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Real Time Vowel Shifts in Georgia English

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REAL TIME VOWEL SHIFTS IN GEORGIA ENGLISH

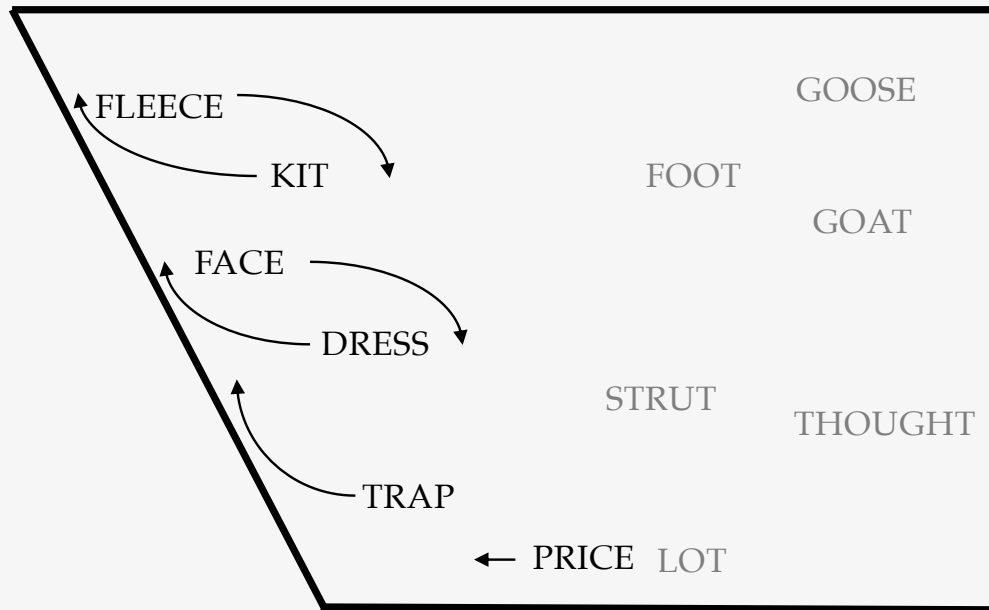
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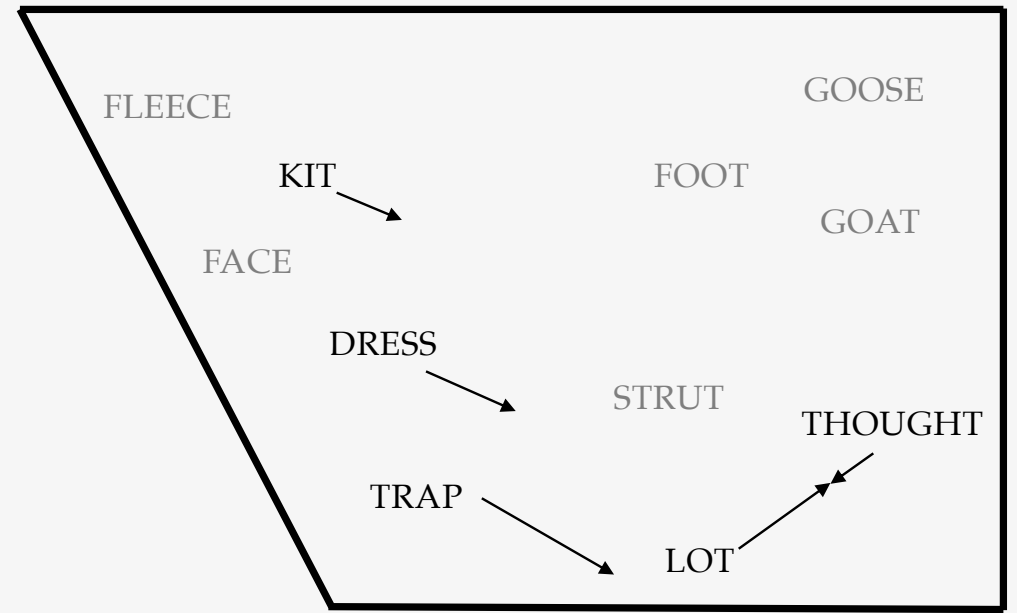
LCUGA6
October 4, 2019
University of Georgia
Athens, GA

TWO AME VOWEL SHIFTS



Southern Vowel Shift (SVS)

Labov, Yeager, & Steiner (1972), Labov (1994), Labov, Ash, & Boberg (2006), Feagin (1986)



~~California Vowel Shift~~

~~Canadian Vowel Shift~~

Elsewhere Shift

Hinton et al (1987), Eckert (2008)

Clarke et al. (1995)

GEORGIA ENGLISH

African Americans, Roswell (Andres & Votta 2009)

- Younger speakers swap FACE and DRESS
- Some LOT/THOUGHT merger

Korean Americans, Lawrenceville (Kim 2018)

- Little evidence of Southern Vowel Shift

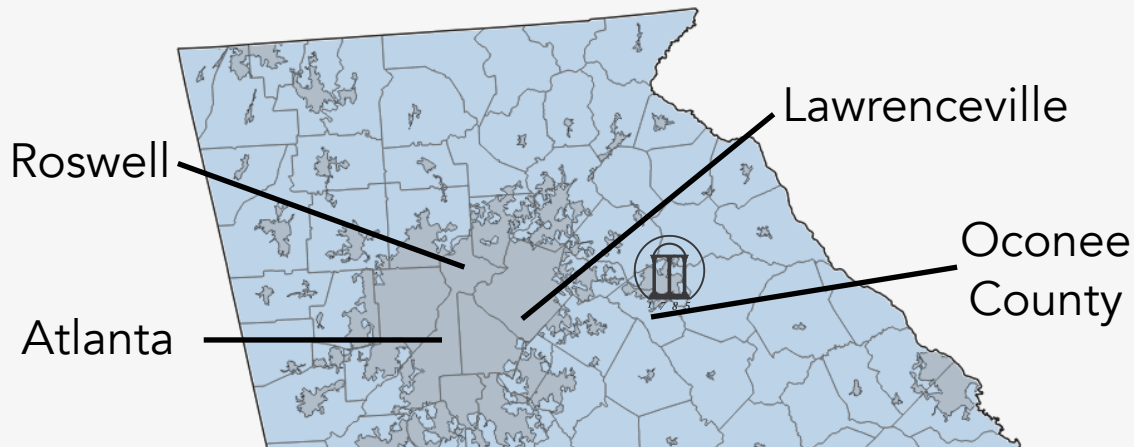
Caucasian Americans

In Atlanta (Prichard 2010)

- Less PRICE-monophthongization
- swap FACE and DRESS but not FLEECE and KIT (cf. Andres & Votta 2009)

In Oconee County (Dekker 2018)

- Grocery stores that sold sushi had less PRICE-monophthongization than those that played country music!



