Preliminaries

**Shift of emphasis in linguistic theory:**
How syntactic knowledge interacts with other types of knowledge [Chomsky’s 1995 Minimalist Program]

- Much research in recent years, within what is generally known as ‘biolinguistics’, focuses on the properties which (external) interface conditions impose on the design of the language faculty [Chomsky 2005]

  [i.e. conditions imposed by the fact that the output of the computational system has to be interpreted by other cognitive systems: sensory-motor systems and conceptual-intentional systems.]

Preliminaries

**Shift of emphasis in L2 acquisition:**
L2 research has moved on:
- *from* questions related with parameter resetting and accessibility of UG.
- *to* how syntactic knowledge interacts with other components of grammars and cognitive (sub)systems in the non-native grammars of L2 learners.

  [White 2009]

- A number of studies have shown that linguistic phenomena at the interfaces are specially vulnerable in both L1 and L2 acquisition. [work by Sorace and colleagues].

Aim of the presentation

- To discuss current hypotheses in the L2 literature according to which:

  Failure to acquire a fully native-like L2 grammar can be attributed to difficulties experienced by L2 learners at integrating material at the interfaces.

  - Cross-linguistic influence (transfer) as a possible source of those difficulties:
    - Syntactic (structural) features are unproblematic
    - Syntax-discourse interface features are problematic: they present residual optionality in L2 and show permeability to cross-linguistic influence, which persists into near-native levels of proficiency

The study of word order in non-native grammars lends itself to this type of approach: interaction of syntactic and pragmatic factors (as well as processing factors)
1. Introduction

1.1. The design of the Language Faculty

1.2. VS Order in English and Romance

2. VS in SLA

2.1. VS at the lexicon-syntax interface

2.2. VS at the syntax-discourse interface

3. VS in corpus studies

3.1. Lozano & Mendikoetxea (2008)

3.2. Lozano & Mendikoetxea (2009, in preparation)

4. A look at processing and crosslinguistic influence

5. Concluding remarks

The language faculty

- Chomsky (1995)

ENGLISH and SPANISH/ITALIAN differ in devices employed for constituent ordering:

- English ‘fixed’ order is determined by lexico-syntactic properties
- Spanish/Italian ‘free’ order is determined by information structure: syntax-discourse properties (topic-focus)

An in-depth investigation into word order in the interlanguage of Spanish learners of L2 English will shed new light on issues which are very much at the centre of debate in interface studies in SLA, e.g.,

- The relative difficulty of acquiring lexicon-syntax and syntax-discourse interface properties
- Issues to do with crosslinguistic influence
- The role of input
- Processing limitations.
**VS in L1 English (1)**

Fixed SV(O) order - Restricted use of postverbal subjects:

(a) **XP V S (Inversion structures with an opening adverbial)**

1. a. [On one long wall] hung a row of Van Goghs. [FICT]
2. b. [Then] came the turning point of the match. [NEWS]
3. c. [Within the general waste type shown in these figures] exists a wide variation. [ACAD]  

[Biber et al. 1999: 912-3]

(b) **There-constructions**

1. a. Somewhere deep inside [there] arose a desperate hope that he would embrace her [FICT]
2. b. In all such relations [there] exists a set of mutual obligations in the instrumental and economic fields [ACAD]
3. c. [There] came a roar of pure delight as .... [FICT]  

[Biber et al. 1999: 945]

**VS in L1 English (2)**

- **Lexicon-syntax interface** (Levin & Rappaport-Hovav, etc):
  - Unaccusative Hypothesis (Burzio 1986, etc) [existence and appearance]
    1. "There sang four girls at the opera. [unergative verb]
    2. "There arrived four girls at the station. [unaccusative verb]

- **Syntax-discourse interface** (Biber et al, Birner 1994, etc):
  - Postverbal material tends to be focus/relatively unfamiliar information, while preverbal material links S to previous discourse.
  1. We have complimentary soft drinks and coffee. Also complimentary is red and white wine.

- **Syntax-Phonological Form (PF) interface** (Arnold et al 2000, etc)
  - Heavy material is sentence-final (Principle of End-Weight, Quirk et al. 1972) – general processing mechanism (reducing processing burden)
  1. One Sunday morning the warm sun came up and - pop!- out of the egg came a tiny and very hungry caterpillar. [Eric Carle, The very hungry caterpillar, London: Penguin]

Subjects which are focus, long and complex tend to occur postverbally in those structures which allow them (unaccusative Vs).

