Simultaneous Innovation & Conservation: Unpacking Victoria’s Vowels

Sky Onosson †
Rebecca Roeder *
Alexandra D’Arcy †

† University of Victoria  * UNC Charlotte
Regions of Canadian English

from: Boberg 2008
Victoria as a sociolinguistic entity

- ‘British subjects could safely migrate, establishing their children’s inalienable heritage and an eternal link of sentiment with the Motherland’ (Kluckner 1986:11)
- schools ‘became the means of … British culture to children of immigrants’, enabling them to ‘grow up British’ (Trueman 2009; Barman 1984 inter alia)
- the English have consistently comprised ~20% of immigrants (c.1860–present)
- geographically separated from mainland; regular, year-round, affordable ferry and services not established until 1960
- branded as Canada’s ‘Most British City’
The Canadian English landscape

Victoria English is a dialect of Canadian English:

- it shares the Loyalist base (inheritance from primary settler population)
- it has been subject to continuous, longitudinal CE input across its history
- population is in regular contact with other Canadians (and others)
The Canadian English landscape

“Canadian English is remarkably homogeneous ... urban, middle-class Anglophone Canadians speak with much the same accent in Vancouver and Ottawa, Edmonton and Windsor, Winnipeg and Fredericton.” (Chambers 2010)

“To a large extent, a single type of English is spoken across the 3,000 miles (4,500 km) from Vancouver, British Columbia, to Ottawa, Ontario.”

(Labov et al. 2006:217)

“Canadian English displays nothing like the dialect diversity of the United States, let alone that of Great Britain.” (Labov et al. 2006:148, 217)
The western region: British Columbia

An understudied area

- Gregg 1992: Vancouver
- Esling & Warkentyne 1993: Vancouver
- ANAE 2006: 4 Vancouverites
- Sadlier-Brown & Tamminga 2008: 12 Vancouverites
- Boberg 2008: 12 speakers (Vancouver & Victoria)
Victoria English: research questions

1. How are vowel pronunciations in Victoria positioned with respect to (1) General Canadian norms and (2) Western Canadian norms?

1. Are there any vocalic features that make Victoria unique?
Victoria English Archive

Diachronic Corpus of Victoria English (DCVE)
- Recorded ~1965
- 58 speakers, born 1865–1936

Synchronic Corpus of Victoria English (SCVE)
- Recorded 2011–2012
- 162 speakers, born 1913–1996

Total diachronic window: 131 years
- 1st–6th generation Victorians, b.1865–1996
<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>14–19</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>20–29</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>30–39</td>
<td>8</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>40–49</td>
<td>5</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>50–59</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>60–69</td>
<td>8</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>70–79</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>80–89</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>90–98</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total N = 114**
<table>
<thead>
<tr>
<th>Vowel</th>
<th>Target words</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLEECE</td>
<td>seat, seed, seen, veto, see</td>
<td>538</td>
</tr>
<tr>
<td>KIT</td>
<td>did, kiss, sit, sick, tin, tip</td>
<td>623</td>
</tr>
<tr>
<td>FACE</td>
<td>stain, state, stayed, say</td>
<td>429</td>
</tr>
<tr>
<td>DRESS</td>
<td>dead, deck, set, step, ten, test</td>
<td>631</td>
</tr>
<tr>
<td>TRAP/BAT H</td>
<td>bad, band, cast, bag, bang, gag, ham, hanger, sad, sanity, sat, tag, tan, tap</td>
<td>1347</td>
</tr>
<tr>
<td>STRUT</td>
<td>bus, cup, cut, duck, stud, sun</td>
<td>608</td>
</tr>
<tr>
<td>LOT/THOUGHT</td>
<td>bother, calm, caught, cot, dawn, Don, father, lager, monitor, palm, saw, sawed, spa, sock, sod, top, talk, toss</td>
<td>1813</td>
</tr>
<tr>
<td>GOAT</td>
<td>boat, bold, coat, code, cold, stole, stone, go, toe</td>
<td>934</td>
</tr>
<tr>
<td>FOOT</td>
<td>cook, foot, stood</td>
<td>326</td>
</tr>
<tr>
<td>GOOSE /TOO</td>
<td>boots, cool, do, due, food, fool, new, soon, student, too, tool, tooth, tube</td>
<td>1441</td>
</tr>
<tr>
<td>START</td>
<td>bar, car, dark, harp, star, start</td>
<td>600</td>
</tr>
</tbody>
</table>