THIS STUDY

How has Georgia English changed since the 1890s?

All vowels have changed.

What is the trajectory of that change?

In the direction of the Elsewhere Shift.

DATA & METHODS

DATA: LEGACY SPEAKERS

DASS (Kretzschmar et al 2013)

- Subset of the *Linguistic Atlas of the Gulf States* (911 interviews)
- *Digital Archive of Southern Speech*: a 64-speaker subset
- See other work for variation within this corpus (Olsen, Olsen, & Renwick 2017, Stanley & Renwick 2020, Renwick & Stanley forthcoming, Bigott & Renwick this conference, Jones & Renwick this conference)

This study

- 5 “non-Black” Georgians (3 female; born 1887–1903)
- 24 hours of interviews
- 35,357 tokens

Processing

- Transcribed manually (Olsen et al 2017)
- Used the Montreal Forced Aligner (McAuliffe et al 2017) for forced-alignment and FAVE-Extract (Rosenfelder et al 2014) for formant extraction.

DATA: CONTEMPORARY SPEAKERS

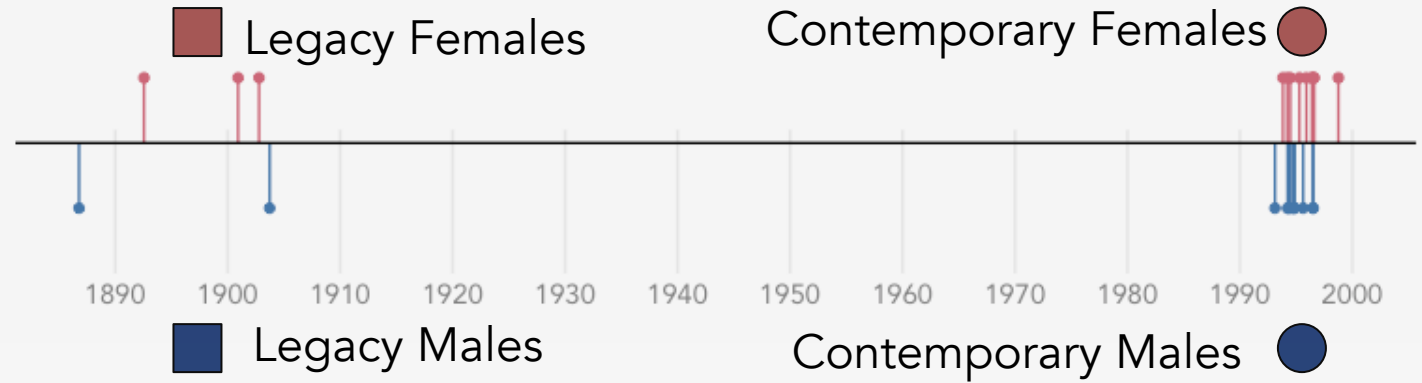
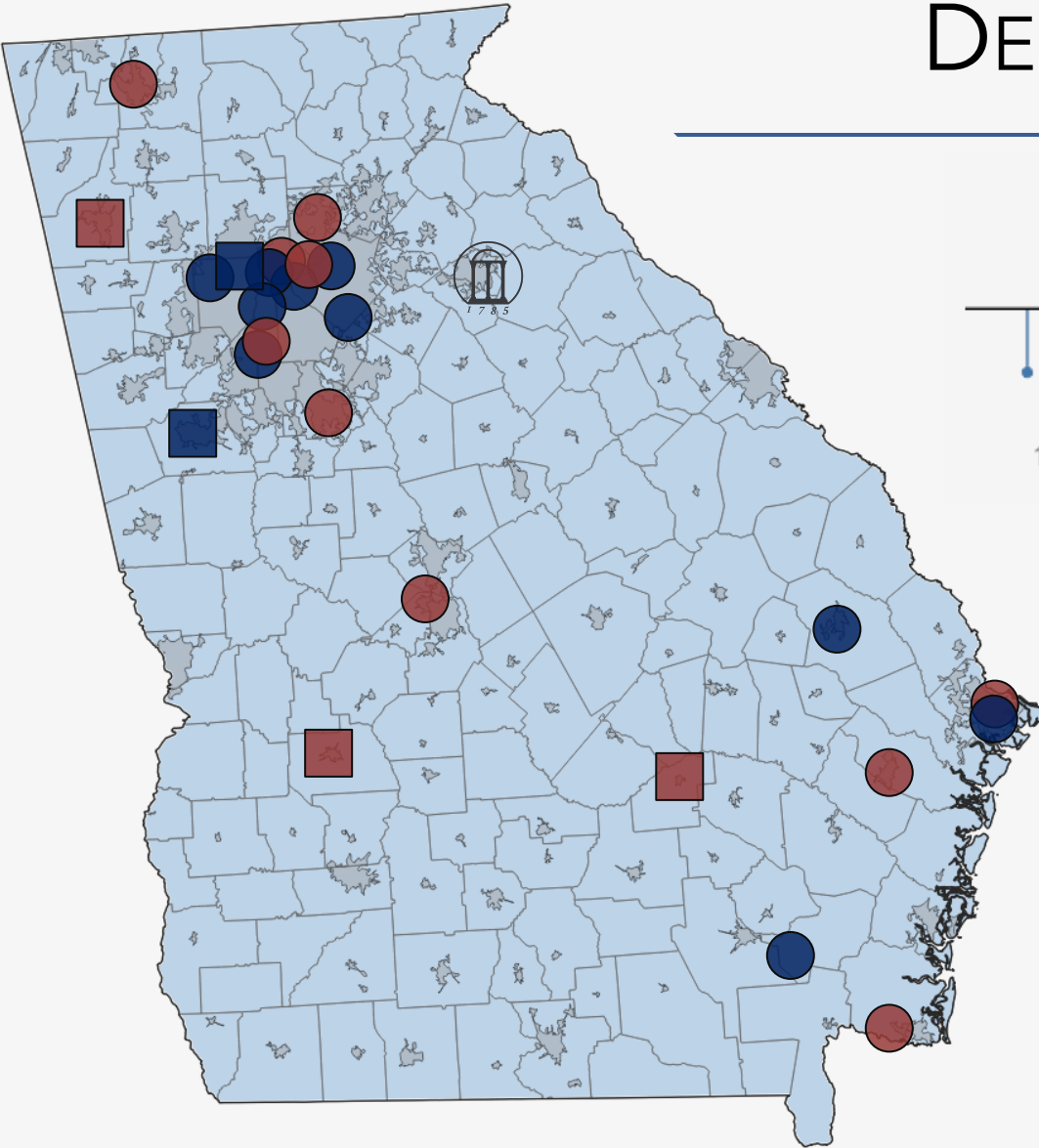
Lab recordings