**VS in L1 Spanish/Italian (1)**

Lexicon-syntax: Unaccusative Hypothesis

Unaccusative Hypothesis (syntax)

Unergatives: SV Unaccusatives: VS

Neutral (non-focus) contexts: Discourse-initial

1. a. María gritó (unerg)  
2. b. María llegó (unacc)

‘María shouted’ ‘María arrived.’

**VS in L1 Spanish/Italian (2)**

- Postverbal subjects are produced freely with all verb classes in languages like Spanish and Italian:

1. a. Ha telefoneado María al presidente. (transitive). Spanish Has phoned Mary the president
2. b. Ha hablado Juan. (unergative)  
3. c. Ha llegado Juan (unacc) has spoken Juan has arrived Juan

‘Free’ inversion: is among the cluster of properties that distinguish languages that are positively marked for the Pro-drop Parameter (e.g. Spanish/Italian) and languages that are negatively marked for the Pro-drop Parameter (e.g. English/French)

VS in L1 Spanish/Italian (3): Narrow focus

Presentational focus (syntax-discourse interface)

Unergatives: VS
Unaccusatives: VS

VS in L1 Spanish/Italian (4)

- **Lexicon-syntax interface**
  No restrictions: postverbal subjects occur with all verb classes

- **Syntax-discourse interface**
  Postverbal subjects in Spanish and Italian are focus

- **Syntax-Phonological Form (PF) interface**
  Heavy subjects show a tendency to be postposed – a universal language processing mechanism; placing complex elements at the end of a sentence reduces the processing burden (J. Hawkins 1994).

Subjects which are focus, long and complex tend to occur postverbally, with no restrictions at the lexicon-syntax interface.

2. **VS in SLA**

2.1. VS at the lexicon-syntax interface

2.2. VS at the syntax-discourse interface

Previous studies are mostly experimental (often based on grammaticality judgements) [except for Oshita 2004] and focus on the status of V in VS structures

A number of studies have found that L2 learners are aware of the argument structure distinction between unaccusative and unergative Vs and that they use this as a guiding principle to construct L2 mental grammars.

However, learners have difficulty in determining the range of appropriate syntactic realizations of the distinction, and this can persist into near-native levels of proficiency (see R. Hawkins 2001: 5.4).

Two production studies, Zobl (1989) and Rutherford (1989) support the hypothesis that L2 learners of English from pro-drop languages produce VS structures with unaccusative Vs only:

(1) Sometimes *comes* a good regular wave.
   (L1 Japanese; source: Zobl 1989: 204)

(2) On this particular place called G… *happened* a story which now appears on all Mexican history books…
   (L1 Spanish; source: Rutherford 1989: 178-179)

(3) The bride was very attractive, on her face *appeared* those two red cheeks…
   (L1 Arabic; source: Rutherford 1989: 178-179)

Explanation of why VS order is found with unaccusatives:

- For Zobl (1989), it is developmental; it precedes a stage when learners are able to determine the canonical alignment between semantic roles and syntactic structure: the subject surfaces in its D-Structure position.
- For Rutherford (1989), VS production is the result of transfer (but no explanation is offered as to why (XP)VS order in the learners’ grammar is restricted to a definable class of lexical verbs: unaccusatives of existence and appearance)

Problems:
- Their conclusions are based on a relatively small number of learners and a very small number of VS instances;
- Not enough information is provided about learners’, sample size, proficiency and so on.

OBJECTIVE: To investigate the psychological reality of null expletives (ØVS)

DATA: Longman Learners’ Corpus (version 1.1)
- 941 token sentences (concordances) on 10 common unaccusative Vs
- 640 token sentences with 10 common unergative Vs from L2 English compositions written by speakers of Italian, Spanish, Japanese and Korean.

Results:

(1) a. …it will *happen* something exciting… (L1 Spanish)
   b. …because in our century have *appeared* the car and the plane… (L1 Spanish)
   [Oshita 2004: 119-120]

PROBLEM: His conclusions, like those of the studies mentioned above, are based on a relatively small number of tokens for each L1 and he doesn’t examine the whole range of VS structures in learner languages.

