Syntax, semantics and morphology in acquisition

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This session

- On how detailed syntactic, semantic and morphological analysis is crucial for
  - Gaining a finer-grained understanding of crosslinguistic variation and
  - Developing adequate predictions on (second) language acquisition learning tasks
Why L1/L2 differences matter

• Native language plays a role in the success of the SLA process
  ◦ Intuitional level – every lay person may have/agree with that idea; may have experienced it herself.
  ◦ Theoretical level: not an innocent idea. It entails a specific vision on what a language is and how the process of acquisition works.
    • How the initial state is defined. What defines it.
The plan

- Why do we say crosslinguistic differences matter?
- What exactly matters?
- How do we formalize what matters and how it affects the journey from one language to the other.
WHY & HOW

- Why exactly do the properties of languages matter?
- How are the properties of native and second language related? How can they affect each other?

The devil is in the details… in depends on Theory of acquisition
Theory of acquisition

- That is, how the acquisition process works.
- Understood as a *developmental* process with:
  - An initial state – point of departure
  - A “growing” phase
  - Final attainment
    - Debate: possible?
The SLA Initial State

- The LI


- Nothing: wild grammars
Full Transfer-Full Access
Schwartz & Sprouse 1996, 2000

- Full Transfer of L1: initial state of L2 is the L1.
- Full Access to UG: in subsequent states.

- Different L1 → different initial stages (e.g., contrast null subject languages)
- The properties of the interlanguage grammar is UG constrained.
- SLA process:
  - Access what L1 does not have (from scratch or not).
  - Sort of restructuring of what we have.
The **what we transfer & need to acquire**

- What is it that we can transfer or not?
- How crosslinguistic differences matter for SLA?
- How does the route look like exactly?
- What do we need to acquire?
- So, exactly, precisely, what is it that we transfer, carry with us, our previse point of departure and what is our point of arrival, our target?
WHAT

- What exactly matters?
- What properties?
  - Properties of the native language
  - Properties of the second language
- How are we going to define such properties?

The devil is in the details…
A theory of Language

What is a language? How can we define it? (e.g., Chomsky 1995, 2001)

- Set of ingredients – “features”
  - There is a general set of features
  - Individual languages make different selections from it.
    - Open debate: is there any feature every language must include?

- A recipe to operate with them; a way of operating.
  - Alike across languages
Language elements

- Different language units –for starters:
  - Vocabulary (lexical): nouns (*table*), verbs (*walk*), adjs (*pretty*)
  - **Functional items**: e.g., *-ed*.

- Language units: collections of
  - Phonetic information: how they sound.
  - Morpho-syntactic information: how they behave wrt word-formation= walked vs. *edwalk* or *ed* walk (but *will* walk); wrt word order “I will walk” vs “*walk I will”
  - **Meaning information**: what they refer to.
Language elements

- Pairs of form and meaning
- If different in L1 & L2 (the usual case), high(er) difficulty predicted.
An illustrative example

- Three aims:
  - Raise awareness of crosslinguistic variation
  - Raise awareness of how specific theoretical detail can be
  - Give an example on how these two respects are used in second language analysis and predictions.

- The acquisition of Grammatical Aspect: Arche 2014b; Domínguez, Arche & Myles 2017
Grammatical aspect

“Grammatical aspect”, “viewpoint aspect” (Smith 1991), or “outer aspect” (Verkuyl 1993).

• Gives us information about the unfolding of a situation in time.
  • Ongoing: He was cleaning the table.  
    IMPERFECTIVE
  • Finished: He cleaned the table.  
    PERFECTIVE
  • Not started yet: He was about to clean the table.  
    PROSPECTIVE
Crosslinguistic awareness

- The contrast imperfective/perfective is the most commonly marked in the languages of the world (Comrie 1976).
However!

- out of the 222 languages included in their crosslinguistic study, more than half of them (121) do not show any grammatical marking of the imperfective/perfective distinction.
Even more...

- Of the languages that mark such a distinction, not all of them:

  A) Use the same grammatical means, varying between inflection and analytical (periphrastic) forms.

  B) Even if they use the same grammatical means, not all of them have the same interpretations.
EXAMPLES OF CROSSLINGUISTIC VARIATION
Spanish

• Spanish has a dedicated inflectional paradigm that can express the readings of the imperfect (in parallel with additional periphrastic ways) in sharp opposition to the perfective.

IMPF -aba -ía

progressive

habitual

attitudinal

PFVE -é
Imperfective readings:

- Progressive: ongoing action
  
  (1) Juan comía carne cuando lo vi.
  
  ‘Juan was eating meat when I saw him’

- Habitual: repeated action that denotes a habit
  
  (2) Juan comía carne cuando era joven.
  
