REAL TIME VOWEL SHIFTS IN GEORGIA ENGLISH

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Southern Vowel Shift (SVS)

California Vowel Shift
Clarke et al. (1995)

Elsewhere Shift

Canadian Vowel Shift

Elsewhere Shift
**GEORGIA ENGLISH**

**African Americans, Roswell** (Andres & Votta 2009)
- Younger speakers swap FACE and DRESS
- Some LOT/THOUGHT merger

**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!

**Korean Americans, Lawrenceville** (Kim 2018)
- Little evidence of Southern Vowel Shift
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)
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


Converted to Barks
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.

```r
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

<table>
<thead>
<tr>
<th>Legacy</th>
<th>Contemporary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: 1.07</td>
<td>Length: 3.58</td>
</tr>
<tr>
<td>Length: 1.19</td>
<td>Length: 2.62</td>
</tr>
</tbody>
</table>

Units are Bark-transformed ANAE-normalized Hz
Low Back Merger

<table>
<thead>
<tr>
<th>Legacy</th>
<th>Contemporary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: 0.27</td>
<td></td>
</tr>
<tr>
<td>Length: 1.78</td>
<td></td>
</tr>
</tbody>
</table>

Length: 0.20

Length: 1.12

Units are Bark-transformed ANAE-normalized Hz
Southern Vowel Shift

Euclidean Difference between FLEECE and KIT

(In Barks, from midpoints of predicted vowel trajectories)

Euclidean Difference between FACE and DRESS

Units are Bark-transformed ANAE-normalized Hz
The Elsewhere Shift

F2 Difference between FLEECE and TRAP
(In Barks, from midpoints of predicted vowel trajectories)

F2 Difference between FACE and THOUGHT

Length: 0.27

Length: 1.66

Length: 0.19

Length: 0.95

Units are Bark-transformed ANAE-normalized Hz
DISCUSSION
## Georgia English: Then and Now

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

* 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?
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.
Special thanks to the team at the Linguistic Atlas Office for processing the DASS data, to the many undergraduate transcribers, to the participants in the lab study, and to Dr. Peggy Renwick for help figuring out GAMMs.

This slideshow available at
joeystanley.com/lcuga6