Recent research on the acquisition of VS in L2 Italian/ Spanish by speakers of L1 English shows points consistently towards problems in the integration of syntactic and discourse properties

(e.g. Belletti & Leonini 2004, Hertel 2003, Lozano 2006, Belletti et al. 2007) [see White, forthcoming]

- L2 learners fail to produce VS in focused contexts or accept VS/SV in equal proportion (optionality)

“In other words, while appropriate L2 syntax is acquired, ‘external’ constraints on the syntax are acquired late (or not at all)” [White, forthcoming]

= ‘syntax before discourse’ hypothesis
### VS in SLA: syntax-discourse (2)

**Groups**
- Spanish native controls, n=14
- L1 Greek L2 Spa, n=18
- L1 English L2 Spa, n=17

**Proficiency**
- Mean = 92% (range 80% - 100%)
- Mean = 90% (range 80% - 100%)

**Advanced proficiency** (Univ Wisconsin College Placement Test)

- **Instrument:**
  - Contextualised acceptability judgement test (Hertel, 2000)

Tú estás en una fiesta con tu amiga Laura. Laura sale de la habitación y en ese momento llega la policía porque hay mucho ruido en la fiesta. Cuando Laura vuelve, te pregunta: ‘¿Quién llegó?’ Tú contestas:

(a) La policía llegó.   – 2   – 1   0   +1   +2
(b) Llegó la policía.   – 2   – 1   0   +1   +2

**Translation**
You are at a party with your friend Laura. Laura leaves the room and at that moment the police arrive because the party is too noisy. When Laura comes back, she asks you: ‘Who arrived?’ You answer:

(a) The police arrived. –2 –1 0 +1 +2
(b) Arrived the police. –2 –1 0 +1 +2

### VS in SLA: syntax-discourse (3)

#### Results: neutral contexts

- **Unergatives (SV)**
  - **Unaccusatives (VS)**

#### Convergence with natives (native-like knowledge)

### VS in SLA: syntax-discourse (4)

#### Results: focused contexts

- **¿Quién gritó / llegó? “Who shouted / arrived?”**

#### Divergence with natives (subtype: optionality)

### VS in SLA: syntax before discourse?

- **Lozano (2006a, 2006b):**
  - There is no reasons to think that learners are not sensitive to the topic/focus distinction, as it is present in L1 (in fact, it is universal: Vallduví 1993, 1995, Vallduví & Engdahl 1996).
  - Learners are sensitive to discourse status but are unable to encode it syntactically with the pragmatically most adequate word order ➔ syntactic deficit

- **In line with findings by Domínguez and Arche (2008):**
  - Availability of optional forms can be accounted for by a purely syntactic deficit, probably due to apparently ambiguous input occurs
3. VS in corpus studies

3.1. Lozano & Mendikoetxea (2008)

3.2. Lozano & Mendikoetxea (2009, in preparation)

VS in corpus studies: L & M (2008) (1)

- **Learner corpus**: L1 Spa – L2 Eng; L1 Ital – L2 Eng
  - ICLÉ (Granger et al. 2002)

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Number of essays</th>
<th>Number of words</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICLÉ Spanish</td>
<td>251</td>
<td>200,376</td>
</tr>
<tr>
<td>ICLÉ Italian</td>
<td>392</td>
<td>277,088</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>643</strong></td>
<td><strong>427,461</strong></td>
</tr>
</tbody>
</table>

- **WordSmith v. 4.0** (Scott 2004)

<table>
<thead>
<tr>
<th>Subcorpus</th>
<th>V type</th>
<th># usable concordances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>Unergative</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>Unaccusative</td>
<td>640</td>
</tr>
<tr>
<td>Italian</td>
<td>Unergative</td>
<td>143</td>
</tr>
<tr>
<td></td>
<td>Unaccusative</td>
<td>374</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1510</strong></td>
</tr>
</tbody>
</table>

appears, appears, appearing, appeared, appear, apear, apears, apearing, apeared, apear,d.

VS in corpus studies: L & M (2009, in preparation) (L & M)

- What are the conditions governing the production of VS structures in L2 English by L1 Spanish and L1 Italian learners? (L & M, 2008)

- Do learners of English (L1 Spanish) produce inverted subjects (VS) under the same conditions as English natives do, regardless of problems to do with syntactic encoding (grammaticality)? (L & M, 2009, in preparation)

A proper analysis of VS structures must take into account not only the properties of V but also the properties of the postverbal S.

**Hypotheses:**

- **H1 [LEXICON]:** Lexicon-syntax interface:
  - Postverbal subjects with unaccusatives (never with unergatives)

- **H2 [WEIGHT]:** Syntax-PF interface:
  - Postverbal subjects: heavy (but preverbal light)

- **H3 [FOCUS]:** Syntax-Discourse interface:
  - Postverbal subjects: focus (but preverbal topic)

**METHOD (1)**

- Based on Levin (1993) and Levin & Rappaport-Hovav (1995):
  - Unergatives: cough, cry, shout, speak, walk, dance...
  - Unaccusatives: exist, live, appear, emerge, happen, arrive...

