Social Sciences and Humanities Research Council of Canada
Conseil de recherches en sciences humaines du Canada

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HERITAGE LANGUAGE VARIATION AND CHANGE IN TORONTO

HTTP://PROJECTS.CHASS.UTORONTO.CA/NGN/HLVC

Sociolinguistics and Heritage Languages

The Road Less Traveled
Toronto, October 26, 2012

Why study language contact?

"It should be stressed that the results we obtained are not meant to be independent of this particular set of languages. In other language pairs, quite different factors may turn out to be operant, depending on sociolinguistic factors and different contrasting typological properties." (van Hout & Muysken 1994)

"Predicting the outcome [of language contact] remains an immensely challenging task" (Siemund & Kintana 2008:3)

"we are far from being able to identify a linguistic feature that can be predicted to change in all situations." (Poplack, Zentz & Dion 2012:247)

What are HLs like?

HLs exhibit a consistent pattern of simplification and loss (Polinsky 1995, 2006); are incompletely acquired (cf. Montrul 2008)

HLs are NOT limited in capacity to attain competence (cf. Pires 2012).

HL speakers exhibit greater variation than monolinguals (Pires 2011:122)

HLs may remain the same as, or diverge from their source language… they can tell us a lot about contact effects

Defining Heritage Language (HL)

Heritage languages are spoken by early bilinguals […] whose L1 (home language) is severely restricted because of insufficient input. […] they can understand the home language and may speak it to some degree but feel more at ease in the dominant language of their society.
(Polinsky 2011)

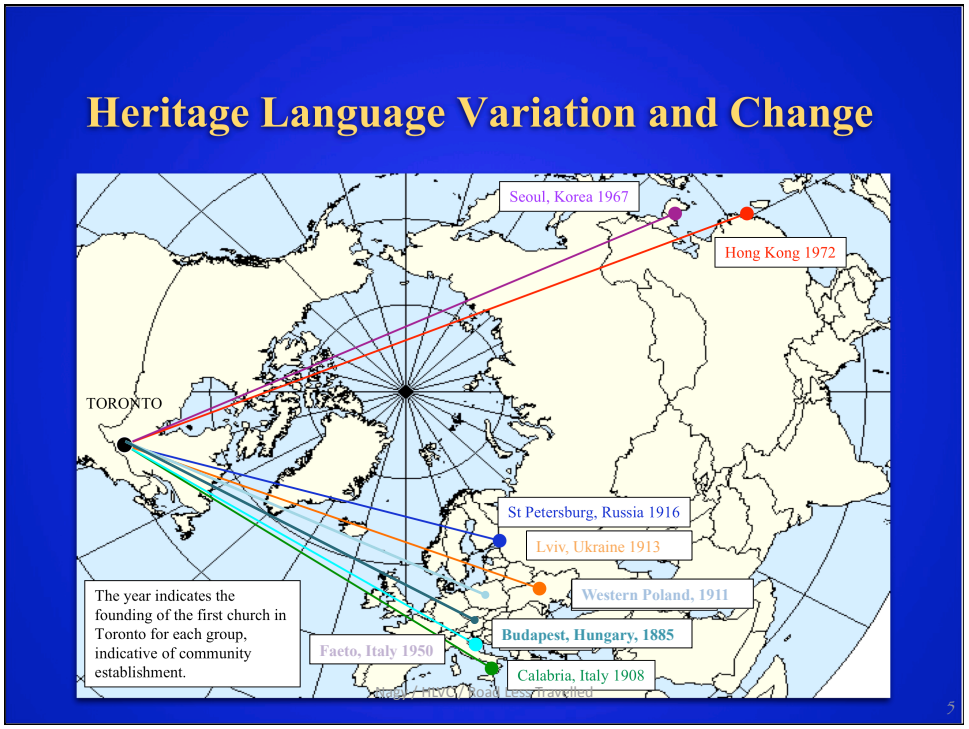
- limited vocabulary
- incomplete morphology
- impoverished syntax
- spotty socio-cultural knowledge
- not fully developed register

(Polinsky & Kagan 2007)

Heritage language is a mother tongue that is not one of the two official languages, nor an indigenous language.
(Cummins 2005)

- not English or French
- cultural connection - family heritage
- may or may not be home language
- speakers may be immigrants or Canadian-born
- may or may not be the speaker's mother tongue

(StatCan; Harrison 2000)


Heritage Language Variation and Change
Seoul, Korea 1967
Hong Kong 1972
TORONTO
St Petersburg, Russia 1916
Lviv, Ukraine 1913
Western Poland, 1911
Budapest, Hungary, 1885
Faeto, Italy 1950
Calabria, Italy 1908
The year indicates the founding of the first church in Toronto for each group, indicative of community establishment.
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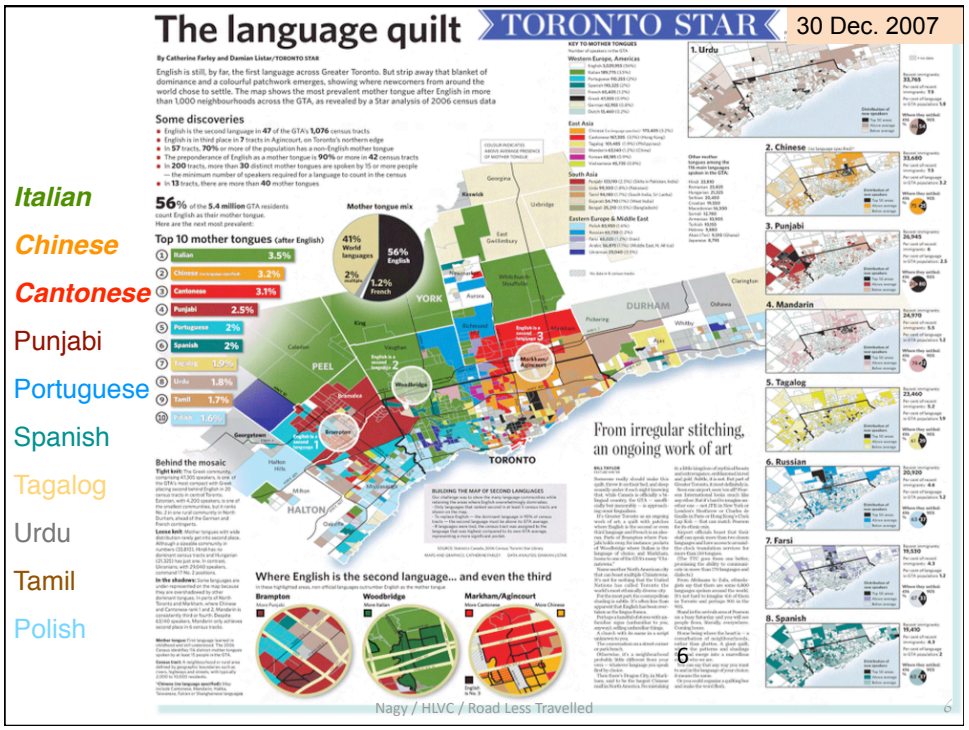
5


