Pronominal deficits at the syntax-discourse interface:
A developmental study of Greek learners of non-native Spanish

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The phenomenon

- **Observation**:
  - Syntactic properties ➔ early acquired, native-like knowledge
  - Interface properties (syntax-discourse) ➔ residual deficits
- Context: 2 properties of pro-drop parameter.
  - Sorace 2004, White 2009 for overviews

- **Pronominals**:
  - L1 Spa – L2 Greek: Lozano 2003, Margaza & Bel 2006
  - L1 Eng – L2 Ital: Sorace & Filiaci 2006
  - L1 Croat – L2 Ital: Kras 2006
  - L1 Ital – L2 Spa: Bini 1993
  - L1 Jap – L2 Eng: Polio 1995

- **SV inversion**:
  - L1 Spa – L2 English: Lozano 2006a, Hertel 2003
  - L1 Spa – L2 Greek: Lozano 2006b
  - L1 several – L2 Italian: Belletti & Leonardi 2004
  - L1 Quechua – L2 Spa: Camacho 1999

- **Unidirectionality** is the norm: overuse of overt in **Topic contexts**:
  - Antonio gana mucho dinero, por eso él compró un coche nuevo.
  - Also overuse of full NP (Lozano 2009)
  - Penelope limpia todo el sangre. Penelope tiene las llaves.

- **Contrastive contexts**: overuse of null ➔ ambiguity

Penelope Antonio Lucas ... pro

So, in this study, both contexts are explored:
  - Topic contexts (null pronoun required)
  - Contrastive Focus contexts (overt pronoun required)

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**Previous studies:**

- **L1 Eng – L2 Spa**:
  - **Formal properties licensing null pronouns** are in place from earlier stages.
  - **Discursive properties** are late-acquired or deficit.

- **Unidirectionality** is the norm: overuse of overt in **Topic contexts**:
  - Antonio gana mucho dinero, por eso él compró un coche nuevo.

- Also overuse of full NP (Lozano 2009)
  - Penelope limpia todo el sangre. Penelope tiene las llaves.

- Same findings in attrition L2 Eng ➔ L1 Spa (Satterfield 2003)

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**But bidirectionality** also attested: overuse of overt AND overuse of null

**Contrastive contexts**: overuse of null ➔ ambiguity

Pedro Antonio Lucas ... pro
Previous L2 studies: Pronominal paradigm

- Assumption in previous studies: deficits affect whole phi-feature set.
  - Deficits ONLY with 3rd person animate (masc/fem).
  - Rest of paradigm (1st, 2nd, 3rd neutral) ok.

Previous studies: L2 Italian

  - Native-like behaviour with null when expressing topic, BUT some redundant use of overt.
  - Causes: processing deficits.

  - Near-natives = natives
  - Causes: cross-ling influence (Croat = Ital)

Previous L2 Spa studies: Language pairings

<table>
<thead>
<tr>
<th>STUDY</th>
<th>PAIRINGS</th>
<th>LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liceras 1989</td>
<td>L1 Eng/Fr – L2 Spa</td>
<td>Beg, Int, Adv</td>
</tr>
<tr>
<td>Liceras &amp; Díaz 1999</td>
<td>L1 Eng/Fr/Ger/Chi/Jap – L2 Spa</td>
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<tr>
<td>P. Leroux &amp; al 1999</td>
<td>L1 Eng – L2 Spa</td>
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<tr>
<td>P. Leroux &amp; Glass 1997</td>
<td>L1 Eng – L2 Spa</td>
<td>Very adv, near nat</td>
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Different approaches to the same fact

Vulnerability at syntax-discourse interface...

- (i) cross-linguistic influence (Serratrice et al 2004, Kras 2008)
- (ii) discursive interpretable features like [topic] and [focus] (Sorace 2004 and others)
- (iii) processing factors (Sorace & Filiaci 2006)
- (iv) external vs. internal interfaces (Sorace & Serratrice 2009)
Anaphora resolution

- **Italian**: Carminati 2002, 2005
- **Spanish**: Alonso-Ovalle et al 2002
- Also operational in other pro-drop languages like **Croatian** (Kras 2008), **Romanian** (Geber 2006).

**Position of Antecedent Strategy (PAS)**
- **NULL**: strong bias towards antecedent in SpecIP (subject position, topic).
- **OVERT** biases towards antecedent in lower position (object position).
- PAS → structural configuration guides language processor in choosing relevant antecedent.