- 20 UGA undergraduate students (10 female, born 1994–1998)
- Read 300 sentences from COCA.
- ~30 minutes each, 12.5 hours total
- Recorded in 2017
- 24,325 tokens

Used DARLA's fully automated processing (Reddy & Stanford 2015)

- automatic transcription
- forced alignment with Prosody-Lab (Gorman et al 2011)
- formant extraction with FAVE-Extract (Rosenfelder et al 2014)

DEMOGRAPHICS



Ethnicity

- African Americans excluded due to lack of data.
- "Non-Black" contemporary speakers retained for consistency with DASS data

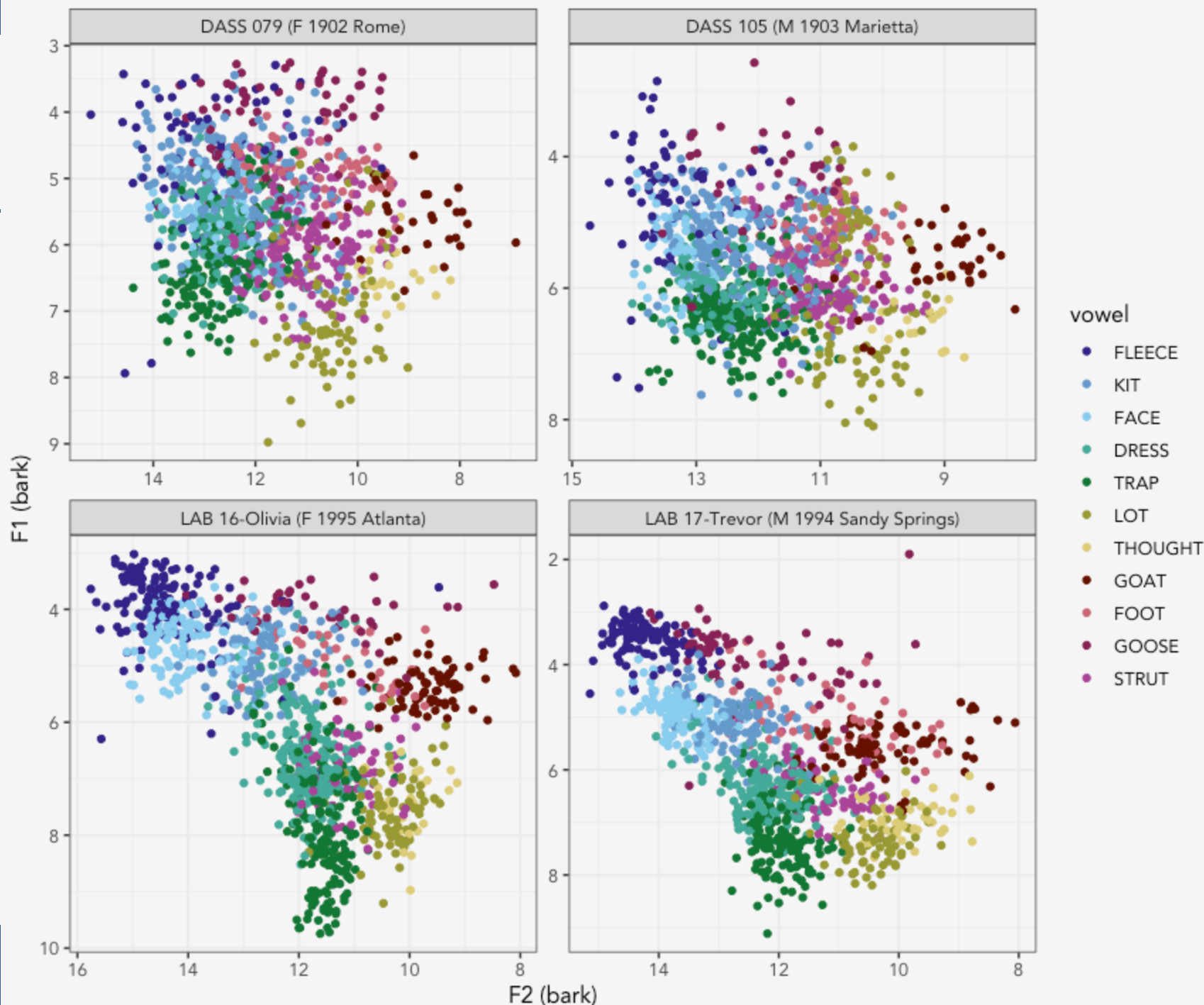
PROCESSING

Data filtering

- preobstruents only
- outlier detection with Mahalanobis Distance
 - furthest 5% of tokens removed

Normalized using the *Atlas of North American English* procedure (Labov, Ash, & Boberg 2006)

Converted to Barks



STATS AND GAMMS

Formant trajectories modeled with generalized additive mixed-effects models (Wood 2017).

- Fits a smoothed line to formant measurements along multiple timepoints
- 20%, 35%, midpoint, 65%, and 80% into the vowels' durations