Italian
Chinese
Cantonese
Punjabi
Portuguese
Spanish
Tagalog
Urdu
Tamil
Polish
The language quilt
TORONTO STAR
30 Dec. 2007
By Catherine Farley and Damian Listar/TORONTO STAR
Some discoveries
Top 10 mother tongues (after English)
Mother tongue mix
From irregular stitching, an ongoing work of art
Behind the mosaic
Where English is the second language... and even the third
Brampton
Woodbridge
Markham/Agincourt
TORONTO
YORK
PEEL
DURHAM
HALTON
1. Urdu
2. Chinese
3. Punjabi
4. Mandarin
5. Tagalog
6. Russian
7. Farsi
8. Spanish
6
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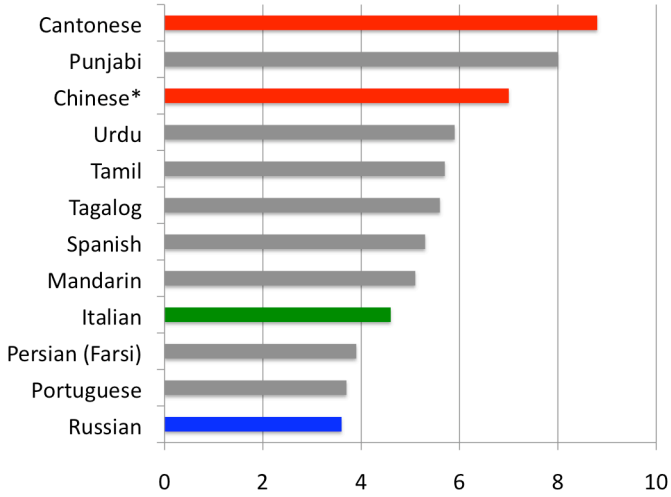
6

% of Toronto population reporting speaking this language most often at home, 2011



http://nationalpostnews.files.wordpress.com/2012/10/na1025-census-percent-at-home1.jpg

Contrasting demographics

Language	MT speakers (2006 Census)	Ethnic Origin (2006 Census)	Est. in TO	Came from
Italian	194,000	466,000	1908	Calabria
Cantonese	170,000	537,000	1951	Hong Kong
(Polish	80,095	207,495	1911	Eastern Poland)
Russian	66,000	58,505	1916	St. Petersburg, Moscow
Korean	49,000	55,000	1967	Seoul
Ukrainian	27,000	122,000	1913	Lviv
(Hungarian	20,190	53,210	1880	Budapest)
Faetar	<100?	<500?	1950	Faeto, Celle di St. Vito (Apulia Italy)

www40.statcan.ca/l01/cst01/demo12c-eng.htm

Expected outcome

1st 2nd 3rd

Heritage Language / Culture → English/Canadian

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9

Participant criteria

(Self-defined) fluent speaker of…
Cantonese
Faetar
Korean
Italian
Russian
Ukrainian

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10

Generation

Speaker of…	Generation
Ukrainian	**1st:** born in/near Lviv; moved to Toronto after age 18; in Toronto 20+ years
	2nd: born in Toronto (or came from homeland before age 6); parents qualify as 1st generation
	3rd: born in Toronto; parents qualify as 2nd generation
Italian	**1st:** born in Calabria…
Russian	**1st:** born in Moscow or St. Petersburg…

Age group

Languages	Generation	Age
Ukrainian	**1st**: born in homeland; moved to Toronto after age 18; in Toronto 20+ years	60+
		39-59
	2nd: born in Toronto (or came from homeland < age 6); parents qualify as 1st generation	60+
		40-59
		21-39
		<21
	3rd: born in Toronto; parents qualify as 2nd generation	60+
		40-59
		21-39
		<21

Sex

Languages	Generation	Age	Sex
Ukrainian	1st: born in homeland; moved to Toronto after age 18	60+	2 females
			2 males
		39-59	2 females
			2 males
Italian	" "		
Russian	" "		
Korean	" "		
Cantonese	" "		
Faetar	" "		

= 240 speakers

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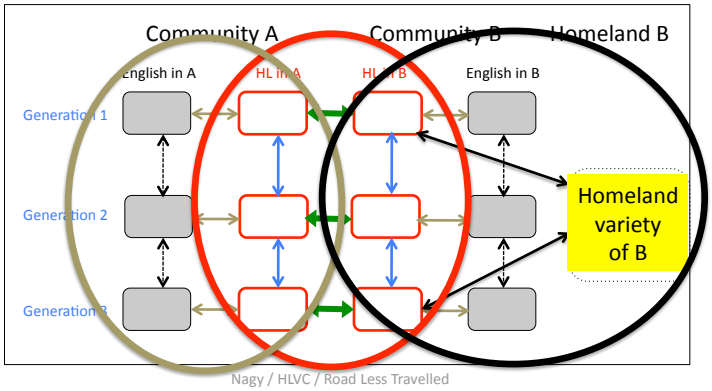
For every variable, 3 kinds of comparisons

KEY

- HLVC data
- English corpus data
- Homeland corpora

- Stage 1: inter-generational comparison
- Stage 2: cross-variety comparison
- Stage 3: diatopic comparison
- Stage 4: Check English



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Data collection methods

1. Sociolinguistic interview (~1 hour)
2. Ethnic Orientation Questionnaire
3. Picture Description Task

All conversations guided and recorded by native speakers in the heritage language

Ethnic Orientation Questionnaire

A. Ethnic identity
   1. Do you think of yourself as Italian, Canadian or Italian-Canadian?
   2. Are most of your friends Italian?
   3. Are people in your neighbourhood Italian?...