Forward anaphora in L2

- Some earlier L2 studies: overt/null alternation with anaphora resolution (Sorace & Filiaci 2006, Kras 2008)
  - Overt ↔ antecedent Object position.
  - Null ↔ antecedent in Subject position

Problems with forward anaphora for L2 studies

- Not clear-cut results in **native Spa**
  - (Alonso-Ovalle et al. 2002)
- El portero saluda al cartero mientras \( \text{él} \) abre la puerta
- 50%

- No clear-cut results in **native Ital** either
  - (Sorace & Filiaci 2006)
- *Il portiere saluta il postino* mientras \( \text{lu} \) apre la porta
- 51%

Which contexts then?

- Overt/null alternation can be observed in other contexts where we can control for:
  - 1 Position of antecedent is kept constant.
    - Matrix clause, subject position (SpecIP)
  - 2 Position of anaphor is kept constant.
    - Embedded clause, subject position.
Spanish and Greek

**Topic condition:**

Aunque el profesor Antonio parece pobre, los estudiantes dicen que él tiene mucho dinero. Oí olíolítes leneolíti #affos, #pro, ehi pola xrimata.

Although professor Antonio appears to be poor, his students say that he has a lot of money.

**Contrast. Focus condition:**

Aunque el profesor Antonio y la profesora María parecen pobres, los estudiantes dicen que ella tiene mucho dinero. Oí olíolítes leneolíti #affos, #affalí, ehi pola xrimata.

Although professor Antonio and professor Maria appear to be poor, his students say that she has a lot of money.


INTERMEDIATE SUMMARY

- Unambiguous.
- Avoid Pronoun Principle
- Ambiguous.

**Research questions**

- Cross-ling influence?
- Interpretable features?
- Processing deficits?
- External vs. internal interfaces?
Subjects
- Spanish natives, n=12
- Learners: L1 Greek - L2 Spa

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Proficiency range</th>
<th>Proficiency mean</th>
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<tbody>
<tr>
<td>Interm</td>
<td>22</td>
<td>60-85%</td>
<td>77%</td>
</tr>
<tr>
<td>Low adv</td>
<td>32</td>
<td>96-91%</td>
<td>89%</td>
</tr>
<tr>
<td>Upper adv</td>
<td>31</td>
<td>93-100%</td>
<td>95%</td>
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- University of Wisconsin Placement Test

Stimuli
- Similar to previous examples: 2 conditions
  - Contrastive focus (overt required)
  - Topic (null required)

- Paired acceptability judgement, e.g.:
  - Mi compañera María siempre saca buenas notas en los exámenes, por lo que...
    - (a) los profesores dicen que estudia mucho. -2 -1 0 +1 +2
    - (b) los profesores dicen que ella estudia mucho. -2 -1 0 +1 +2

- Design:
  - 6 topic, 6 focus, 12 distractors
  - Two versions of test, randomised.
  - Overt pronoun in sentence (a) 50% of the time (the same for null).
  - Vocabulary: taken from beginners’ textbook.

Result 1: Contrastive Focus condition

CONCLUSION:
- All learners overt >/=null
- Between group differences (lower levels) unexpected, since Grk=Spa
- Upp-adv group shows native-like behaviour.
- SO: native-like knowledge of overt/null distribution in discourse not fine-tuned until very advanced levels despite L1=L2.

- WITHIN-GROUP ANALYSIS:
  - ALL learners discriminate as natives do, preferring acceptable OVERT to unacceptable NULL.
  - Discrimination intensity increases with proficiency towards the native norm.

- BETWEEN-GROUP ANALYSIS:
  - OVERT: interm=natives low-adv=natives upper-adv=natives
  - NULL: interm=natives low-adv#natives upper-adv=natives

Result 2: Topic condition

CONCLUSION
- Learners: redundantly accept overt in topic contexts unexpected, since Grk=Spa
- Intermediates: optionally accept both overt and null.
- Null pronouns (topic): native-like behaviour, except for intermediates.
- Deficits with Avoid Pronoun Principle: learners’ ILG are uneconomical, as they redundantly use overt to mark topic continuity.

- WITHIN-GROUP ANALYSIS:
  - Except intermediates, all groups prefer null to overt, similarly to natives. BUT...

- BETWEEN-GROUP ANALYSIS:
  - OVERT: interm=natives low-adv=natives upper-adv=natives
  - NULL: interm=natives low-adv=natives upper-adv=natives
Cross-ling influence?

When L1=L2, we should not expect any deficits.

Kras (2008): anaphora resolution
- L1 Croat – L2 Ital, near-natives
- In all contexts, learners behave like Italian natives.
- So, overuse of overt pronouns in topic contexts found in previous studies where L1≠L2, must be result of cross-ling influence.

BUT if the cross-ling hypothesis is correct, then...

How to account for the unexpected non-native behaviour of our Greek learners of Spa?

Why asymmetry of behaviour?
- Topic contexts more problematic than Contrastive Focus contexts.