Total N = 9290
<table>
<thead>
<tr>
<th>Vowel</th>
<th>Target words</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLEECE</td>
<td>seat, seed, seen, veto, see</td>
<td>538</td>
</tr>
<tr>
<td>KIT</td>
<td>did, kiss, sit, sick, tin, tip</td>
<td>623</td>
</tr>
<tr>
<td>FACE</td>
<td>stain, state, stayed, say</td>
<td>429</td>
</tr>
<tr>
<td>DRESS</td>
<td>dead, deck, set, step, ten, test</td>
<td>631</td>
</tr>
<tr>
<td>TRAP/BAT H</td>
<td>bad, band, cast, bag, bang, gag, ham, hanger, sad,</td>
<td>1347</td>
</tr>
<tr>
<td></td>
<td>sanity, sat, tag, tan, tap</td>
<td></td>
</tr>
<tr>
<td>STRUT</td>
<td>bus, cup, cut, duck, stud, sun</td>
<td>608</td>
</tr>
<tr>
<td>LOT/THOU GHT</td>
<td>bother, calm, caught, cot, dawn, Don, father,</td>
<td>1813</td>
</tr>
<tr>
<td></td>
<td>lager, monitor, palm, saw, sawed, spa, sock, sod,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>top, talk, toss</td>
<td></td>
</tr>
<tr>
<td>GOAT</td>
<td>boat, bold, coat, code, cold, stole, stone, go,</td>
<td>934</td>
</tr>
<tr>
<td></td>
<td>toe</td>
<td></td>
</tr>
<tr>
<td>FOOT</td>
<td>cook, foot, stood</td>
<td>326</td>
</tr>
<tr>
<td>GOOSE /TOO</td>
<td>boots, cool, do, due, food, fool, new, soon,</td>
<td>1441</td>
</tr>
<tr>
<td></td>
<td>student, too, tool, tooth, tooth, tube</td>
<td></td>
</tr>
<tr>
<td>START</td>
<td>bar, car, dark, harp, star, start</td>
<td>600</td>
</tr>
</tbody>
</table>
Data and methods

Word List data (Boberg 2008)
• phonological environment controlled
  • manner: Vs before liquid, nasal & glide separated
  • place: labial, coronal (others tested individually)
  • Primary stress

Measurement and normalization
• FAVE used to measure annotated audio files (Rosenfelder et al. 2011)
• normalization: ANAE speaker extrinsic method, accessed via NORM (Thomas & Kendall 2009)
Canadian Shift in Victoria: apparent time view

- FLEECE
- TRAP/BATH
- GOOSE
- FOOL
- PUT
- BOAT
- LOT
- KIT
- DRESS
- FACE

Speaker age (speaker N)

- Yellow = 14-23 (N = 16)
- Light gray = 24-42 (N = 24)
- Gray = 47-68 (N = 44)
- Black = 70-98 (N = 29)
14–23 year olds: Victoria vs. Pan-Canadian average

= Victoria, age 14-23 (N = 16)  = pan-Canadian average, age 14-23 (N = 84)
GOOSE and GOAT fronting

- Yellow: 14-23 (N = 15)
- Gray: 24-42 (N = 24)
- Dark gray: 47-68 (N = 43)
- Black: 70-98 (N = 30)
F2 correlation of GOAT & GOOSE

Women 14-69 (N = 42)

Stats
F = 22.4
p < .001
R² = .36

Men 14-69 (N = 42)

Stats
F = .04
p = .85
R² = .001
/uw/-fronting (ages 14-23, N = 16)

see Boberg 2008, 2011
Retracted START [west to east by region]

adapted from Boberg 2008 (144, Fig.3)
Western Canadian: BAG $\approx$ BAN

Raising of pre-nasal /æ/ (BAN)
- Ubiquitous in North American dialects of English (e.g., Boberg 2001)