<table>
<thead>
<tr>
<th>UNACCUSATIVES</th>
<th>SEMANTIC CLASS</th>
<th>VERB</th>
<th>SEMANTIC SUBCLASS</th>
<th>VERB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXISTENCE</strong></td>
<td>.exist</td>
<td></td>
<td>emission</td>
<td></td>
</tr>
<tr>
<td>flow</td>
<td></td>
<td></td>
<td>light emission</td>
<td>burn</td>
</tr>
<tr>
<td>grow</td>
<td></td>
<td></td>
<td></td>
<td>name</td>
</tr>
<tr>
<td>hide</td>
<td></td>
<td></td>
<td></td>
<td>flash</td>
</tr>
<tr>
<td>live</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>remain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>settle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spread</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>survive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPEARANCE</strong></td>
<td>appear</td>
<td></td>
<td>emission</td>
<td></td>
</tr>
<tr>
<td>arise</td>
<td></td>
<td></td>
<td>sound emission</td>
<td></td>
</tr>
<tr>
<td>awake</td>
<td></td>
<td></td>
<td></td>
<td>bang</td>
</tr>
<tr>
<td>begin</td>
<td></td>
<td></td>
<td></td>
<td>beat</td>
</tr>
<tr>
<td>break</td>
<td></td>
<td></td>
<td></td>
<td>boom</td>
</tr>
<tr>
<td>develop</td>
<td></td>
<td></td>
<td></td>
<td>clash</td>
</tr>
<tr>
<td>emerge</td>
<td></td>
<td></td>
<td></td>
<td>crack</td>
</tr>
<tr>
<td>flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>follow</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>happen</td>
<td></td>
<td></td>
<td></td>
<td>crash</td>
</tr>
<tr>
<td>occur</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rise</td>
<td></td>
<td></td>
<td></td>
<td>cry</td>
</tr>
<tr>
<td><strong>DISAPPEARANCE</strong></td>
<td>die</td>
<td></td>
<td>emission</td>
<td></td>
</tr>
<tr>
<td>disappear</td>
<td></td>
<td></td>
<td>smell emission</td>
<td>small</td>
</tr>
<tr>
<td><strong>INHERENTLY</strong></td>
<td>come</td>
<td></td>
<td>emission</td>
<td></td>
</tr>
<tr>
<td><strong>DIRECTED MOTION</strong></td>
<td>drop</td>
<td></td>
<td>substance emission</td>
<td></td>
</tr>
<tr>
<td>enter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BREATHE VERBS</td>
<td>breathe</td>
<td></td>
<td>emission</td>
<td></td>
</tr>
<tr>
<td>cough</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>snot</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WordSmith v. 4.0 (Scott 2004)

<table>
<thead>
<tr>
<th>Subcorpus</th>
<th>V type</th>
<th># usable concordances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>Unergative</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>Unaccusative</td>
<td>640</td>
</tr>
<tr>
<td>Italian</td>
<td>Unergative</td>
<td>143</td>
</tr>
<tr>
<td></td>
<td>Unaccusative</td>
<td>374</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1510</strong></td>
</tr>
</tbody>
</table>
VS in corpus studies: L & M (2008) (2) H1

H2 results: syntax-phonology

Examples H2: syntax-phonology

SV: typically LIGHT

(23)a. …but they may appear everywhere.
    b. …since the day eventually came…
    c. …these people should exist…

VS: typically HEAVY

(24) a. Against this society drama emerged an opposition headed by Oscar Wilde and Bernard Shaw.
    b. …exists yet in Spain a group of people who are supposed to be professional soldiers.
    c. It is almost disappearing the use of writing nice letters to friends.

H3: syntax-discourse
Examples H3: syntax-discourse

**VS:** FOCUS

(25) a. ...there also exists a wide variety of optional channels which have to be paid.
   b. So arisen the Saint Inquisition.
   c. In 1880 it begun the experiments whose result was the appearance of the television some years later.

**SV:** typically TOPIC

(26) a. I use the Internet ... I find windows ... if they press on any of these windows ... these windows cannot appear because a child could enter easily...
   b. ... the world of drugs: mafias ... problems with mafias finished ... dangerous people making money ... no reason why these people should exist.

