What can diasporic languages teach us about the development of phonological distinctions?

Examples from Somali Chizigula Stops and Toronto Cantonese Vowels

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Beginning Fall 2019: St. Catherine University (St. Paul, MN)
About me

- My subfield(s): diachronic linguistics (historical linguistics, sociolinguistics, contact linguistics)
- Outsider experience: linguistic research in the Somali Bantu community in Pittsburgh, PA
  - Consultant work on Chizigula (aka Kizigua, Mushunguli, or Mushungulu) with Field Methods course at the University of Pittsburgh (Spring 2012)
  - Subsequent consultant work with other speakers in Pittsburgh: 2012-2014
- Insider (kind of) experience: dissertation research on Toronto Cantonese
  - Second-generation heritage speaker born and raised in North America
  - But specifically from San Francisco, CA with some distant relatives in Canada
- Experiences encourage me to think broadly and comparatively
- Today’s talk: first opportunity to consider commonalities (sociolinguistic, historical, and linguistic) that occur in both diasporic language communities
- Specific focus today:
  - the creation of new phonological (phonemic and allophonic) distinctions in two diasporic communities
On phonemic splits

“Most reports of phonemic change involve mergers: the reduction in phonemic inventory. This simple fact would lead to the odd conclusion that most languages are steadily reducing their vowel inventory. Since any overview of language history shows that this is not so, it stands to reason that just as many phonemic splits must take place as mergers. For reasons that are not entirely clear, it is not easy for students of the speech community to locate the ongoing creation of phonemic distinctions” (from Labov 1994:331, *Principles of Linguistic Change, Vol. 1*).

PLC Volume 3 (Labov 2011): essentially unchanged
Why not more cases of split?

• Tse (2016)
  • Suggested it’s related to the under-documentation problem in variationist sociolinguistics – most research focused on monolingual communities and on majority rather than on minority/minoritized languages (cf. Nagy & Meyerhoff 2008)

• Related Questions:
  • Could they be more common in certain types of contact situations?
    • Example: In a diasporic (or minority) language vs. a majority language community (in which most speakers are monolingual)?
  • Could they be more common in under-researched (at least in the sociolinguistics literature) languages?
  • BUT NOTE: many under-researched languages also spoken in less commonly studied types of contact settings.
Phonemic splits discussed in PLC (Labov 1994)

Borrowing
• /f/ ~ /v/ contrast in English through French loan words with /v/ (later other languages)

Loss of conditioning factor
• Western PA English
  • /u/ and /ow/ front (except before coda /l/ and /r/)
  • /l/ vocalization (loss of conditioning factor)
• Result
  • Too [ty] vs. tool [tuː]
  • Go [geu] vs. Goal [goː]

Lexical Splits
• British Broad /a/
• Mid Atlantic Short /a/ split

Contact via dialect borrowing?
Maybe, but debatable

Internal Motivation, but requires specific sequence of changes

**Linguistic Results of Contact**

**LANGUAGE MAINTENANCE**
- Casual contact, little bilingualism among borrowing language speakers
  - ONLY (NON-BASIC) VOCABULARY BORROWED
    - Ex: Monolingual English communities

**LANGUAGE SHIFT**
- Small shifting group or perfect learning
  - NO INTERFERENCE IN TARGET LANGUAGE (TL) AS A WHOLE
    - Ex: The societally dominant language spoken by diasporic language speakers

**INTENSITY**

- Intensive contact including much bilingualism
  - MUCH LEXICAL BORROWING, MODERATE TO HEAVY STRUCTURAL BORROWING especially phonology and syntax
    - Ex: Many diasporic languages, Turkish dialects of Greek, Roma language

- Large shifting group and imperfect learning
  - MODERATE TO HEAVY INTERFERENCE especially in phonology and syntax
    - Ex: The societally dominant language spoken by diasporic language speakers

Labov’s (2007, 2011) coverage

Not as well studied in sound change in progress literature
Example 1

The emergence of a plosive vs. implosive contrast in Somali Chizigula (aka Kizigua, Kizigula, Mushunguli, Mushungulu, among other variants)
History of the Zigua (Bantu) People

1840’s:
Famine and drought

1865-1890:
>20K slaves escape

1865-1990s:
Multiple generations in Somalia

1990s-present: Somali Civil War
2004-present: Migration to many mid-size US cities (often via UN refugee camps in Kenya) including
- Columbus, OH
- San Diego, CA
- Boise, ID
- Pittsburgh, PA

Adapted from Grotanelli (1955)
Late 19th/early 20th Century Tanzanian Chizigula
Kisbey (1897)

