L1 intonational categories as “perceptual attractors” during L2 imitation
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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)</th>
<th>L* H- H%</th>
<th>Steep rise right after the f0 valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecce Italian</td>
<td>L* L- H%</td>
<td>Shallow rise, late rise onset</td>
</tr>
<tr>
<td>Neapolitan</td>
<td>L*+H L-L%</td>
<td>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).

8 Qs * 2 Tasks * 3 Memory Conditions * 16 Imitators (8 Lecce + 8 Neap.) * 5 Repetitions = 3840 obs.

**DISCUSSION**

- **Language interference:**
  - Neapolitan: Imitation of German Qs not mediated by grammar -> + attention to acoustic details
  - Lecce it.: Phonological ambiguity -> Speakers rely on phonetic implementation rules of their own variety.
  - No effects of memory

- **No memory effects:**
  - no rehearsal for continuous F0?
  - too simple task?

**CONCLUSION**

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

**References**