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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>(German)</th>
<th>German (G)</th>
</tr>
</thead>
</table>
| L* H- H%            | Steep rise right after the f0 valley | Er trinkt | kek
| L* L- H%            | Shallow rise, late rise onset | Er ist | ne Blume
| L*+H L-L%           | 0% Rise-fall | Sie isst | ne Blume

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 memory effects:
  - no rehearsal for continuous f0?
  - too simple task?
- Increase cognitive load by increasing linguistic (i.e. syllabic) complexity (in progress)

CONCLUSION

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

References