Summary

Canadian Raising or Canadian Shortening? SKY ONOSSON
A Study of Vowel Abbreviation Patterns in Canadian English

HYPOTHESIS:
- Canadian Raising (CR) is produced largely as an effect of a general process in English of shortening vowels before voiceless codas.

GENERAL OBSERVATIONS:
- Canadians produce abbreviated CR diphthongs on par with abbreviation of other vowels.
- Formant trajectories before voiceless vs. voiceless codas exhibit distinct patterns among different sets of vowels.
- Non-round monophthongs: exhibited the simplest pattern of abbreviation in pre-voiceless context, truncating only the right portion of the vowel.
- CR diphthongs: the entire glide trajectory is preserved while reducing the vowel nucleus duration, eliminating the right portion of the vowel.
- Round vowels: the full formant trajectory pattern is maintained for both voiceless and voiceless codas, still exhibiting abbreviation in pre-voiceless context.

Participants and Data

Data collection took place in Winnipeg, Canada (pop. 793,000), centered within the General Canadian English (CanEng) dialect region.

Dialect regions of N. American English

Winnipeg

Vowel Abbreviation

- English vowels are abbreviated before voiceless codas (Pre-Voiceless Abbreviation or PVVA).
- PVVA and CR environments are identical: /æ/-/æ/-voice.
- Wordlist focused primarily on diphthongs /æj, aw/ in a range of monosyllabic environments; other vowels* also included in frames /h/ and /d/.
- n=1,006 tokens analyzed using Praat and R.

* The vowel /æj/ before voiced codas, e.g. hat, was accidentally omitted from the wordlist, and so is not included in the analysis.

Unresolved Issues

- SSANOVA method weak on non-round monophthongs.
- GAMMs reliable on very small differences in some cases.
- SSANOVA/GAMMs analyses differ on /æ/ vs. /æ/ patterns (weakly) with /æ/ vs. /æ/ under both methods.
- Formant patterns for (especially lax) monophthongs are very similar across both codal voice contexts, e.g. /æ/ vs. /æ/ could be argued to follow time-normalization, like round vowels — influence of round glide /w/.

Going Further...

- Full description of PVVA in Articulatory Phonology, implemented as OT-style constraints on coordination of gesture:
  - PVVA: constraint forcing early occurrence of coda devoicing gesture, intruding on vowel.
- Round vowels: lip-rounding gesture “anchored” at both edges of lingual gestures.
- Comparison of Winnipeg data to two other dialects largely similar to Carding:
  - No diphthong-raising, e.g. Colorado (acquired) Raising of /æj/ but not /aw/, e.g. North Dakota (pending)
- Account for dialect-specific formant patterns in articulatory model:
  - CR: constraint on preservation of glide gesture, forcing nuclear gesture to be temporally minimized.
- Other dialects: dependent on observed differences.

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References


