**Background**

- Do infants have a domain-specific *a priori* bias\(^1\) for phonetically-motivated phonological processes? Such processes are:
  - Cross-linguistically common
  - Easier for adults to learn in artificial grammar learning studies\(^2\)
  - Correlated with the progression of infant articulatory development\(^3\)
- Previous studies\(^4\) test learning of processes or patterns, not unlearned biases
- Exception is \(^2\): without training, infants prefer triad sequences with articulatorily-motivated nasal assimilation [un, ber]—[umber] compared to unassimilated clusters [un, ber]—[umber].
  - Results consistent with presence of *a priori* bias. But perhaps these are reactions to individual components, not the phonological process
- Our approach:
  - Test young infants for *a priori* bias in favor of a phonological process motivated by ease of articulation, without training
  - Include control experiments to rule out possibility that infants simply respond to phonotactics of syllables rather than the process as a whole

**Methods**

Headturn Preference Procedure\(^1\)
- Training phase replaced by instrumental music
- Test phase of 12 trials, 20 seconds maximum each

Triad paradigm (i.e., [pi, fi, pivi]) represents inputs and outputs of phonological processes\(^2\):

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervocalic Voicing</td>
<td>[pi, fi, pivi]</td>
</tr>
<tr>
<td>Intervocalic Devoicing</td>
<td>[pi, vi, pifi]</td>
</tr>
</tbody>
</table>

4.5-month-old subjects
- Youngest to reliably control head movement\(^5\)
- Too young for influential articulatory experience
- English-only input
- Normal hearing

**Conclusions**

4.5-month-olds:
- Show no preference for phonetically-motivated phonological patterns
- But, may be biased to learn processes differently, even after only a few seconds of exposure

Subsequent work in progress:
- Test older infants on Process Input Fricatives to determine when language experience effect surfaces

Plans for future work:
- Add training phase to experiments

**References**


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