B. Language use
   1. Do you speak Italian? How well? How often?
   2. Where did you learn Italian? At home? In school?
   3. Do you prefer to speak Italian or English?
   4. Do you prefer to read and write in Italian or English? …

C. Family language choice
   1. What language does your family speak when you get together?
   2. What language do your parents prefer to speak?

D. Cultural heritage

E. Media preference

F. Discrimination experience

Adapted from Keefe & Padilla 1987, Hoffman & Walker 2010

Comparative Variationist Analysis

(cf. Labov 1972, Tagliamonte 2006, Walker 2010)

1. Compare rates of variant use across groups
2. Compare constraint effects across groups

Analysis by undergraduate and graduate students and a team of collaborating colleagues:

- Yoonjung Kang
- Alexei Kochetov
- James Walker

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17

Comparative Variationist Analysis

(cf. Labov 1972, Tagliamonte 2006, Walker 2010)

1. Compare rates of variant use across groups
2. Compare constraint effects across groups

- exclude variable contexts from experiments
  - include and quantify variation
  - possibly, interpret it as (expected, internal) change (*cf*. Pires 2011)
- compare to monolithic/idealized standard/baseline and/or norms of a different community
  - analyze the heritage and homeland varieties in the same manner, and independently
- expect monolingual-like targets
  - expect identity-marking variation: HLs ≠ monolinguals
- inter- and intra-speaker variation not distinguished
  - examine and learn from both types of variation
- participants are mostly students in language classrooms
  - use a socially-stratified sample from the community
  - don't rely on reading ability in tasks

18

Pro-drop or variation between overt and null subject pronoun in finite clauses

Original HL analysis from:

Nagy, N., N. Aghdasi, D. Denis, & A. Motut. 2011. Pro-drop in Heritage Languages: A cross-linguistic study of contact-induced change. *Penn Working Papers in Linguistics* 17.2.

19

Variable 1: Pro-drop

(Variable Subject Pronoun Presence)

Italian - Canonical prodrop language

Ø Avevo 14 anni e mia moglie ce ne aveva 13.
Ø (I) was 14 and my wife was only 13 [I1M75A]

Io ho
I said

Russian - Partial prodrop language

Ø Начала немножко такой research делать.
Ø (I) gradually started to do some research on this [R3F25A]

Я оче
I read

Cantonese - Discourse prodrop language

ngo-5	mou-5	mat-1	yan-3	jeung-4
I	not	have	any	memory

I do not have any memories. [C2F21B]

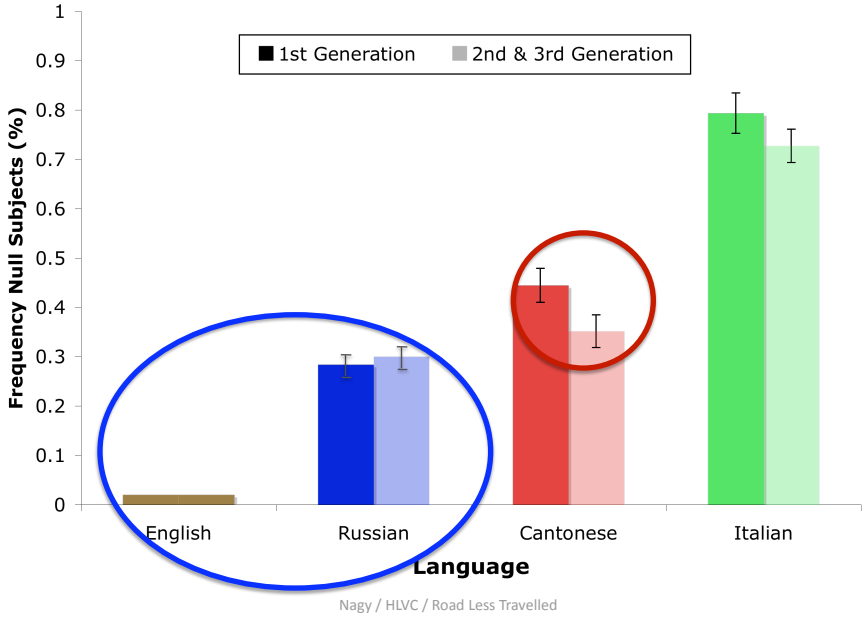
yan-1 wai-6	Ø	mou-5	ga-1	yan-4	hai-5	dou-6
because	Ø (I)	not	have	relative	be	here

Because I do not have any relatives here. [C1F50A]

Nagy et al. 2010

20

Pro-drop rate by language and generation (N=6,216)



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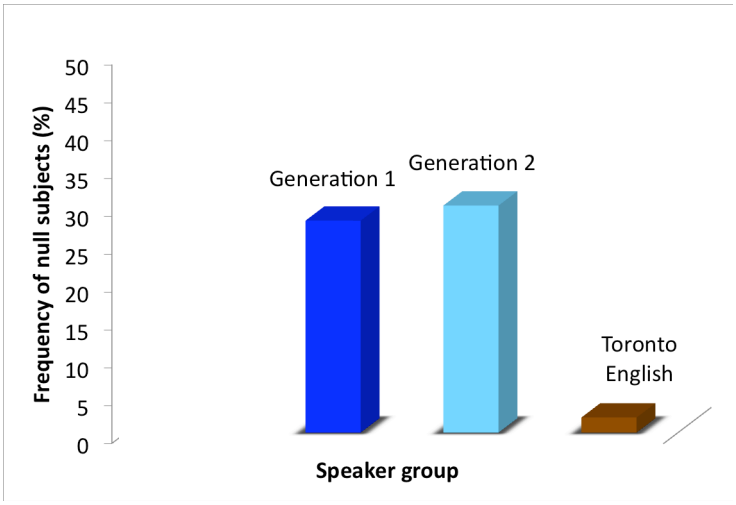
21

