Simultaneous Innovation & Conservation: Unpacking Victoria's Vowels

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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

The sample

Age	Male	Female	Total
14–19	5	4	9
20–29	8	8	16
30–39	8	7	15
40–49	5	8	13
50–59	8	8	16
60–69	8	7	15
70–79	8	8	16
80–89	3	7	10
90–98	2	2	4

Total N = 114

The data

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

Total N = 9290

The data

Vowel	Target words	Total N
FLEECE	seat, seed, seen, veto, see	538
KIT	**did, kiss, sit, sick, tin, tip**	**623**
FACE	stain, state, stayed, say	429
DRESS	**dead, deck, set, step, ten, test**	**631**
TRAP/BATH	**bad, band, cast, bag, bang, gag, ham, hanger, sad, sanity, sat, tag, tan, tap**	**1347**
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START	**bar, car, dark, harp, star, start**	**600**

Data and methods

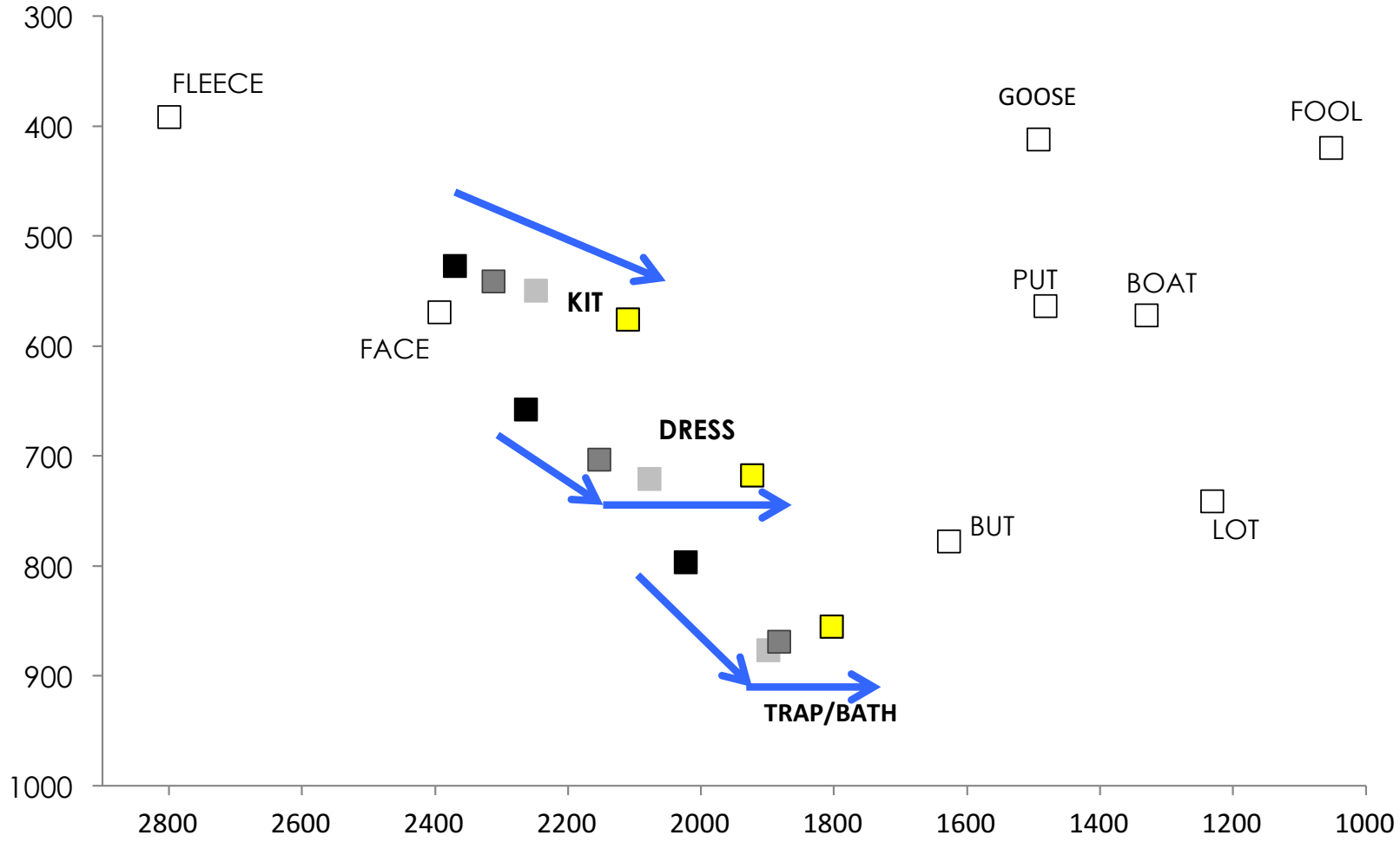
Word List data (Boberg 2008)

- 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)

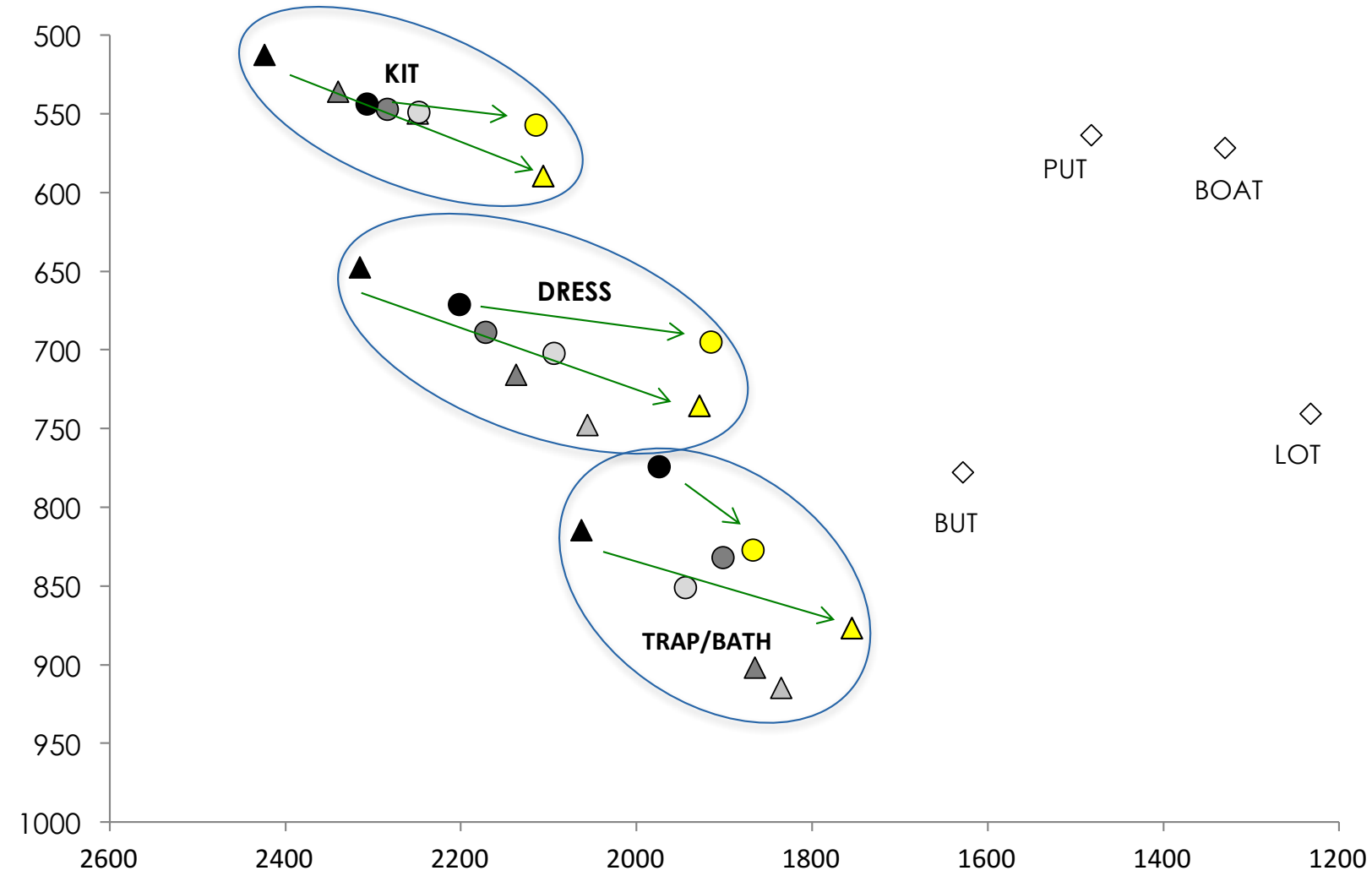
Canadian Shift in Victoria: apparent time view



■ = **14-23** (N = 16) ■ = **24-42** (N = 24) ■ = **47-68** (N = 44) ■ = **70-98** (N = 29)