Modern Tanzanian Chizigula
Mochiwa (2008)

Somali Chizigula
Consultant work: 2012-2014
Other projects: Boise (Temkin Martinez talk today), Columbus (Odden, Barlew, Hout)
### Evidence of Voiced Plosives > Implosives

<table>
<thead>
<tr>
<th>Tanzanian Zigua in orthography (Kisbey 1906)</th>
<th>Somali Chizigula (consultant work, in IPA)</th>
<th>Gloss</th>
<th>Sound samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>basi</td>
<td>basi</td>
<td>‘enough’</td>
<td></td>
</tr>
<tr>
<td>banti</td>
<td>banți</td>
<td>‘door’</td>
<td></td>
</tr>
<tr>
<td>dudu</td>
<td>duɗu</td>
<td>‘bug’</td>
<td></td>
</tr>
<tr>
<td>kadodo</td>
<td>kaɖoɖo</td>
<td>‘little’</td>
<td></td>
</tr>
<tr>
<td>kudumula</td>
<td>kuɖumula</td>
<td>‘to cut’</td>
<td></td>
</tr>
<tr>
<td>kudyenda</td>
<td>kuʄenda</td>
<td>‘to walk’</td>
<td></td>
</tr>
<tr>
<td>kudya</td>
<td>kuʄa</td>
<td>‘to eat’</td>
<td></td>
</tr>
<tr>
<td>gali</td>
<td>ġali</td>
<td>‘expensive’</td>
<td></td>
</tr>
<tr>
<td>gutwi</td>
<td>ġutwi</td>
<td>‘ear’</td>
<td></td>
</tr>
<tr>
<td>kogera</td>
<td>koğera</td>
<td>‘to swim’</td>
<td></td>
</tr>
</tbody>
</table>
Voiced Plosives in Loan Words

<table>
<thead>
<tr>
<th>Tanzanian Zigua (Kisbey 1906)</th>
<th>Somali Chizigula (consultant work)</th>
<th>Possible Loan source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO COGNATE IDENTIFIED</td>
<td>buŋo / puŋo</td>
<td>pugno [puŋo] (Italian, ‘fist’)</td>
</tr>
<tr>
<td>NO COGNATE IDENTIFIED</td>
<td>basi</td>
<td>‘bus’ (directly from English or via Standard Swahili in Kenya)</td>
</tr>
<tr>
<td>NO COGNATE IDENTIFIED</td>
<td>gasi</td>
<td>‘gas’ English</td>
</tr>
<tr>
<td>NO COGNATE IDENTIFIED</td>
<td>gurupu</td>
<td>‘teamwork’ English</td>
</tr>
</tbody>
</table>
'bus'

'enough'
Plosive/Implosive contrast among Chizigula speakers in Boise, Idaho (Temkin Martinez & Rosenbaum 2017)

<table>
<thead>
<tr>
<th>Plosives</th>
<th>Implosives</th>
</tr>
</thead>
<tbody>
<tr>
<td>bafu ‘basin’ (&gt; English ‘bath’?)</td>
<td>bafu ‘selfish’</td>
</tr>
<tr>
<td>gana ‘Ghana’ (NOTE: in West Africa, not East Africa!)</td>
<td>gane ‘dormitory’</td>
</tr>
<tr>
<td>bosi ‘handicapped person’ (&gt; Somali/Maay &lt;boos&gt;)</td>
<td>bosi ‘boss’ (&gt; English, implosive to contrast with ‘handicapped person?’)</td>
</tr>
</tbody>
</table>

No such contrast identified in Tanzanian Kizigua (Kisbey 1897;1906, Mochiwa 2008)
In Gosha and the Juba River Valley (c. 1860s – c. 1920s)

- Described as a “republic of free ex-slaves” (Declich 1995:96)
- Zigua came in contact with speakers of other Bantu languages (see Tse 2015 for more details)
- Some of these languages have implosives corresponding to Zigua voiced plosives (Nurse & Hinnebusch 1993)
- Thus, via contact: voiced plosives > implosives

From Crauford (1897)
Italian colonization and migration to the US

- 1960s-2000s: Zigua learned Cushitic languages (Somali, Maay) and borrowed words with plosives

Adapted from Grotanelli (1955)
Example 2

Vowel Split in Toronto Heritage Cantonese
• **1960s**: First large wave of immigration from Hong Kong (UK Colony ~90% Cantonese speakers) to Canada
• **1980s-1997**: More immigration, motivated by fears of handover to China
• **2011 Census**: 178,000+ (3.1%+ of population) Cantonese speakers in Toronto
  - Now the 2nd most spoken mother tongue (after English)
Data and Analysis

Are there inter-generational differences in vowel production patterns?

