This talk

• About the factors that rule the acquisition of Spanish copular verbs by native speakers of English.

• There has been a great deal of discussion and we are going to argue it is driven by syntactic and semantic factors of subtle nature.
The Issue: 1 copula in English; 2 in Spanish

<table>
<thead>
<tr>
<th>English</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>be</td>
<td>ser</td>
</tr>
<tr>
<td></td>
<td>estar</td>
</tr>
</tbody>
</table>

Spanish Copular alternation

<table>
<thead>
<tr>
<th>Noun Phrases</th>
<th>Locative Prepositional Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Martín es/está estudiante. Martin is SER/ESTAR student. ‘Martín is a student.’</td>
<td>(2) Martín *es/está en Mallorca. Martin is SER/ESTAR in Mallorca. ‘Martín is in Mallorca.’</td>
</tr>
</tbody>
</table>
Spanish Copular alternation with APs

(Luján, 1981; Fernández Leborans, 1999; a.o.)

<table>
<thead>
<tr>
<th>Only-ser adjectives</th>
<th>Only-estar adjectives</th>
<th>Dual adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) María es/está famosa. María isSER/ESTAR famous. ‘María is famous.’</td>
<td>(4) María es/está contenta. María isSER/ESTAR happy. ‘María is happy.’</td>
<td>(5) Pedro es nervioso. Pedro isSER nervous. ‘Pedro is nervous.’</td>
</tr>
<tr>
<td>(6) Pedro está nervioso. Pedro isESTAR nervous. ‘Pedro is nervous.’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Task for the English L2 learner of Spanish

• To learn the distribution of the two copular verbs

That is,

• To identify and acquire the factors that rule the distribution
Differing properties of Spanish copulas

Syntactic properties

Ser is simpler than estar.


Luján 1981
Fernández Leborans (1999)
Gallego and Uriagereka (2009 & 2016)
Arche (2012)
Arche, Fábregas and Marin (2017)

Discursive properties

Ser and estar are both discourse dependent; against Maienborn (2005)

Individual property contexts

Circumstantial property contexts

Hypotheses and predictions (Vázquez-López, 2016)

“Syntactic Complexity Hypothesis”

- The simpler the easier, the earlier
- Ser will be acquired well and earlier.
- L2ers will exhibit difficulties and delays with estar.

Interface Hypothesis
(Sorace, 1993; Sorace, 2003; Sorace and Serratrice, 2009; Sorace, 2011; a.o.)
If discourse dependent, more complicated

PREDICTED PATHWAY OF ACQUISITION

<table>
<thead>
<tr>
<th>Only-ser adjectives</th>
<th>Dual adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ser + only-ser adjectives</td>
<td>Ser + dual adjectives in individual property contexts</td>
</tr>
<tr>
<td>Ser + dual adjectives in individual property contexts</td>
<td>Estar + only-estar adjectives</td>
</tr>
<tr>
<td>Estar + only-estar adjectives</td>
<td>Estar + dual adjectives in circumstantial contexts</td>
</tr>
</tbody>
</table>

PREDICTED PATHWAY OF ACQUISITION

<table>
<thead>
<tr>
<th>Only-estar adjectives</th>
<th>Dual adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ser + only-estar adjectives</td>
<td>Ser + dual adjectives in property contexts</td>
</tr>
<tr>
<td>Ser + dual adjectives in property contexts</td>
<td>Estar + dual adjectives in circumstantial contexts</td>
</tr>
</tbody>
</table>
Experimental study

1) Cross-sectional study
   - 71 English-speaking undergraduates
   - 25 Peninsular Spanish monolinguals

2) 4 focused elicitation tasks (144 tokens):
   - 2 oral production tasks (48)
   - 2 written comprehension tasks (96)


<table>
<thead>
<tr>
<th>ONE COPULAR COMBINATION</th>
<th>DUAL COPULAR COMBINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 only-ser adjectives</td>
<td>6 only-estar adjectives</td>
</tr>
<tr>
<td>famoso 'famous'</td>
<td>contento 'happy'</td>
</tr>
<tr>
<td>viejo 'old'</td>
<td>amable 'kind'</td>
</tr>
<tr>
<td>nervioso 'nervous'</td>
<td></td>
</tr>
</tbody>
</table>

Classification of dual adjectives

Labels of self/dependent based on Arche 2012-need estar to be independent/refer to a circumstance

Dual self-standing stage adjectives
(7) **Nervioso**, Pedro derramó el café. **Nervous**, Pedro spilt the coffee.