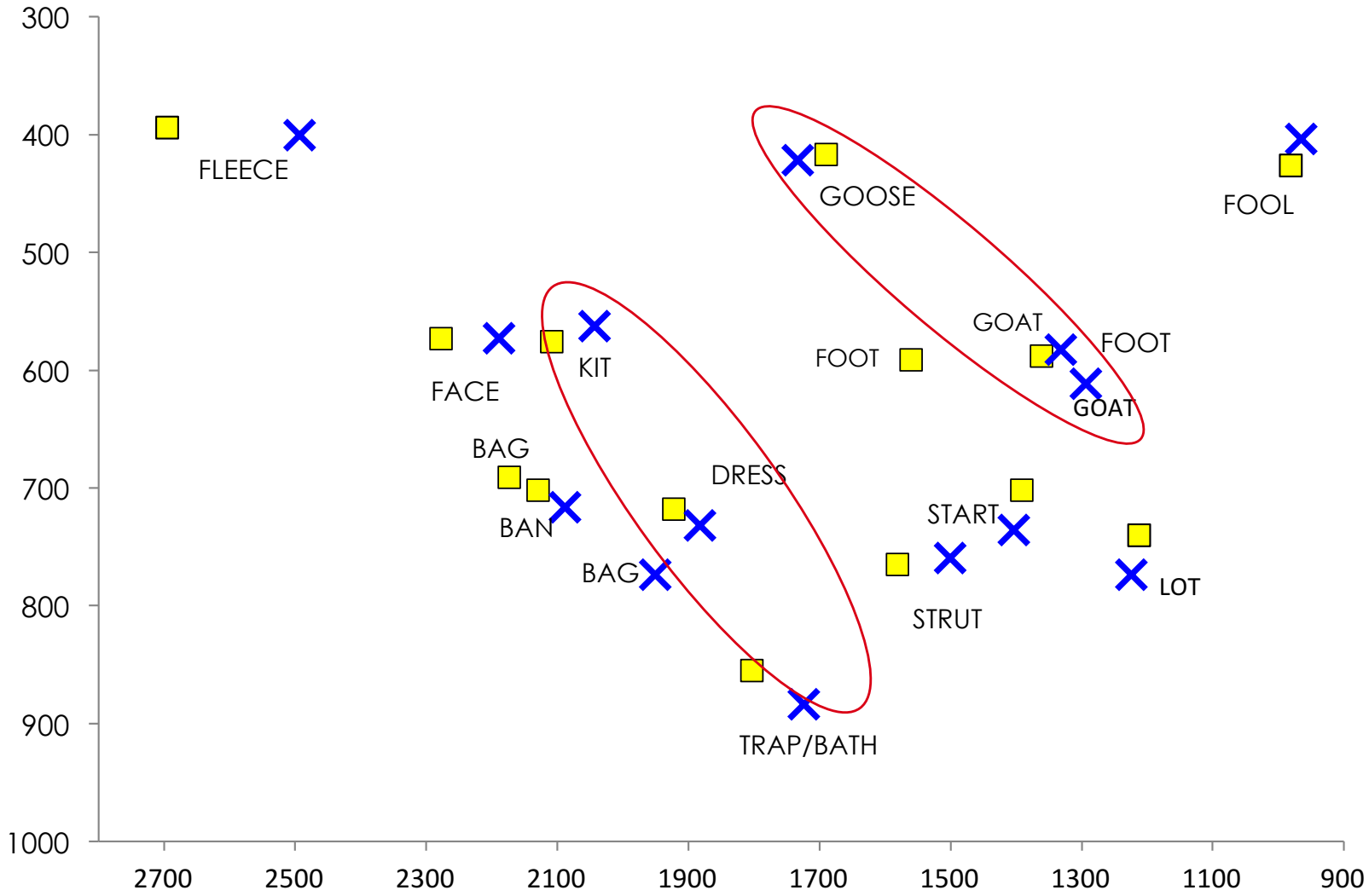
speaker age (speaker N)

Canadian Shift: Sex & Age



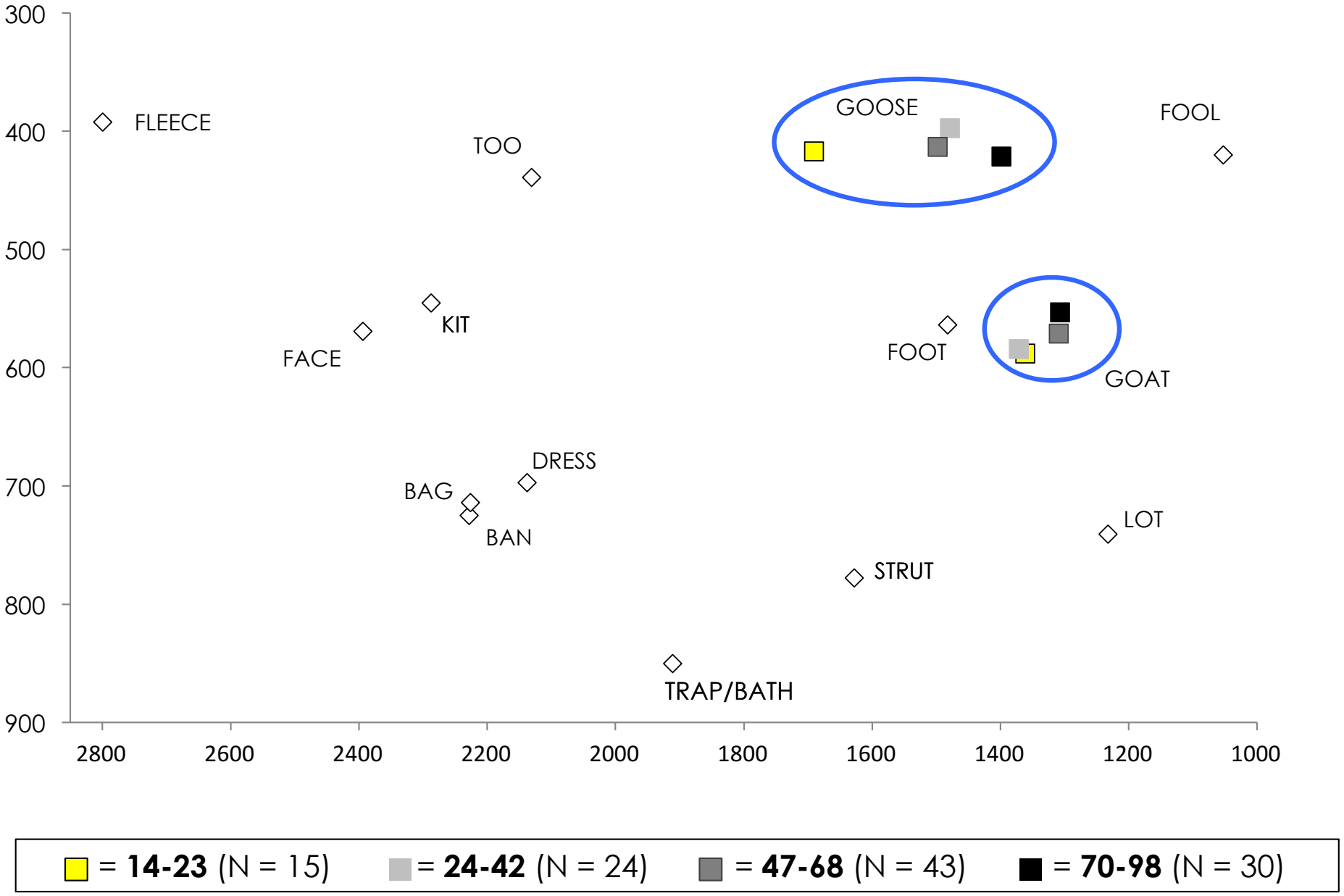
◇ = Gp avg ○ = Men △ = Women ● ▲ = Oldest ○ △ = Youngest

14–23 year olds: Victoria vs. Pan-Canadian average



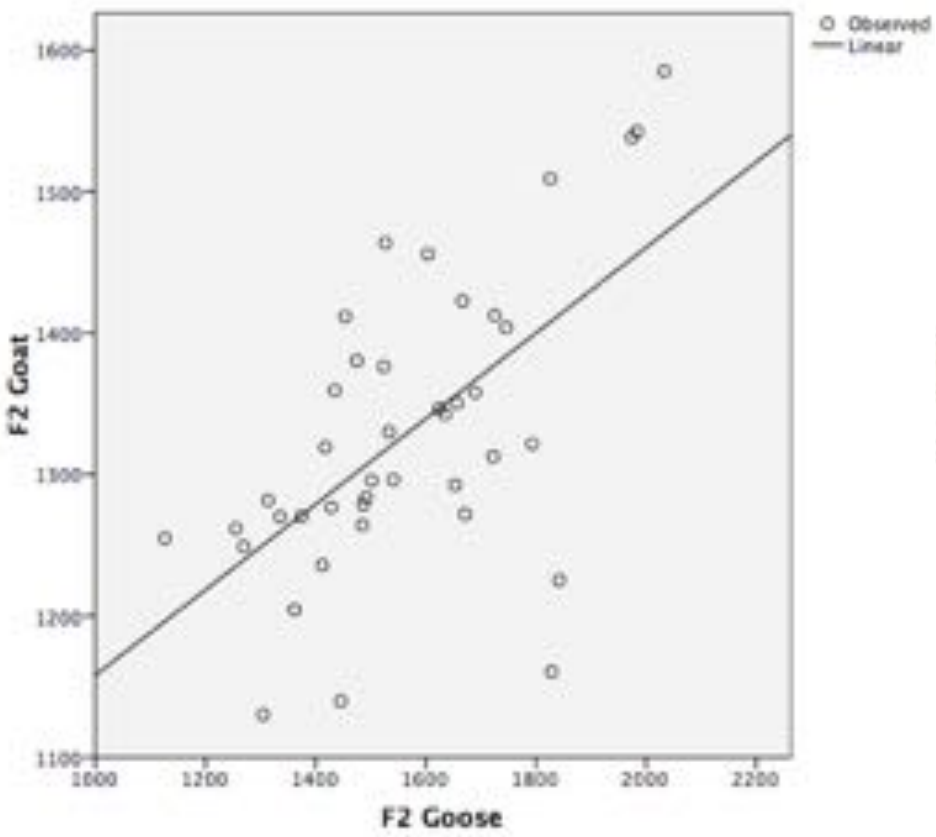
■ = Victoria, age **14-23** (N = 16) X = pan-Canadian average, age **14-23** (N = 84)

GOOSE and GOAT fronting



F2 correlation of GOAT & GOOSE

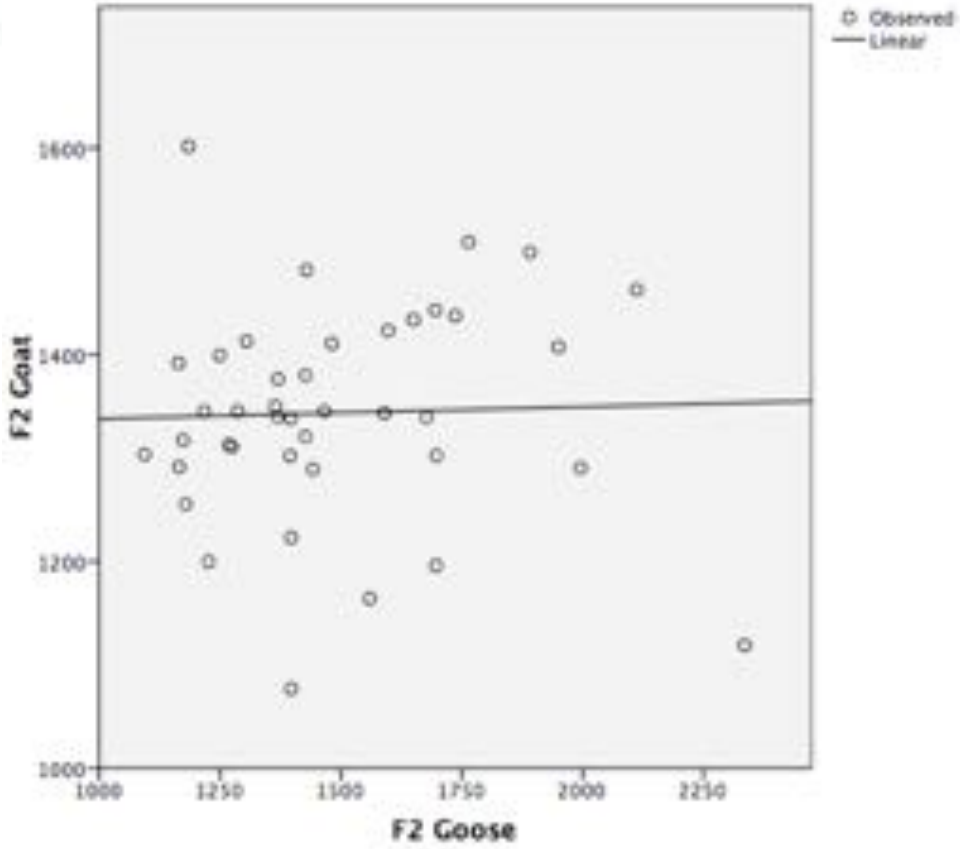
Women 14-69 (N = 42)



