“I just sound Sco[?]ish now!”: The acquisition of social and linguistic constraints on word-medial glottal replacement by Polish adolescents in Glasgow

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Can you give me a piggyback ride?

Gies a backie?
The participants

Working with 14 pupils who were born in Poland...

...comparing their language to that of 7 of their Glasgow-born classmates
The Polish participants
The Glaswegian participants

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Callum</td>
<td>11y 10m</td>
</tr>
<tr>
<td>Laura-Kim</td>
<td>12y 1m</td>
</tr>
<tr>
<td>Jake</td>
<td>12y 1m</td>
</tr>
<tr>
<td>Candice</td>
<td>12y 5m</td>
</tr>
<tr>
<td>Skye</td>
<td>13y 6m</td>
</tr>
<tr>
<td>Matt</td>
<td>14y 5m</td>
</tr>
<tr>
<td>Jamie</td>
<td>14y 7m</td>
</tr>
</tbody>
</table>
Glottal replacement

- **Word-final** /t/ (e.g. *it, want*)
- **Word-medial** /t/ (e.g. *getting, better*)
Word-medial glottal replacement

Exclusions:

1. Before a consonant (e.g. football)

2. After a consonant other than /rnl/ (e.g. justice)
Word-medial glottal replacement

For the remaining environments, I took a bottom-up approach, removing all lexical items which never occur with glottal replacement in these data.

- e.g.
- *thirteen*
- *fantastic*
- *Italian*
- *Guitar*
- *Tattoo*
- *sometimes*

...
Coding the data

• Categorised tokens as either glottal replacement or released [t] (excluded inaudible / indeterminate tokens)

• Auditory analysis only (some previous research on this variable has used instrumental techniques, but most studies concerned with sociolinguistic patterning use auditory only)

• 1559 word-medial tokens in total (more word-final tokens)
Are the Polish kids using word-medial glottal replacement?

YES.
Evelyn: So what sort of books have you read in English?

Izabela: Um...I’m keeping forgetting the names.
I...I read Harry Po[?]er again in English. I- because I w- eh, read i[?] in Polish.
I- I read Twili[?] in English, but I also read i[?] in Polish.
And I think I read Hunger Games, and I forgo[?], like, other names of the books, because I’m keep forgetting names.
## Results

<table>
<thead>
<tr>
<th></th>
<th>Glaswegian speakers</th>
<th>Polish speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ʔ] N</td>
<td>379</td>
<td>740</td>
</tr>
<tr>
<td>Rate</td>
<td>80.81%</td>
<td>67.89%</td>
</tr>
</tbody>
</table>
Analysis

• Mixed-effects logistic regression analysis comparing the speech of the Glasgow-born group and the Poland-born group

• For each significant constraint, I compared the two groups: do their variation patterns differ, or are the Polish group replicating the constraints in the input from their classmates?
Summary of findings

• Five constraints emerged as significant...

1. Number of syllables: Constraint has been replicated
2. Following phonological segment: Constraint has been under-acquired
3. Lexical frequency: Constraint has been innovated
4. Speech context: Constraint has been innovated
5. Preceding phonological segment: Constraint has been innovated
Lexical frequency

• Frequency counts are for whole words

• I extracted frequency counts from my own corpus rather than e.g. BNC (following e.g. Clark & Trousdale 2009: 37-38)

• Continuous numerical predictor
Lexical frequency
Lexical frequency
Lexical frequency

Statistically significant

Not statistically significant
Lexical frequency

‘lexical diffusion may be an active process in the acquisition of local dialects of English’ (Wolfram et al 2004: 345)
Speech context

• ‘Interview’ context (classroom-like, with an unknown adult, Evelyn)

• ‘Conversation’ context (mid-point, with a well-known adult, me)

• ‘Peer-group’ context (playground-like, with friends)
Speech context

Less [ʔ]? | Conversation | Peer-group | More [ʔ]?

Interview
Speech context
Speech context
Speech context
Speech context

• A hypercorrection pattern?
Speech context

• A hypercorrection pattern?

• Multilingualism has sociolinguistic advantages?
Speech context

• A hypercorrection pattern?

• Multilingualism has sociolinguistic advantages?

• The result of differences in classroom culture between Poland and the UK?
Preceding segment

• I tested for this effect by creating these categories:

1. /t/ preceded by a vowel, e.g. *patted*

2. /t/ preceded by /rnl/, e.g. *parted*
Preceding segment
Preceding segment
Probability of word-medial glottal replacement

<table>
<thead>
<tr>
<th>SpeakerGroup = Glaswegian</th>
<th>SpeakerGroup = Polish</th>
</tr>
</thead>
<tbody>
<tr>
<td>ml</td>
<td>ml</td>
</tr>
<tr>
<td>vowel</td>
<td>vowel</td>
</tr>
</tbody>
</table>

- Not statistically significant
- Statistically significant
Preceding segment

• Words like parted might be more sensitive to style-shifting than words like patted...?
Preceding segment

• Words like parted might be more sensitive to style-shifting than words like patted...?

• So this difference could be explained by the Polish group’s heightened style-shifting patterns...?
Thanks to...

- My supervisors, Professor Jennifer Smith, Professor Evelyn Arizpe, Dr Clara Cohen and Professor Jane Stuart-Smith
- The pupils and staff at St John’s High School, where I conducted my research
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References


