Grammatical & discourse constraints in post-childhood language acquisition

Cristóbal Lozano University of Essex, England
SLADG presentation, November 2001
clozan@essex.ac.uk http://privatewww.essex.ac.uk/~clozan

1 Basic tenets of Universal Grammar (UG)

- Grammars are mental representations in L1/L2 language acquisition (Chomsky, 1981, 1995):
  - Grammatical representations are constrained by:
    (i) Universal principles which hold cross-linguistically
    (ii) Language-specific parameters of variation between languages located in the lexicon
- Second Language Acquisition (SLA) investigates parametric (=typological) differences between L1 and L2

2 Emerging picture in 2nd lang. research (SLR)

- Recent outcomes in SLR
  - (1) NEAR NATIVE represent.
  - (2) NATIVE-LIKE represent.

(a) discourse constraints
e.g.: contrastive focus constraint
(b) grammatical constraints
e.g.: L1~L2 functional features

(a) UG principles constraints
e.g.: overt pronoun constraint
(b) grammatical constraints
e.g. L1=L2 functional features

3 Aims of current second language research

- Hawkins (2001a): generative approach to SLA needs to explain...
  (i) why knowledge is underdetermined by input (poverty of the stimulus)
  (ii) why some input is not properly represented (fossilisation)
  (iii) how does L1 influence L2?

4 Distribution of overt/ null pronouns

  [+pro-drop] languages:
  (1) a. Él/ella tiene poco dinero b. pro tiene poco dinero (Spa)
  (2) a. Aftos/afti ehei liga lefta b. pro ehei liga lefta (Greek)
  [-pro-drop] languages:
  (3) a. He/she has little money b. * pro has little money (Eng)

5 Overt Pronoun Constraint (OPC)

  (4) Context: El gobierno ha publicado un informe sobre la situación económica de los estudiantes. La conclusión del informe es que...
    (a) …cada estudiante, dice que \{*él \[pro\] i\} tiene poco dinero

SLA studies concerning (2a) and (2b):


- Distribution of overt/ null pronouns:
Grammatical & discourse constraints in post-childhood language acquisition

Facts:
- OPC applies cross-linguistically (even in typologically unrelated languages)\(^1\) and is claimed to be a universal invariant (Montalbetti, 1986).
  
  (i) Poverty of stimulus: ungrammatical OPC constructions not present in input (they cannot be said, Schwartz, 2000)
  
  
  (iii) OPC constructions are purely grammatical.

6 Contrastive Focus Constraint (CFC)

Pérez-Leroux & Glass (1997), focus constraints on pronouns:

(5) Context: El profesor López, y la profesora García, trabajan en la universidad y en una famosa editorial. No obstante…

(a) …cada estudiante, dice que \( \text{él, pro*} \) tiene poco dinero.

Facts:
- an overt pronoun, either él ‘he’ or ella ‘she’, is required to be contrastively focused for disambiguating purposes since:

(ii) the use of a null pronoun, pro, causes ambiguity as it can simultaneously refer to either Mr Lopez or Ms Garcia.

(iii) CFC constructions are discourse-constrained.

7 Previous SLA research on null pronouns


Identification (CFC contexts): learners may show representational deficits (Liceras & Díaz, 1999; Lozano, in press; Pérez-Leroux & Glass, 1999, Pérez-Leroux & al, 1999; Polio, 1995)

OPC contexts: learners are sensitive to it from earliest stages (Lozano, in press; Pérez-Leroux & Glass, 1997, 1999, Pérez-Leroux & al, 1999)

8 Our study: subjects

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Language configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>n=11</td>
<td>L1 Spanish</td>
</tr>
<tr>
<td>English</td>
<td>n=20</td>
<td>L1 English ( \rightarrow ) L2 Spanish</td>
</tr>
<tr>
<td>Greek</td>
<td>n=20</td>
<td>L1 Greek ( \rightarrow ) L2 English ( \rightarrow ) L3 Spanish</td>
</tr>
</tbody>
</table>

- Learners: advanced level; two placement tests: in Spanish (University of Wisconsin, 1998), in English (Allan, 1992; for the Greek natives).

- Proficiency level: <80% in Spanish (and also <80% in English for the Greek natives).

---

\(^1\) The OPC phenomenon is well attested not only in Spanish (e.g., Alonso-Ovalle & D’Introno (2000), Campos (1991), Fernández-Soriano (1993), Luján (1999), Montalbetti (1984, 1986), but also in typologically-related languages, such as Portuguese, Italian and Greek (Montalbetti, 1984), Catalan (Picallo, 1994; Rigau, 1988) and in typologically-unrelated languages like Chinese (Xu, 1986), Korean (Kanno, 1997), Arabic-Tarifit (Ouhalla, 1988).
9 Hypotheses

▶ Research question: advanced learners’ representation = native representation?
  ◀ H1: Principles of UG (located in the syntactic computational device): OPC: native-like representations
       Greek natives = Spanish natives
       English natives = Spanish natives
  ◀ H2: Discursive constraints derivable from the interfaces (located in the conceptual-intentional interface): CFC: likely near-native representations
       Greek natives = Spanish natives
       English natives ≈ Spanish natives

