Exploring the role of transfer in the L2 acquisition of aspect: the case of the Spanish Imperfect

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333,500 words
461 sounds files
70 hours of recordings

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Nicole Tracy-Ventura
Florence Myles

ESRC Economic and Social Research Council
SPLLOC Principles (Mitchell et. al. 2008)

1. Complete open access
2. Theory focused
3. Focus on semi-naturalistic oral data
4. Variety of genres (narrative, interview, picture description, peer discussion).
5. Balance of open ended and focused tasks (production and interpretation)
6. Variety of learner levels
7. Use of CHILDES procedures (CLAN, MOR etc)
SPLLOC 2 (2008-2010)

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• Research Agenda: to examine the emergence and development of L2 tense and aspect morphology by 60 (beginner, intermediate and advanced) instructed English speakers of Spanish.

• Mixed-methods approach: semi-spontaneous oral and comprehension data to test hypotheses relevant to SLA theory (=the ‘Lexical Aspect Hypothesis’ in L2 Spanish).
## 60 English Learners of Spanish and 15 native controls

<table>
<thead>
<tr>
<th>Group</th>
<th>Typical Age</th>
<th>Hours of instruction (appr.)</th>
<th>Common Euro Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 10 (n=20)</td>
<td>14-15</td>
<td>200</td>
<td>A2</td>
</tr>
<tr>
<td>Year 13 (n=20)</td>
<td>17-18</td>
<td>750</td>
<td>B1-B2</td>
</tr>
<tr>
<td>Undergraduates (n=20)</td>
<td>21-23</td>
<td>900</td>
<td>C1</td>
</tr>
</tbody>
</table>
## SPLLOC 2 Tasks

<table>
<thead>
<tr>
<th>Open-Ended</th>
<th>Task Type</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Impersonal Narrative</td>
<td>Cat Story: picture-based story retell</td>
<td></td>
</tr>
<tr>
<td>2. Impersonal Controlled Narrative</td>
<td>Las Hermanas: picture-based story retell</td>
<td></td>
</tr>
<tr>
<td>3. Semi-structured Interview</td>
<td>Personal interview based on learners’ past experiences</td>
<td></td>
</tr>
<tr>
<td>Focused</td>
<td>Task Type</td>
<td>Format</td>
</tr>
<tr>
<td>4. Comprehension task</td>
<td>On-line context-dependent preference task</td>
<td></td>
</tr>
<tr>
<td>5. Production task</td>
<td>Simultaneous Actions: Picture description production task</td>
<td></td>
</tr>
</tbody>
</table>
SLA Research on tense/aspect

• Although this is one of the most investigated areas in SLA research, we still don’t know how L2 speakers learn tense and aspect morpho-syntax.

  – E.g. why do English speakers find learning the imperfect/preterit distinction in Romance so difficult?

    • Ana *coleccionaba* sellos (imperfective, unbounded)
      Ana collected/used to collect/was collecting stamps

    • Ana *coleccionó* sellos (perfective, bounded)
What makes aspect difficult to study?

• No unified linguistic account of aspect
  – How is it syntactically, semantically and morphologically encoded?
  – How do we account for cross-linguistic variation?

• Complexity of the phenomenon
  – Grammatical and lexical aspect interact
  – Syntactic, morphological, semantic and pragmatic dimensions

• Limitations of the ‘Aspect Hypothesis’
  – What about the role of the L1?

• Methodological issues (Domínguez et al. 2013)
  – Mostly uncontrolled, oral data. Lack of statistical analyses.
Aspect

• Conveys information about
  – whether eventualities are in progress, finished or about to start.
  – the number of occasions an eventuality takes place.
• Perfective (bounded/finished event) vs imperfective (unbounded/unfinished)
• Imperfectivity involves (at least) three meanings: progressive, habitual, continuous
<table>
<thead>
<tr>
<th>Meaning</th>
<th>Nr of occasions</th>
<th>Status</th>
<th>English</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective</td>
<td>1</td>
<td>Finished</td>
<td>John <em>walked in the park</em> / John <em>was sick the whole 2002.</em></td>
<td>Juan caminó / Juan estuvo enfermo</td>
</tr>
<tr>
<td>Progressive</td>
<td>1</td>
<td>Unfinished</td>
<td>John <em>was walking</em> in the park</td>
<td>Juan caminaba</td>
</tr>
<tr>
<td>Habitual</td>
<td>&gt;1</td>
<td>Period unfinished / Each instance, finished</td>
<td>John <em>used to walk/walked in the park</em></td>
<td>Juan caminaba</td>
</tr>
<tr>
<td>Continuous</td>
<td>⋄</td>
<td>Unfinished</td>
<td>John <em>was sick</em> when I visited him</td>
<td>Juan estaba enfermo</td>
</tr>
</tbody>
</table>
Spanish

- Spanish makes use of morphology to encode aspectual contrasts such as imperfective versus perfective.