Stats

F = 22.4
p < .001
R^2 = .36

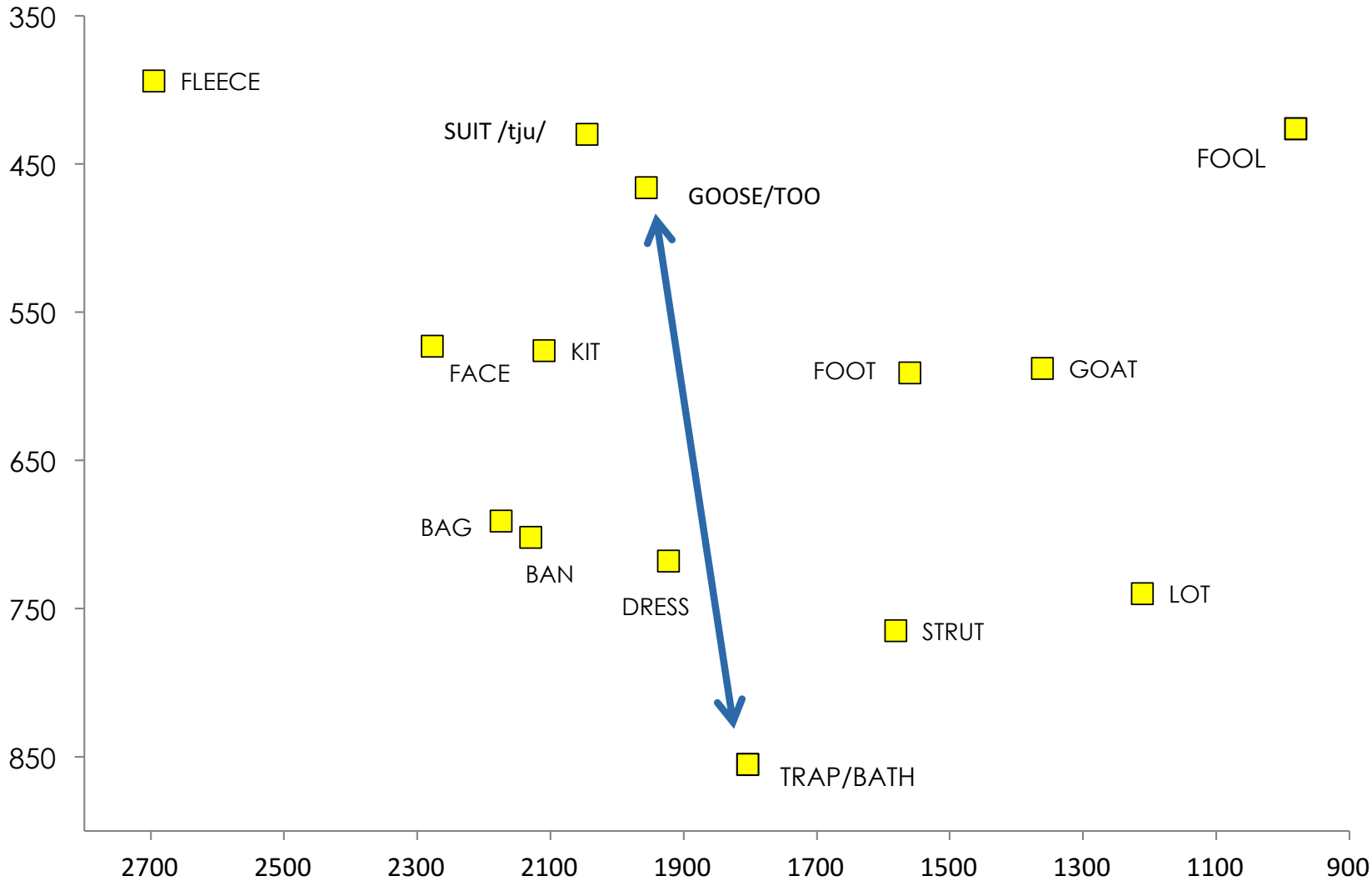
Men 14-69 (N = 42)



Stats

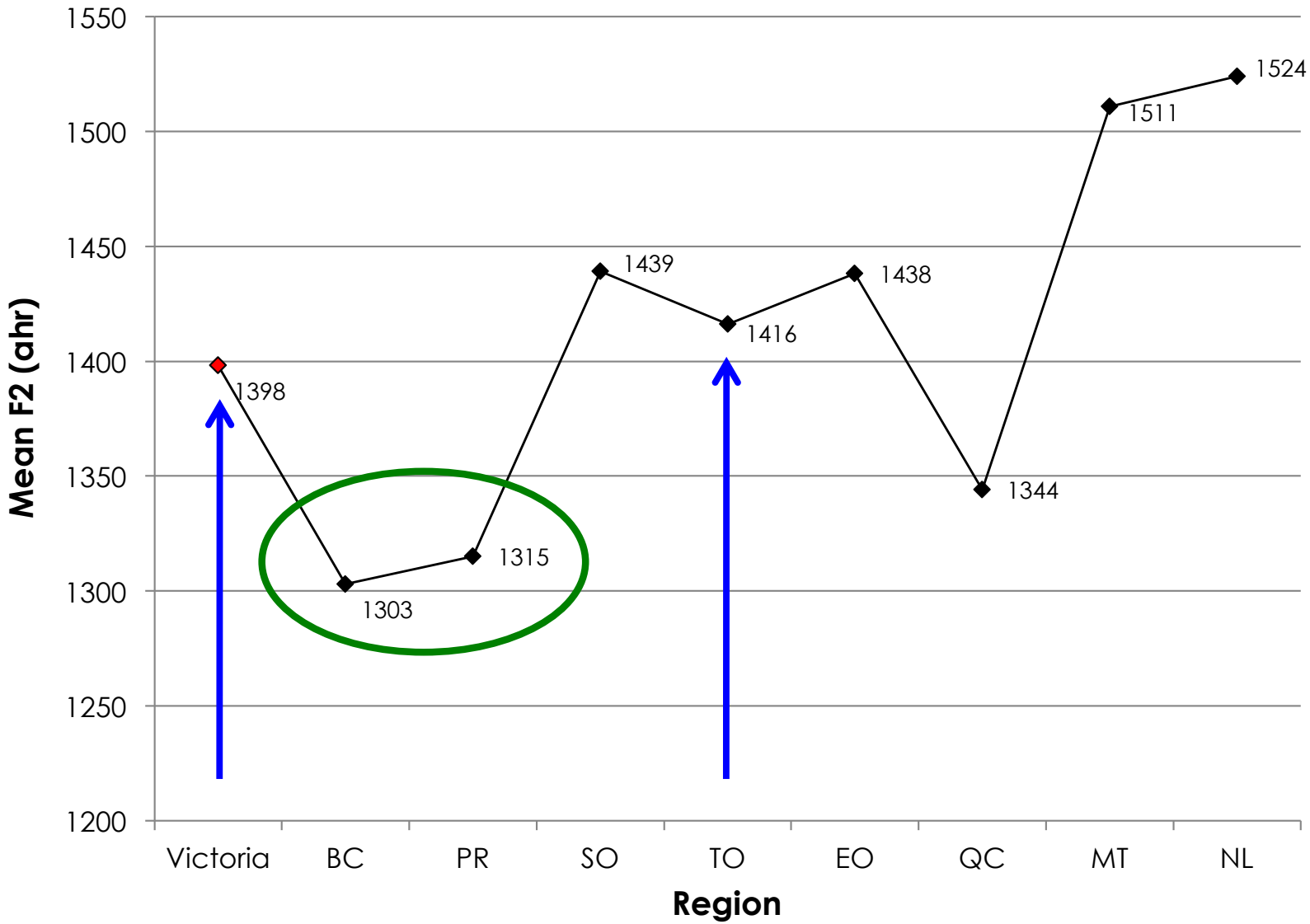
F = .04
p = .85
R^2 = .001

/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 ≈ BAN

Raising of pre-nasal /æ/ (BAN)

- Ubiquitous in North American dialects of English (e.g., Boberg 2001)