Results: (un)grammaticality

**GRAMM.**
- Locative inversion:
  (16) In the main plot appear the main characters: Volpone and Mosca.
- There-insertion:
  (17) There exist positive means of earning money.
- AdvP-insertion:
  (19) ... and here emerges the problem.

**UNGRAM.**
- * It-insertion:
  (20) "...It still live some farmers who have field and farmhouses.
- * Ø-insertion:
  (21) "...because exist the science technology and the industrialisation.
- * XP-insertion:
  (22) "In 1760 occurs the restoration of Charles II in England.

![Graph showing Spanish and Italian percentages]


- **Copora:**
  - L1 Spa – L2 Eng (2 corpora: ICLE + WrICLE)
  - Eng natives (LOCNESS: Louvain Corpus of Native English Essays)

<table>
<thead>
<tr>
<th>Table 1: Corpora details</th>
<th>Learner corpora</th>
<th>Native corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words</td>
<td>ICLE-Spanish</td>
<td>200,376</td>
</tr>
<tr>
<td></td>
<td>WrICLE</td>
<td>63,836</td>
</tr>
<tr>
<td></td>
<td>LOCNESS USarg</td>
<td>149,574</td>
</tr>
<tr>
<td></td>
<td>LOCNESS USmixed</td>
<td>18,826</td>
</tr>
<tr>
<td></td>
<td>LOCNESS Alevels</td>
<td>60,209</td>
</tr>
<tr>
<td></td>
<td>LOCNESS BRsur</td>
<td>39,506</td>
</tr>
<tr>
<td>Total no. of words</td>
<td>264,212</td>
<td>288,177</td>
</tr>
</tbody>
</table>

- **Query software:** WordSmith v. 4.0 (Scott 2004)

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Verb type</th>
<th>Usable concordances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner</td>
<td>Unerg</td>
<td>181</td>
</tr>
<tr>
<td></td>
<td>Unac</td>
<td>820</td>
</tr>
<tr>
<td>Native</td>
<td>Unerg</td>
<td>185</td>
</tr>
<tr>
<td></td>
<td>Unac</td>
<td>714</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1905</td>
</tr>
</tbody>
</table>
**H1: Lexicon-syntax: L & M (2009)**

![Graph showing frequency of production (in %)]

**Table 1: Frequency of postverbal subjects produced**

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Verb type</th>
<th>Postverbal subjects</th>
<th>Usable concordances</th>
<th>% frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner</td>
<td>Unerg</td>
<td>0</td>
<td>181</td>
<td>0%</td>
</tr>
<tr>
<td>Native</td>
<td>Unerg</td>
<td>58</td>
<td>820</td>
<td>7.1%</td>
</tr>
<tr>
<td>Learner</td>
<td>Unac</td>
<td>0</td>
<td>185</td>
<td>0%</td>
</tr>
<tr>
<td>Native</td>
<td>Unac</td>
<td>16</td>
<td>719</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

**Examples H2: syntax-phonology**

**SV: typically LIGHT** *(Pronoun, D + N)*

Learners: ...but they may appear everywhere. ...since the day eventually came...

Natives: These debates began over two decades ago. ...a great controversy exists over the topic.

**VS: typically HEAVY** *(postmodification)*

Learners: Against this society drama emerged an opposition headed by Oscar Wilde and Bernard Shaw. ...exists yet in Spain a group of people who are supposed to be professional soldiers.

Natives: Thus began the area of quantum mechanics. Thus began the campaign to educate the public on how one contracts aids.

**H2 results: syntax-phonology**

![Box plot showing frequency of production (in %)]

**H3: syntax-discourse**

![Graph showing frequency of production (in %)]

**Table: Corpus Weight SV order VS order**

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Weight</th>
<th>SV order</th>
<th>VS order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner</td>
<td>Light</td>
<td>65/96 (67.7%)</td>
<td>11/58 (19.0%)</td>
</tr>
<tr>
<td>Native</td>
<td>Light</td>
<td>62/91 (68.1%)</td>
<td>3/16 (18.8%)</td>
</tr>
<tr>
<td>Learner</td>
<td>Heavy</td>
<td>31/96 (32.3%)</td>
<td>47/58 (81.0%)</td>
</tr>
<tr>
<td>Native</td>
<td>Heavy</td>
<td>29/91 (31.9%)</td>
<td>13/16 (81.3%)</td>
</tr>
</tbody>
</table>
Examples H3: syntax-discourse

**VS:** FOCUS
Learners: …there also exists a wide variety of optional channels which have to be paid.
Natives: With this theory also came the area of quantum mechanics.