- Spanish imperfect morphemes can correspond to more than one single interpretation:
  - **Habitual**: where several instances of the event are involved
  - **Progressive**: only one instance of the event is involved and is presented as being in progress
  - **Continuous**: where no counting of instances is involved.

- The available interpretations depend on the internal aspect properties of the predicate, in particular whether the verb is **eventive/dynamic** (activities, accomplishments and achievements) or **stative/non-dynamic** (states).
Grammatical Aspect and Lexical Aspect

- Inner Aspect/Situation Aspect/Lexical Aspect: internal temporal structure of eventualities (e.g. duration, culmination, or delimitation).


<table>
<thead>
<tr>
<th>Grammatical Aspect</th>
<th>States ‘have’ ‘know’</th>
<th>Activities ‘swim’ ‘walk’</th>
<th>Accomplishes ‘find’ ‘die’</th>
<th>Achievements ‘paint a picture’ ‘build a house’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-dynamic</td>
<td>Dynamic</td>
<td>Dynamic</td>
<td>Dynamic</td>
</tr>
<tr>
<td></td>
<td>Durative</td>
<td>Durative</td>
<td>Durative</td>
<td>Non-durative</td>
</tr>
<tr>
<td></td>
<td>No endpoint</td>
<td>No endpoint</td>
<td>Endpoint</td>
<td>Endpoint</td>
</tr>
<tr>
<td>Perfective</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
</tr>
<tr>
<td>Progressive</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
</tr>
<tr>
<td>Habitual</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
</tr>
<tr>
<td>Continuous</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
</tr>
</tbody>
</table>
1. Marta was ill when I visited her

2. Marta estaba impf enferma cuando la visité

3. Marta estuvo pret enferma cuando la visité

4. Marta worked very hard when she was in France
## Language-specific Semantic-Morphology mappings

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Eng Morph</th>
<th>Spa Morph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective</td>
<td>Past</td>
<td>Preterit</td>
</tr>
<tr>
<td>Continuous</td>
<td>Past</td>
<td>Imperfect</td>
</tr>
<tr>
<td>Habitual</td>
<td>Periphrasis used to/would</td>
<td>Imper/Per. Soler+INF</td>
</tr>
<tr>
<td>Progressive</td>
<td>Periphrasis copula + V-ing</td>
<td>Imper/Per. copula + V-ndo</td>
</tr>
</tbody>
</table>
Contrasts between Eng/Spa are difficult to account by a single formal feature (Georgi & Pianesi’s 1997 [+perfective]) or a single parameter (Slabakova’s 2001 telicity parameter)

Semantic/Syntactic features are relevant but how they are assembled onto lexical items in each language is important too (Lardiere’s 2009 ‘Feature Assembly’ (FA))
What do L2 speakers need to do?

- English learners of Spanish need to establish the correct correspondences between the morphemes and their meanings (correct semantics-morphology mapping).
  
  1. They have to acquire the imperfect/perfect contrast
  2. They have to figure out how to discriminate the different meanings encoded in the imperfect form
  3. They need to learn that in continuous contexts imperfect morphology is possible in Spanish, i.e. remapping of an established syntax-morphology association (Dominguez et al. 2011; 2017)
What guides this process?

1. Universal cognitive principles (‘Aspect Hypothesis’)
   - No explanatory enough. No role of L1 influence or language-specific properties

2. Universal linguistic principles and corresponding parameters (Slabakova 2001; Slabakova & Montrul 2003)
   - Not explanatory enough; are English and Spanish associated with the same parameter?