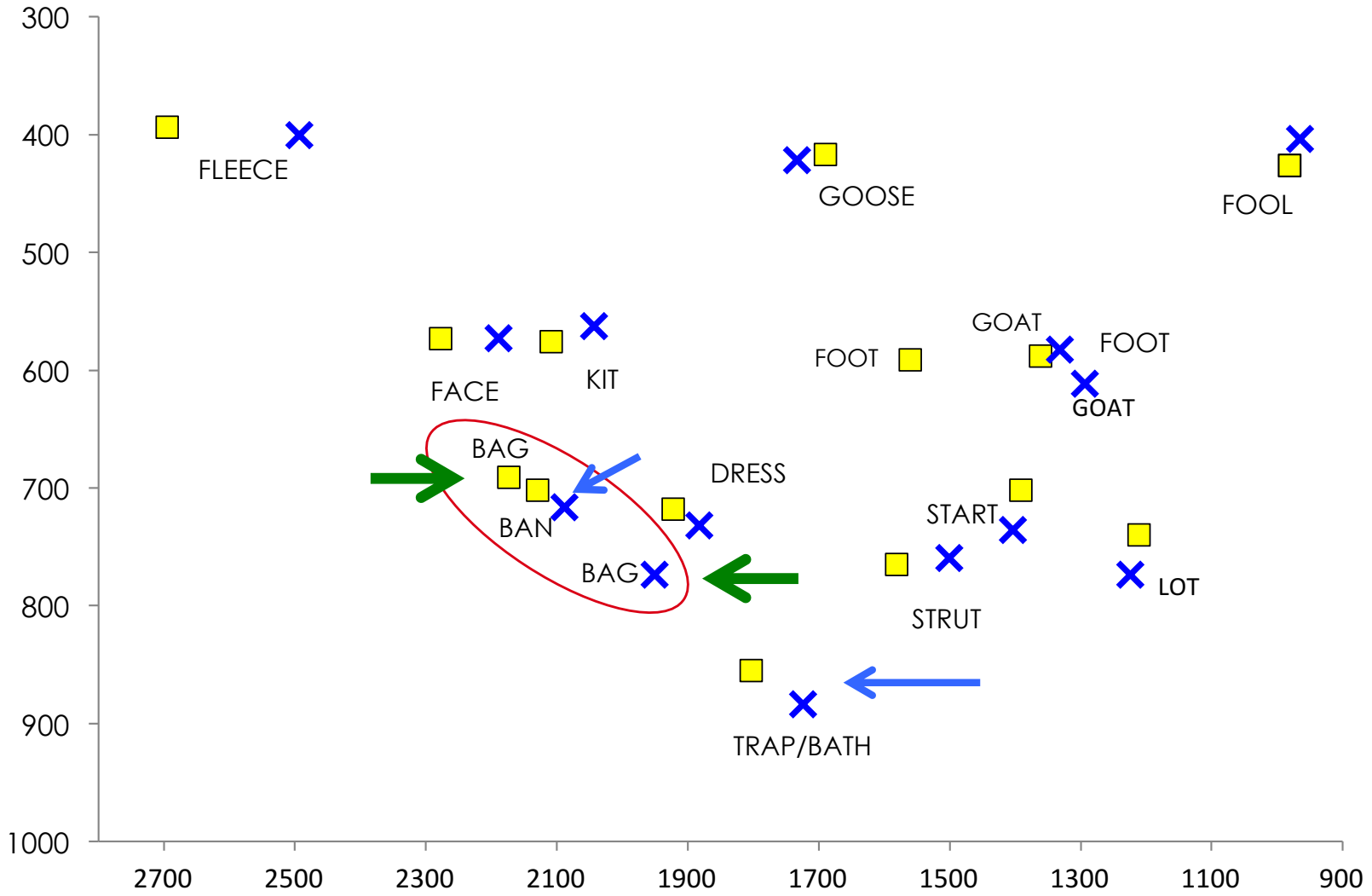
Extreme raising of pre-voiced-velar /æ/ (BAG)

- 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)

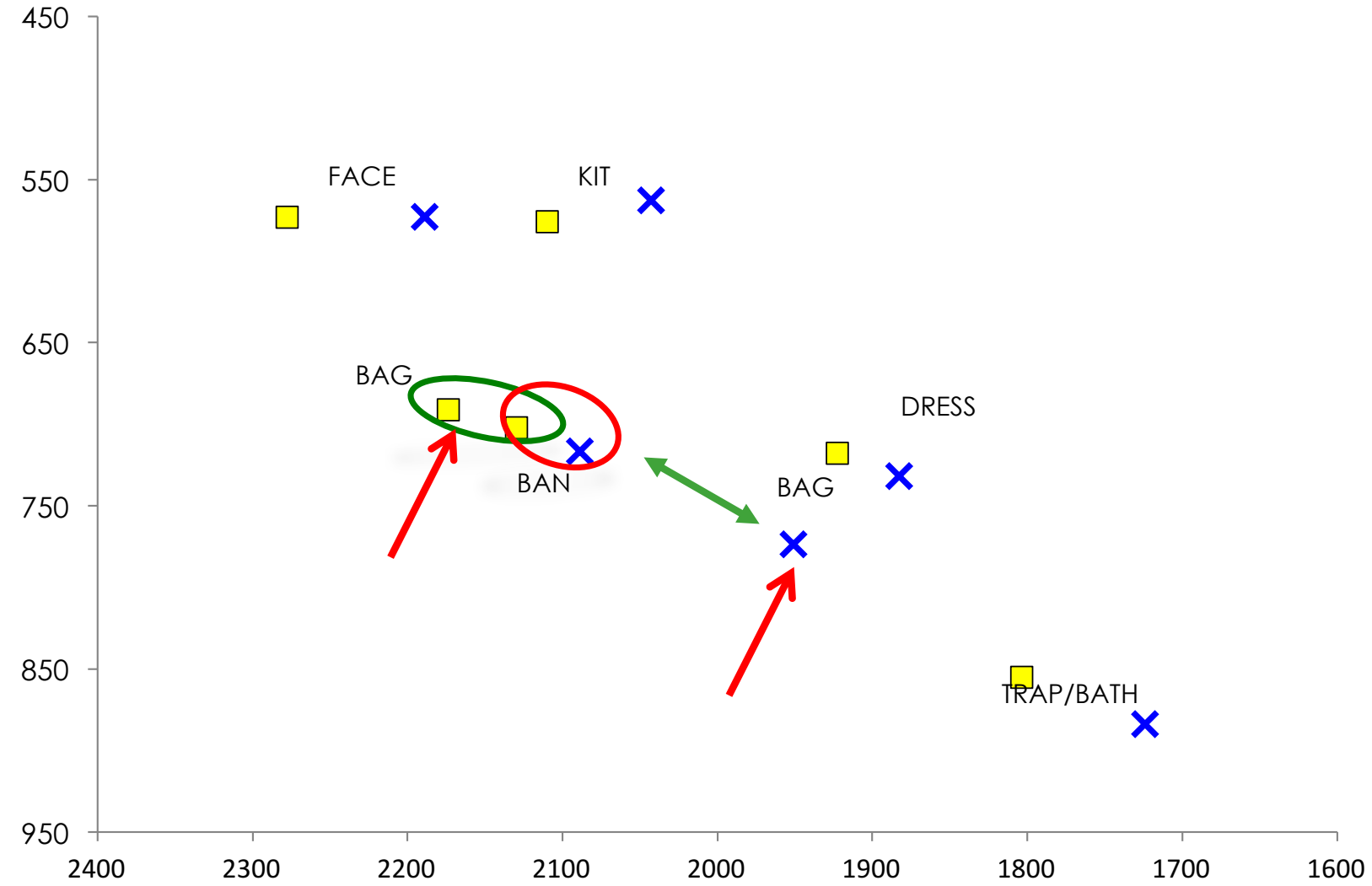
- Western Canada (Prairies & British Columbia)

14–23 year olds: Victoria vs. Pan-Canadian average



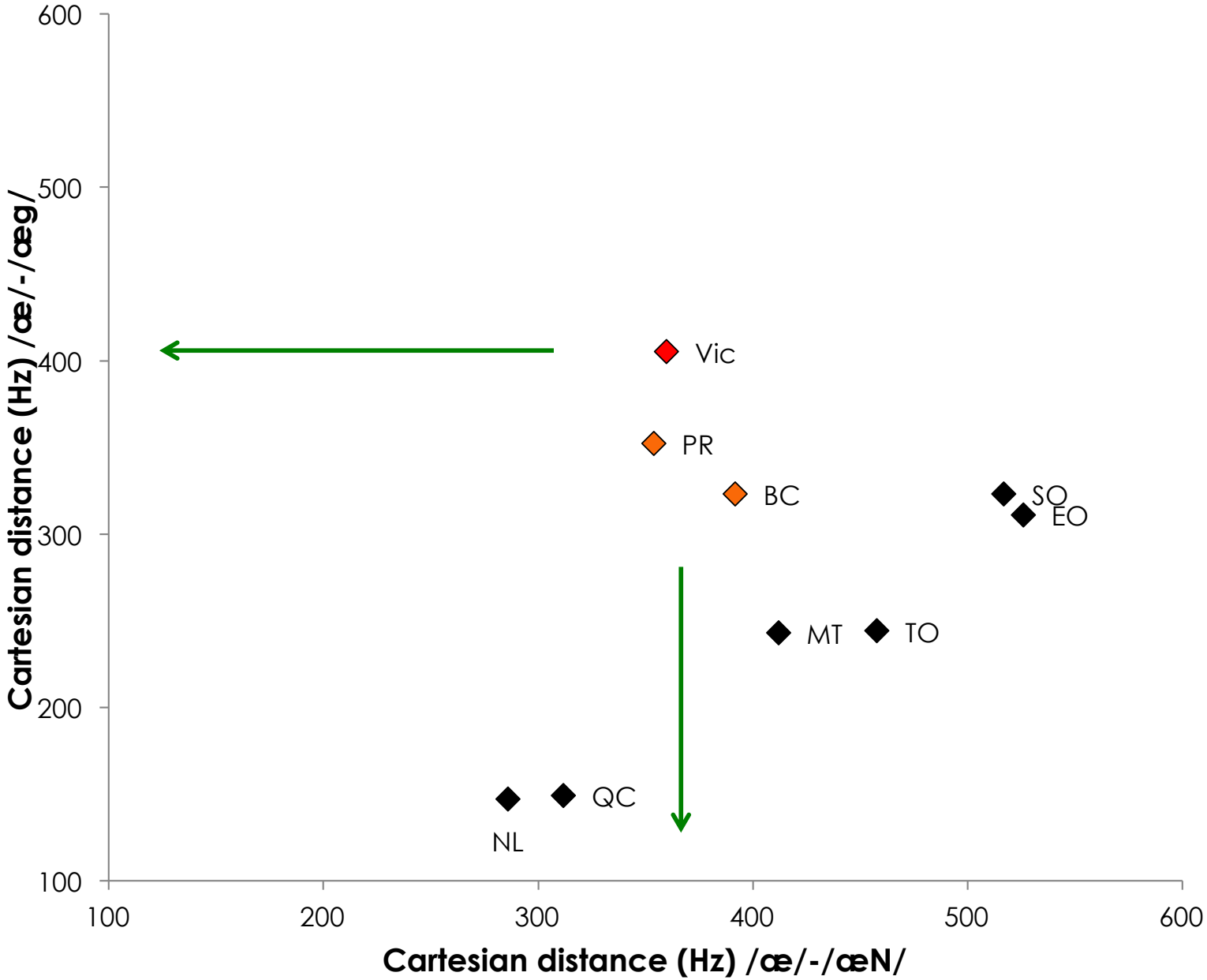
■ = Victoria, age **14-23** (N = 16) X = pan-Canadian average, age **14-23** (N = 84)

