The role of phonological overlap in perceived iconicity in foreign signs

Rehana Omardeen
rehana.omardeen@uni-goettingen.de

Background
Language experience affects iconicity judgement.

![Image of sign languages with arrows indicating comparison]

Considerable amount of quantifiable overlap across unrelated sign languages.

Research Question

RQ1: Are native signs judged to be more iconic than foreign signs?

RQ2: Are signs that are more similar in a foreign language perceived as more iconic?

This Study

Sign languages: CSL (China), NGT (Netherlands)

Method: 1) phonological overlap 2) iconicity rating

Analysis: (mixed effects model) iconicity rating – language

Stimuli

- Swahili list signs from Global Signbank
- 24 phonological features coded
- Automated pairwise comparison
- Normalised for no. of features compared

> Phonological Overlap Score (0-1)

<table>
<thead>
<tr>
<th>Feature</th>
<th>CAT CSL</th>
<th>CAT NGT</th>
<th>Comparison</th>
<th>Similarity Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Check</td>
<td>Check</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Monosyllabic Direction</td>
<td>Scalar</td>
<td>Scalar</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Expansive Movement</td>
<td>2</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Abnormal Movement</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Balanced/Dominant Movement</td>
<td>Move</td>
<td>Move</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Orientation Change</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Handshape</td>
<td>3</td>
<td>0</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Contact Type</td>
<td>Initial</td>
<td>New</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Phonological Comparison

![Image with phonological features]

Iconicity Rating

- Online rating task
- 45 randomised blocks of paired signs (CSL, NGT)
- Iconicity rating for each sign (0-100)
- 9 deaf NGT signers (one-way rating)

> Iconicity Rating (0-100)

Results

RQ1: Native more iconic than foreign?

Language predicts iconicity ratings

![Graph showing language predicts iconicity ratings]

RQ2: High overlap more iconic than low overlap?

Degree of overlap predicts iconicity ratings

![Graph showing degree of overlap predicts iconicity ratings]

Discussion

- Repeated form-meaning mappings reinforce perceived iconicity
- Item by item variation: elements of language experience not captured by this study e.g. classifiers
- Cross-signing & IS: iconicity helps!
- Automated comparison may help predict communicative success in translanguaging

Follow-Up: Two-way Rating Task

- Both Chinese and Dutch judged:
  1. Native more iconic than foreign
  2. High overlap more iconic than low overlap

Take-Home
Native language iconicity bias:

1. Native signs judged as more iconic than foreign signs

2. The more form overlap between native & foreign signs, the more iconic the foreign sign

References