Russian: Homeland vs. Heritage

Heritage Russian analysis: Hollett (2011:52) (12 speakers, 3,160 tokens)
Homeland Russian analysis: Pustovalova (2011:14) (14 speakers, 1,320 tokens)
English: Nagy et al. 2010, analysis by Derek Denis (8 speakers, 400 tokens)



22

Linguistic Factors

- **Subject Continuity** (universal)

Same referent as previous subject

- "**It** had the old red and gold F-W-Woolworth's sign right on the corner, **Ø [it]** had those little creaky wood, hardwood floors." (EXM37A)

Different referent from previous subject (switch reference)

- "**Ø [we]** used to bring a lunch with us, sandwiches and stuff. **Ø [I]** remember we used to go with Darryl, and Gary, and Jack-G. and all of us." (EXM47A)

Linguistic factor effects Toronto English pro-drop

Mixed Effects Model (N=400) Nagy et al. (2010)

Only Significant factor group (an interaction)	**Factor weight**	**n**
same reference, conjoined clause	.86	120
same reference, main clause	.53	130
switch reference, conjoined	.34	123
switch reference, main clause	.21	27
range	*65*	

Non-significant factor groups
tense
ambiguity (in morph. marking)
person & number

➔Bigger factor weight = more null subjects in that context

Cross-variety comparison

(Factor weights in 3 separate regression analyses)

Heritage: Hollett (2011:60), Homeland: Pustovalova (2011:22), English (Nagy et al. (2010)

Factor groups	Homeland	Generation 1	Generation 2	English
Subject continuity	same: 60 switch: 47	same: 63 switch: 42	same: 62 switch: 42	√ same (but univ.)
Person & Number	sg. pl. 3: 43 77 2: 62 51 1: 38 48	3: 69 2: 67 1: 35	3: 62 2: 87 1: 40	*not sig.*
Clause type	conjoined: 65 subord.: 47 main: 41	conjoined: 72 main: 49 subord.: 42	conjoined: 71 main: 50 subord.: 35	conjoined > main > *(subord. 0%)*
Negation	neg.: 51 affirm: 50	not sig.	neg.: 67 affirm.: 47	*not sig.*
Gender (grm.)	neuter: 85 none: 52 masc.: 45 fem.: 43	neuter: 82 none: 51 fem.: 58 masc.: 42	neuter: 84 none: 48 fem.: 50 masc.: 55	*not sig.*
Age	older > younger	older > younger	older > younger	*(not examined or expected)*
Sex	male > female	n.s.	male > female	

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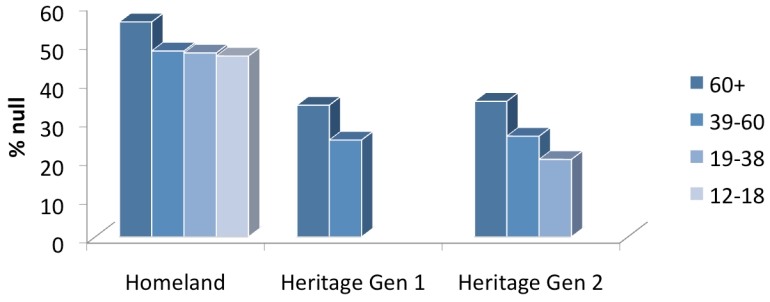
Is H-RUS moving toward English or just continuing a (previously undocumented) homeland trend?

Apparent-time differences in homeland & heritage varieties



Heritage Russian analysis: Hollett (2011:67)
Homeland Russian analysis: Pustovalova (2011:22-3)

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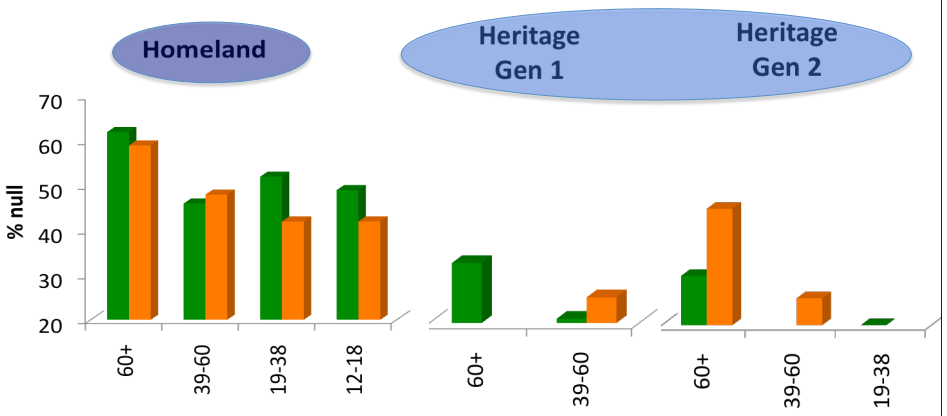
26

Comparison of age & sex differences in homeland & heritage varieties



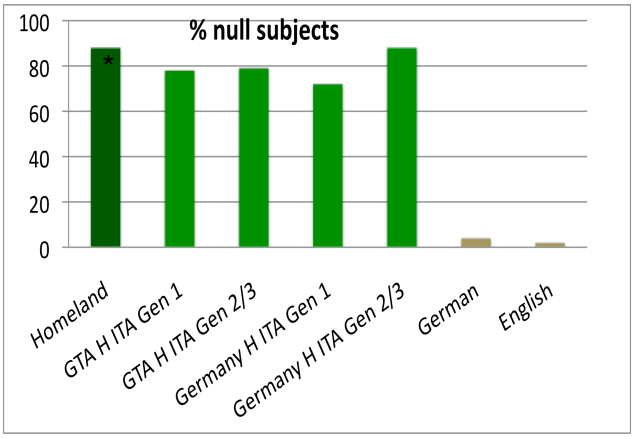
Heritage Russian analysis: Hollett (2011:68)
Homeland Russian analysis: Pustovalova (2011:17)

27

Homeland comparisons

Homeland & Germany data from Rumpf & DiVenanzio (2012)

* Homeland data are southern Italian, but not Calabrese



28

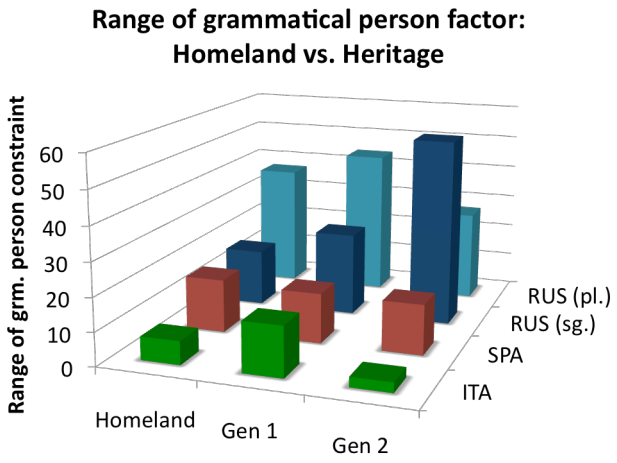
Is there more variation in Heritage Languages than monolingual varieties?