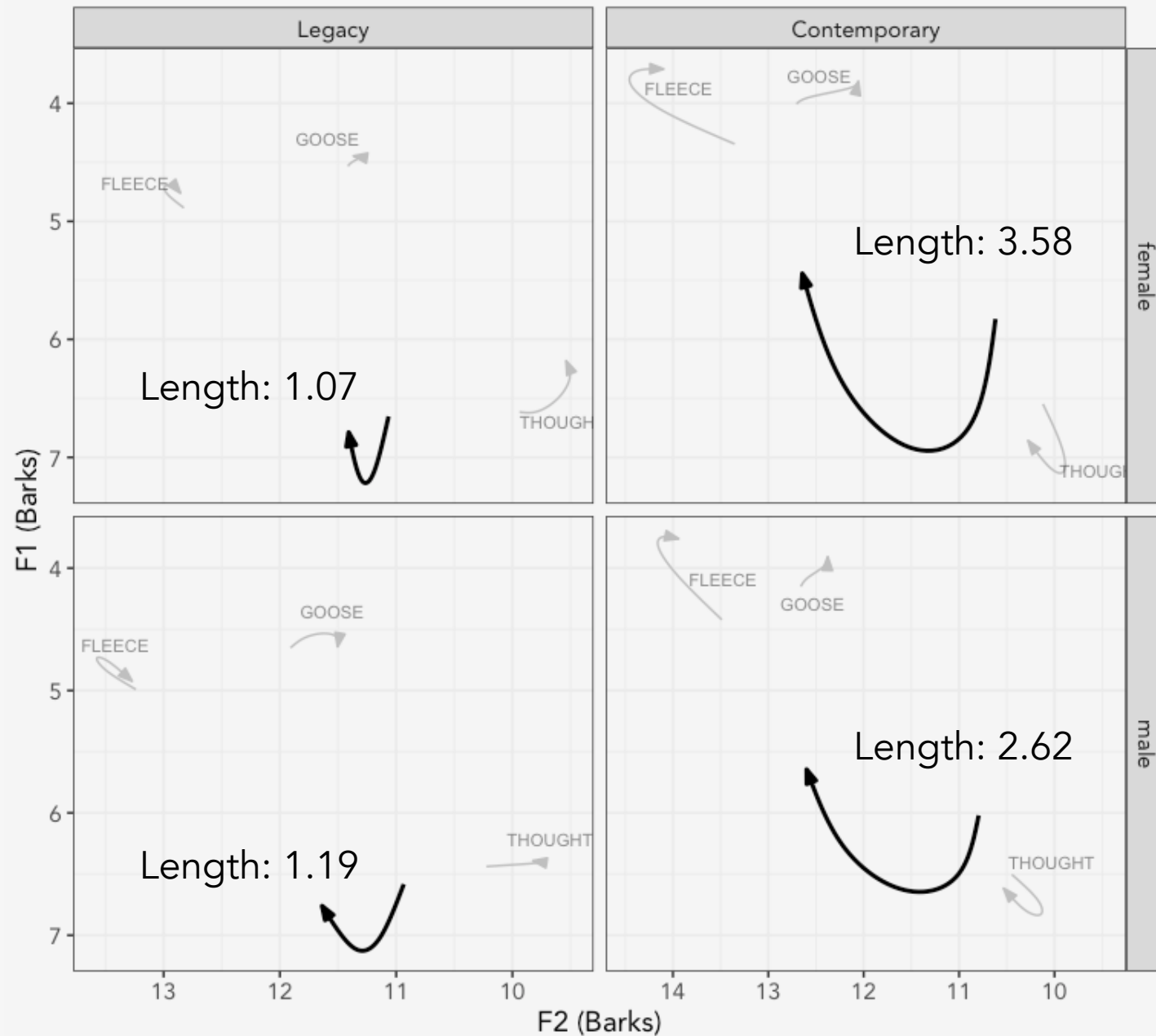
Model specification (cf. Gahl & Baayen 2019, Renwick & Stanley forthcoming)

- all data pooled together
- formant, vowel, sex, and corpus as predictors
- speaker and word as random intercepts.

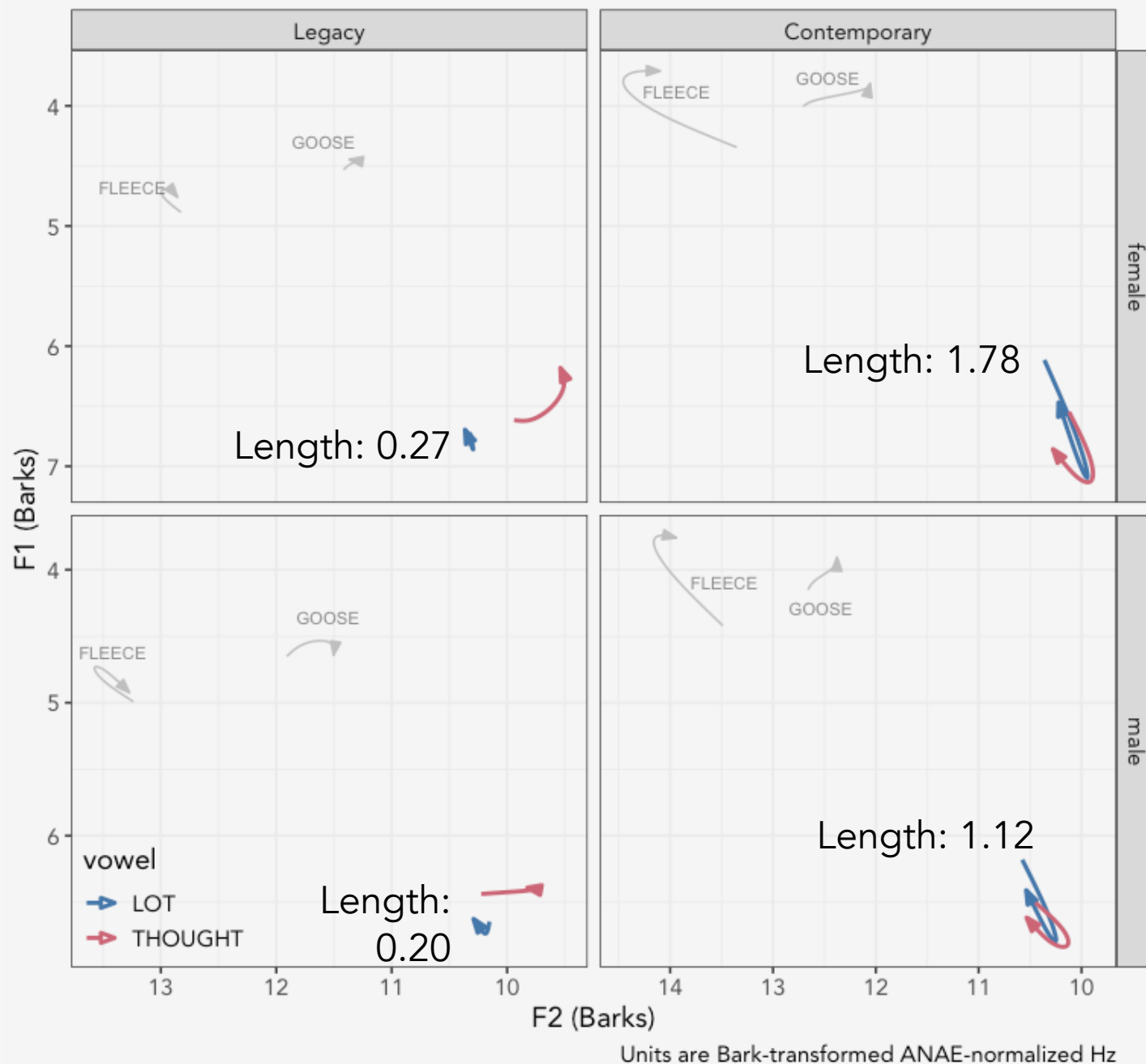
```
bam(bark_anae ~ s(percent, by = frmt_vwl_sx_crps, k = 4) +  
      frmt_vwl_sx_crps +  
      s(word, formant, bs = "re") +  
      s(speaker, formant, bs = "re"),  
    data = all, discrete = TRUE,  
    method = "fREML", nthreads = 4)
```

