Determining L3 Phonological Proximity

John Archibald, University of Victoria

Introduction

Models of L3A

Typological Proximity (Rothman, 2013)

Lexicon > Phonological cues > Functional morphology > Syntactic structures

Linguistic Proximity (Westergaard et al. 2017)

Surface proximity: An Epistemological challenge

I-Proximity and Syllabic Appendices

I-Proximity and the Successive Division Algorithm

Similarity (aka i-proximity) is based on Fodorian treelets; contrastive feature representations determined by the Successive Division Algorithm (following Dresher, 2009; Mackenzie, 2011)

A Case Study (Benrabeh, 1991)

L1 Arabic (Algerian)
L2 French
L3 English

The speakers (n=24) when speaking English (L3), use:

French (L2) vowels
Arabic (L1) consonants

Arabic Active Vowel Features

3 vowel system: [i, a, u]
[low] > [back]

French Active Vowel Features

[Anterior] > [Aperture] > [Tense] > [Round] > [Front]

The i-proximity of French vowels is closer to English vowels than Arabic vowels are when we take active contrastive features in a ranking as the measure of similarity.

Arabic

Voiced and voiceless stops: [b, d, t, k, q, g] Emphatic (pharyngealized) consonants: [ph, qh]

French

[i, e, a, o, u] Long
Short

English

Long Short

Table 1. Syllabic properties of the L1s

<table>
<thead>
<tr>
<th>L1</th>
<th>Vowel(s)</th>
<th>Branching</th>
<th>Appendice</th>
<th>I-Dir</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>72</td>
</tr>
<tr>
<td>Brazilian Portuguese</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>50</td>
</tr>
<tr>
<td>Persian</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>15</td>
</tr>
</tbody>
</table>

I-proximity is calculated with reference to deep triggers.

Conclusion

L3 phonological proximity must be determined on the basis of deep triggers which can be viewed (in these data) as Fodorian treelets manifested via contrastive feature hierarchies, or syllabic trees.

Evidence supports the Linguistic Proximity Model of L3A.

References


