Tracking the time-course of cross-dialect comprehension with ERPs: Comparing Southern and Mainstream US-accented speech perception

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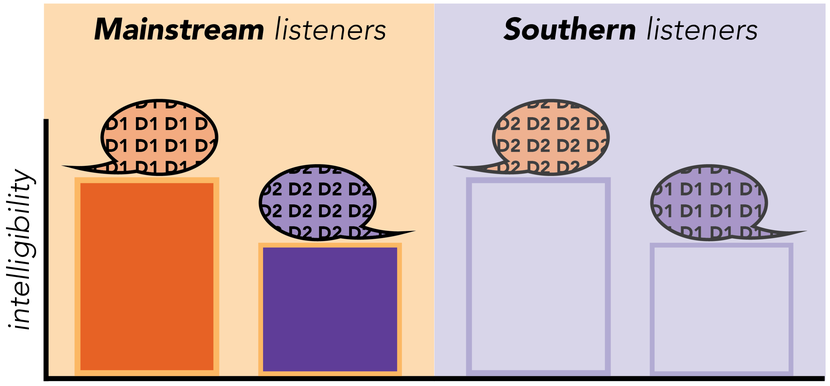
Key terms

- **Southern US English** (SUSE) is a regional variety with unique phonetic, lexical, and syntactic features
- **Mainstream US English** (MUSE) is a supra-regional variety that is perceived as "standard" relative to other varieties
- **Southern listeners** are bi-dialectal speakers of SUSE (D1) and MUSE (D2)
- **Mainstream listeners** are mono-dialectal speakers of MUSE (D1)

Previously observed MUSE advantage in behavior



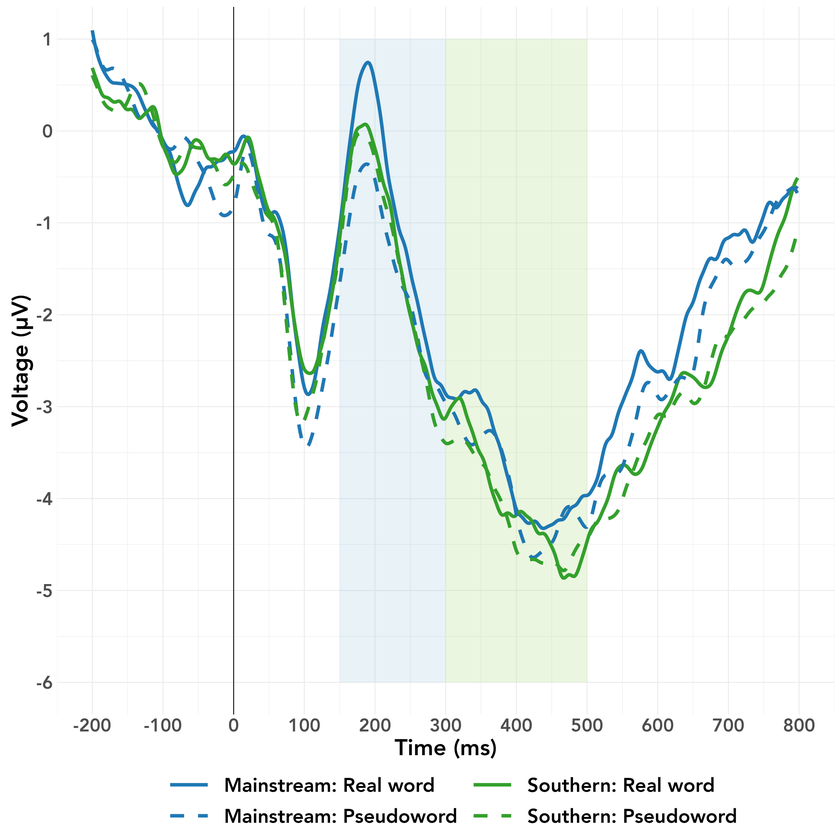
Auditory go/no-go task with EEG

Talker	Accent	No-go: Real words	No-go: Pseudowords	Go: Animal names	Total words
1, 2, 3	Mainstream	120	120	*30*	*270*
4, 5, 6	Southern	120	120	*30*	*270*
		240	240	*60*	*540*

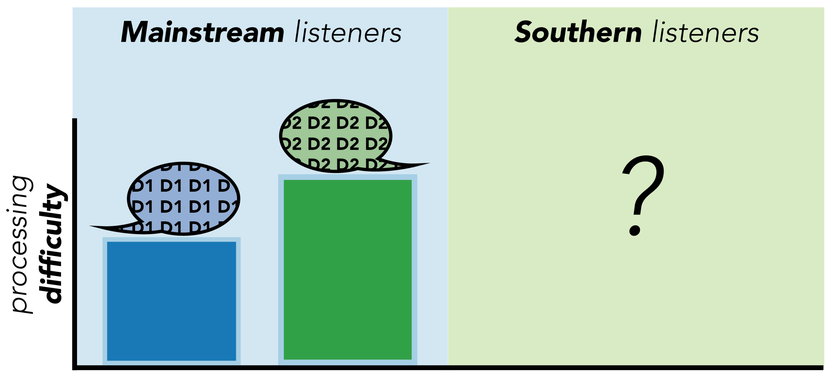
ERP predictions and current observations

Time window	Level of processing	Predicted effect	Prediction	Observed effect	Observation: Word type	Observation: Accent
150 - 300 ms	Acoustic-phonetic	Main effect of accent	Easier access for D1	Accent-word type interaction	D1 benefit for real words	Lexicality effect for D1
300 - 500 ms	Lexico-semantic	Accent-word type interaction	Stronger lexicality effect within D1			

MUSE advantage for Mainstream listeners in online measures of lexical processing

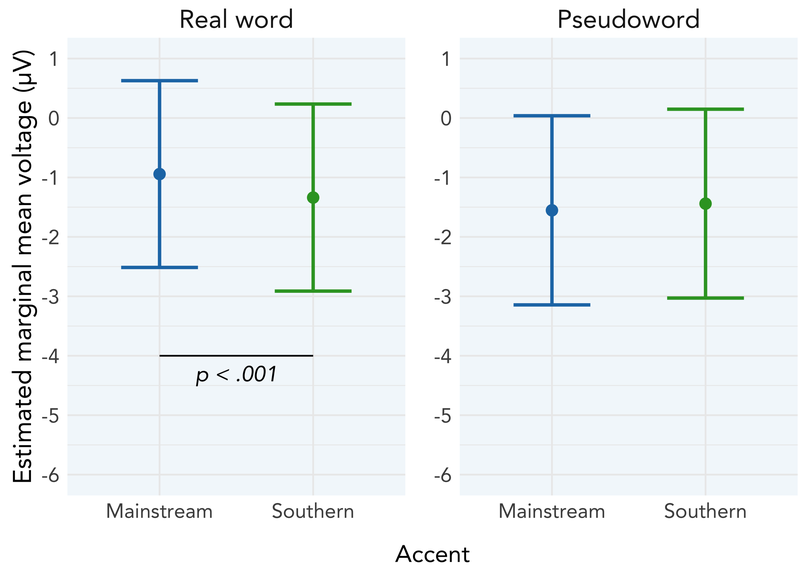


Summary of findings and future directions



References
Clopper, Tamati, and Pierrehumbert (2016)
Martin, Molnar, and Carreiras (2016)
Sumner, Kim, King, and McGowan (2014)
Walker (2018)
Zaharchuk, Shevlin, and Van Hell (2021)

P200 analysis



N400 analysis