RESULTS

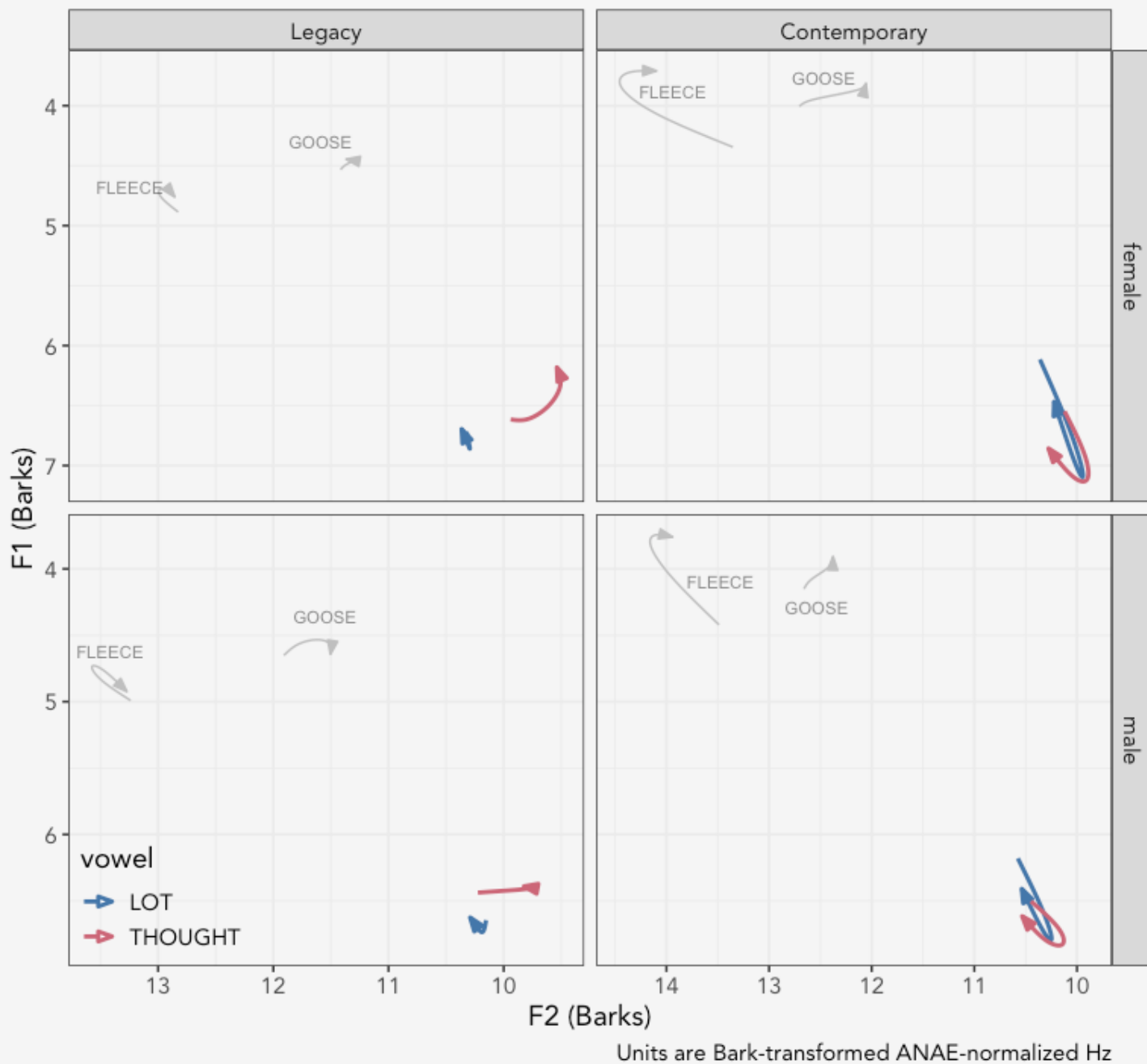
PRICE-monophthongization



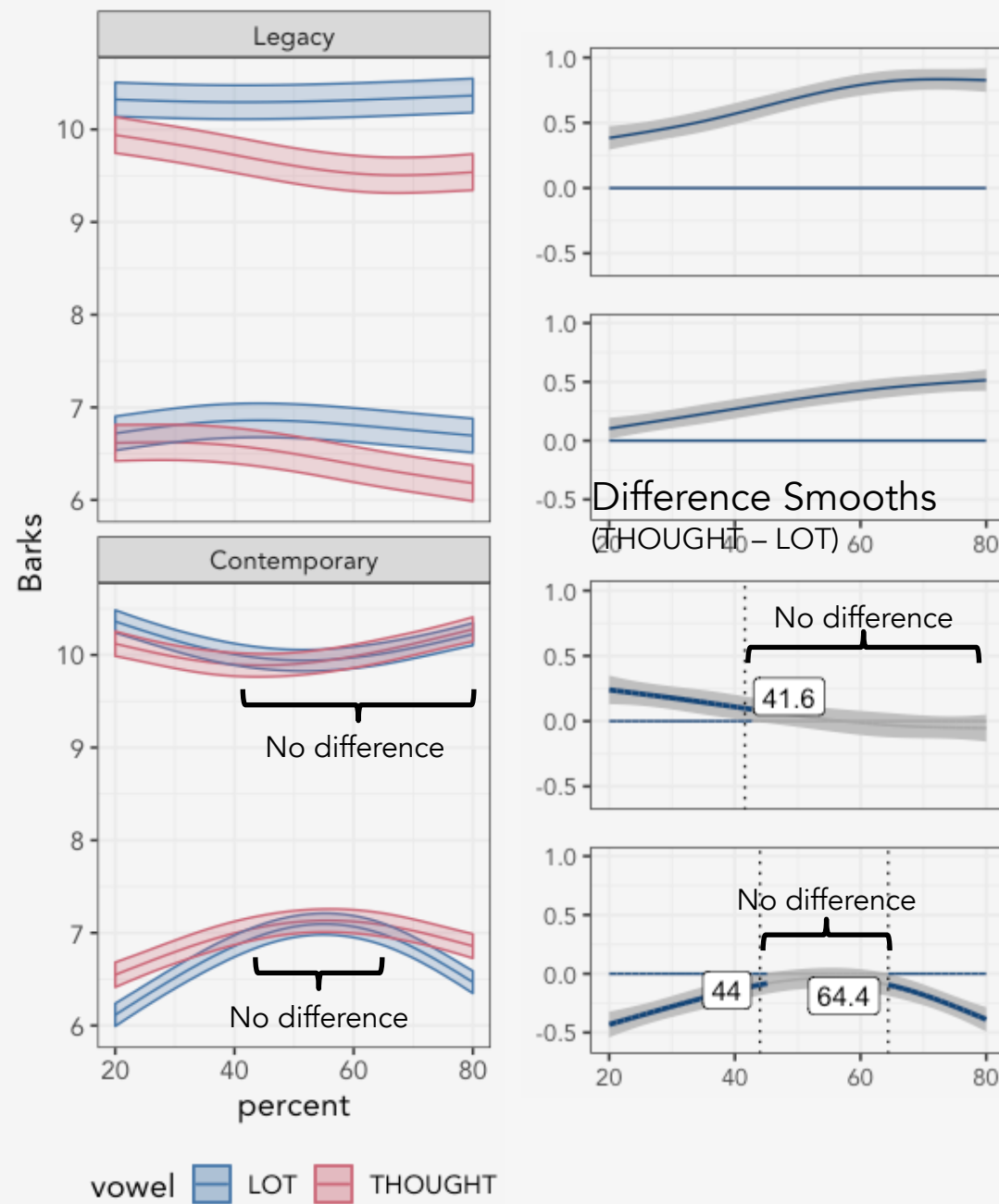
Low Back Merger



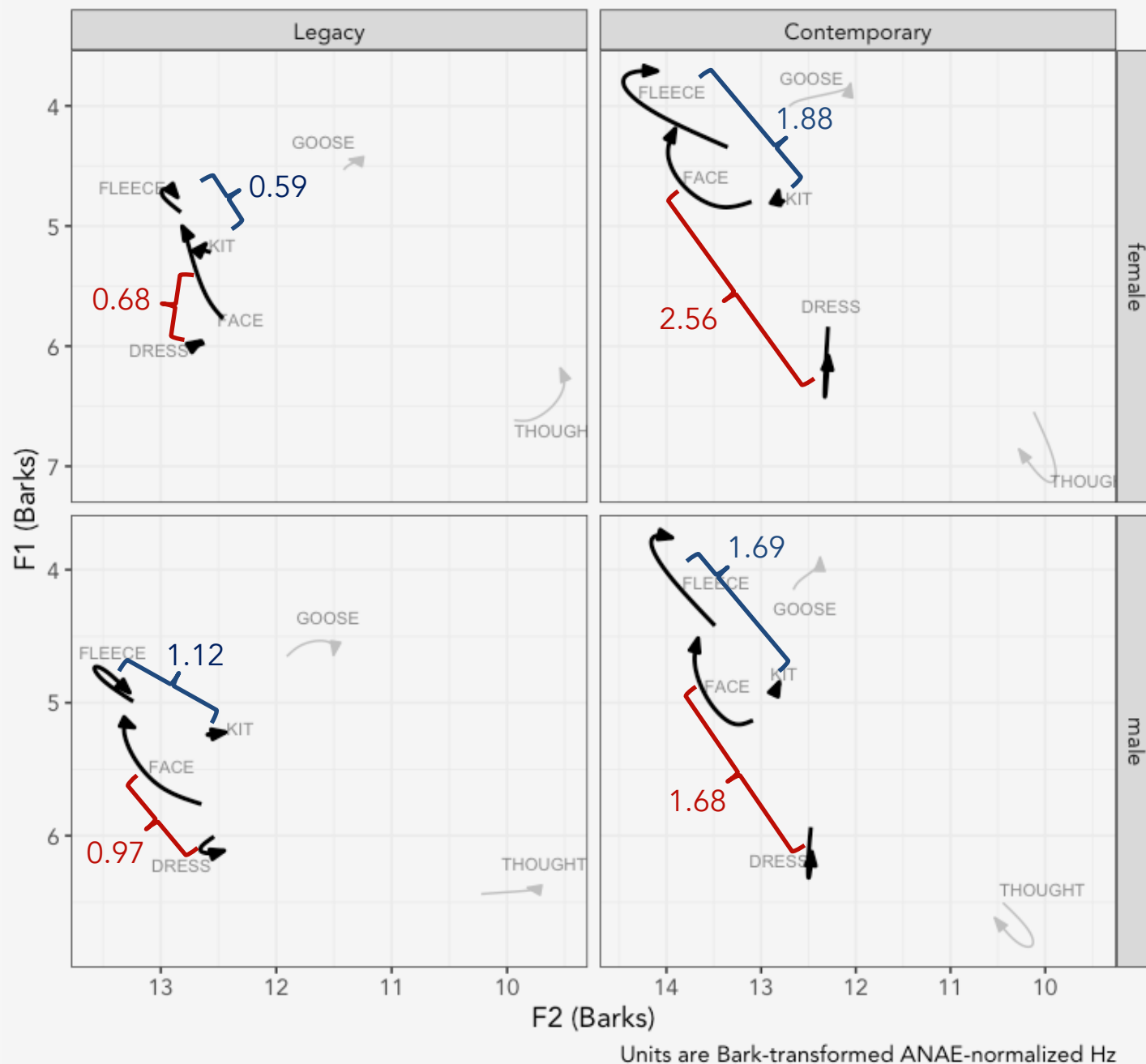
Low Back Merger