Sociolinguistic interview data (following Labov 1984) and hence spontaneous speech

32 speakers (24 from Toronto, 8 from Hong Kong)
  - Toronto speakers further divided into GEN 1 (n=12) and GEN 2 (n=12)

11 vowel categories, 33,179 vowel tokens

Vowel space created based on Lobanov normalized (Thomas & Kendall 2007) midpoint F1 and F2

Nagy (2011)

Heritage Language Variation and Change in Toronto
HTTP://PROJECTS.CHASS.UTORONTO.CA/NGN/HLVC
Contact Setting

GEN 1 Speakers
- Born and raised in HK, came to Toronto as adults, AND have lived in TO for > 20 years
- Variable levels of English knowledge

GEN 2 Speakers
- Grew up in TO
- Learned Cantonese primarily at home (L1)
- All linguistically dominant in English (L2) as evidenced from Ethnic Orientation survey questions

ENGLISH (L2 learned as child)

Possible L2 to L1 influence?

廣東話 (L1, not a societally dominant language in Toronto)
Emergence of an allophonic split

[Graphs showing data distribution in F1 and F2 dimensions, with clear visual separation into two groups.]
# Sound samples of /ɛ/ from C2F41A

<table>
<thead>
<tr>
<th>/ŋ/ (fronted variant)</th>
<th>Open Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>isolated</td>
<td></td>
</tr>
<tr>
<td>meng2 ‘name’</td>
<td>ce1 ‘car’</td>
</tr>
<tr>
<td>M4 hai6 ci5 hai6 zung1 man4 meng2 gaa3.</td>
<td>Jyu4 gwo2 jau5 di1 pang4 jau5 jau5 ce1 soeng2 heoi3</td>
</tr>
<tr>
<td>“it doesn’t look like a Chinese name”</td>
<td>“if there are friends with a car who want to go ... “</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word Sample</th>
<th>Sentence sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="https://example.com" alt="Sound" /></td>
<td><img src="https://example.com" alt="Sound" /></td>
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</tbody>
</table>

Gloss: “it doesn’t look like a Chinese name”

Gloss: “if there are friends with a car who want to go ... “
CAN % Score (proficiency proxy)

- CAN % Score = (total words uttered in Cantonese + total words uttered in English) / total words uttered in transcription
  - Note: code-switching/mixing allowed in interviews, although interviews primarily in Cantonese
- Lower CAN % Scores → More fronting of pre-nasal /ɛ/
  - Suggests contact-induced change
- Contact-induced change further supported by lack of the same change in Hong Kong and among GEN 1 speakers
[sɛn2] = BAN/BANG

BAN/BANG

TRAP
Summary

• Somali Chizigula and Toronto Cantonese cases both involve intense contact (multilingual speakers with access to more than one phonological system)

• Changes initiated by multilingual speakers
  • A phonemic split via loanword vocabulary (Somali Chizigula)
  • An allophonic split in one language (Toronto English) creating one in another (Toronto Cantonese)

• Not much difficulty locating splits in diasporic language communities (as opposed to Labov 1994’s discussion)
Discussion

• What can diasporic languages teach us about the development of phonological distinctions?
  • They show how intense contact can facilitate certain structural changes through the interaction of different phonological systems
  • These changes can be lexically mediated or arise through direct structural influence
  • They can help us better understand the full range of linguistic processes (both synchronic and diachronic) that can affect language over time
  • These changes also present a paradox:
    • language loss associated with diasporic languages but phonemic and allophonic splits lead to increased phonological complexity
    • How can we resolve this paradox?
Concluding Thoughts: Is this really new?

- “A common end-state of language attrition is disappearance of the old language as people shift to speaking another language. **But the shift could be halted.** This may happen because of a sudden reduction in the intensity of contact and the influence of the other language, as when colonizers are expelled or their contact with their original homeland wanes, and the language of government and trade in their new country changes back to the language of the colonized albeit with much loss accompanied by convergence, borrowing, shift, restructuring, from the colonizer’s language. **Something like this may have happened to English** in the period between the dominance of French and Latin as languages of power immediately after the Norman conquest, and the mid-fourteenth century when Edward III’s government gave official recognition to English in the 1362 Statue of Pleading requiring English to be spoken in law courts” (Simpson 2014, from *The Handbook of Historical Linguistics*)

- NOTE: This is the period when /f/, /v/, and /ʒ/ became phonemes in English
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http://projects.chass.utoronto.ca/ngn/HLVC/0_0_home.php

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Asante! / 多謝! / Thank you!
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