3. Feature selection and re-assembly (Dominguez, Arche & Myles 2011; 2017)
   - Relevance of L1 influence and language-specific syntax-morphology mappings (feature re-assembly)
The ‘Lexical Aspect Hypothesis’ (LAH) (Anderson 1986; Anderson & Shirai 1994)

• Inherent aspectual (lexical) properties of verbs guide the acquisition of tense and aspect morphology

• Certain form-meaning associations (i.e. telic-preterit and atelic-imperfect) are prioritised

• Imperfect is acquired AFTER preterit

• Aspect morphology emerges in a sequence of stages (emergence and spread across lexical classes)
## Prototypical Associations

<table>
<thead>
<tr>
<th>Event type</th>
<th>Grammatical Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telic (accomp, achievmts)</td>
<td>Perfective (preterit)</td>
</tr>
<tr>
<td>Atelic (activities, states)</td>
<td>Imperfective (imperfect)</td>
</tr>
</tbody>
</table>
LAH predictions for L2 Spanish

1. Prototypical semantic-morphological pairings (i.e. perfective-telic and imperfective-atelic) are favoured at the beginning of the acquisition process

2. Preterit appears before imperfect

3. All three meanings associated with the imperfect (habitual, progressive and continuous) appear simultaneously
Existing evidence is inconclusive


SPLLOC contribution: combining corpus and experimental data to show that

• The predictions of the LAH are a by-product of frequency effects

• Problems with the imperfect affect the continuous meaning only and this is due to a semantics-syntax remapping issue
  
  – L1 English speakers do not reject the preterit
**SPLLOC 2 Oral Tasks**
(Dominguez, Tracy-Ventura, Arche, Myles and Mitchell, 2013)

<table>
<thead>
<tr>
<th>Task Type</th>
<th>Area investigated</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impersonal Narrative</td>
<td>Emergence and development of past tense forms in naturally occurring contexts</td>
<td>Cat Story: picture-based story retell</td>
</tr>
<tr>
<td>Impersonal Controlled Narrative</td>
<td>Emergence and development of past tense forms in <strong>exceptional</strong> contexts</td>
<td>Las Hermanas: picture-based story retell</td>
</tr>
<tr>
<td>Personal Narrative</td>
<td>Emergence and development of past tense forms in naturally occurring contexts</td>
<td>Semi-structured interview</td>
</tr>
</tbody>
</table>
Semi controlled Narrative: ‘The Cat Story’

Todas las mañanas eran iguales.

Natalia...
Controlled Narrative: ‘Las Hermanas’

Gwen de niña...cada fin de semana

(leer) un libro

(escribir) un cuento

(pintar) un cuadro
Exceptional contexts (e.g. states in one-time, telic contexts)

De repente en el tren…

(haber) un gran revuelo

(creer) que había un problema
Early sensitivity to the dynamic/non-dynamic distinction

Advanced speakers behave similar to native controls

**Advanced**

**Controls**
Comprehension Task

- Context-Sentence matching task
- 32 target sentences

<table>
<thead>
<tr>
<th>CONTEXT</th>
<th>TYPE OF PREDICATE</th>
<th>TARGET FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitual</td>
<td>Eventive</td>
<td>Imperfect</td>
</tr>
<tr>
<td></td>
<td>Stative</td>
<td>Imperfect</td>
</tr>
<tr>
<td>One-Off event</td>
<td>Eventive</td>
<td>Preterit</td>
</tr>
<tr>
<td></td>
<td>Stative</td>
<td>Preterit</td>
</tr>
<tr>
<td>Continuous</td>
<td>Stative</td>
<td>Imperfect</td>
</tr>
<tr>
<td>Progressive</td>
<td>Eventive (non-achievements)</td>
<td>Imperfect</td>
</tr>
</tbody>
</table>
When Ana was a child she had a very close friend, Amy, and she liked to spend a lot of time at her house after school.

Context

Ana estuvo mucho en casa de Amy al salir del colegio.
-2  -1  0  +1  +2

Ana estaba mucho en casa de Amy al salir del colegio.
-2  -1  0  +1  +2

2 Input Sentences

5 choices
Verb type does not affect intermediate and advanced learners’ responses; (p=0.58 for Imperfect sentences and p=0.59 for Preterit for advanced learners; p=0.69 for Imperfect sentences and p=0.49 for Preterit for Y13 learners).
Significant effect of verb type for the advanced learner’s judgements of Imperfect ($F(1, 38) = 9.5093, p=0.003$) and Preterit ($F(1,38)=10.792, p=0.002$), and for Imperfect ($F(1,34)=6.0255, p=0.03$) and Preterit ($F(1,34)=5.0660, p=0.01$) for the intermediate group.
The role of L1 influence (Dominguez, Arche & Myles 2011; 2017)

- We need to examine the three meanings separately.
- Problems in ‘continuous’ contexts as it is a meaning that requires re-assembly (i.e. reorganisation between the form and the meaning).
- ‘Continuous’ maps onto past morphology in English but onto imperfective in Spanish.
- Differences between production and comprehension data?
Meaning-Form mappings

