Variation in Copula Use in Spanish: Implications for the Study of Spanish as a Heritage Language

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How can we understand the differences in language use between monolingual and heritage speakers?
Copula Use in Spanish

Spanish Copulas

Ser

Estar

English “be”
Diachronic Observation:

*estar* is encroaching on the domain of use of *ser*

(Vañó-Cerdá, 1982; Gutiérrez, 1992; Batllori et al., 2009; Batllori & Roca, 2012)
Diachronic Distributional Pattern: the Expansion of estar

Latin *stare* $\rightarrow$ *estar*: Locative predicates

Auxiliary of the *perfectum* (passive): Existential sentences

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**Latin** 1100 1200 1500 **Modern Spanish**

Progressive
Stage-level adjectives

Stage-level predicates exclusively combine with *estar*

**ser-preference adjectives**

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Monolingual Speakers: increase of *estar* uses
(Gutiérrez, 1992; Jonge, 1993; Díaz-Campos & Geeslin, 2011; Alfaraz, 2012; Brown & Cortés, 2012; Deo et al., 2016)

Heritage Speakers: acceleration of the change
(Silva-Corvalán, 1986; Kirschner & Stephens, 1988; Silva-Corvalán & Montanari, 2008; Valenzuela et al., 2015)
1. Common uses of *ser* and *estar*

2. Innovative uses of *estar* in heritage speakers
   2.1. How can we characterize the innovative uses?

3. Analysis and Processing Predictions
   3.1 Experimental Data: Monolinguals

4. Implications for the study of heritage speakers
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Common Uses of *ser* and *estar*

*Mafalda es guapa.*
“Mafalda *ser* pretty.”

*Mafalda está guapa.*
“Mafalda *estar* pretty.”
Common Uses of *ser* and *está*

Pau Gasol *es* alto.
“Pau Gasol *ser* tall!”

¡Harry Potter *está* muy alto!
“Harry Potter *estar* very tall!”
ser attributes a property on the basis of a **class frame of reference**, *estar* takes an **individual-frame of reference**

[e.g., Falk, 1979; Silva-Corvalán, 1986; Ortiz-Ruiz, 2000; Silva-Corvalán & Montanari, 2008; Valenzuela et al., 2015; Aguilar Sánchez, 2012; Alfaraz, 2012]
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Innovative Uses of *estar*

¡Los zapatos *están* grandes!
“The shoes *estar* big!”

La carretera *está* ancha.
“The road *estar* wide”
1) De cara, pos no se me hace fea. **Está bonita. Pa’ mí que tiene que estar bonita.**

“As for the face, I do not think she seems ugly. She **estar** pretty. I think she has to **estar** pretty.”.

2) **Mira, la nariz de ella no es como la mía; está un poco grande, pero anchita.**

“Look, her nose is not like mine; it **estar** a bit big, but wide.”

[Corvalán, 1986:596]
3) Yo digo que la mía está chistosa. Nunca me ha gustado mucho mi nariz.
“I say that mine estar funny. I’ve never liked my nose much.”

4) Está muy alta, mide seis diez. Está muy alta la muchacha.
“Estar very tall, She’s six ten. She estar very tall, that girl.”

[Corvalán, 1986:596]
5) Una de esas recámaras es el master bedroom, el más grande. Y el otro está pequeño.
“One of those bedrooms is the master room, the larger one. And the other one estar small.”

6) Teníamos otra gabinete allá arriba, pero estaba muy largo, y no cabía la hielera, y no estaba ancho.
“We had another cupboard there, but it estar too long, and the refrigerator would not fit, and it estar wide.”

[Corvalán, 1986:599]
Why Innovative Uses in Heritage Speakers?

1. Language contact favors processes of linguistic simplification
   - *estar* is **losing its semantic distinctions** and becoming more similar to *ser*
   - Innovative uses of *estar* **do not differ in meaning** from *ser* uses

2. Direct influence from English is difficult to posit

   [Silva-Corvalán, 1986; Silva-Corvalán & Montanari, 2008; Valenzuela et al., 2015]
Innovative uses of *estar* in Monolinguals

**Experimenter:** What do you think about the US?

**Speaker:** *Pues dicen que hay muchos árboles frutales, que hay muchos vegetales allá... y no comen grasas... que *estar* están muy altos allá.*

“It is said that there are many fruit trees, that there are many vegetables... they do not eat fat... they *estar* very tall there.”

[Gutiérrez, 1992]
Innovative uses of *estar* in Monolinguals

El carro de mi hijo también *está* muy grande, tiene metro y medio más grande que todos.

“My son’s car *estar* also very big, it is a meter and a half longer than the others.”