Dual dependent-stage adjectives of physical description
(9) *Viejo*, Pedro se jubilará. **Old**, Pedro will retire.

(10) *Amable*, Pedro me abrió la puerta. **Kind**, Pedro opened the door for me.

Dual dependent-stage adjectives of disposition
(11) *Pedro llegó a la oficina nerviosa*. Pedro arrived at the office **nervous**.

(11) *Pedro llegó a la oficina viejo*. Pedro arrived at the office **old**.

(11) *Pedro llegó a la oficina amable*. Pedro arrived at the office **kind**.
### Oral production task with only-`ser` adjectives and only-`estar` adjectives

<table>
<thead>
<tr>
<th>(1) ¿Por qué reconoce la gente a Miguel por la calle?</th>
<th>(2) ¿Por qué no se cambia de trabajo Fernando?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why do people recognise Miguel on the street?</td>
<td>Why doesn’t Fernando change jobs?</td>
</tr>
</tbody>
</table>
| **famoso**  
  ‘famous’ | **contento**  
  ‘happy’ |

Porque Miguel es famoso.  
Because Miguel is `SER` famous.

Porque Fernando está contento.  
Because Fernando is `ESTAR` happy.

---

### Oral production task with dual adjectives

#### Individual property - context

(1) Alejandro’s grandfather has appeared in the local newspaper because he has just celebrated his 100th birthday. His family takes pride in the fact that he still has a very sharp mind.

¿Qué viejo ‘old’ , tu abuelo!

¡Qué viejo ‘old’ , tu abuelo!

What does Alejandro’s friend say about his grandfather?

Dice que su abuelo es viejo.  
She says that his grandfather is `SER` old.

#### Circumstance - context

(2) Arturo bumps into Pedro, an old university classmate. Although the last time they met was 4 years ago, Arturo is surprised by Pedro’s physical deterioration.

Later Arturo says:  

Veo a Pedro muy viejo.  
‘old’

What does Arturo say about Pedro?

Dice que Pedro está viejo.  
He says that Arturo is `ESTAR` old.
## Written comprehension with dual adjectives

### Individual property context

1. All his students love Carlos because he treats them with respect and because he thinks of their needs.

### Circumstance – context

2. The security guard where Luis works answers rudely if you ask him something. He has a difficult character but since he was told that if he carried on this way, he would be dismissed, he seems like another person.

<table>
<thead>
<tr>
<th></th>
<th>VERY BAD</th>
<th>BAD</th>
<th>NEUTRAL</th>
<th>GOOD</th>
<th>VERY GOOD</th>
</tr>
</thead>
</table>
| 1. Carlos es amable.  
kind’ | -2 | -1 | 0 | +1 | +2 |
| 2. Carlos está amable.  
kind’ | -2 | -1 | 0 | +1 | +2 |

<table>
<thead>
<tr>
<th></th>
<th>VERY BAD</th>
<th>BAD</th>
<th>NEUTRAL</th>
<th>GOOD</th>
<th>VERY GOOD</th>
</tr>
</thead>
</table>
| 1. Diego es amable.  
kind’ | -2 | -1 | 0 | +1 | +2 |
| 2. Diego está amable.  
kind’ | -2 | -1 | 0 | +1 | +2 |

## Written comprehension task with only- *ser* adjectives and only- *estar* adjectives

<table>
<thead>
<tr>
<th></th>
<th>VERY BAD</th>
<th>BAD</th>
<th>NEUTRAL</th>
<th>GOOD</th>
<th>VERY GOOD</th>
</tr>
</thead>
</table>
| 1. Laura es famosa.  
famous | -2 | -1 | 0 | +1 | +2 |
| 2. David está famoso.  
famous | -2 | -1 | 0 | +1 | +2 |

