INTRODUCTION

Native speakers of English and birectual bilinguals are influenced by phonotactic, graphotactic, and frequency rules, as well as the spelling of phonological neighbours. When two languages share an alphabet, there may be some competition between the rules of each. This is even more complex if the phoneme-to-grapheme correspondence differs between languages, especially when one is transparent and the other is opaque. In this study, we tested whether Spanish-English bilinguals are affected by the same phonotactic, graphotactic, and frequency rules as natives and birectual bilinguals. We also tested whether phonological neighbourhood had an effect on pseudoword spelling, as well as the influence of the transparent L1.

QUESTIONS

Q1: Are bilinguals affected by the graphotactic and phonotactic constraints of their second language?
What if both languages share the same spelling system?
Q2: Are bilinguals affected by the spelling of phonological neighbours in their L2?
In fact, do neighbours affect spelling in English beyond priming?
Q3: Do phonological rules and neighbour spellings interact?
Which one prevails?
What is the role of the L1 (Spanish) play in each of these cases?

PROCEDURE

- Spanish-English bilinguals (N = 24) - Min. score 40 in BEST and 60% in LexTALE
- Fill-in-the-blank spelling task: How would you spell that word?
- 520 pseudowords - 5 experiments - intermixed -
  - Experiment 1: Phonotactics & Graphotactics
  - Experiment 2: Phonological Neighbours
  - Experiment 3: Phonotactics & Phonological Neighbour Spelling

REFERENCES


DISCUSSION

- Replicated previous results in new population
- Evidence of neighbourhood effect beyond priming in bilinguals
- Preliminary evidence of neighbourhood or frequency effects on smaller morphological units
- Inconclusive results on phonotactic rules for L1 influence doublets
- "Illegal" consonants get inverted?
- Need to control for other factors (e.g., endings that affect doubling)

CONCLUSION

Spanish-English bilinguals of a transparent L1 and an opaque L2 with the same script...
- follow the same graphotactic and phonotactic rules as native speakers and birectual bilinguals for spelling medial consonants
- they do so in spite of the misalignment between the phoneme-to-grapheme representations of the same characters
- show that their first language interacts with foreign norms; they are more likely to use doublets that exist in their L1
- show preliminary evidence that they are more affected by visual cues than by auditory cues; the effects of phonological neighbourhood are the most consistent and pervasive

EXPERIMENT 1

Graphotactics & Phonotactics

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Short</th>
<th>Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Vowel</td>
<td>(\text{/th}/\rightarrow[\text{thf}d])</td>
<td>(\text{/th}/\rightarrow[\text{thfd}])</td>
</tr>
<tr>
<td>Two Vowel</td>
<td>(\text{/th}/\rightarrow[\text{thfd}])</td>
<td>(\text{/th}/\rightarrow[\text{thfd}])</td>
</tr>
</tbody>
</table>

Participants followed the graphotactic and phonotactic rules

EXPERIMENT 2

Phonological Neighbours

<table>
<thead>
<tr>
<th>No neighbour</th>
<th>Common</th>
<th>Uncommon</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\text{fizfz filfz})</td>
<td>(from defeat)</td>
<td>(from morphine)</td>
</tr>
</tbody>
</table>

No Neighbour & No Ending | No Neighbour & Established Ending
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(\text{fazfaz filfaz})</td>
<td>(from defeat)</td>
</tr>
</tbody>
</table>

Spanish-English bilinguals were affected by phonological neighbours beyond priming

EXPERIMENT 3

Phonotactics & Phonological Neighbour Spelling

<table>
<thead>
<tr>
<th>Neighbour number of consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
</tr>
<tr>
<td>minute</td>
</tr>
<tr>
<td>/min/</td>
</tr>
<tr>
<td>comic</td>
</tr>
<tr>
<td>/kum/</td>
</tr>
</tbody>
</table>

Participants are affected by phonological neighbours spellings for medial consonant doubling

Participants were more likely to use doublets that exist in their L1

Legal consonants seem to follow phonotactic rules, but illegal consonants do not

All consonants were affected by neighbour doubling, but especially LL&RR when their neighbour contained a doublet

REFERENCES