Changing Trajectories of New Zealand English Vowels

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BACKGROUND: New Zealand English vowels have change considerably over last 150 years (Gordon et al. 2004). No singular work to date has acoustically examined all trajectories.

Here we investigate trajectories of whole vowel system in Modern NZE.

METHODS: Oral recollections from 310 speakers in Quakebox Corpus (Walsh et al. 2013, recorded in 2010/11), born between 1920 and 1993.

- Excluded unstressed vowels and 250 stop words. 10 timepoints per vowel.

Observation #1: Big Moves by 18-25 Year Olds

- Youngest generation (N=37) stands out, either for reversing a sound change (DRESS, TRAP), or for jumping ahead in a change in progress (GOAT, FOOT).
- The reversals match recent observations by other Ross et al. (2023, 2024) for speakers in the North Island.
- Related to other reversals?
  - e.g. Dodsworth & Kohn 2012; Labov et al. 2013; Cole & Strycharczuk 2021…
  - global dialect levelling? delayed adolescent peak? rejection of outdated local personae?

(see Tamminga 2019; D'Onofrio& Benheim 2020)

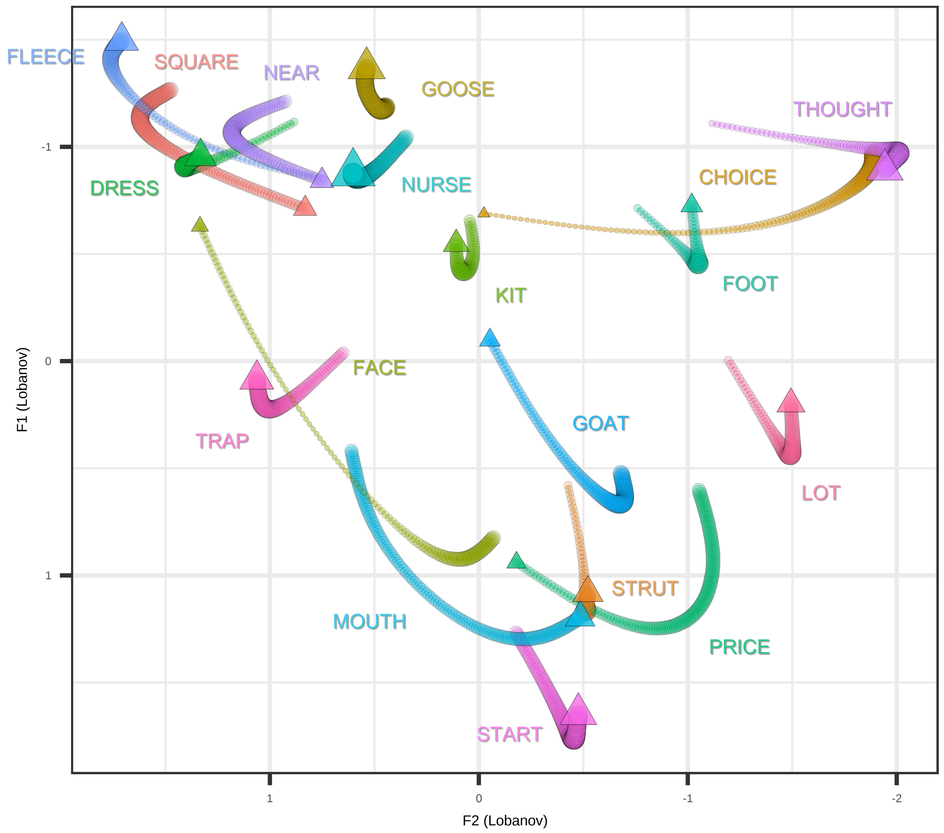

Fig 1. Trajectories for all vowels in New Zealand English speakers in Quakebox 1. Arrows indicate trajectory end. Circle width indicates formant velocity.