<table>
<thead>
<tr>
<th></th>
<th>VERY BAD</th>
<th>BAD</th>
<th>NEUTRAL</th>
<th>GOOD</th>
<th>VERY GOOD</th>
</tr>
</thead>
</table>
| 3. Martín está contento.  
happy | -2 | -1 | 0 | +1 | +2 |
happy | -2 | -1 | 0 | +1 | +2 |
## Results

### Written production results – Advanced level

<table>
<thead>
<tr>
<th></th>
<th>Acceptance of <em>ser</em></th>
<th>Rejection of <em>ser</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Only-<em>ser</em> adjectives (e.g. <em>famoso</em> ‘famous’)</td>
<td>3% 94%</td>
<td>57% 12% 8% 10% 14%</td>
</tr>
<tr>
<td>Dual dependent-stage of physical appearance (e.g. <em>viejo</em> ‘old’)</td>
<td>3% 5% 90%</td>
<td>64% 10% 7% 6% 13%</td>
</tr>
<tr>
<td>Dual dependent-stage of disposition (e.g. <em>amable</em> ‘kind’)</td>
<td>1% 97%</td>
<td>74% 10% 5% 6% 4%</td>
</tr>
<tr>
<td>Dual self-standing stage (e.g. <em>nervioso</em> ‘nervous’)</td>
<td>2% 97%</td>
<td>65% 17% 11% 6% 1%</td>
</tr>
</tbody>
</table>
Written production results – Advanced level

<table>
<thead>
<tr>
<th>SL (only-estar) adjectives (e.g. contento ‘happy’)</th>
<th>Dual dependent-stage of physical appearance (e.g. viejo ‘old’)</th>
<th>Dual dependent-stage of disposition (e.g. amable ‘kind’)</th>
<th>Dual self-standing stage (e.g. nervioso ‘nervous’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>10%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>98%</td>
<td>76%</td>
<td>85%</td>
<td>95%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Only-ser adjectives (e.g. famoso ‘famous’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72%</td>
</tr>
<tr>
<td>17%</td>
</tr>
<tr>
<td>4%</td>
</tr>
</tbody>
</table>

This prediction is not borne out.

- Advanced learners were as skilful as natives with the most complex copula (i.e. estar) in combination with only-estar adjectives (e.g. contento ‘happy’) and were capable of rejecting ungrammatical combinations with only-ser adjectives (e.g. famoso ‘famous’).
Some conclusions

1) The syntactic properties of *ser* are not fully acquired.

Learners are reluctant to reject *ser* in ungrammatical (i.e. only-*estar*) adjectives such as *contento* ‘happy’) as well as in infelicitous combinations with dual dependent-stage adjectives of physical appearance (e.g. *viejo* ‘old’).
Some conclusions (cont.)

2) The syntactic and semantic properties of the adjectives themselves need to be taken into account.

Learners were more proficient with *estar*, particularly with those adjectives that behave as a stage in a larger array of syntactic constructions such as absolute constructions (12)-(13) and predicative complements of the subject (14)-(15).

<table>
<thead>
<tr>
<th>Only-estar adjectives</th>
<th>Dual self-standing stage adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>(12) <em>Solo</em>, Pedro pierde el tiempo.</td>
<td></td>
</tr>
<tr>
<td>‘(Being) alone, Pedro wastes his time.’</td>
<td>(13) <em>Nervioso</em>, Pedro derramó el café.</td>
</tr>
<tr>
<td>(Being) <em>nervous</em>, Pedro spilt the coffee.</td>
<td></td>
</tr>
<tr>
<td>(14) <em>Pedro llegó a la oficina solo.</em></td>
<td></td>
</tr>
<tr>
<td>‘Pedro arrived at the office alone.’</td>
<td>(15) <em>Pedro llegó a la oficina nervioso.</em></td>
</tr>
<tr>
<td>Pedro arrived at the office <em>nervous.</em></td>
<td></td>
</tr>
</tbody>
</table>

Further discussion

- The syntax of the copulas may not be the decisive force of acquisition, but syntax does not have to be ruled out.

