

English Prosody Comprehension in Heritage Speakers: Is One's Mother's



Tongue the Same as One's Mother Tongue?

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Background

- **English Dominant Heritage (EDH) speakers:** learn a minority language from immigrant family at early age, but English is their dominant language (see Polinsky & Kagan, 2007)
- **Prosody** = modulation of the pitch, stress or rhythm of speech for communicative or linguistic effect → convey emotion, lexical differences, phrase boundaries, sentence type, or to pragmatically stress contrastive information

Question

Are there differences in prosodic comprehension between English Dominant Heritage (EDH) and native English (NE) speakers?

Methods and Materials

Participants: 84 undergraduates: 15 EDH & 69 NE

Procedure: Fully on-line test of prosody

Test: O-PEPS-C (online version of Profiling Elements of Prosody in Speech Communication, Peppé 2003)

7 comprehension subtests (16 items each)

- **Affect:** Like/Dislike
- **Declarative/Question:** *Carrot. Carrot?*
- **Discrimination:** are 2 audios acoustically identical?
- **Lexical Stress:** *inSULT* vs. *INSult*
- **Boundary:**



Chocolate, cookies, and jam vs. *Chocolate cookies and jam*

- **Contrastive stress:** Hear a context story about clothes shopping & indicate item forgotten
I wanted BLACK and blue socks

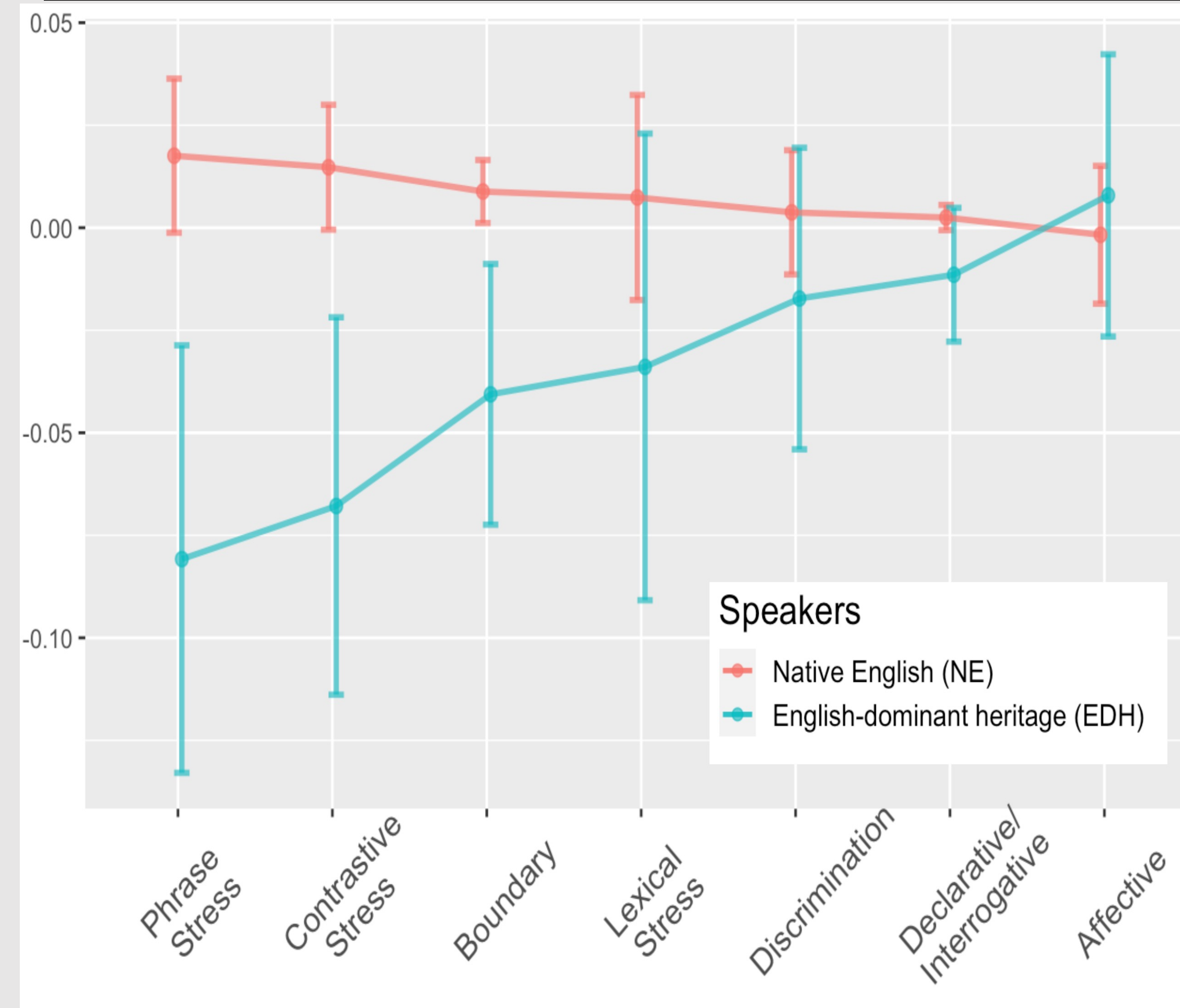


- **Phrase Stress**



The green house spoils the view vs. *The greenhouse spoils the view*

Results



Normalized Accuracy on Comprehension Subtests

(error bars = 95% credible intervals)

Summary

- **EDH speakers = NE speakers on word-level prosody tests**
 - Affect: like vs. dislike
 - Declarative/Interrogative: *Carrots. Carrots?*
 - Discrimination: Acoustically same or different?
 - Lexical stress: *inSULT* vs. *INSult*
- **EDH speakers < NE speakers on prosody above the word level**
 - Boundary: *chocolate, cookies, and jam* vs. *chocolate cookies and jam*
 - Contrastive stress: *I wanted BLACK and blue socks*
 - Phrase stress: *The green house/greenhouse spoiled the view*

Discussion

1. THEORETICAL IMPLICATIONS

- Results support linguistic theories that argue for different types of prosodic function
- Results support psycholinguistic theories that argue for different types of prosodic function

2. DEVELOPMENTAL IMPLICATIONS

- Results suggest no early sensitive period for
 - Affect (perhaps universal)?
 - Word-level prosody or below
- Results suggest early critical period for prosody ABOVE the prosodic word.
 - Could reflect hierarchical structure of prosody

References

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