Spectrograms



Southern Vowel Shift



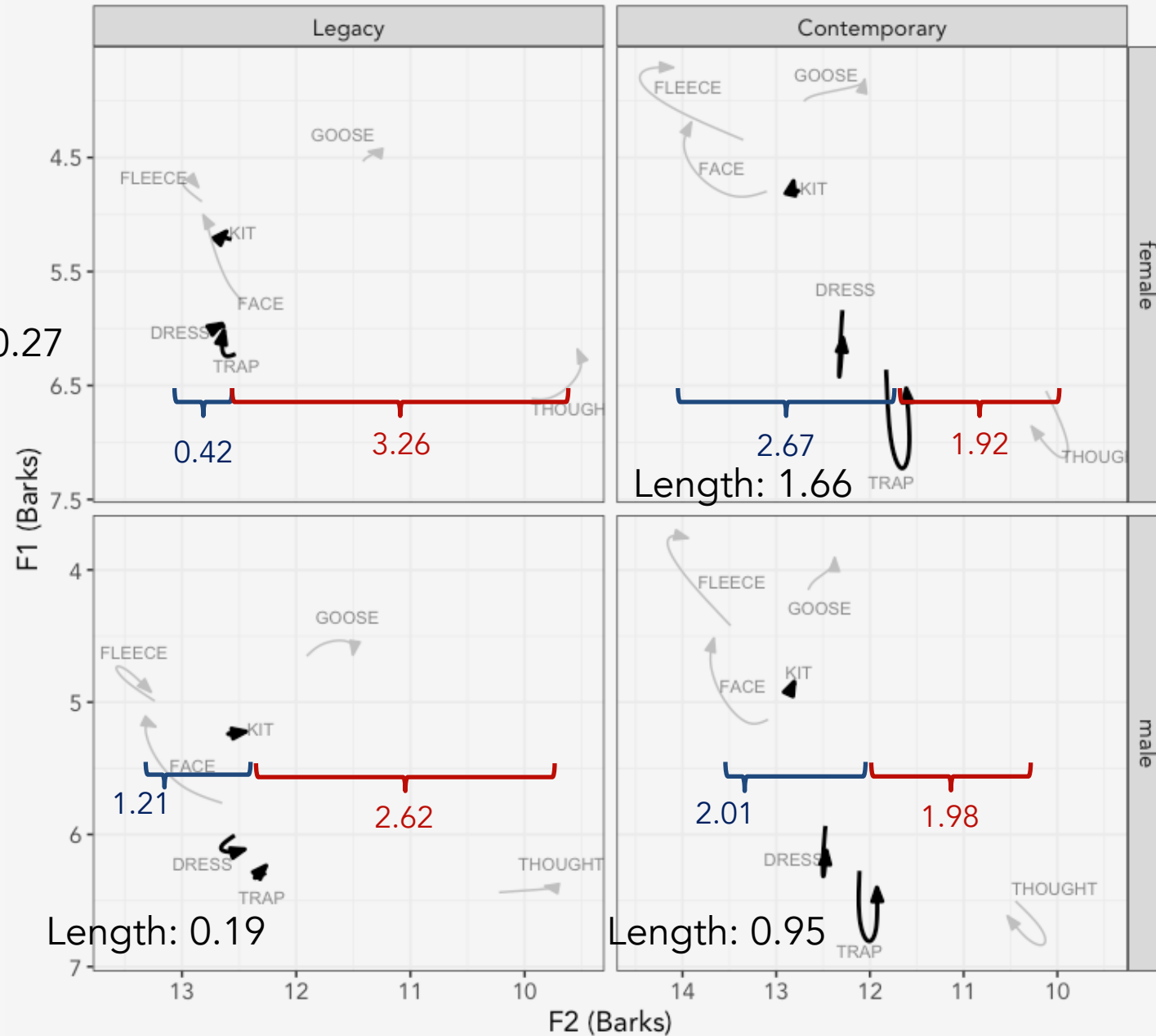
Euclidean Difference
between FLEECE and KIT

(In Barks, from midpoints of
predicted vowel trajectories)