	Pro-drop factor range (Effect Size)		
Conditioning factor	**Homeland**	**Heritage Gen 1**	**Heritage Gen 2**
Subject continuity	*13*	***21***	***20***
Person & Number	*39*	*34*	***47***
Clause type	*24*	*30*	***36***
Negation	*1*	*[0]*	***20***
Gender	***42***	*40*	*36*
Individual variation	*26*	***33***	***30***

HL data from Hollett (2010)
Homeland data from Pustovalova (2011)

yes… but…

Is there more variation in Heritage Languages than monolingual varieties?



no.

ITA & SPA data from Rumpf & DiVenanzio (2012)
RUS data from Pustovalova (2011)

Results – Ethnic Orientation Effects

Ethnic Orientation Indices

Language Choice: Actual and preferred language choice

Family Language: Language use with family

Ethnic identity: Ethnic self-identification

Reading/Writing: Language choice for reading & writing

Discrimination: Is there a lot of discrimination against your culture?

0 points  2 points

(Spearman Rank)

Correlation across EOQ indices

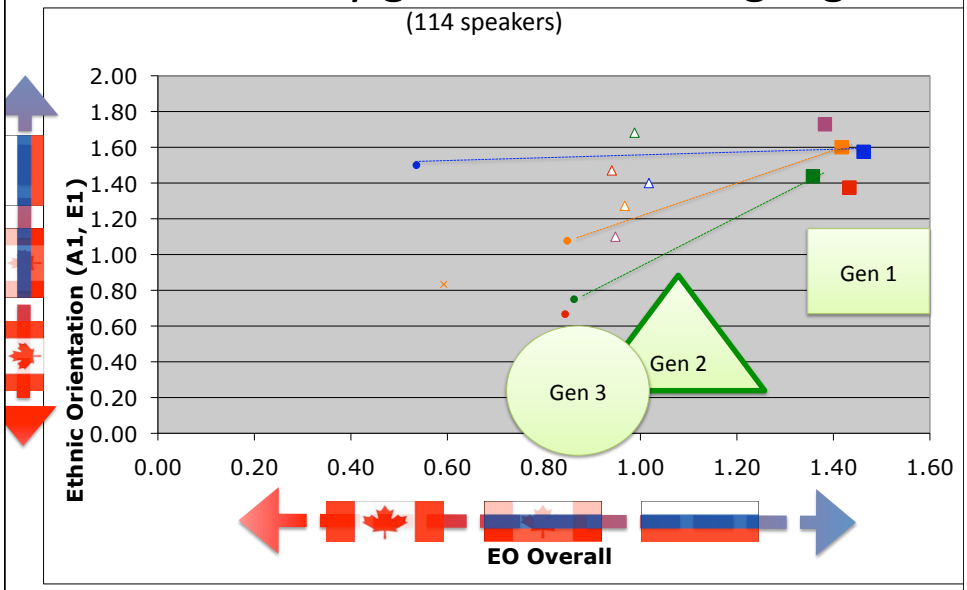
	Fam. Lg.	Ethnic identity	Read/ Write	Discrim-ination
Lg. Choice	0.60*	0.26	0.45*	-0.34
Family Lg.		0.23	0.50	-0.31
Ethnic identity			0.39	-0.34
Read/Write				0.01
Discrim.				

for the **23 participants** who provided the most answers (>2/3 of the EOQ questionnaire)

* $p < 0.05$

EO scores by generation & language

(114 speakers)



Heritage Pro-drop: Summary

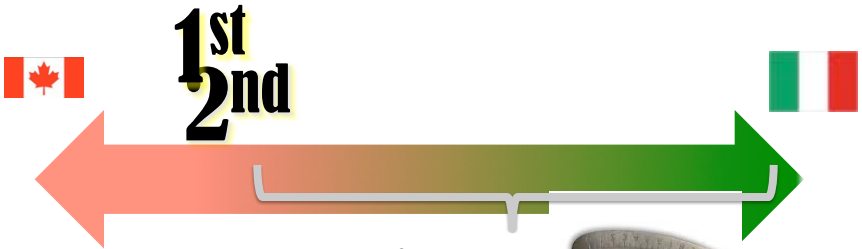
Expected

Nagy et al. NWAV 2010

Actual

Nagy et al. NWAV 2010

Explanation 1



Generation 1 has already felt influence from English contact.

Nagy et al. NWAV 2010

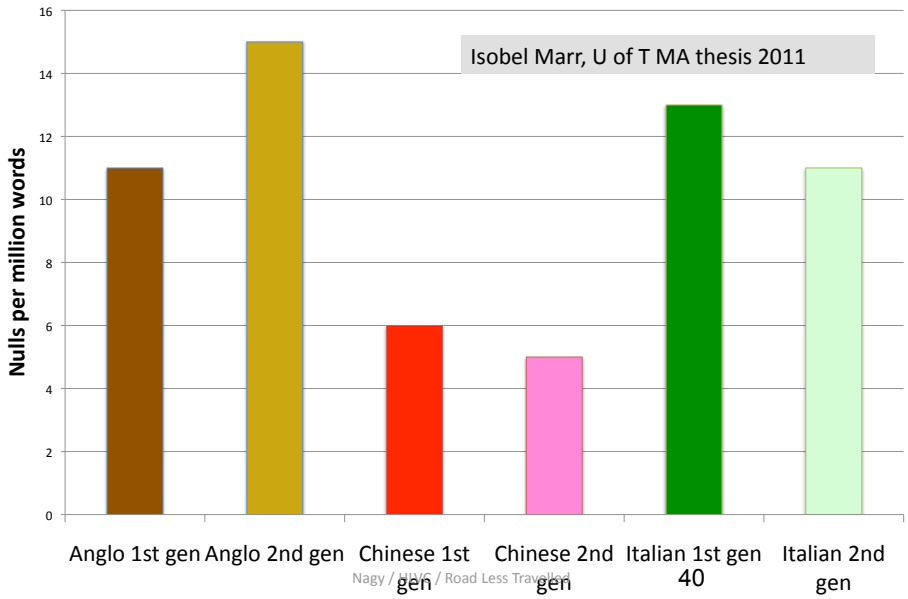
Explanation 2

Ambient English has been influenced by the HLs, and moved away from the "Old-line" norm.