**SV:** typically TOPIC
Learners: I use the Internet … I find windows … if they press on any of these windows … these windows cannot appear because a child could enter easily…
Natives: However, Hugo is not prepared … Louis took such exception to Hugo … Hugo came from a bourgeoisie family.

Conclusion of corpus studies (2)

- These results confirm that Spanish & Italian L2 learners of English produce postverbal subjects under exactly the same 3 interface conditions as in L1 English (unaccusativity being a necessary but not a sufficient condition).
  - **Unaccusativity Hypothesis:** postverbal subjects appear with unaccs.
  - **End-weight principle:** postverbal subjects tend to be long and complex.
  - **End-focus principle:** postverbal subjects tend to be focus.

- So, learners do not show a pragmatic deficit at the syntax-discourse interface.

- Learners show rather a persistent problems in the syntactic encoding of the construction
  - High production of ungrammatical examples (it-insertion, Ø-insertion, wrong XP).
  - Spanish learners overuse the construction and show a lexical bias for the V exist.

Example
- “… it will not exist a machine or something able to imitate the human imagination.”

4. A look at processing and crosslinguistic influence

<table>
<thead>
<tr>
<th>Group</th>
<th>VS Spanish ICLE</th>
<th>VS Italian ICLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production rate (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>35%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Discourse before syntax?
VS structure types (2): L1 Spanish-L2 English vs. L1 English (L & M 2009, in preparation)

VS structure types (3): L1 French-L2 English

VS structure types (4): SV-VS: L2 English (different L1)-L1 English

VS structure types (5): all
VS structure types (6): some observations

- Learners of L2 Eng overuse VS (especially Spanish L1 learners) and show persistent difficulties in the syntactic encoding of the construction, even at high levels of proficiency.
  - L1 Spanish and Italian learners produce mostly ungrammatical structures.
  - L1 French learners of L2 English (non pro-drop) show residual problems in that at high levels of proficiency, they still produce some ungrammatical structures.

- The most common ungrammatical structure for all learners is *It VS.* Of all VS:
  - L1 Italian: 27%
  - L1 French: 9.1%
  - L1 Spanish (L & M, 2008): 38%
  - L1 Spanish (L & M, 2009): 41.4%

- This is followed by ØVS, which is produced by Spanish and Italian groups of learners:
  - L1 Italian: 7%
  - L1 Spanish (L & M, 2008): 10%
  - L1 Spanish (L & M, 2009): 8.6%

- Among the grammatical structures:
  - L1 French learners overuse there-insertion with unaccusative Vs, BUT this construction is underused by Spanish and Italian learners (who use it-insertion instead).

- Now, let’s turn to preliminary analysis of the pre-verbal element in unac VS, as it will tell us something about input, processing and x-ling influence.

- WARNING: while overall VS rates are large and stable, specific constructions to be analysed are low frequency (we’re conducting experimental work on this).

ØVS structures in L2 English: a preliminary analysis (1)

- Production of ØVS structures is often attributed to crosslinguistic influence (transfer)- Spanish & Italian equivalent constructions contain a null expletive.

- There is evidence that for L1 speakers of pro-drop languages null expletives are harder to expunge from their L2 English that are null referential pronouns.
  - Learners of L1 pro-drop languages omit expletives in contexts where they should be produced (e.g. in winter, snows a lot in Canada). L1 Spanish, White (1986).
  - Non-use of overt expletives persists longer than non-use of overt referential pronouns (Phinney 1997; Tsimpli & Roussou, 1991).

- That is: at advanced levels, we expect learners to produce sentences like (1) (VS with a null expletive), but not sentences like (2), with a missing subject, a null referential pronoun, equivalent to ‘yo’ (l).

<table>
<thead>
<tr>
<th>L1 Spanish</th>
<th>L2 English</th>
</tr>
</thead>
<tbody>
<tr>
<td>proexpl existen problemas</td>
<td>exist problems</td>
</tr>
<tr>
<td>pro llegué ayer</td>
<td>X arrived yesterday</td>
</tr>
<tr>
<td>pro-1pl arrived-pl yesterday</td>
<td></td>
</tr>
</tbody>
</table>

It VS structures in L2 English: a preliminary analysis (2)

- There is evidence that L1 Spanish learners also omit expletive *it* in contexts where it is required e.g. in subject position after extraposition (examples from Spa ICLE corpus by Hannay & Martínez Caro 2008: 241):
  - Finally must be added that in our days it is necessary for a country to be provided with a good army. [ICLE-SP-UCM-0013.4]
  - Talking about the rehabilitation is important to consider two points. The first one is… [ICLE-SP-UCM-0018.4]

- All this can be explained by the ‘transfer’ account, as well as the fact that L1 French learners do not produce ØVS structures.