Interpretable features?

Our results in line with previous findings where L1=L2:

Margaza & Bel (2006)
- L1 Greek – L2 Spanish, interm and adv
- Overuse of overt pronouns in topic contexts, particularly intermediate learners (matrix>subord)

Bini (1993)
- L1 Ital – L2 Spa
- Overuse of overt pronouns in topic contexts.

WHILE FINDINGS ARE OK, PROBLEMS WITH THESE STUDIES
- Methodologically weak: prof level?, imprecise instrument, etc.

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WHILE FINDINGS ARE OK, PROBLEMS WITH THESE STUDIES
- Methodologically weak: prof level?, imprecise instrument, etc.
BUT…while likely explanation, this initial proposal cannot account for the observed asymmetry:

- Why [Topic] feature is more problematic than [Contrastive Focus]?

BUT… unexpected, since L1 Greek = L2 Spa:

- [Contrastive Focus] and [Topic] encoded similarly in both langs via overt / null, so native-like behaviour expected from early stages

Question:

- Is [Topic] more vulnerable than [Contrastive Focus]?
- Are all disc features equally vulnerable, or some more than others?

Processing deficits?


- **Near natives L1 Eng – L2 Ital** (Sorace & Filiaci 2006):
  - Native-like behaviour with null when expressing topic, BUT overuse of overt.
  - Idea: when integrating syn-disc knowledge, processor is less efficient, so overt pronouns could be used as the default option.

Internal vs external interfaces?

- Sorace & Serratrice (2009)

- External interfaces (syn-disc) more vulnerable than internal interfaces (syn-sem).

- But... Why asymmetry in Topic vs. Contrastive Focus condition? (both are external interfaces)
The model

- López (2009:23)

\[ \Sigma_{[\pm a] [\pm c]} = \text{the info structure of } \Sigma \]

López (2009)
- \[ \Sigma_{[\pm \text{anaphor}] [\pm \text{contrast}] \] (discourse)anaphor and contrast, giving rise to the binary features \[ [\pm a(\text{anaphor})] \] and \[ [\pm c(\text{contrast})] \] (p. 2)

- Traditional notions like “Topic and Focus are seen as descriptive terms for particular bundles of features, not theoretical primitives.” (p. 2)

Bundles of features

López (2009)
- CLLD \([+a] [+c]\)
  - A: What did John do with the T-shirt yesterday?
  - B: La camiseta, la compró ayer.
- CLRD \([+a] [-c]\)
  - A: What did John do with the T-shirt yesterday?
  - B: La camiseta compró ayer, la camiseta.
- Focus Fronting \([-a] [+c]\)
  - A: John bought the T-shirt yesterday.
  - B: LA CAMISA compró, no la camiseta.
- Info focus/Rheme \([-a] [-c]\)
  - B: Juan compró una camiseta.

Matrix based on López (2009)

<table>
<thead>
<tr>
<th></th>
<th>+C</th>
<th>−C</th>
</tr>
</thead>
<tbody>
<tr>
<td>+a</td>
<td>CLLD</td>
<td>CLRD</td>
</tr>
<tr>
<td>−a</td>
<td>FF</td>
<td>Rheme</td>
</tr>
</tbody>
</table>

Topic contexts: \[ \text{Pedro} \ldots \text{pro} \]
- \[ +a \] [+c]
- \[ −c \]

Contrastive contexts: \[ \text{Pedro} \ldots \text{María} \]
- \[ +a \] [+c]
- \[ −a \] [+c]
Conclusions (1)

- **Basic idea:** Not all feature bundles of $\Sigma[\pm a][\pm c]$ are equally vulnerable.

- Presence/absence of [c] feature can lead to communicative breakdown, i.e., ambiguity.
  - If discourse requires [+c] (contrastive focus), L2ers are sensitive to ambiguity, hence pragmatically adequate use of overt to avoid AMBIGUITY (comm. breakdown is avoided)
  - But if discourse requires [–c] (topic condition), L2ers may overuse overt pronouns $\Rightarrow$ REDUNDANCY, no comm. breakdown

Conclusions (2)

- **Ambiguity** is a key factor
  - $\Rightarrow$ truly discursive/communicative factor, not syntactic factor.
  - Ambiguity is avoided by L2ers more than Redundancy.

- **Avoid Pronoun Principle**
  - “Avoid a full pronoun up to identification” (e.g., Picallo 1994)
  - Follows from Economy Principle as it legislates against redundancy.
  - Also follows from a conversational principle (Grice’s “Don’t say more than is required”).

- So, learners are more sensitive to absence of [c] in contexts requiring it than to the presence of [c] in contexts not requiring it.
  - Better to be redundant than not informative in SLA (??).

THANK YOU!