Isobel Marr's (2011) thesis investigated this.

Nagy et al. NWAV 2010

English Null subject rate

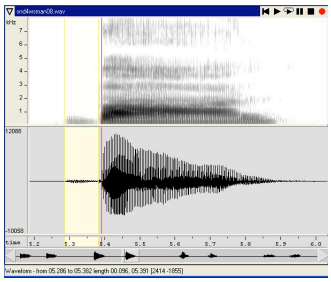


Explanation 3

Explanation 4

What about the lack of correlation with EOQ scores?

- Perhaps speakers don't use ***this*** variable to index ethnic orientation.
- We might find effects with other variables.



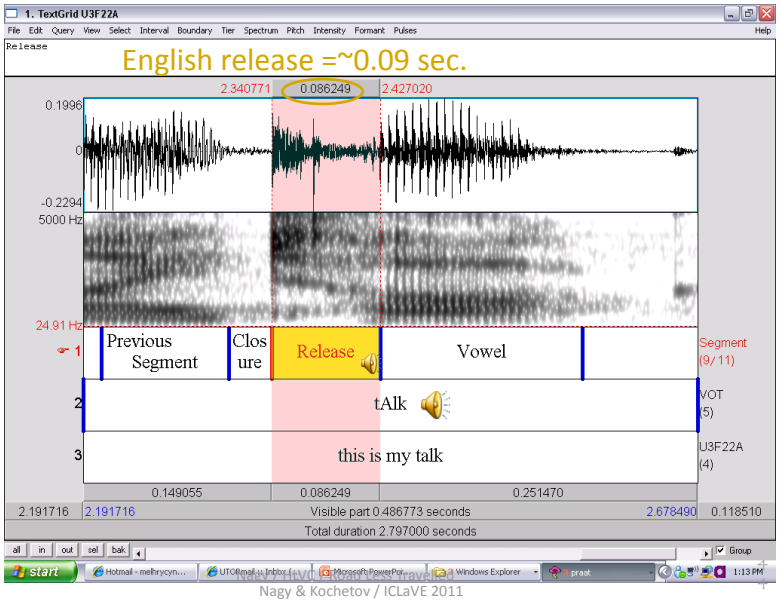
Voice Onset Time

from:

Hrycyna, M., N. Lapinskaya, A. Kochetov & N. Nagy. 2011. **VOT** drift in 3 generations of Heritage Language speakers in Toronto. *Canadian Acoustics* 39.3:166-7.

43

Long-lag voice onset time (English)

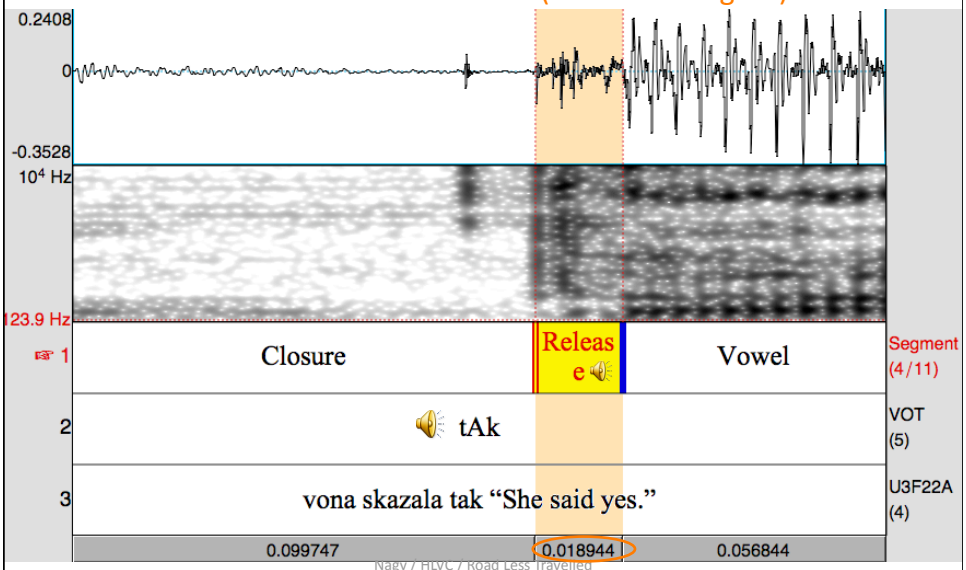


Nagy & Kochetov / ICLaVE 2011

44

Short-lag voice onset time (UKR)

Ukrainian release = 0.02 sec. (vs. 0.09 in English)



Our Questions

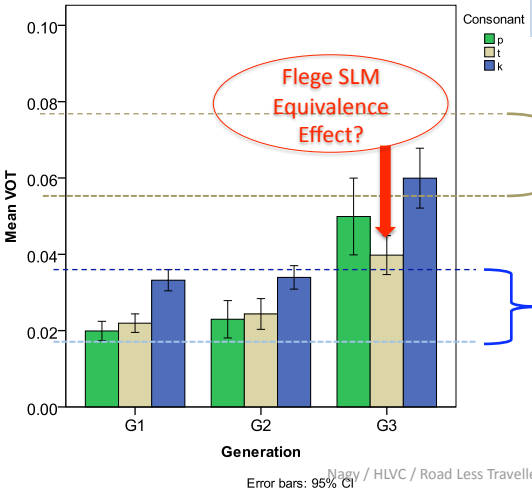
- Do consistent patterns of change in VOT exist across and/or within languages? (no)
- Are these related to length of time of the family (or the community) in Toronto? (yes ish)
- Are they related to (any aspects of) ethnic orientation? (not directly (?))

