Exploring the Left Periphery in Bilingual Spanish-English Speakers

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We investigate how vulnerable the syntactic-discourse interface in bilingual speakers of Spanish and English. While the left periphery (LP) is available to both Spanish and English speakers, it is more restricted in English than in Spanish. Heritage Spanish speakers are defined as speakers that have acquired Spanish as a first language, but later in life feel more comfortable speaking English. It is unclear how heritage speakers use the LP in relation with native speakers of either Spanish and English.

We examined utterances from the Fruit carts corpus [1,6,7] where speakers make requests to move an object in order to have their interlocutors replicate a map of objects in specific locations. In doing so, they utilize utterances realized with (1) mono-clausal non-LP, (2) mono-clausal with LP, and (3) bi-clausal plans. Spontaneous instructions in three separate experiments were elicited using this task-oriented paradigm in monolingual English and Spanish, and bilingual Spanish-English speakers. In the last two experiments (i.e. Spanish and Spanish-English) speakers were paired with a mono-lingual Spanish listener. Subjects spoke in Spanish. In the first experiment, speakers were paired with a mono-lingual English listener. Subjects spoke in English.

In the task, theme expressions were either simple (an apple) or complex (the small/big apple). We analyzed MOVE requests from 13 English, 12 Spanish, and 25 heritage Spanish speakers (300, 107, 461 utterances respectively).

The LP is a useful tool to express salient/topic material. It is widely used in Spanish, while more restrictedly in English [3]. We hypothesize that heritage Spanish speakers are limited in their use of LP. Indeed, we find this asymmetry (Table 1). Spanish speakers make a heavier use of the LP (25%) than their English counterparts (12%), while heritage Spanish fall in between (20%).

Furthermore, heritage Spanish speakers make a heavier use of mono-clausal plans when expressing a MOVE request than either native Spanish or English speakers. The preference of mono-clausal over bi-clausal plans depends on the first noun phrase complexity [6,7]. This requires a limited yet advanced planning window to weight possible plans to realize the message. The fact that heritage speakers resort less to a bi-clausal plan, similar to monolingual Spanish speakers suggests that both syntactic structures (English and Spanish) are active at the time of the decision. Alternatively, heritage speakers may resort to shallow parsing [4,5] due to the lower amount or resources available at the time of production.

In sum, the LP is an alternative tool to express a MOVE request available to speakers of Spanish, English and Spanish-English bilinguals. The weaker the use of the LP in heritage Spanish speakers suggests that licensing mechanisms for such constructions, such as the pragmatic-syntactic interface [8], have been modified as compared to those of native speakers.
(1) Mono-clausal MOVE request expressed in canonical order
Mueve [un cuadrado] [al Parque Central] (Move a square to Central Park)

(2) Mono-clausal MOVE request with a left dislocated goal expression:
[En el Parque Central] ponle [un cuadrado] (In Central Park put there a square)

(3) Bi-clausal MOVE request
(a) Agarra [un cuadrado] (Take a small square)
(b) Muevelo [al Parque Central] (Move it to Central Park)

Table 1.
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<tr>
<th></th>
<th>Mono-Clausal non-LP</th>
<th>Mono-Clausal LP</th>
<th>Bi-clausal</th>
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</thead>
<tbody>
<tr>
<td>Native Spanish</td>
<td>54%</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>Heritage Spanish</td>
<td>60%</td>
<td>20%</td>
<td>21%</td>
</tr>
<tr>
<td>Native English</td>
<td>50%</td>
<td>12%</td>
<td>36%</td>
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References: