The Articulation of Scottish Gaelic Plain and Palatalized Consonants

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Research Questions

What do articulatory gestures tell us about palatal/palatalized consonants in Scottish Gaelic (henceforth SG)?

1. How are plain, palatal, and palatalized consonants different?
2. Do liquids have the same articulation whether in plain or palatal/palatalized contexts?
3. How are different syllabic positions at play? (e.g., initial vs. final)
4. Is the typical description accurate, that Lewis Scottish Gaelic /l/ & /r/ has plain and palatal versions? What about Uist?

Data


Both phonemic and morphological

Data 1: Plain vs. Palatal ([p]) vs. Palatalized ([p])

- [p] vs. [p] plain go>b> 'beak' (nom.sg.)
- palatal slat>b> 'muck'
- palatalized gui>b> 'beak's' (gen.sg.)
- plain Ga<:ll> 'lowlander' (nom.sg.)
- palatal ainmei<:l> 'famous'
- palatalized Goit<:ll> 'lowlander's' (gen.sg.)

Data 2: Initial vs. Final Palatal/Palatalized

- [p] initial <b>inn 'verdict'
- final gui>b> 'beak's' (gen.sg.)
- initial <c>inn 'grow'
- final gli<k> 'wise'

Data Collection & Measurements

- 26 speakers of SG recruited in Sabhal Mor Ostaig, Isle of Skye
- Data from 4 speakers: 3 Lewis speakers & 1 Uist speaker
  - Speaker #7: born in Lewis of parents both born in Lewis
  - Speaker #10: born in Uist of parents both born in Uist
  - Speaker #15: born in Lewis of parents both born in Lewis
  - Speaker #25: born in Lewis of parents both born in Lewis
- 240 tokens per speaker considered for analysis (240 tokens × 4 speakers = 960 tokens in total)
- Ultrasound images of gestural peaks selected & traced manually

Results

<table>
<thead>
<tr>
<th>RQ</th>
<th>Comparison</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1a</td>
<td>plain vs. palatalized</td>
<td>mostly different</td>
</tr>
<tr>
<td>Q1b</td>
<td>palatal vs. palatalized obstruents</td>
<td>no difference</td>
</tr>
<tr>
<td>Q2a</td>
<td>plain vs. palatalized liquids</td>
<td>mostly no difference</td>
</tr>
<tr>
<td>Q2b</td>
<td>palatal vs. palatalized liquids</td>
<td>mostly different</td>
</tr>
<tr>
<td>Q3</td>
<td>initial vs. final palatalized</td>
<td>sometimes different</td>
</tr>
<tr>
<td>Q4</td>
<td>dialectal difference</td>
<td>not observed</td>
</tr>
</tbody>
</table>

Discussion

- Articulatory patterns of palatalization are different across consonant types (Q1a & Q1b).
- Gestural patterns here also capture palatal vs. palatalized contrast in liquids (Q2b); partially confirms the theoretical claim on palatal/non-palatal contrast in liquids (Borgstrom (1941), Lamb (2003), Ternes (2006), Maolalaghs (2008))
- Different syllabic positions play a greater role in liquids than in obstruents (Q3).
- The results do not reflect any dialectal difference between Lewis and Uist speakers (Q4).

Conclusions

- Overall, our preliminary results show a clear sign of palatalization in palatalized consonants (i.e., plain vs. palatal/palatalized).
- Different underlying representations (i.e., palatal vs. palatalized) and syllabic positions (i.e., initial vs. final) often create gestural differences, but do not always manifest as differences in tongue contours.

Selected References


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4. Contraction in preverbal position in Scottish Gaelic (henceforth SG)?