  ‘Juan used to eat meat when he was young’

- Attitudinal: attitude or ability
  
  (3) Juan comía carne cuando era joven.
  
  ‘Juan did not object to eating meat when he was young’

- Ongoing state
  
  (4) Juan estaba enfermo cuando lo visité.
  
  ‘Juan was ill when I visited him’
Hindi

- Hindi presents an inflectional imperfective/perfective dichotomy, but the Imperfect form cannot be interpreted as progressive.
English

- Habitual, attitudinal and ongoing states (imperfective) and perfective interpretations are represented by the same morpheme:

- John ate meat (when he was young).
- John ate meat (but now he is a vegetarian).
- John was ill when I visited him.
- John ate meat yesterday. (Perfective)
- John was ill the whole winter of 2001. (Perfective)
Russian

- Russian Imperfective is reported to be compatible with a culminated situation, typical of the perfective viewpoint (Altshuler 2014).

- K nam priezža-l otec, no vskore u-exa-l.
  To us arrive. IPF-PST father but in a rush PFV-go-PST
  ‘Father came to see us, but went away again soon’
  (example from Rassudova 1968).
Hindi, Lilooet Salish, Thai, and Karachai-Balkar

- The Perfective allows for reference to *incomplete* situations, which is expected from the Imperfect.

- **Hindi** (Arunachalam & Kothari 2010)
  
  maayaa-ne biskuT-ko *khaa-yaa*,
  Maya-ERG cookie-ACC eat-PFV
  par use puuraa nahiin khaa-yaa
  but it-ACC finish not eat-PFV

  ‘Maya ate the cookie, but did not finish it’
• **Lilooet Salish** *(St’át’imcets) (Bar-el et al 2005)*

(4) máys-en-lhkan ti q’láxan-a, t’u7 cw7ay t’u7 kw-s tsúkw-s-an
    fix-TR-1SG.SU DET fence-DET but NEG just DET-NOM finish-CAU-1SG.ERG
    ‘I fixed a fence, but I didn’t finish.’

• **Thai** *(Koening & Muansuwan 2001)*

(6) Surii tẹẹŋ  klən kʰurn tẹẹ jarj maj sed
    Surii compose  poem ascend but still not finish
    'Surii composed a/the poem, but has not finished it yet.'
Conclusions for SLA

The SLA process can be argued to involve:

◦ The acquisition of ingredients inexistent in the L1 of the learner.
  • Debate about whether there is a difference in the accessibility of the feature depending on whether it is interpretable (semantic) or not.
◦ The re-organization of the form-meaning correspondences if transfer (total or partial).

(Montrul & Slabakova 2003; Lardiere 2008; Arche 2014a; Domínguez, Arche & Myles 2017)
Need to acquire the category

- The case if there is no Aspect in L1 or its semantics is conveyed through different means. See related discussion about Tense:
Theoretical nuances & SLA
Illustrative Case

- Domínguez, Arche & Myles 2017
- L2 acquisition of Spanish by English natives

- English & Spanish:
  - Different?
  - How exactly?
    - Need to acquire imperfect?
    - Does English have any imperfective features?
  - The how determines the L2 learning task
## English vs Spanish differences

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Number occasions</th>
<th>Status</th>
<th>English form</th>
<th>Spanish form</th>
</tr>
</thead>
</table>
| Perfective   | 1                | Finished       | Past
Marta was ill last Sunday                       | Preterit
Marta estuvo enferma el domingo pasado          |
| Continuous   | ∃                | Unfinished     | Past
Marta was ill (when I visited her)               | Imperfect
Marta estaba enferma (cuando la visité)          |
| Habitual     | >1               | Each instance finished | Past/Other means (used to/would)
Marta used to sing in a choir                     | Imperfect/Periphrasis (soler +Inf)
Marta cantaba/solía cantar en un coro             |
| Progressive  | 1                | Unfinished     | Periphrases (copula + V-ing)
Marta was singing when we arrived.                | Imperfect/Periphrasis (copula + V-ndo)
Marta cantaba/estaba cantando cuando llegamos.    |

Table 1. Characteristics of Perfective and Imperfective in English and Spanish
Figure 1. Mapping of features of Aspect (Asp) and the quantifier <occasions> (Q) for the perfective and imperfective (habitual, continuous and progressive) onto corresponding forms in English and in Spanish.
Previous premises to settle re: acquisition

- The process of L2 acquisition.
  Transfer of features + Reassembly into new (functional) categories
  First Language Acquisition: feature selection from UG + assembly

\[ C_{HL} \]
1. \( F \rightarrow [F_{L1}] \)  2. \( [F_{L1}] \rightarrow \text{Lex}_{L1} = \{\text{LIs}\} \)
   Selection                        Assembly
Predictions for SLA

