Animacy is mediated by topicality in the production of word order in Yucatec Maya and Spanish

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Accessibility, animacy and discourse

- Conceptual accessibility influences sentence production
  - Refereents that are more animate, prototypical, given (vs. new), etc. are more likely to be mentioned early in the sentence

- Cross-linguistic evidence:
  - English, German, Greek, Japanese, Odawa, Spanish, Yucatec Maya

- What is driving this effect?
  - Do more accessible referents get assigned a prominent functional role (subject)?
  - Or does accessibility have a direct effect on positional processing?

- Conceptual → functional → positional

- Evidence from languages with flexible word order argues that more accessible referents are not always associated with subject function
  - E.g. Spanish active left-dislocation

- There is an additive effect of inherent accessibility (animacy) and derived accessibility (e.g. discourse givenness)

- Some languages are subject-prominent, while others are topic-prominent

- What is the role of topicality or “aboutness”? How does it relate to the effects of animacy?

Experiment

<table>
<thead>
<tr>
<th>Undergoer animacy</th>
<th>Topic</th>
<th>Topic statement</th>
<th>Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent Inanimate</td>
<td>Hábaleme sobre el carro</td>
<td>&quot;Tell me about the car&quot;</td>
<td></td>
</tr>
<tr>
<td>Agent General</td>
<td>Dimme que pasó</td>
<td>&quot;Tell me what happened&quot;</td>
<td></td>
</tr>
<tr>
<td>Undergoer</td>
<td>Hábaleme sobre la carreta</td>
<td>&quot;Tell me about the car&quot;</td>
<td></td>
</tr>
<tr>
<td>Agent</td>
<td>Hábleme sobre el carro</td>
<td>&quot;Tell me about the cow&quot;</td>
<td></td>
</tr>
<tr>
<td>Human Inanimate</td>
<td>Hableme sobre el vaquero</td>
<td>&quot;Tell me about the cowboy&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Results: Spanish

- Mixed logit analyses, random intercepts by-subjects and items (collinearity < .5)
- No significant effect of animacy (p<.1)
- Topicality is significant predictor of word order
- Patient topics led to more PVA than agent and general (β=.93, z=7.9,p<.001)
- General topics led to more PVA than agent (β=1.19, z=4.6,p<.001)

Results: Yucatec Maya

- Effect of animacy was significant
  - Human patients led to more PVA (β=2.67, z=3.1,p<.01)
  - Patient topics also led to more PVA than agent and general topics (β=1.89, z=5.7,p<.001)
  - Agent topics led to fewer PVA than general topics (β=1.63, z=5.5,p<.001)
- In planned comparisons, the effect of animacy was significant for general topics (β=4.2, z=2.7,p<.01) and marginally for patient topics (β=2.1, z=1.9,p<.06) but not significant for agent topics (p<1)

Discussion

- When topicality was controlled for, the effect of animacy on word order in Spanish disappeared
- In Yucatec, the effect of animacy is mediated by topicality
- Animacy was only significant for undergoer and general topics but not for agent topics

- Yucatec has a grammaticalized prominence hierarchy that influences word order (topicality → definiteness → humanness → animacy)
- This could explain the difference between Yucatec and Spanish in the effect of animacy

- Is there a difference between simple previous mention (giveness) and what the sentence is about (topicality)?
- Prat-Sala and Branigan found an additive effect of derived (giveness) and inherent (animacy) accessibility for Spanish while our Spanish speakers did not show sensitivity to animacy when topicality was introduced

- Is discourse role assignment functionally equivalent to grammatical function assignment?
- If so, then accessibility may always have an indirect effect on positional processing while being subject to cross-linguistic differences in the use of grammatical vs. discourse role assignment

References