- Focus on the contrast of dual cases: true minimal pairs
Minimal pairs -- dual adjectives; behavioral

(16) a. Pedro es nervioso.
   Pedro beSER-PRESENT-3SG nervous
   ‘Pedro is nervous (type of person)’

b. Pedro está nervioso
   Pedro beESTAR-PRESENT-3SG nervous
   ‘Pedro is nervous (today).’

(17) a. Pedro es viejo.
   Pedro beSER-PRESENT-3SG old
   ‘Pedro is old’

b. Pedro está viejo
   Pedro beESTAR-PRESENT-3SG old
   ‘Pedro looks old.’

(18) a. Pedro es amable.
   Pedro beSER-PRESENT-3SG kind
   ‘Pedro is kind (type of person)’

b. Pedro está amable
   Pedro beESTAR-PRESENT-3SG kind
   ‘Pedro is being kind (today).’

Mixed patterning

Table I: Ser
Behavioral adjectives pattern with dual more estar-only like adjectives
Oral production results

**ser**

<table>
<thead>
<tr>
<th>Level</th>
<th>Only-ser adj.</th>
<th>Dual-dependent stage adj. of physical appearance</th>
<th>Dual-dependent stage adj. of disposition</th>
<th>Dual-self-standing adj. of appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beg. A1-A2</td>
<td>98%</td>
<td>74%</td>
<td>47%</td>
<td>96%</td>
</tr>
<tr>
<td>Intermediate Bl.-Bl.</td>
<td>88%</td>
<td>73%</td>
<td>50%</td>
<td>88%</td>
</tr>
<tr>
<td>Advanced Bl. C1</td>
<td>82%</td>
<td>65%</td>
<td>46%</td>
<td>86%</td>
</tr>
</tbody>
</table>

**estar**

<table>
<thead>
<tr>
<th>Level</th>
<th>Only-estar adj.</th>
<th>Dual-dependent stage adj. of disposition</th>
<th>Dual-self-standing adj. of appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beg. A1-A2</td>
<td>96%</td>
<td>64%</td>
<td>41%</td>
</tr>
<tr>
<td>Intermediate Bl.-Bl.</td>
<td>86%</td>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td>Advanced Bl. C1</td>
<td>82%</td>
<td>68%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Mixed patterning – Behavioral adjectives

Table II: Estar

Behavioral adjectives pattern with dual more *ser*-only-like adjectives

- **Amable** ‘kind’ & **Viejo** ‘old’
- **Contento** ‘happy’ & **Nervioso** ‘nervous’
Hypothesis: IL-hood vs SL-ness

- Acquisition patterns can be accounted for by properties of the IL/SL contrast.
- Semantic & syntactic distinction –aspectual kind.
- Learners’ pattern: not merely based on the more superficial, typically taught distinction of permanent vs. transitory property.
Quick note; Stage & Individual Level predicates

Carlson (1977:115)

A stage is defined as “a spatially and temporally bounded manifestation of something.”

An individual, in turn, is defined as “that whatever-it-is that ties a series of stages together to make them stages of the same thing.”

IL predicates apply to their subject directly, SL predicates need an extra semantic operation.

➔ Extra structure hypothesized for estar. But is that all?

Hypothesis: IL-hood vs SL-ness

• Behavioral adjectives give a convoluted pattern
  o Syntactically, behave like viejo ‘old’
  o Syntactically, they can be proved to be IL.
  o Inability to head absolute clauses (Arche 2012).
(19) *Cruel, Juan mató a su mujer
    Cruel, John killed his wife
  o Have complicated semantics that make them look like SL.
Behavioral adjectives --- Semantics

(20) Juan es amable

John is kind
‘John is a kind person’
‘John is generally kind’

‘The actions that John generally undertakes are kind’.

• A generalization over the type of actions John is typically involved.

Behavioral adjectives --- Semantics

(20) Juan está amable.

