**Phonetic vs. Phonological Considerations in Inter-Generational Vowel Change in Toronto Heritage Cantonese**

**Language Contact in the Mind and in the Community: Insights from Bilingual Phonetics and Phonology**

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**Poster # 13**

**1) Introduction**

<table>
<thead>
<tr>
<th>HCAN (Heritage) Cantonese</th>
<th>HK</th>
<th>Hong Kong</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOENG (TO)</td>
<td>EN</td>
<td>Greater Toronto Area</td>
</tr>
<tr>
<td>GEN 1</td>
<td>Generation 1 speakers</td>
<td>NL</td>
</tr>
<tr>
<td>GEN 2</td>
<td>Generation 2 speakers</td>
<td>SL</td>
</tr>
<tr>
<td>SOQ</td>
<td>Ethnic Orientation Questionnaire Scores</td>
<td></td>
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</tbody>
</table>

**English-Mandarin Bilingual Speakers compared (Chang et al. 2011)**

- L2 Mandarin
- HL Mandarin

Distinct but with ENG phonetic influence

**2) Question: What about Toronto HCAN speakers?**

TOENG u y HCAN???

GEN 2 HL speakers (Cui et al. 2014)

**3) Data**

HLVC Project (Nagy 2011)

- Sociolinguistic Interviews (~1 hour long)
- Ethnic Orientation Questionnaire
- Word List (based on picture naming task)

Cantonese is the 2nd most widely spoken language in Toronto

**4) Speaker Information**

<table>
<thead>
<tr>
<th>CAN Background</th>
<th>ENG Background</th>
<th>Demographic Characteristics</th>
<th>Male</th>
<th>Female</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEN 1 CAN dominant</td>
<td>Variable</td>
<td>Born &amp; raised in HK, 4 years</td>
<td>5</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>GEN 2 Proficient enough for sociolinguistic interview</td>
<td>ENG dominant</td>
<td>Born &amp; raised in GTA (or lived in GTA ages: 21-44) since age 3</td>
<td>5</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

=7 =10 N = 17

**5) Methodology**

**STEP 1:** F1 and F2 measurements of 6 vowels (y, u, ù, ò, ñ, a) across two phonetic contexts (open vs. closed syllables) using PRAAT (Boersma & Weenink 2015)

**STEP 2:** Watt & Fabricius Modified Method (Fabricius, Watt, and Johnson 2009) for normalization of 3060 tokens using NORM.

**STEP 3:** Mixed Effects Modeling using R (brul, johnson 2009)

**6) Results**

Mean (with ± 1 SD) Formant Values for Each Indiv. Speaker

**7) Discussion**

- /u/ vs. /y/ contrast maintained for all speakers
- Sex effect found for /u/ only (backing among females)
- Age effect found for both vowels (backing of both among younger speakers)
- North-south assimilation between CAN /u/ and TOENG /u/
- Non-significant factors: GEN, EOQ, Syllable Type, Tone
- Supports findings from Chang et al (2011)
- HL bilinguals maintain language-internal distinctions

**8) Next Steps**

- Short-Term Goal
  - Measure all 8 monophthongs
  - Larger speaker sample size and more tokens

- Long-Term Goal
  - Compare HCN and TOENG vowel space using CMC (Contact in the City) data (Hoffman & Waller 2010)
  - Compare Toronto and HK CAN vowel space

**9) References**


Cui, Naomi, Miny Zhu, Victor Law, Holman Tse, and Naomi Nagy. 2014. Re-evaluating infantilization analysis for a comparative study of Heritage Cantonese and English. Presentation at Change and Variation in Canada (CVC) Queen’s University, Kingston, ON, Canada http://id.scholarship.qm.ca/26301/.


Hoffman, Michelle, and James A. Waller 2010. Ethnicity and language orientation in ethnic variation in Toronto English. Language Variation and Change 22, 3-31. doi:10.1017/S0954394508991283


**10) Acknowledgements**

Naomi Nagy, Scott Kiesling, Shelome Gooden.


多謝晒!