Data

- 11-12 speakers per language (34 speakers)
- 2,550 tokens (~75 tokens/speaker)
  - 25 tokens per consonant * 3 consonants [p, t, k]
  - Only word-initial stressed syllables
  - All followed by /a/ or /o/
- All tokens were coded in Praat and VOT and nucleus lengths extracted
- EX: casa 'house', так 'yes', помните remember'

Russian VOT

Generation & Consonant are significant
- G3 > G2, G1 (p<.001)
- k > p, t (p<.001)



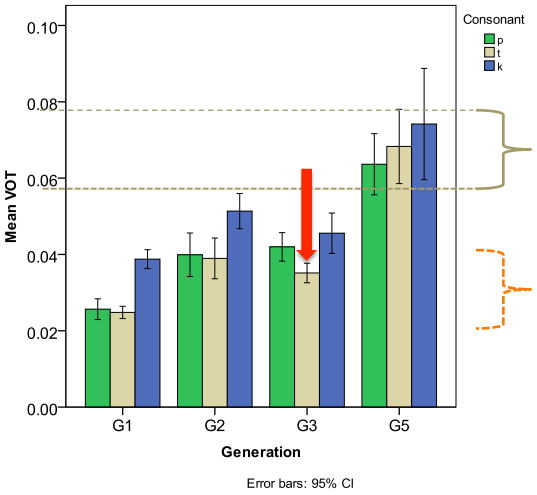
Montreal English VOT (Fowler 2008)

√ Change toward English

St. Petersburg Russian VOT (Ringen & Kulikov 2010)

√ Change from Homeland

Ukrainian VOT



Generation & Consonant are significant

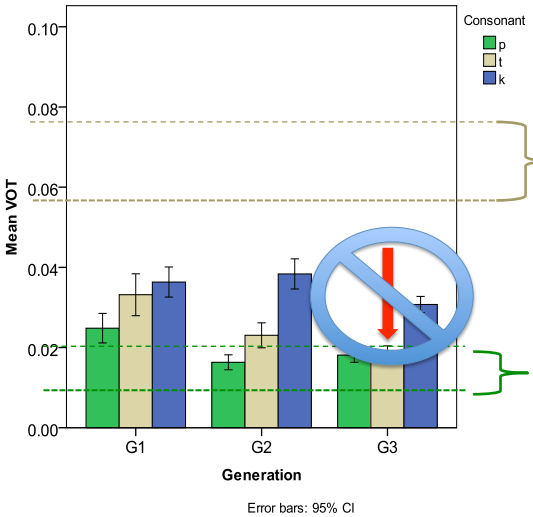
- G5 > G3, G2 > G1 (p<.001)
- k > p, t (p<.001)

Montreal English VOT (Fowler 2008)

√ **Change toward English**

Homeland comparison?

Italian VOT



Generation & Consonant are significant

- BUT G1 > G2, G3 (p<.01)
- k > t > p (p<.01)

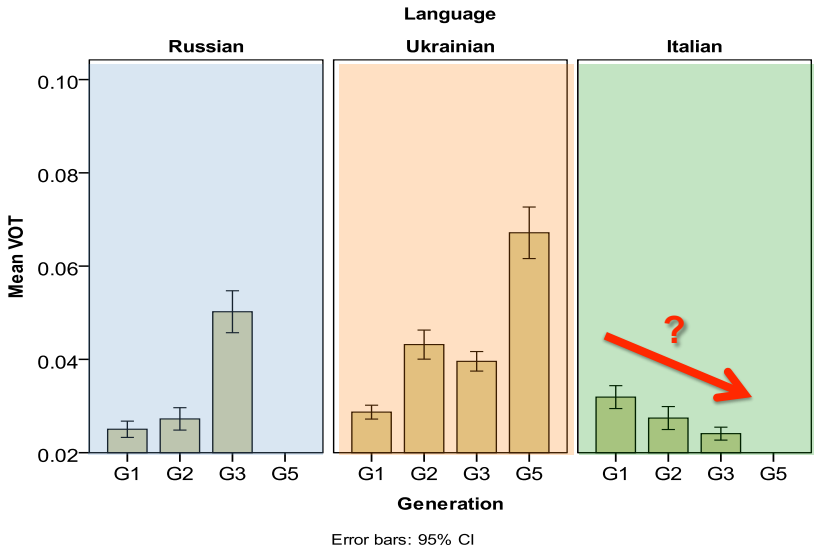
Montreal (Fowler 2008) & Toronto (Hoffman & Walker 2012) English VOT

X **Change toward English**

Cosenza Italian VOT (Sorianello 1996)

X **Change from Homeland**

VOT: all 3 languages



Error bars: 95% CI

Social Factor Effects: EOQ & VOT

Ethnic Orientation subsets

Language Choice: Actual and preferred language choice

Family Language: Language use with family

Ethnic identity: Ethnic self-identification

Reading/Writing: Language choice for reading & writing

Discrimination: Is there a lot of discrimination against your culture?

(Pearson's product-moment)

Correlation across EOQ indices

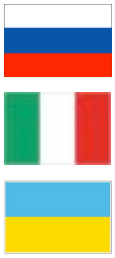
	Language choices	Cultural envir.	Lg. use	Cultural choices	Discrim-ination	VOT
Ethnic ID	0.23	0.10	0.30	0.29	0.01	-0.35
Language choices		0.81*	0.21	0.20	-0.11	0.22
Cultural envir.			0.25	0.12	-0.17	0.36
Lg. use				0.10	-0.02	0.08
Cultural choices					0.09	0.27
Discrim.						0.07

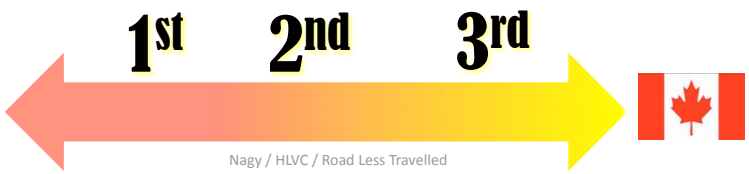
EOQ data from ITA, RUS & UKR (114 speakers)
VOT data from 16 speakers

*Strong & significant correlation (also within each language)

VOT Summary

- For UKR & RUS, we see drift from the homeland (short-lag) toward the English (long-lag) VOT targets. BUT for ITA it's the opposite.
- (Even by 3rd generation,) English hasn't completely over-taken the homeland patterns.
- No measure of EOQ correlates to VOT





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55

Digging deeper into EOQ – How?