Western Canadian: BAG ≈ BAN



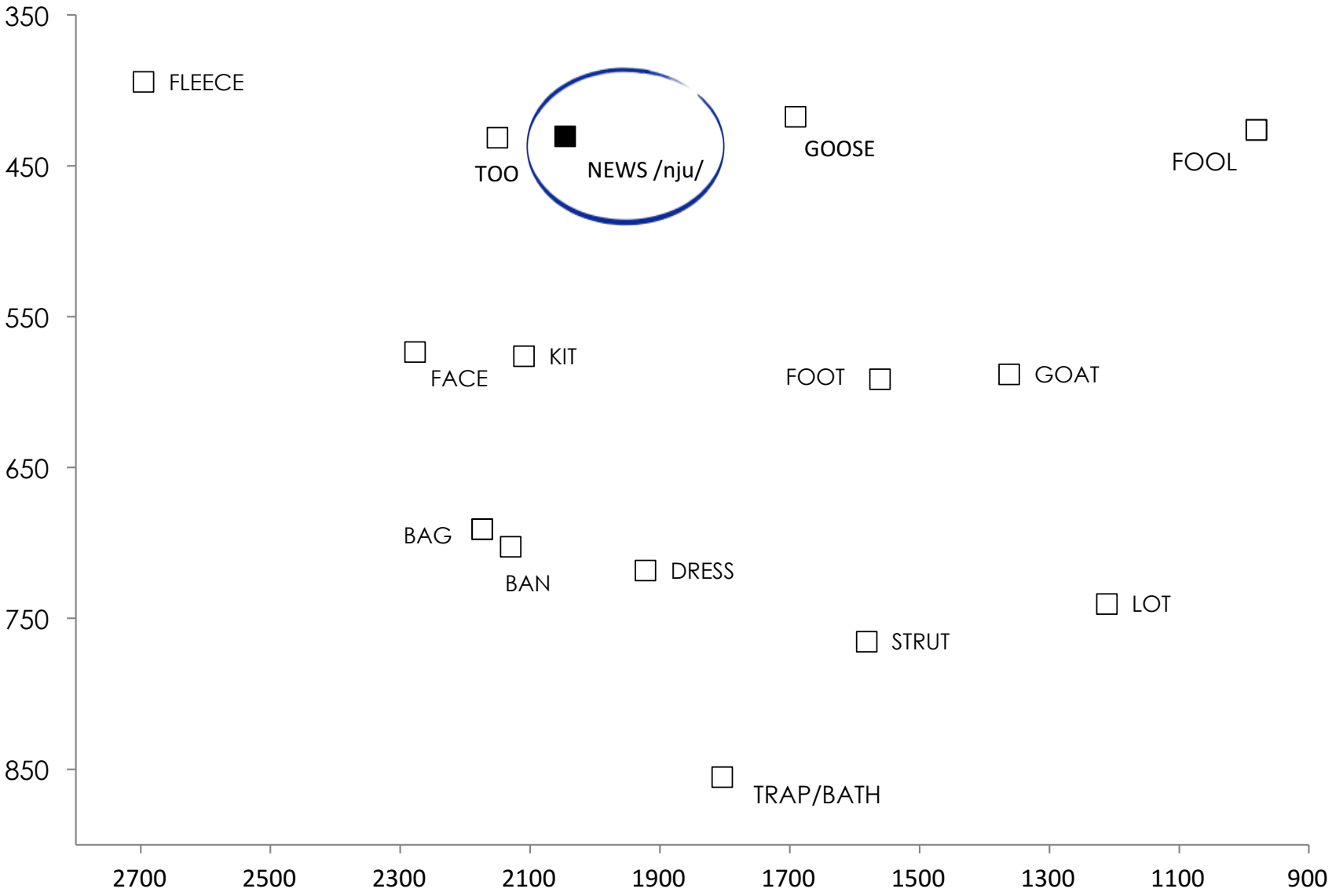
= Victoria, age **14-23** (N = 16) X = pan-Canadian average, age **14-23** (N = 84)

Western Canadian: BAG ≈ BAN



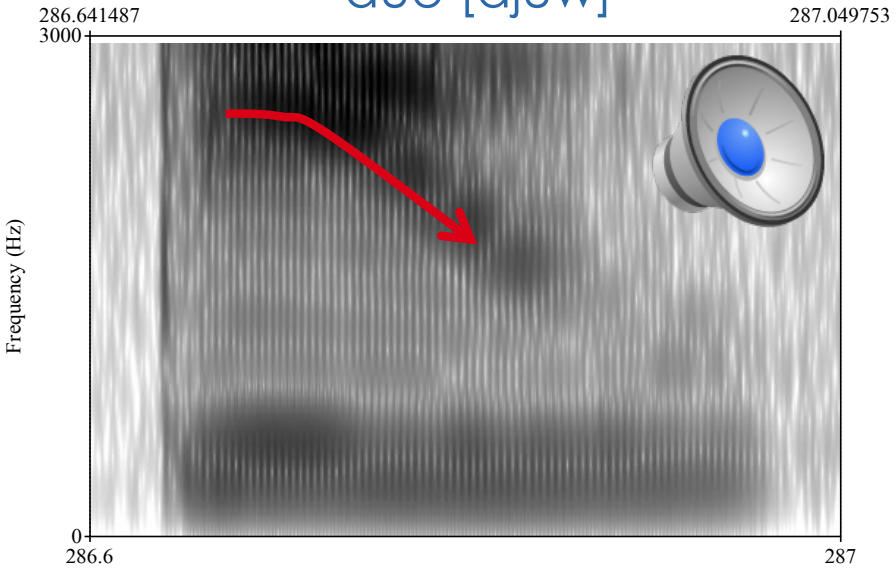
adapted from Boberg 2008 (147, Fig.4)

Glide (yod) retention

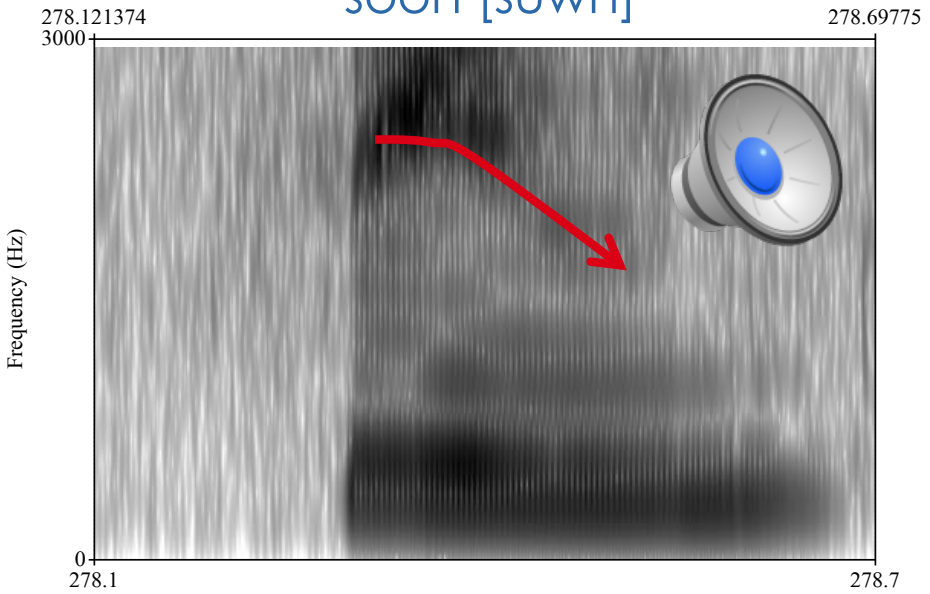


Teenage glide-retention

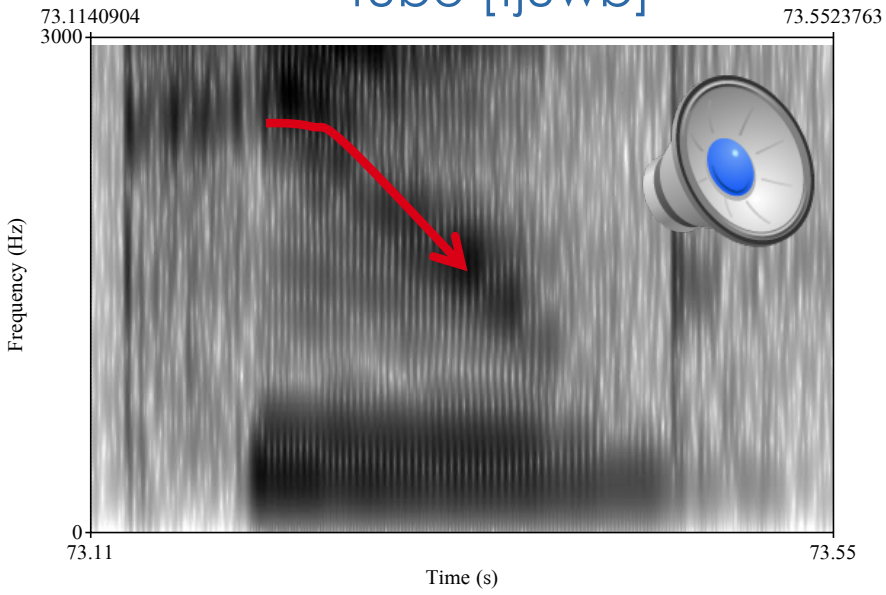
due [djuw]



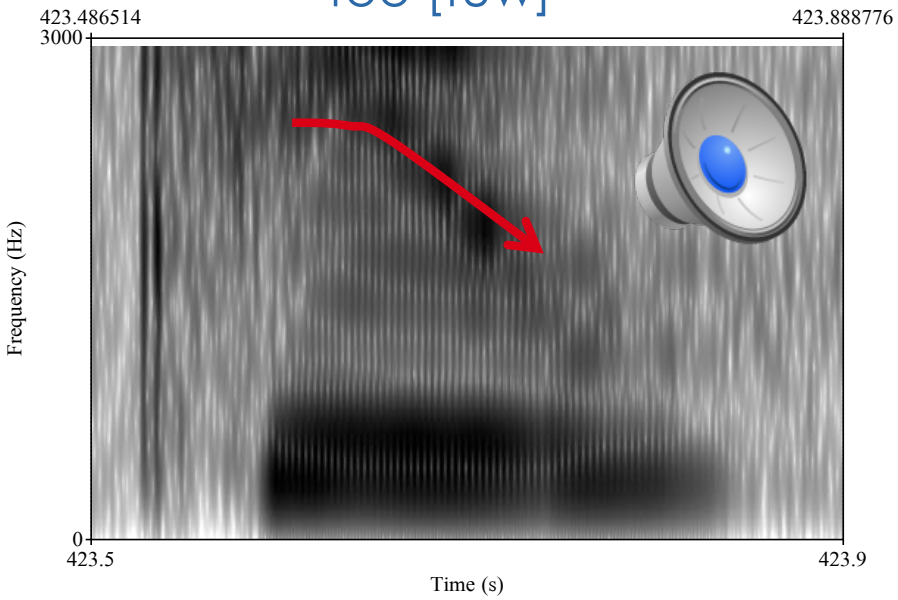
soon [suwn]