- Assuming Transfer of Semantics
- English speakers may accept the Imperfect in the appropriate contexts but they may not reject the use of the Preterit in ‘continuous’ and ‘habitual’ contexts --- reassembly of an existing feature onto a new form is required.
- Acute issues in differentiating imperfective vs perfective (states) – no ancillary periphrasis exits to aid associating right.
The study
Participants

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Age</th>
<th>Hours of Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 10</td>
<td>20</td>
<td>14-15</td>
<td>c200</td>
</tr>
<tr>
<td>Year 13</td>
<td>20</td>
<td>17-18</td>
<td>c500</td>
</tr>
<tr>
<td>Undergraduates</td>
<td>20</td>
<td>21-23</td>
<td>Post Year Abroad</td>
</tr>
<tr>
<td>Native Speakers</td>
<td>15</td>
<td>14-28</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Comprehension task

- Sentence-context matching task
- 32 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>Habitual</td>
<td>Stative</td>
<td>Imperfect</td>
</tr>
<tr>
<td>One-off event</td>
<td>Eventive</td>
<td>Preterit</td>
</tr>
<tr>
<td>One-off event</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>
<tr>
<td>Progressive</td>
<td>Eventive (achievements) coercion</td>
<td>Imperfect</td>
</tr>
</tbody>
</table>
Comprehension Task

Learners were given the prompt in English:

Me levanté muy tarde y perdí el autobús del colegio así que tuve que llamar a mi madre y pedirle que me llevara a clase.

Yo llegué tarde a las clases.
-2 -1 0 +1 +2

Yo llegaba tarde a las clases.
-2 -1 0 +1 +2

Test measures both acceptance of the correct form and rejection of the incorrect one.
Results

Correct acceptance

<table>
<thead>
<tr>
<th>Score</th>
<th>Y10</th>
<th>Y13</th>
<th>UG</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-off</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progressive</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
Results

![Graph showing correct rejection scores for different learner groups.](image)

- **Y10**
- **Y13**
- **UG**
- **NS**

**Score**
- Habitual
- One-off
- Continuous
- Progressive
The choices made by each participant were counted, and the mean scores of each chosen option in each experimental condition were calculated.

b. Results.

We present the mean percentages for acceptance/rejection of the correct and incorrect options in Figure 2. Note that the Imperfect is the correct form in all contexts except in ‘One-time event’ contexts where the Preterit is appropriate. It was possible for the participants to accept and/or reject both target sentences in this task. Each percentage shows the combined proportion of responses for 1, and 2 (accept), and for -1 and -2 (reject) in each of the six situations:

The native controls accepted and rejected the Imperfect and the Preterit in each context mostly as expected. In contrast, the beginner Y10 group show much more indeterminacy in their choices in all contexts. The acceptance rates for the appropriate form range from 46% in continuous contexts to 68% in eventive, one-off contexts. The Imperfect was only accepted at a rate of 48% in progressive contexts by this group. This result contrasts with the high rates of acceptance of the Imperfect by the other two learner groups. The highest acceptance rates are found in the one-off contexts where the Preterit is the correct option (68% with events). The rejection rates for the inappropriate

Figure 2. Mean acceptance and rejection scores for the two input sentences across contexts.

Notes. HAB-EVENT = habitual event; HAB-STA = habitual state; ONE-OFF EVEN = one-off event; ONE-OFF STA = one-off state; CONT-STA = continuous state; PROG-EVENT = progressive event; NS = native speaker; Y10 = year 10; Y13 = year 13; UG = undergraduate students.
Discussion

• Problems with the imperfective, not as a whole, but with certain interpretations.
• Problems with the habitual are not high in the comprehension data.
• Even at high levels of proficiency, persistent problems in rejecting the preterit in imperfective contexts with the continuous meaning.
• That is, the imperfective with STATES is not acquired at late stages.
• Although it is a form early produced with states
• Alternative explanation?
  ❖ Frequency in the input (Arche, Domínguez & Myles 2018)
Task tokens in native corpus (Davies 2002)
Conclusions

- SLA analysis has to take detailed crosslinguistic differences into account.
- SLA analysis has to be narrowed down to the fine detail.
THANK YOU
Selected references

• Altshuler, Daniel. 2014. A typology of partitive aspectual operators. *Natural Language & Linguistic Theory* 32, 3:


• Arche, Domínguez & Myles. 2018. The seeds of aspect. Paper given at the University Pompeu Fabra, 22 March.