(1) All 37 questions individually
- too much for multivariate analysis
- problematic –not everyone answers all questions

(2) Average of all 37 questions
- NEVER comes out significant for any variables we checked

Subsets of questions – Questions can be grouped by:

(3) Topic (Keefe & Padilla 1987)

(4) Reference Group (Boyd, Walker & Hoffman 2011)

(5) Language Use (Chociej 2010)

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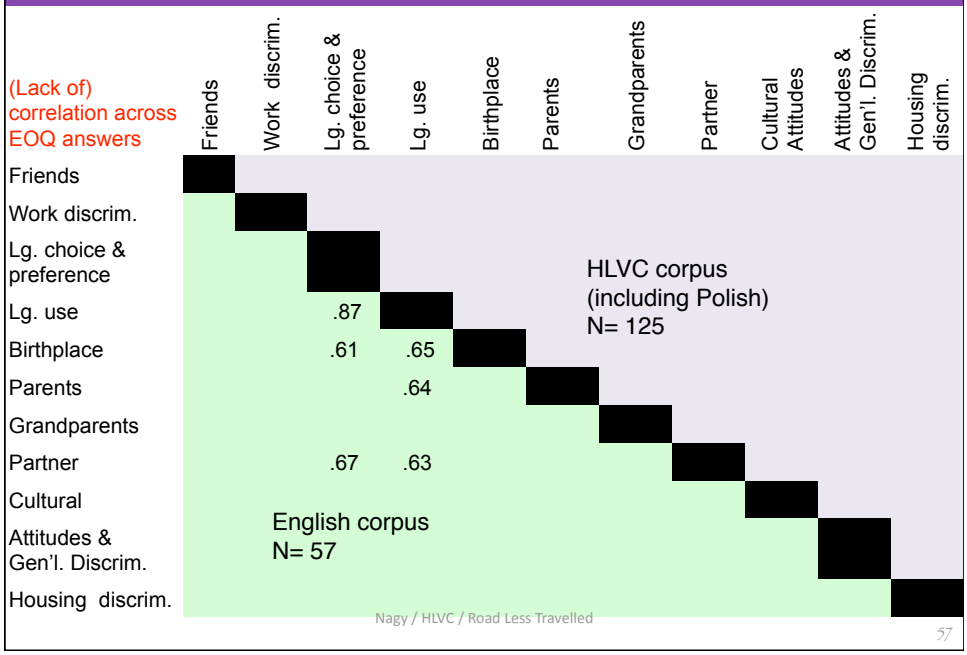
56

Correlations



Correlations: Linguistic Variables and EO

Significant components	VOT					Ø-subject						
	All	UKR	ITA	1st	2nd	All	CAN	1st	2nd	ITA	1st	2nd
Average of all 35 Qs	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Topic method												
Birthplace; LgUse; LgChoice	0.91	ns	ns	ns	ns	ns	ns	0.88	ns	ns	ns	ns
Parents' Ethnicity&LgUse; Gen'l Discrim	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Culture; Personal Discrim	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Econ Discrim	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Grandparents	ns	ns	1	ns	ns	ns	ns	ns	ns	ns	ns	ns
Reference group method												
Grandparents&Lg.w/Friends; Birthplace	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Culture; Personal Discrim	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethnicity of Personal Network; Family Lg	*0.75*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
EconDiscrim	ns	ns	ns	ns	ns	0.49	*0.63*	ns	ns	ns	ns	ns
Parents' Lg & Imm; Gen'l. Discrim	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethnicity of Work Network	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Language use method												
Language Mixing	ns	ns	ns	ns	ns	ns	-0.74	ns	ns	ns	ns	ns
Ethnic Continuum	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

Mixed Effects Model: VOT and EO

Method

1. Mixed Effects Model
   a) lx. factors as fixed effects
   b) speaker, word as random effects
   c) try each factor, represented by regression coefficient from PCA (of all HL data), individually
   d) final run with lx. factors, random effects, and allEO factors that had come out as significant in (c).
2. The EO factors below are significant (though with TINY effects, so far).

VOT in HLs	3 lgs. combined	UKR	ITA	RUS
Grouped by Topic	**ParentsEthnicity&LgUse; Genl.Discrim**	**Parents'Ethnicity&LgUse; Genl.Discrim**	(no sig. effects)	(not enough data)
	Econ.Discrim			
all 35 Qs	**Birthplace, School location, parents' lg., lg. preference**			

What are HLs like?

Pro-drop showed HLs remaining very similar to homeland variety, in terms of both rate and conditioning factors

VOT showed HLs diverging, under influence of contact with English, in 2 of 3 HLs, in terms of rate. Conditioning factors are currently under investigation in LIN 1256.

It is not consistently the case that there is more variation in HLs than in homeland varieties.

HLs may remain the same as, or diverge from their source language… they can tell us a lot about contact effects

Next steps

Variables	Heritage Languages						ENG comparison	Homeland comparison
	ITA	KOR	RUS	CAN	FAR	UKR		
segmental phonetics	I	I	I	I	I	I	P	P
verbal paradigm	P	P	P	P	P	P	P	P
Ø-subject	√	P	√	√	P	√	√	I
discourse markers	P	I	P	P	P	P	√	P
lexical borrowing	P	P	P	P	√	P	P	√

√ = done I = in progress P = planned

In the future

- (de-)gemination & cluster reduction
- segmental deletion/ devoicing
- vowel space
- vowel reduction
- high rising terminals (uptalk)
- paradigm leveling (aspect, gender, case)
- word-order changes
- *like*-like fillers and VOQs

HERITAGE LANGUAGE VARIATION AND CHANGE IN TORONTO

HTTP://PROJECTS.CHASS.UTORONTO.CA/NGN/HLVC

감사합니다 Дякую Grazie molto Спасибо 谢谢 gratsiə namuorːə

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