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

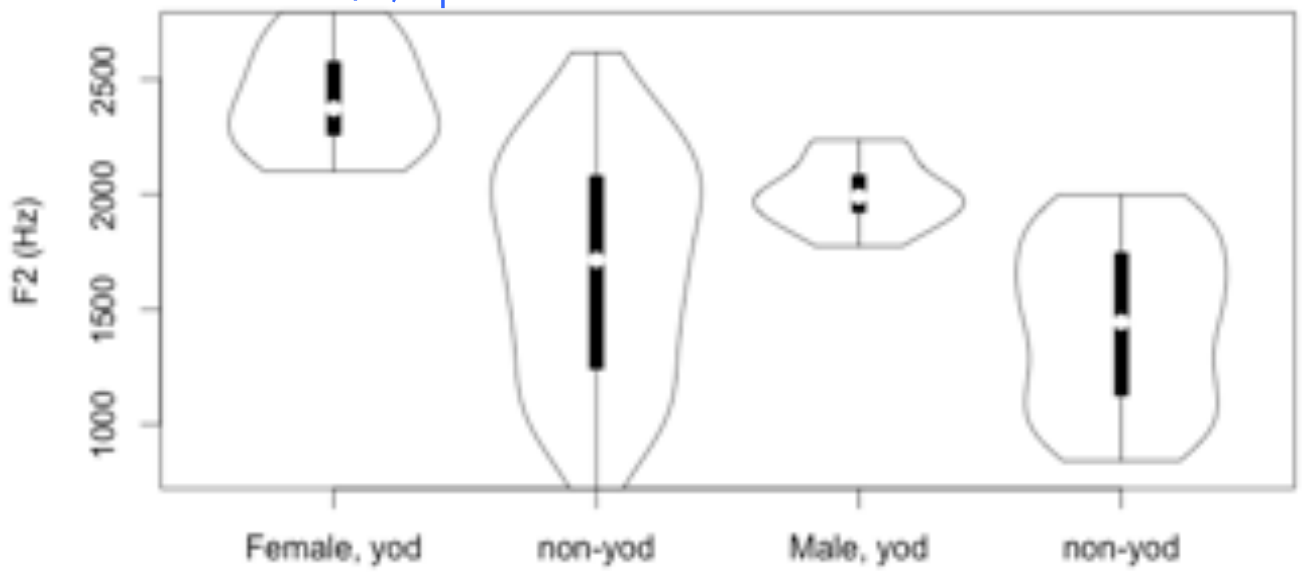
- most tokens from historical set: *due, new, student, tube*
- youngest speakers show potentially novel 'glide-like' forms for '*soon*'… is this /uw/-fronting? (cf. Sóskuthy et al. 2015)

Acoustic measurements

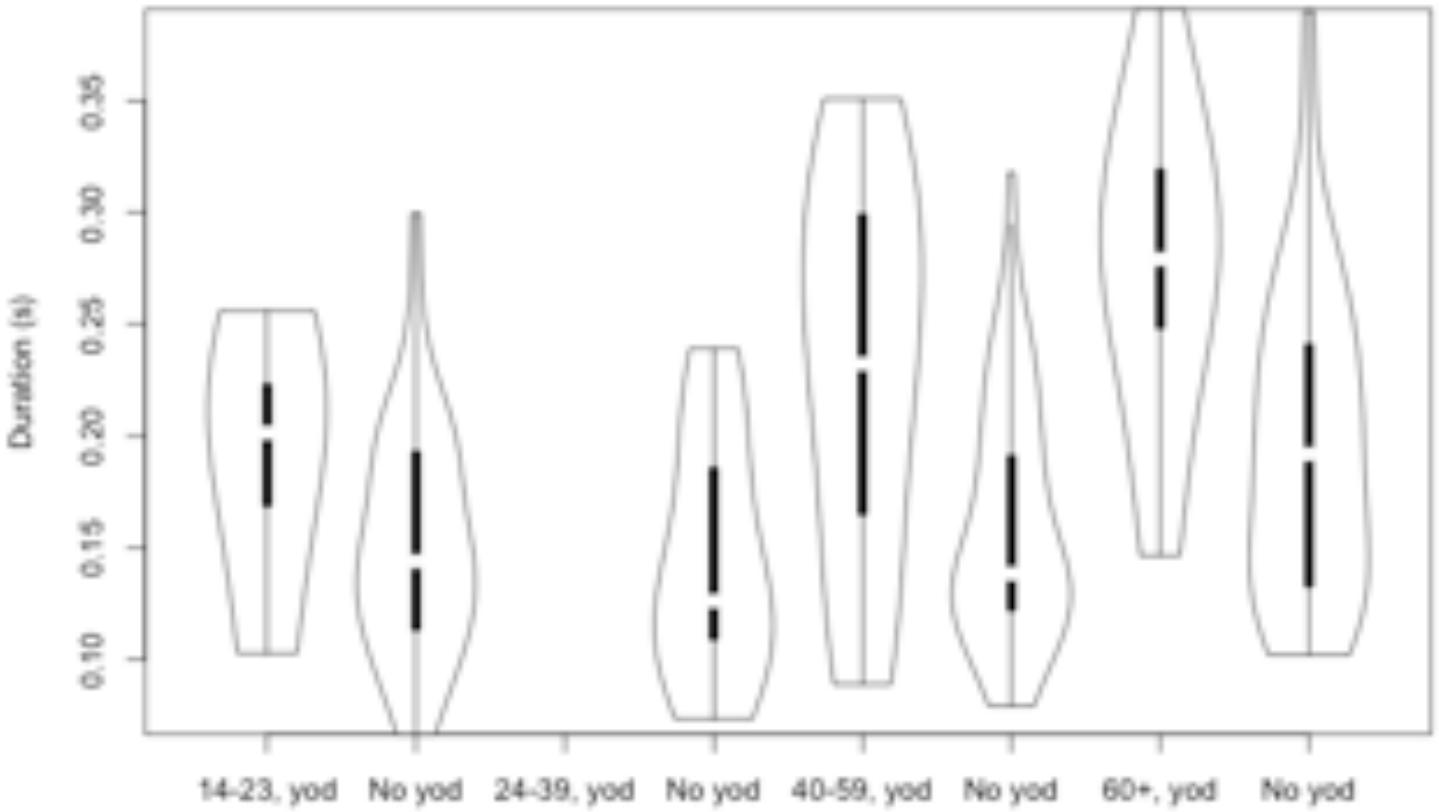
- **F2 at ~25%** most significant factor (FAVE uses **20%** point)
- **duration** also significant (yod tokens about 1.4 times longer)

