L1 intonational categories as “perceptual attractors” during L2 imitation
Caterina Petrone, Leonardo Lancia, Cristel Portes

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INTRODUCTION

In L2 learning, native (L1) phonological representations act as “perceptual attractors” to which similar non-native sounds are assimilated [1, 2];

- Competition with the inventory of the language/dialect of origin modulates segmental imitation by selective processes [3]

Phonological properties of a speech sound replace its phonetic properties with the passing of time [4], e.g., by matching to exemplars or by rehearsal of articulatory programs [1, 5].

Intonation?

- Speakers reproduce the phonological form of an utterance, not its phonetic details [6];

BUT: When imitating non-native dialects, the f0 contour is partly modified to approximate the target dialect [7].

Questions (Q) [8, 9]

<table>
<thead>
<tr>
<th>(Northern Standard) German</th>
<th>L* H- H% Steep rise right after the f0 valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leccce Italian</td>
<td>L* L- H% Shallow rise, late rise onset</td>
</tr>
<tr>
<td>Neapolitan</td>
<td>L*H+ H-L% f0 Rise-fall</td>
</tr>
</tbody>
</table>

Hypotheses

H1: Lecce speakers will be less accurate in imitation since they perceive German contours as variants of their native dialect contours

H2: Less accurate reproduction when imitation is delayed/rehearsal is reduced because of a decay of detailed F0 memories.

CORPUS & METHODS

- Imitators with no knowledge of German
- “Memory” conditions: Speaking onset at the end of Q (Immediate), after a silent pause of 4 s. (Delayed) or an answer of 4 s. to Q (Filled).

<table>
<thead>
<tr>
<th>Immediate</th>
<th>Delayed</th>
</tr>
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<tbody>
<tr>
<td>8 Qs * 2 Tasks * 3 Memory Conditions * 16 Imitators (8 Lecce + 8 Neap.) * 5 Repetitions = 3840 obs.,</td>
<td>648 obs.,</td>
</tr>
</tbody>
</table>

DISCUSSION

- Neapolitan: Imitation of German Qs not mediated by grammar -> + attention to acoustic details - Leccce it.: Phonological ambiguity -> Speakers rely on phonetic implementation rules of their own variety.

- No memory effects:
  - no rehearsal for continuous f0?
  - too simple task?

- Neapolitans better imitators than Lecce Italians:
  - Shift from rise-fall to rising f0 curve in Neapolitan;
  - Final f0 rise shallower and lower in Lecce It.

- No effects of memory

CONCLUSION

- Similarly to the segmental level, intonation is anchored by native prosodic representations.
- Functional mixed models: New paradigm for exploring intonation.

References