- **Perfective**:
  \[
  \begin{align*}
  TT &= \text{overlap} \\
  QP &= |1|
  \end{align*}
  \]

- **Habitual**:
  \[
  \begin{align*}
  TT &= \text{within} \\
  QP &= >1
  \end{align*}
  \]

- **Continuous**:
  \[
  \begin{align*}
  TT &= \text{within} \\
  QP &= \exists
  \end{align*}
  \]

- **Progressive**:
  \[
  \begin{align*}
  TT &= \text{within} \\
  QP &= |1|
  \end{align*}
  \]

English \rightarrow \text{Past} \rightarrow \text{Preterit}

Spanish \rightarrow \text{Imperfect} \rightarrow \text{Coupla +V-ing}

**Same features and semantic interpretations; different meaning-form mappings**
Both context and proficiency have a significant effect on which form is used (p < 0.0001).
## Interview

<table>
<thead>
<tr>
<th>Group</th>
<th>Context</th>
<th>imperfect</th>
<th>preterit</th>
<th>imperfect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NS</strong></td>
<td>CONTINUOUS</td>
<td>100%(164/164)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>HABITUAL</td>
<td>100%(113/113)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PROGRESSIVE</td>
<td>100%(48/48)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Y10</strong></td>
<td>CONTINUOUS</td>
<td>18%(17/97)</td>
<td>13%(13/97)</td>
<td>69%(67/97)</td>
</tr>
<tr>
<td></td>
<td>HABITUAL</td>
<td>5%(2/44)</td>
<td>30%(13/44)</td>
<td>66%(29/44)</td>
</tr>
<tr>
<td></td>
<td>PROGRESSIVE</td>
<td>50%(2/4)</td>
<td>0</td>
<td>50%(2/4)</td>
</tr>
<tr>
<td><strong>Y13</strong></td>
<td>CONTINUOUS</td>
<td>49%(84/171)</td>
<td>23%(23/171)</td>
<td>27%(47/171)</td>
</tr>
<tr>
<td></td>
<td>HABITUAL</td>
<td>65%(32/49)</td>
<td>27%(13/49)</td>
<td>8%(4/49)</td>
</tr>
<tr>
<td></td>
<td>PROGRESSIVE</td>
<td>42%(8/19)</td>
<td>32%(6/19)</td>
<td>26%(5/19)</td>
</tr>
<tr>
<td><strong>UG</strong></td>
<td>CONTINUOUS</td>
<td>31%(19/62)</td>
<td>16%(10/62)</td>
<td>53%(33/62)</td>
</tr>
<tr>
<td></td>
<td>HABITUAL</td>
<td>63%(64/102)</td>
<td>25%(26/102)</td>
<td>12%(12/102)</td>
</tr>
<tr>
<td></td>
<td>PROGRESSIVE</td>
<td>96%(25/26)</td>
<td>4%(1/26)</td>
<td>0</td>
</tr>
</tbody>
</table>
Overall Results-Interpretation Task

- Correct acceptance of the imperfect and correct rejection of the preterit rates are significantly lower in continuous contexts for Y13 and UG.
- Y13 perform as low as Y10 in continuous contexts only.
- UG do not perform nativelike (p<0.01).

Mean Averages of Correct Responses (Acceptance of imperfect and Rejection of Preterit)

- Y10
- Y13
- UG
- NS

Habitual | Continuous | Progressive
---|---|---
Mean Averages: (0.20) 1.06 1.27 1.58
(0.03) 0.42 0.73 1.55
(0.16) 0.62 1.02 1.58
Correct Acceptance of Imperfect

Correct rejection of Preterit
Discussion

1. Results can be explained by the differences in the way L1 and L2 morphologically express each of the three aspectual meanings.

2. Not all aspects of the Spanish Imperfect are equally problematic.

3. The meaning which needs semantics-morphology remapping (i.e. Continuous) seems to be the most problematic meaning (no rejection of preterit) even at advanced stages.

4. L1 influence observed although not determined by feature selection alone, but by whether features are assembled into morphological configurations in a different way in each language.

5. Interpretation ≠ production
Where do we go from here?

1. Develop an approach which takes into account the conditions which determine the expression of aspect-related features in the L1 and the L2 (feature selection + assembly).

2. Careful selection of languages examined.

3. Need to examine both use and interpretation.

4. Provide a variety of contexts (prototypical and not prototypical).

5. Combine evidence elicited with a variety of methods.