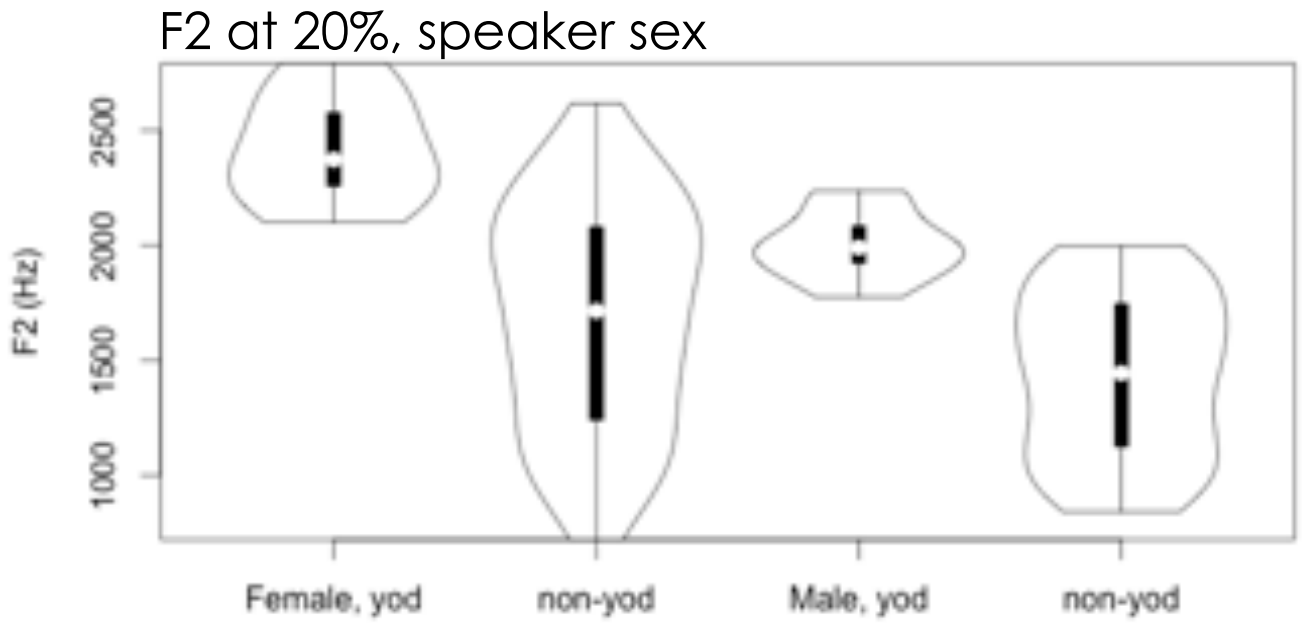
Demographic effects

F2 at 20%, speaker sex



Duration, speaker age





Acoustic criteria

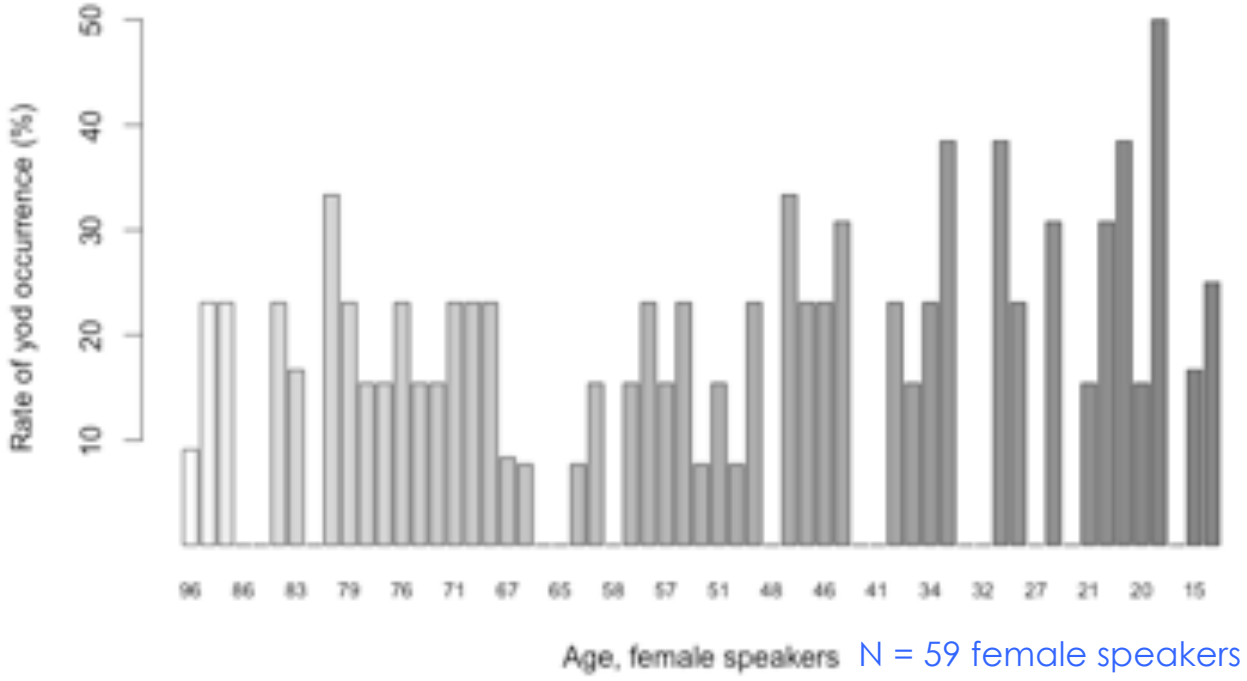
focus on F2 over duration

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

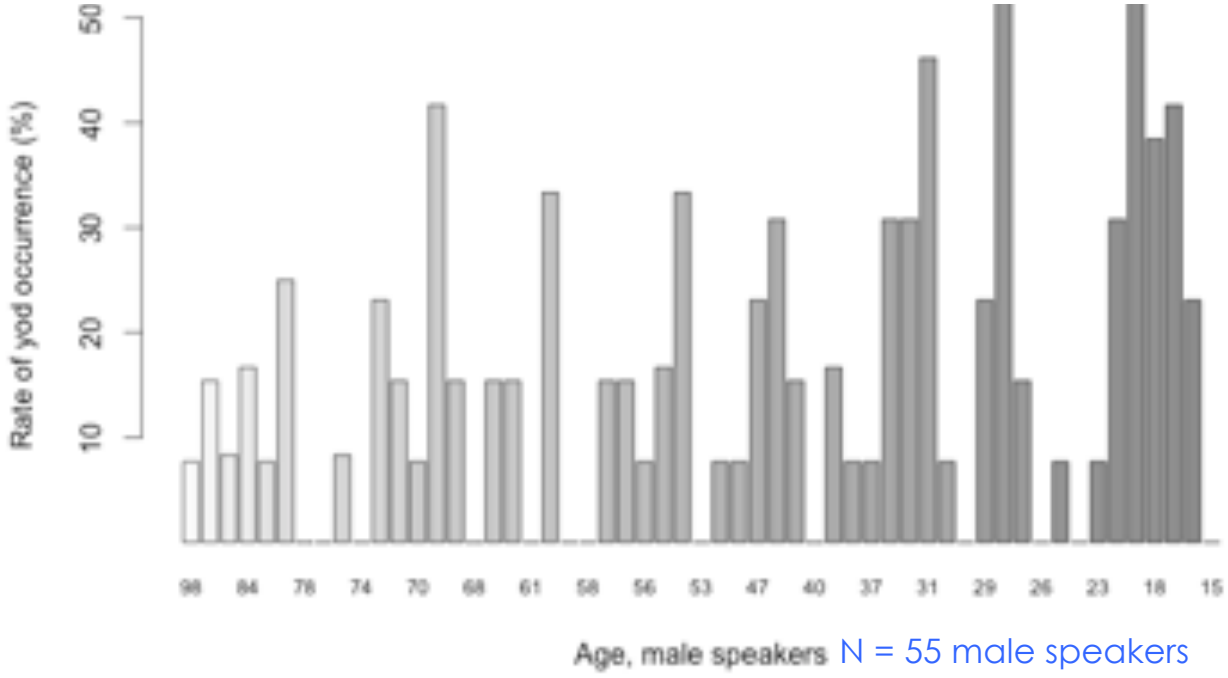
cutoff values for F2 at 20%, by sex

- female: above **2258** Hz = yod
- male: above **1916** Hz = yod

% yod



N = 59 female speakers

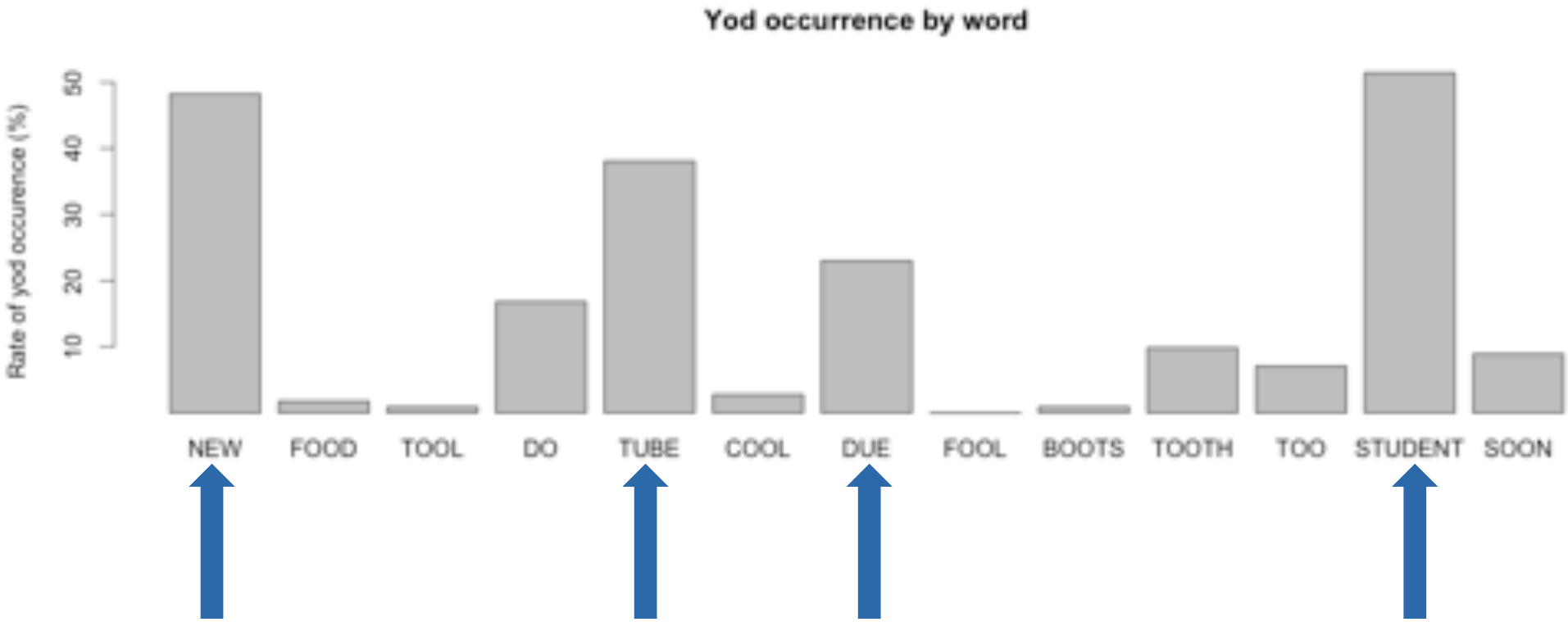


N = 55 male speakers

Yod occurrence by word

historical set

- *student* 51.42%
- *new* 48.21%
- *tube* 38.05%
- *due* 23.01%



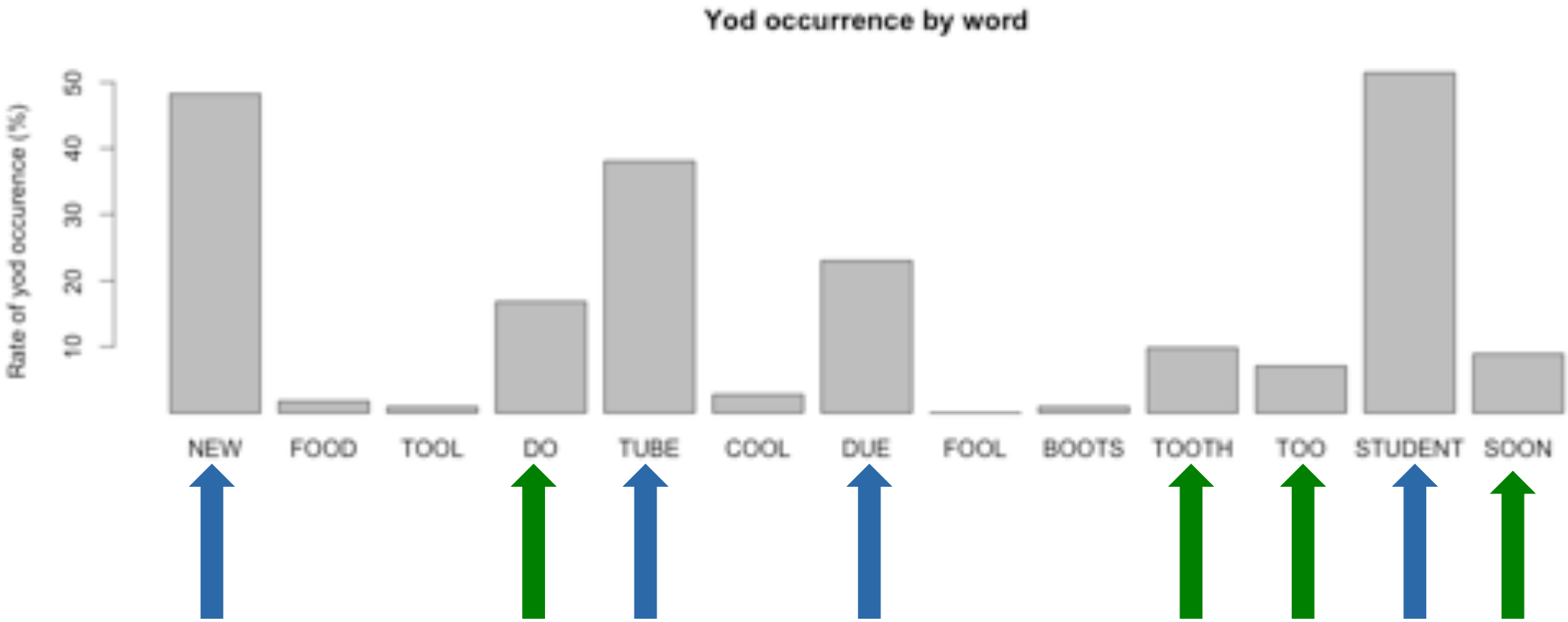
Yod occurrence by word

historical set

- *student* 51.42%
- *new* 48.21%
- *tube* 38.05%
- *due* 23.01%

ahistorical 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

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- 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