Juan be-estar.3ps.present kind
‘John is being kind at this moment’
‘John has been kind lately’

• ‘The action that John is undertaking is (IL) kind’

• ‘The property is understood to be circumstantial of him’.
Behavioral adjectives --- Semantics

- Allow for the progressive – dynamic (Arche 2006)

(20) Juan está siendo amable.

Juan be-estar.3ps.present being kind
‘John is being kind (at this moment)’

(21) *Juan está siendo alto.

Juan be-estar.3ps.present being tall
‘John is being tall (at this moment)’

Behavioral adjectives --- Semantics

- Allow for imperative – dynamic (Arche 2006)

(20) Sé amable.

Be kind
‘Be kind’

(21) *Sé alto.

Be tall
‘Be tall’
Behavioral adjectives --- Semantics

- Allow for *do*-cleft: dynamic, eventive, agentive (Arche 2006)

  (22) Lo que Juan hizo fue ser amable
      What John did was be kind

  (23) *Lo que Juan hizo fue ser alto.
      What John did was be tall.

---

Behavioral adjectives --- Semantics

- Embody typical properties of canonical eventive and SL-eventualities.
The action argument (Stowell 1991; Arche & Stowell in progress)

(24)  
a. Juan es amable/está siendo amable al ayudarme ahora.  
Juan ser-pres.3ps kind/ is being kind in helping me now.  
‘Juan is kind/is being kind to help me now’

• Juan is understood to be kind because helping is kind.
• The property is also predicated of the action, which can be overt or not.
• The action itself is SL; crucially the adjective is predicated of it in an IL manner.

The action argument (Stowell 1991; Arche & Stowell in progress)

(24)  
a. Ayudarme ahora es amable (por parte de Juan).  
Help me now ser-pres.3ps kind (by part of Juan)  
‘To help me now is kind of Juan’

b. *Ayudarme ahora está amable (por parte de Juan).  
Help.INF.me now estar-pres.3ps amable by part of Juan  
‘To help me now is kind of Juan’
That is

- Behavioral adjectives:
  - The event is always considered to be IL (cf. ungrammaticality with *estar*)
  - The property can hold of the individual in a SL fashion (Arche & Stowell in progress).

- When the event is overt, despite their apparent transitory semantics, its syntax has been proven to be IL.

IL-hood of behavioral adjs with overt event

Despite their temporary interpretation, they can be proved to be IL. E.g., Kertz (2006):

(21) ∀/*/∃ American consumers are smart. IL
(22) ∀/*/∃ American consumers are smart to buy foreign goods. IL
(23) ∀/*∃ American consumers are eager to buy foreign goods. SL

Effect confirmed using a test from Milsark (1977): the individual-level evaluative predicates do not felicitously combine with an existential *there* subject, in contrast with stage-level *eager*.

*There were lawmakers smart. IL
*There were lawmakers smart to endorse the proposal. IL
There were lawmakers eager to endorse the proposal. SL
SO: Behavioral adjectives

• Crucially: have mixed properties
• Embody typical SL properties – since they can be understood to apply (of the individual) for the stage during which the action is going on only.
  o May explain: increase of *estar* in *ser*-contexts.
• Embody typical IL properties – they are always predicated in an IL way of the action they refer to; they are unable to head absolute clauses.

Conclusions

• These acquisition data provide further empirical evidence to the idea that evaluatives *are* IL (firstly argued in Arche 2006 and Kertz 2006, against all others).
• These acquisition data provide further empirical evidence to the idea that not all dual adjectives have all the inner IL/SL-like properties (Marin 2010).
• Acquisition of copulas is driven by the acquisition of pure and abstract IL-ness vs SL-ness even within instructed settings.
  • Properties not taught are shown to guide the acquisition
  • SLA guided by abstract features, not mere “collocations”.
Next steps

To study the acquisition of behavioral adjectives (*evaluative dispositional adjectives*, *apud* Arche & Stowell in prep.) in more detail:

- Overt and covert action argument
  - John was nice (*to drive me home*).
- Overt and covert affected goal argument
  - John was nice *to me*.

Thank you
References


Arche, M. J. and T. Stowell. In progress. Evaluative Dispositional Adjectives and the Individual/Stage distinction. Ms, University of Greenwich and UCLA.