Extreme raising of pre-voiced-velar /æ/ (BAG)
- North Central United States (e.g. Zeller 1997, Bauer & Parker 2008)
- Pacific Northwest (e.g. Wassink et al 2009, Freeman 2014)
- Canada west of Quebec (e.g. Boberg 2008)

BAN $=$ BAG (Boberg 2008)
- Western Canada (Prairies & British Columbia)
14–23 year olds: Victoria vs. Pan-Canadian average

- **Yellow square**: Victoria, age 14-23 (N = 16)
- **Blue X**: Pan-Canadian average, age 14-23 (N = 84)
Western Canadian: BAG ≈ BAN

= Victoria, age 14-23 (N = 16)  X = pan-Canadian average, age 14-23 (N = 84)
Western Canadian: BAG ≈ BAN

adapted from Boberg 2008 (147, Fig.4)
Glide (yod) retention
Teenage glide-retention

due [djuw]

soon [suwn]

tube [tjuwb]

too [tuw]
Identifying yod acoustically

Previous studies
• speaker preference (Orkin 1970, Pringle 1985, Woods 1999)
• self-reported usage (Scargill 1974, Chambers 1998)
• researcher perception (Gregg 2004)

Our methodology
1. identify yod perceptually within a subset
2. determine acoustic and demographic factors which identify yod tokens
3. apply criteria to larger corpus
Perception and acoustics of yod

Perception of yod

• most tokens from historical set: *due, new, student, tube*

• youngest speakers show potentially novel ‘glide-like’ forms for ‘soon’... is this /uw/-fronting? (cf. Sóskuthy et al. 2015)

Acoustic measurements

• **F2 at ~25%** most significant factor (FAVE uses 20% point)

• **duration** also significant (yod tokens about 1.4 times longer)
Demographic effects

F2 at 20%, speaker sex

Duration, speaker age
focus on F2 over duration

- age effect difficult to capture accurately
- F2 is far more significant, larger effect size

cutoff values for F2 at 20%, by sex

- female: above 2258 Hz = yod
- male: above 1916 Hz = yod
N = 55 male speakers

N = 59 female speakers

% yod
Yod occurrence by word

historical set
- student 51.42%
- new 48.21%
- tube 38.05%
- due 23.01%
### Historical Set
- **student**: 51.42%
- **new**: 48.21%
- **tube**: 38.05%
- **due**: 23.01%

### A-Historical Set
- **do**: 16.81% (cf. due)
- **tooth**: 9.82%
- **soon**: 8.93%
- **too**: 7.08%
vowels: innovation & conservation

a Western Canadian city
• BAG/BAN relative placement

as innovative as Vancouver, but recently
• GOAT and GOOSE/TOO fronting
• Canadian Shift

variability reflects a city in flux
• START-retraction
• glide (yod) retention
Victoria’s vowels unpacked

conclusions
• Victoria is an innovative yet unique Western Canadian city
• sociohistorical factors and speaker contact, regional affiliation shape contemporary dialects

still to come — watch this space (region)
• low back merger (LOT/THOUGHT)
• diphthongization of pre-nasal and pre-velar /æ/
• Canadian Raising
• pre-rhotic /e/~/æ/ merger
Selected references

Thanks to...

- Social Sciences and Humanities Research Council of Canada (SSHRC): Standard Research Grant #410-2011-0219
- Faculty of Humanities and Office of Research Services at the University of Victoria
- Fieldworkers and RAs on the Victoria English project, who collected the data, transcribed the interviews, and prepared the materials for analysis
- Charles Boberg for helpful discussion and for permission to replicate his word list for the Victoria English project
Acoustics of yod vs. yod-less tokens

- 75% of tokens within bar
- Mean distribution
- ~20% duration
- ~20% duration
General Canadian norms

Areas of dialect mixing

• Canadian Shift (Clarke et al. 1995; Boberg 2005; Bigham 2009; Gramma & Kennedy 2009; Durian 2013)

Urban North America

• fronting of GOOSE, TOO, and GOAT vowels (ANAE 2006, Boberg 2011, Luthin 1987; others for CA & OR discussed below)

Is Victoria innovative or conservative?
Multivariate analysis (e.g. MANOVA, MANCOVA)
• to compare multiple dependent variables across discrete categories of sex and age group

Linear regression
• more nuanced observations within discrete categories