- BUT: Why are VS structures restricted to unaccusatives since in languages like Italian and Spanish we can find VS with all verbs classes?
  - Why are our learners’ postverbal subject rates relatively low (7.1%)? (they mainly produced grammatical SV (92.9%).)
  - Experimental work shows that Spanish natives significantly (and drastically) prefer VS to SV with unaccusatives, yet SV to VS with unergatives (Hertel 2003, Lozano 2003, 2006a).

- Hence, if L1 transfer was the only reason for the occurrence of VS structures, we would expect our learners to show higher VS rates.


- (1) Mrs Ramsay is dead yet it remains something like a glow [ICLE fruc1046]
- (2) … and there remains a great deal more to say on the subject [ICLE fruc1022]
- (3) … it is not taken into account the significance of the subjective elements that the victim gives to what he no longer owns. [ICLE-SPUCM-0027.3]
- (4) … in my opinion it is very logic the idea of having voluntary soldiers in the army [ICLE-SPUCM-0043]

- These constructions are again explained in terms of transfer:
  - The Spanish learners seem to transfer the postverbal subject of the Spanish construction incorrectly, and once they have done so, they apply the rule of obligatory subject in English by filling in the preverbal slot with dummy *it* as in extrapositions.
    (Hannay & M. Caró, 2008: 241).
- BUT: while transfer can explain VS, it cannot explain why we have expletive “it” nor why it-V-S is more frequent than Ø-V-S.
There VS structures in L2 English: a preliminary analysis (1)

- *There-constructions* (as in *There remain several problems*) are rarely used by L2 learners of pro-drop languages. [Oshita (2004) also notices this fact for Korean and Japanese speakers of L2 English].

- Input could be affecting these results.
  - The low frequency of these structures in native English (see Biber et al. 1999) could be affecting their low use in learner English.

  - **BUT** Existential *there-constructions* are introduced at an early stage in the learning process (Palacios-Martínez and Martínez-Insúa 2006), so they must be high frequency structures in the input learner receive
    - An overview of textbooks for the teaching of English in Spain reveals that these constructions are introduced usually in the first 10 units.
    - They are learned as *formulaic* or prefabricated chunks with the V *be*. Thus, *there* may not be used as an independent expletive until learners reach a very advanced level (Oshita 2004: fn 2).

- Input is a tricky factor, as its role is not fully understood yet in SLA.

There VS structures in L2 English: a preliminary analysis (2)

- Palacios-Martínez and Martínez Insúa (2006) found similar (but contradictory) facts:
  - *There-constructions* in general are more frequent in the written English of Spanish speakers than in native English.
  - *Be* is the most common V in there-constructions in both NNS and NS.
  - Natives have in their personal repertoire a wider range of presentational Vs:
    - Spanish ICLE: *exist*; Italian ICLE: *exist, remain*; French ICLE: *exist, follow, go, remain*
    - Natives (LOCNESS, LSWE, BNC subcorpus): *exist, remain, cease, need, appear, follow, develop*

  - If this was true, the absence of there-constructions in learner language could be seen simply as a lexical problem: **BUT**
    - All Vs in native there-constructions are found in the learner corpora we have studied (except *cease* and *need*, which weren’t part of our target verbs)
    - Learners use these Vs for presentational purposes, though they use them in deviant *It V S* or *0 VS* constructions.

So the problem is not a lexical one, nor a discursive one (as learners are aware of the communicative function of There-V-S, but rather a syntactic one, that is, a problem with encoding discourse information syntactically—processing?

VS in L2 English: a look at processing (1)

- Structures requiring the integration of syntactic knowledge and knowledge from other domains require more processing resources than structures requiring only syntactic knowledge.
- Learners may be less efficient at integrating multiple types of information in on-line comprehension and production of structures at the syntax-discourse interface.
  - [See Sorace & Serratrice, to appear and references cited therein]

    Though the precise nature of processing limitations is not well understood yet, it could well be that they may be responsible for at least some of the difficulties attested at the interfaces.

