



**University
of Victoria**

Graduate Studies

Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

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MA (University of Manitoba, 2010)

BA (University of Manitoba, 1994)

**“An Acoustic Study of Canadian Raising in Three Dialects of
North American English”**

Department of Linguistics

Friday, April 20, 2018

10:00 A.M.

Clearihue Building

Room B017

Supervisory Committee:

Dr. Sonya Bird, Department of Linguistics, University of Victoria (Co-Supervisor)

Dr. Alexandra D’Arcy, Department of Linguistics, UVic (Co-Supervisor)

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Dr. Andrew Wender, Department of Political Science, UVic

Abstract

“Canadian Raising” (CR) is a phonological process typical of Canadian English, defined as the production of /aj, aw/ with raised nuclei before voiceless codas, e.g. in *about*. This dissertation investigates the relationship between CR and another process which abbreviates vowels in the same phonological context in most English dialects: pre-voiceless vowel abbreviation (PVVA). This study sampled three North American dialects: Canada, and the American West and North. Comparisons of vowel duration and formant trajectories revealed common patterns and specific differences between these dialects related to both CR and PVVA. Comparisons of vowel formant trajectories were conducted using statistical techniques for comparing curvilinear datasets, employed in novel methodology which utilizes multiple models of time-scaling. Results indicate that the allophonic production of /aw/ differs in Canadian English in relation to the other dialects, while /aj/ follows a common pattern in all three. I argue that PVVA is achieved through the gestural reorganization of vowels preceding voiceless coda, with the dynamic nature of diphthongs making possible several patterns of abbreviation, two of which are attested in these data: truncation of the onset i.e. the diphthongal nucleus, and compression of the overall trajectory; truncation of the offset is also attested for some monophthongs. Differences in selection of which of these abbreviatory patterns applies to /aw/ in Canadian English versus other dialects accounts for the observed differences in phonetic output. These results indicate that it is worth reconsidering several aspects of the current conception of CR, as follows. First, diphthong-raising processes can be directly linked to the more common process of vowel abbreviation, with consideration of how diphthongal gestures are organized, and reorganized in relation to post-vocalic voicing gestures. Second, that /aw/-raising appears to be distinctly Canadian. And third, that /aj/-raising is not specifically Canadian, suggesting that the two terms be described and named distinctly. This dissertation contributes to the literature on sociophonetics in two major ways: by indicating how CR is directly connected to PVVA in contemporary speech, beyond their surmised historical connections; and, by developing novel methodology for the analysis of dynamic formant trajectories, involving comparison of different time-scaling methods.