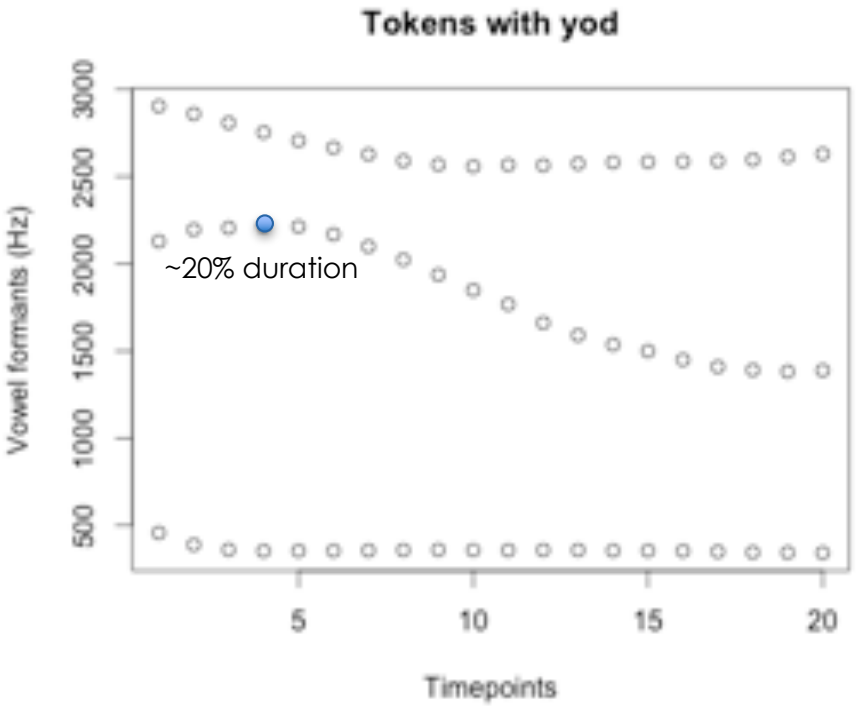
Sociolinguistics Research Lab

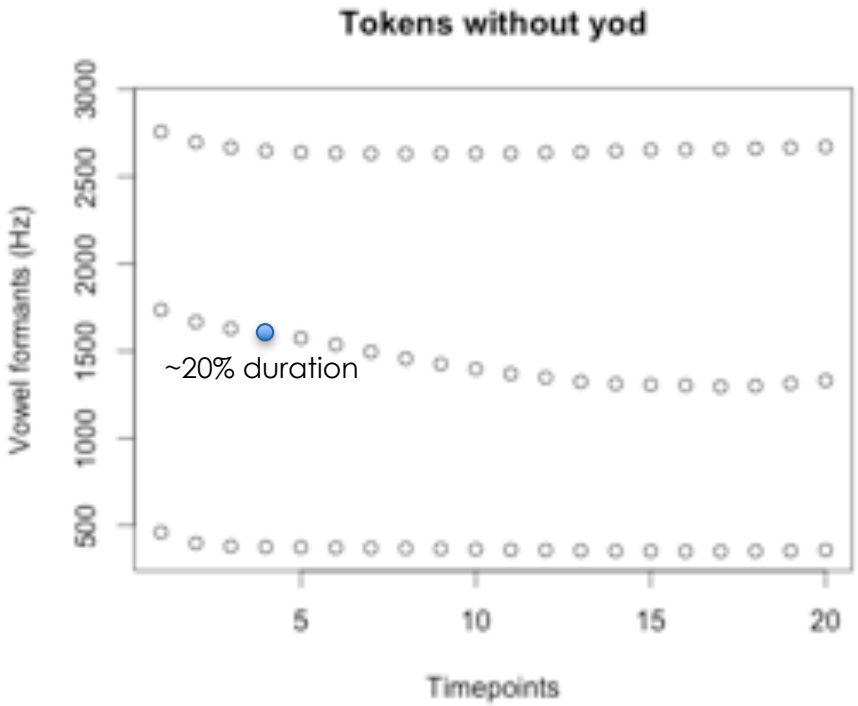
Social Sciences and Humanities Research Council of Canada

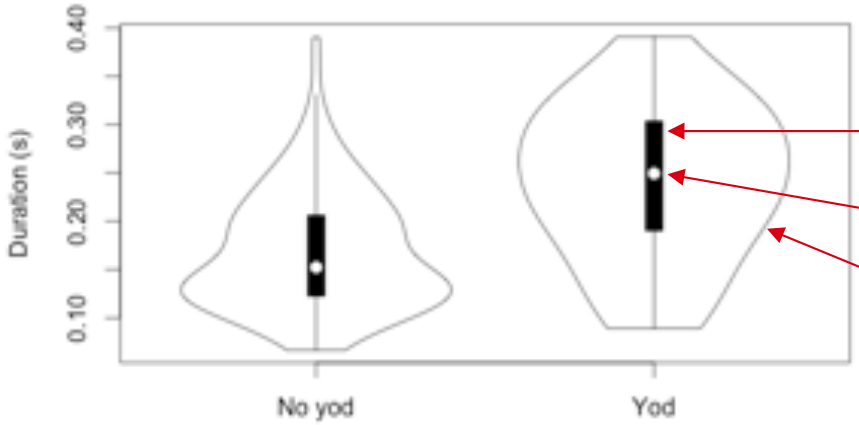
Conseil de recherches en sciences humaines du Canada

Canada

Acoustics of yod vs. yod-less tokens





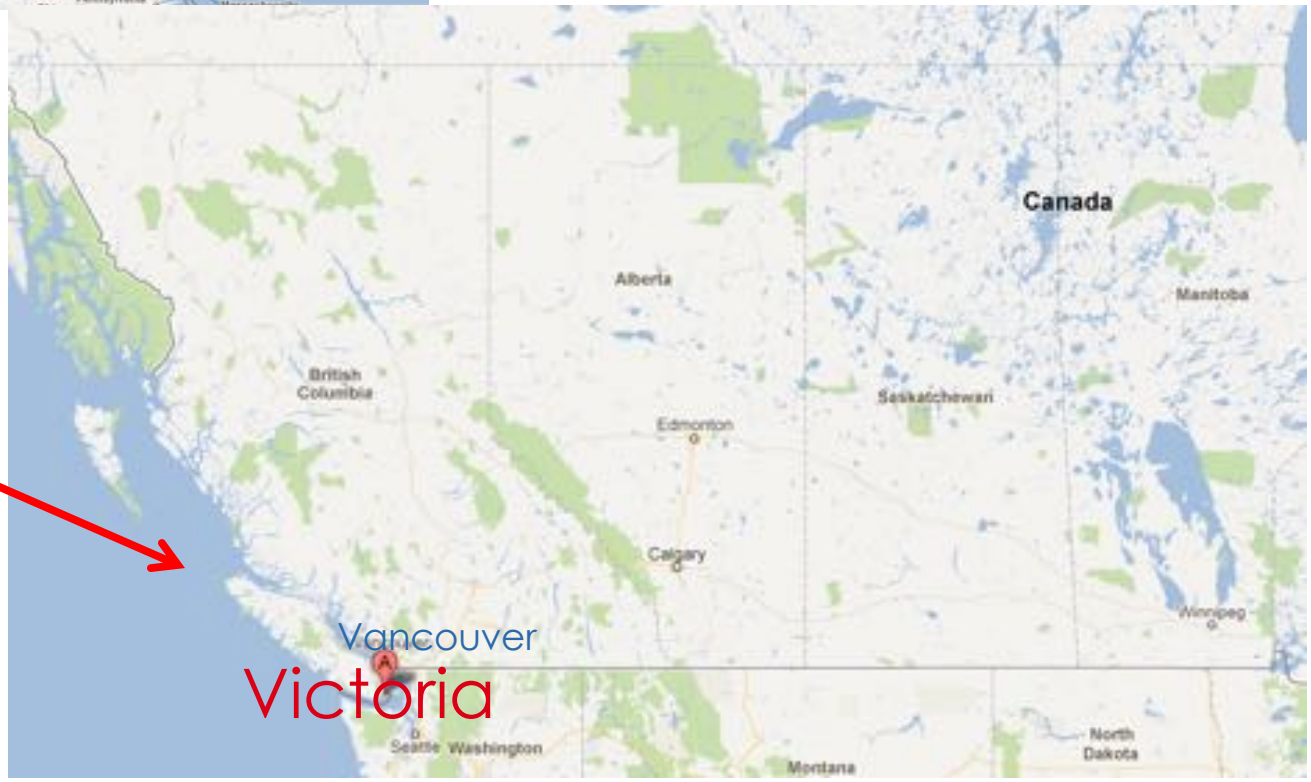


75% of tokens within bar

mean

distribution


Canada
Alberta
Manitoba
British Columbia
Saskatchewan
Edmonton
Calgary
Ontario
Quebec
Yukon
Northwest Territories
Nunavut
Washington
Montana
North Dakota
Minnesota
Oregon
Idaho
Wyoming
South Dakota
Wisconsin
Michigan
New York
Maine
Vancouver Island


Canada
Alberta
Manitoba
British Columbia
Saskatchewan
Edmonton
Calgary
Winnipeg
Vancouver
Victoria
Seattle
Washington
Montana
North Dakota

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?

Statistics

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