10 Method

▶ OPC:
  (6) El gobierno ha publicado un informe sobre la situación económica de los estudiantes. La conclusión del informe es que...
  (a) cada estudiante dice que él tiene poco dinero. -2 -1 0 +1 +2
  (b) cada estudiante dice que tiene poco dinero. -2 -1 0 +1 +2

▶ CFC:
  (7) El profesor López y la profesora García trabajan en la universidad y en una famosa editorial. No obstante...
  (a) cada estudiante dice que él tiene poco dinero. -2 -1 0 +1 +2
  (b) cada estudiante dice que tiene poco dinero. -2 -1 0 +1 +2

▶ Acceptability judgement test, 4 conditions:
  ▶ TARGET STIMULI:
    ▶ 6 OPC stimuli
    ▶ 6 CFC stimuli
  ▶ DISTRACTOR STIMULI:
    ▶ 12 other pronominal stimuli
  ▶ Sentences were randomised (following Cowart’s 1997 ‘blocking’ procedure).

▶ Vocabulary was controlled (vocabulary for beginners).
▶ Sentence length was controlled (8 words maximum).
▶ 2 different versions of the same test: version 1, version 2. Order of presentation of items varies in each version to avoid presentational effects.

11 Results

▶ Normal distribution: our samples are normally distributed (one-sample Kolmogorov Smirnov test, p≥0.05 for each group in each condition).
▶ SEE NEXT PAGE
Grammatical & discourse constraints in post-childhood language acquisition

Graph 1. OPC results: acceptance rates of overt/null pronouns

<table>
<thead>
<tr>
<th>Group</th>
<th>English</th>
<th>Greek</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.0</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>.5</td>
<td>0.0</td>
<td>-.5</td>
</tr>
<tr>
<td></td>
<td>-.5</td>
<td>-1.0</td>
<td>-1.5</td>
</tr>
<tr>
<td></td>
<td>-2.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* [QDPi...OVERTi]  
[QDPi...NULLi]

Inferential statistics: MANOVA (repeated measures & independent groups) with post-hoc LSD.

Within group: each pair (grammatical vs ungrammatical condition) is statistically significant for each group (p<0.05 for all comparisons).

Between groups:
- Grammatical [QDPi ... NULLi]  no difference between groups (p>0.05 for all comparisons)
- Ungrammatical *[QDPi ... OVERTi]  no difference between groups:
  - English = Spanish  (p=0.736)
  - Greek = Spanish  (p=0.847)

Results support previous research (Kanno, 1997, 1998; Marsden, 1998; Pérez-Leroux & Glass, 1997, 1999): L2 learners are sensitive to OPC whatever their L1.

Graph 2. CFC results: acceptance rates of overt/null pronouns

<table>
<thead>
<tr>
<th>Group</th>
<th>English</th>
<th>Greek</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.0</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>.5</td>
<td>0.0</td>
<td>-.5</td>
</tr>
<tr>
<td></td>
<td>-.5</td>
<td>-1.0</td>
<td>-1.5</td>
</tr>
<tr>
<td></td>
<td>-2.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* [QDPi...OVERTj]  
[QDPi...NULLj]

Inferential statistics: MANOVA (repeated measures & independent groups) with post-hoc LSD.

Within group: each pair (grammatical vs ungrammatical condition) is statistically significant for each group (p<0.05 for all comparisons).

Between groups:
- Grammatical [QDPi ... OVERTj]  no difference between groups (p>0.05 for all comparisons)
- Ungrammatical *[QDPi ... NULLj]  between groups:
  - English ≠ Spanish  (p=0.011)
  - Greek = Spanish  (p=0.844)

Results support previous research: Pérez-Leroux & Glass (1997, 1997).
Also, Liceras & Diaz (1999): identification amenable to repres. deficits.
12 Conclusion

- Original hypotheses confirmed?
  - **H1**: Principles of UG: OPC: native-like representations
    - Greek natives = Spanish natives CONFIRMED
    - English natives = Spanish natives CONFIRMED
  - **H2**: Discourse: CFC: likely near-native representations
    - Greek natives = Spanish natives CONFIRMED
    - English natives ≈ Spanish natives CONFIRMED

- **Conclusion**:
  1. Universal principles like OPC are obeyed by all learners, whatever their linguistic configuration.
  2. Discursive constraints like the CFC are likely to cause fossilisation or representational problems.

- Discoursive deficits vs. full grammatical representations: **L1 acquisition** (Thornton & Wexler, 1999)

- **Further research**: more SLA evidence on discursive deficits is needed.

- **Hawkins** (2001b):
  1. Poverty-of-the-stimulus phenomena alone do not yield a complete picture of SLA; we also need to research on:
  2. L1-L2 parametric differences.

- **Our approach**: a better insight into SLA can be gained by investigating constructions that show both poverty-of-the-stimulus phenomena and L1-L2 differences (e.g., null pronouns in this study and, possibly, word order with unaccusatives/unergatives).

- **SLR goal for the near future**:

  “[SLA] studies must account for the differences either in terms of changes in the way that UG interacts with other components of the mind or in terms of changes that occur in components of UG.” (Hawkins 2001b:364)
Grammatical & discourse constraints in post-childhood language acquisition

13 References


Doc: Granada November 2001 page 6