Euclidean Difference
between FACE and DRESS

The Elsewhere Shift

Length: 0.27



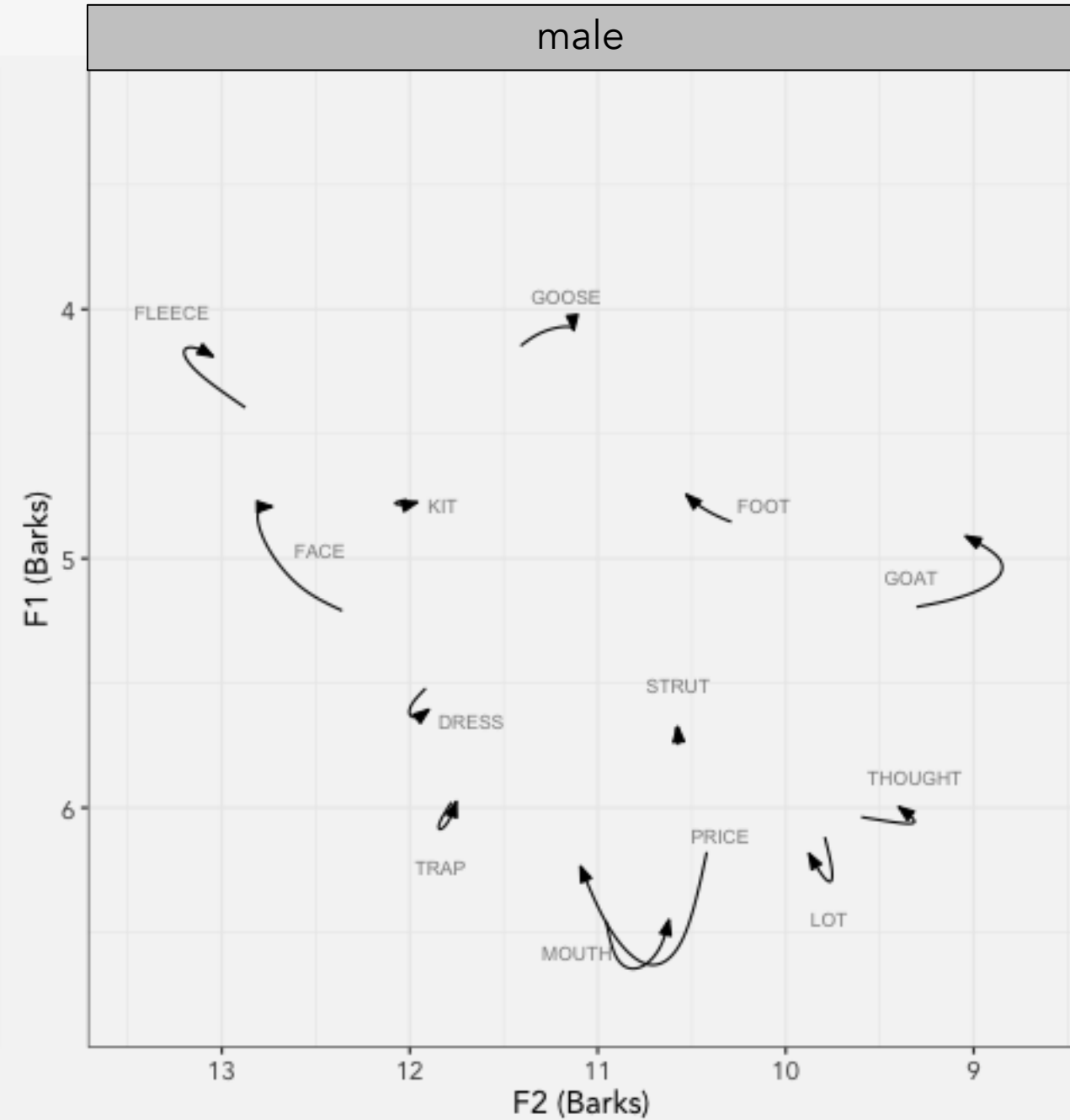
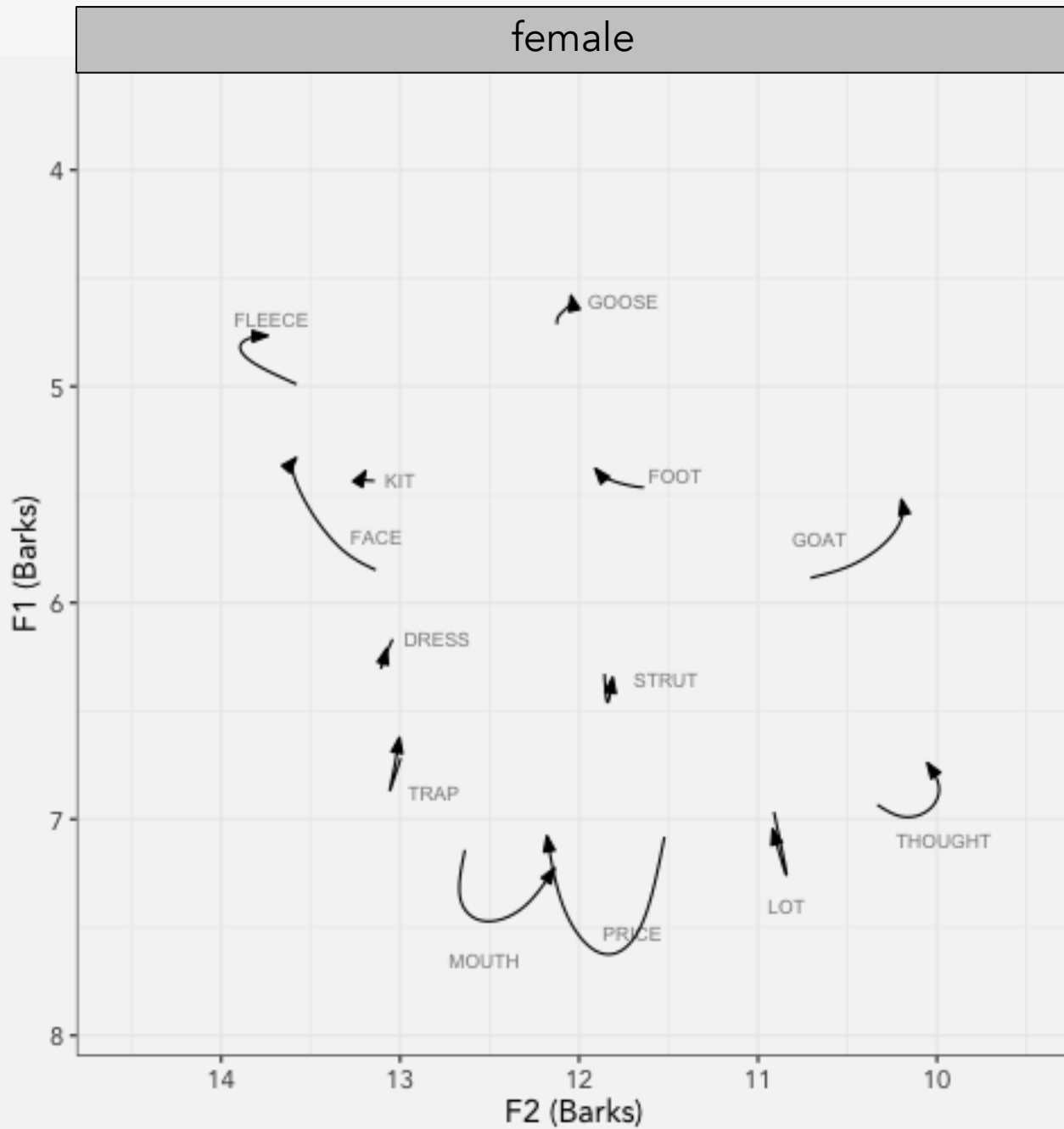
F2 Difference between FLEECE and TRAP

(In Barks, from midpoints of predicted vowel trajectories)

F2 Difference between FACE and THOUGHT

Units are Bark-transformed ANAE-normalized Hz

Georgia Vowels: 1887 to 1998



DISCUSSION

GEORGIA ENGLISH: THEN AND NOW

	Legacy Speakers	Contemporary Speakers
PRICE	monophthongal	very diphthongal
FLEECE-KIT and FACE-DRESS	close, but not swapped	not close
TRAP, DRESS, and KIT	front, monophthongal	retracted, more diphthongal
LOT and THOUGHT*	close, but not merged	close and possibly merged
GOOSE*	fronted and monophthongal	more diphthongal b/c onset

* Ask me about these in the Q&A!

THE ELSEWHERE SHIFT IN GEORGIA

Is it inappropriate to say the SVS is “receding”?

- What are they reverting back to? 1850s English?

Better interpretation: Young Georgians are adopting the Elsewhere Shift

- The low back merger is (nearly) complete
- The front lax vowels have retracted.
- It’s happened in Oregon (Becker et al 2016), Washington (Stanley manuscript), Colorado (Holland & Brandenburg), Ohio (Durian 2012), and Michigan (Mason 2018). Why not Georgia too?

CONCLUSION

How has Georgia English changed since the 1890s?

All vowels have changed.

What is the trajectory of that change?

In the direction of the Elsewhere Shift.

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This slideshow available at
joeystanley.com/lcuga6