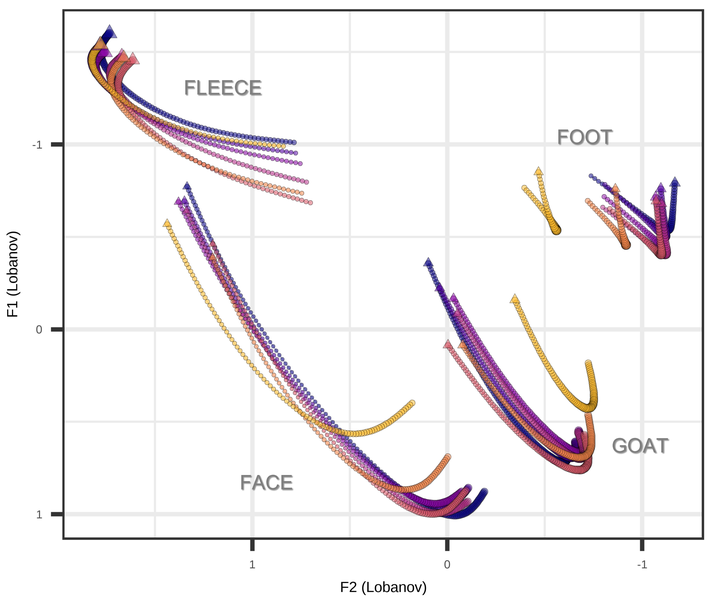

Fig 2. FLEECE, FACE, FOOT & GOAT trajectories by speaker age

github.com/sflego/Formant_Velocity_Viz-

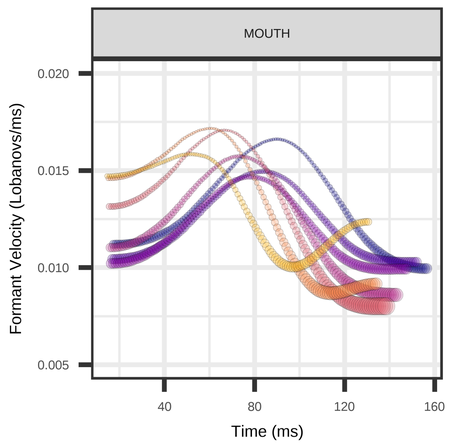

Fig 3. Formant velocity for MOUTH

Observation #2: Continued and structural changes to MOUTH

- Earlier worked observed lowering of offglide for MOUTH, interpreted as glide weakening (Watson et al., 1998; Hay & MacClagan 2010).
- However, the "offglide" has continued to lower, suggesting the diphthong is not weakening, but changing structure. Critically, timing suggests now has an onset, and ends open (Fig 3, 4).
- Shows importance of "horizontal shifts" in trajectories (Sóskuthy, Hay & Brand 2019).

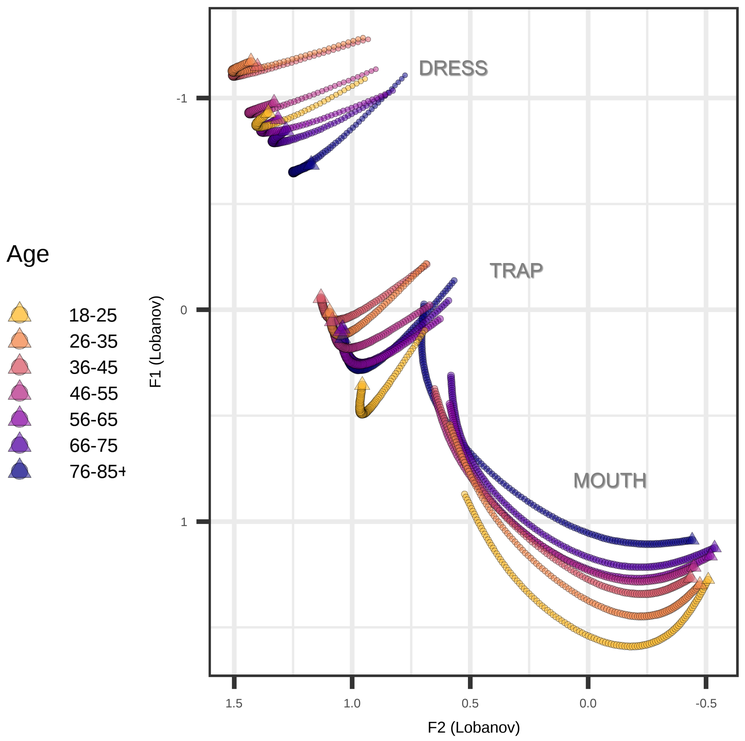

Fig 4. DRESS, TRAP and MOUTH trajectories by speaker age