Age of arrival effects in L2 islands

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Background

• Native speakers are famously sensitive to islands:
  - Who do you wonder [whether Lisa bothered ___]
  - L2 sensitivity to islands is thought to decrease as AoA increases (e.g., Johnson and Newport 1991).

How is this possible?

Very hard to explain why island sensitivity should decrease.

• Island effects now thought to be due to inherent limitations of grammar and/or processor (e.g., Rizzi 2013, Kluender 2004).
• Thus all speakers should show island sensitivity, as long as they have relevant grammatical properties and normal processor.
• Decreased sensitivity to islands would mean L2ers are outperforming natives – very implausible.

This study

• What really happens to island sensitivity as AoA increases?
• We use current best practices in experimental syntax: factorial analysis, counterbalancing, numerical response method, etc.

Experiments

• Five sentence acceptability experiments (7-point scale):
  - Whether-islands
  - Wh-islands
  - Adjunct islands (when, because, before/after clauses)
• 60 native speakers of English
• 63 Korean-English bilinguals, in sub-groups by AoA for English:
  - Near-native (AoA = 1-5)
  - Early (AoA = 6-10)
  - Late (AoA = 11-14)
• 2 x 2 design: Structure x Extraction domain
  - 5 tokens per condition, 1:1 filler:experimental ratio

<table>
<thead>
<tr>
<th>Structure</th>
<th>Extraction</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-island</td>
<td>Embedded clause</td>
<td>Who did Mary think [that Lisa bothered ___]?</td>
</tr>
<tr>
<td>Island</td>
<td>Embedded clause</td>
<td>Who did Mary wonder [whether Lisa bothered ___]?</td>
</tr>
<tr>
<td>Non-island</td>
<td>Matrix clause</td>
<td>Who ___ thought [that Lisa bothered Mary]?</td>
</tr>
</tbody>
</table>
| Island | Matrix clause | Who ___ wondered [whether Lisa bothered Mary]?

• How to calculate size of island effect?
  Difference in Differences (DD score) (Sprouse et al. 2012)
  (Cond 1 - Cond 2) - (Cond 3 - Cond 4) = DD score

Results

Island effect sizes (DD scores) generally decrease as AoA increases.

Negative correlation between DD scores and AoA for all islands (p < .05).

Discussion/Conclusion

What is source of decreasing DD score?

- Increasing difficulty with complex embedded clauses?
  Cond 1 - Cond 2 = structure effect
- Increasing difficulty with long-distance extraction?
  Cond 3 - Cond 1 = length effect

Conclusions

- No sign of change in sensitivity to islands or island structures per se.
- Instead, increasing difficulty with long-distance extraction as AoA increases.
  - This masks island effects.
- We leave the source of this difficulty open for now.
  - Current views of islands as due to inherent limitations are supported.

References


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