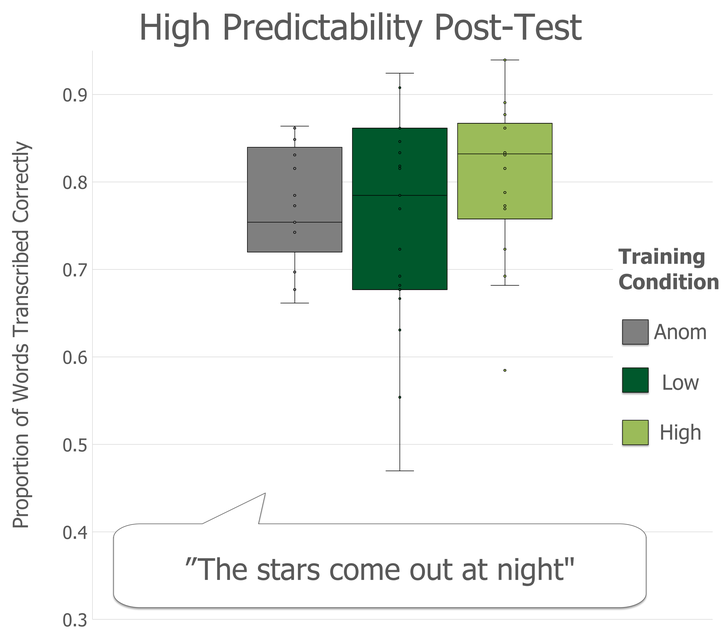
Participants hear and transcribe 40 sentences of one type: high predictability (n=17), low predictability (n=18), or anomalous (n=16).

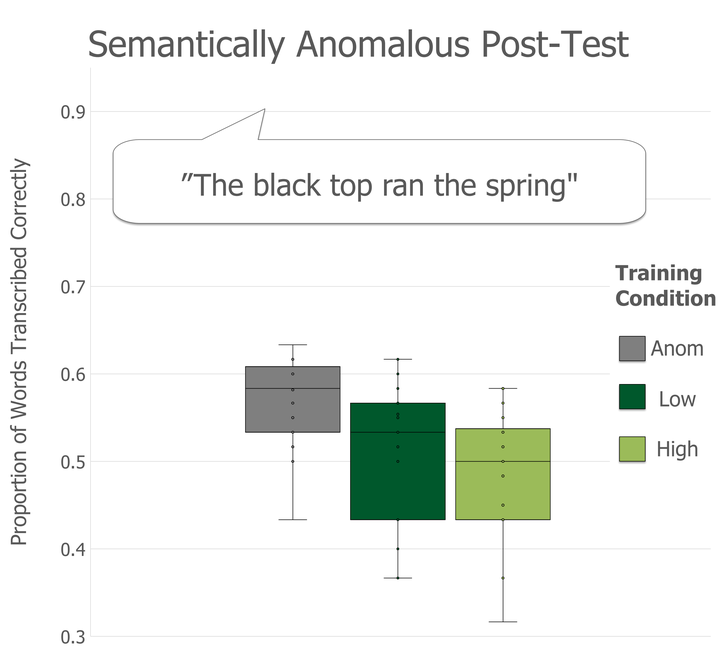
After training, all participants hear and transcribe the same 30 post-test sentences (10 of each type).

At the end, participants take a language experience survey.

Results







Summary & Discussion

- In each post-test, participants who trained on that sentence type show an advantage.
- **No training condition seems to give an advantage for generalizable adaptation.**
- This means neither challenging listeners nor giving them a way to map unfamiliar pronunciations is a better way to train.
- It is valuable to train listeners on the types of semantic content they expect to encounter.
- Future direction: how do untrained listeners perform on the post-test?

References & Acknowledgements

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