    - They could in principle explain why our L1 Spanish and L1 Italian learners produce mostly ungrammatical VS structures,
      **But NOT:**
        - Why the structure is overused.
        - Why L1 French learners do not encounter the same difficulties

VS in L2 English: a look at processing (2)

- In L & M (2008, 2009) we show that VS structures are overwhelmingly used with *‘heavy’ or complex subjects* both in native and non-native language and as such, they follow the *end-weight principle*.

- End-weight serves a processing function:
  - from the listener’s perspective—putting long and complex elements towards the end of the clause facilitates parsing, as it reduces the processing burden and, thus, eases comprehension (cf. among others Hawkins 1994)—or
  - from the speaker’s perspective—weight effects exist mostly to facilitate planning and production (Wasow 1997, 2002: ch 2: § 5).

- End-weight is a universal phenomenon (see Hawkins 1994 and Frazier, 2004) – the linguistic manifestation of extralinguistic principles which interact in language design (such as principles of data analysis that might be used in language acquisition and principles of structural architecture for computational efficiency, Chomsky 2005).
VS in L2 English: a look at processing (3)

- Overproduction of VS structures may be a result of processing limitations in L2 learners: VS structures maybe regarded as the default unmarked form for presentational purposes.
  - This is also supported by the fact that the end-weight principle and the end-focus principle reinforce each other.

So, overproduction of VS may be due to fact that “Natural language syntax must be such that it can be easily acquired by children, rapidly parsed by listeners, and efficiently employed by speakers to express their thoughts.” [Wasow 2002: 57].

- Learners experience processing difficulties and choose the option which is easier to process.
  - More advanced learners, however, experience fewer difficulties and are thus able to encode syntactic information more efficiently (L1 French?).
  - But there may be another explanation → processing and x-ling influence.

Processing and cross-linguistic influence (1)

- There is evidence for bilinguals that complete de-activation of one of the two languages when hearing/speaking the other is rarely possible:
  - The two languages of a bilingual speaker are always simultaneously active and in competition with one another (Dijkstra and van Heuven 2002; Green 1998).

  - However, their relative activation levels and strength of competing structures will vary greatly according to the task, proficiency in each language, and frequency of use, among others.

- The assumption is that competition from L1 is a factor which influences processing difficulties.

Processing and cross-linguistic influence (2)

- The fact that L1 Spanish learner overuse VS structures is explained in terms of the routine processing of these structures in Spanish in contexts where the postverbal subject is focus and/or heavy.
  - The accessibility of these structure makes it a stronger candidate in the competition with the English SV structure.

- Lack of competition from French explains why L1 French learners do not experience similar same processing difficulties: the do not overproduce VS and use grammatical structures.

- While ‘ungrammatical’ ØVS seems to be, partially, the result of transfer. It VS clearly shows the competition between the Spanish form (VS) and the English form, which requires an overt expletive in subject position, leading to increased processing difficulties.

Concluding remarks

- Romance learners of L2 English produce VS structures under the right discourse conditions but show persistent problems in the syntactic encoding of the construction.

- While our results support the hypothesis that the acquisition of (external) interface properties is problematic:
  - There is no evidence in our results for the syntax-before-discourse hypothesis.

  - Our results could instead be interpreted according to the discourse-before-syntax hypothesis:
    - Residual problems in the acquisition of English as non null subject language (ØVS in L1 Spanish/Italian).
    - It VS shows acquisition of syntax (either before or at the same time as discourse) by our learners, but may be an indication of processing difficulties in the integration of syntactic and discursive information, due to cross-linguistic influence.
Thank you!!!

- **SOME REFERENCES CITED (1)**

- **REFERENCES (2)**

- **Corpora used in the study**
  - **ICLE: International Corpus of Learner English**
  - **LOCNESS: Louvain Corpus of native English Essays, UCL/CECL, Louvain-la-Neuve**
  - **WRICLE: Written Corpus of Learner English; Universidad Autónoma de Madrid (Rollinson, O’Donnell, Mendikoetxea, in progress)**
  - [http://www.uam.es/woslac/wricle](http://www.uam.es/woslac/wricle)
VS and the Pro-drop parameter (3)

Referential pro vs. expletive pro:

In VS structures, pro-drop languages have a ‘null’ expletive element in the preverbal subject position.

(4) a. \text{proexpl} \ arrivaron \text{tre niñas}  
pro \text{arrived-3pl three girls}

Non-pro-drop languages, on the other hand, have ‘overt’ expletives in VS structures (highly restricted environments).

(5) a. \text{There} \text{arrived three girls} \quad b. \quad \text{Il est arrivé trois filles}

Both English and French allow VS in restricted environments despite being non pro-drop.