[Gutiérrez, 1992]
1. Common uses of *ser* and *estar*

2. Innovative uses of *estar* in heritage speakers
   
   **2.1. How can these innovative uses be characterized?**

3. Analysis and Processing Predictions
   
   **3.1 Experimental Data: Monolinguals**

4. Implications for the study of heritage speakers
How can these uses of *estar* be characterized in HS?

1. Are these uses *true* innovations of HS? Are they part of the developmental path of *estar*’s encroachment?
   - There is variation in copula use across Spanish dialects
   - **Implication**: Variety of L1 should be controlled for

2. What are the sources of language variation?
   - Variation can be induced by pragmatic factors
     (Traugott & König, 1991; Brinton & Traugott, 2005; Traugott, 2012)
   - **Analysis**:
     - accounts for a wide range of copula uses
     - accounts for copula variation across dialects
     - makes processing predictions
1. Common uses of ser and estar

2. Innovative uses of estar in heritage speakers
   2.1. How can we characterize the innovative uses?

3. Analysis and Processing Predictions
   3.1 Experimental Data: Monolinguals

4. Implications for the study of heritage speakers
The Semantic Difference between *ser* and *estar*

*estar* contains the presupposition that the asserted proposition is *contingent* (i.e., there are contrasting alternative values for the predication).

La carretera *está* ancha.
‘The road *estar* wide.’
The Semantic Difference between *ser* and *estar*

**Context:** A journalist is reporting on the Panamericana highway. She started in Buenos Aires and she is now near Lima.
**Context:** A journalist is reporting on the Panamericana highway and she is now near Lima.

- ✓ La carretera **está** ancha. ‘The road **estar** wide.’
- ? La carretera **es** ancha. ‘The road **ser** wide.’

**estar** contrasts the asserted proposition with contrasting alternatives along a spatially-defined parameter (involving distinct parts of the Panamericana highway).
Talk Outline

1. Common uses of *ser* and *estar*

2. Innovative uses of *estar* in heritage speakers
   2.1. How can we characterize the innovative uses?

3. Analysis and Processing Predictions
   3.1 Experimental Data: Monolinguals

4. Implications for the study of heritage speakers
Experimental Investigation:

**Studies 1-3**: How is Copula variation expressed across dialects?

**Study 4**: How is variation manifested in real-time comprehension?
Hypothesis
The acceptability of [estar+adjectives with ser-preference] in Modern Spanish can be modulated by the contextual information.

Predictions
1. estar will be rated higher when preceded by contextual information that allows the predication to be construed as contingent.

2. differences across dialects will be determined by the extent to which speakers rely on contextual information to satisfy estar’s presupposition.
Experimental Investigation:

**Studies 1-3**: How is Copula variation expressed across dialects?

**Study 4**: How is variation manifested in real-time comprehension?
## Studies 1-3: Questionnaire

### Acceptability-Rating Task (1, non-acceptable - 5, acceptable)

<table>
<thead>
<tr>
<th>Two Contexts</th>
<th>Sentence with <em>Ser</em> or <em>Estar</em></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Estar-favoring Context:</strong> Pedro went on a diet for six months.</td>
<td>Le vi ayer en el cine, <em>es/está</em> delgado y parece muy feliz.</td>
</tr>
<tr>
<td><strong>Neutral Context:</strong> I have met Lucia’s husband.</td>
<td>“I saw him yesterday at the movies. (He) is skinny and seems very happy.”</td>
</tr>
</tbody>
</table>

### Spanish dialects:
Iberian (n=40), Argentinian (n=38), Mexican (n=37)
Studies 1-3: Constrained Pattern across Spanish Varieties

**Across varieties**

Estar-favoring > Neutral

**Mexican Spanish:**

1. More general acceptability of ESTAR
2. Less dependence on contextual information
Experimental Investigation:

**Studies 1-3**: How is Copula variation expressed across dialects?

**Study 4**: How is variation manifested in real-time comprehension?
1. Acceptability of \([\text{estar} + \text{adjective}]\) is sensitive to **contextual modulation** across Spanish dialects

   a) Acceptability increases if the context explicitly provides **contrasting alternative values** to the proposition

2. **Variation across Spanish dialects:**

   **Mexican speakers:**
   - general higher acceptability of \(\text{estar}\) sentences
   - less dependent on immediate contextual modulation
Hypothesis
The acceptability of \textit{estar} in Modern Spanish should be sensitive to contextual modulation.

How is copula variability manifested in online processing?

Prediction
Reading times:

\text{Context}_{\text{neutral} + \text{estar}} > \text{Context}_{\text{estar-favoring estar}}
Study 2: Self-Paced Reading

Materials: same as Study 1
Participants: 61 native speakers of Iberian Spanish & 40 speakers of Mexican Spanish

### Crucial Segments

<table>
<thead>
<tr>
<th>Copula</th>
<th>Adjective</th>
<th>Adj + 1 word</th>
<th>Adj + 2 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>…está</td>
<td>delgado</td>
<td>y</td>
<td>parece…</td>
</tr>
<tr>
<td>is</td>
<td>skinny</td>
<td>and</td>
<td>seems</td>
</tr>
<tr>
<td>…es</td>
<td>delgado</td>
<td>y</td>
<td>parece…</td>
</tr>
<tr>
<td>is</td>
<td>skinny</td>
<td>and</td>
<td>seems</td>
</tr>
</tbody>
</table>

Whole sentence: I saw him yesterday at the movies, he **is skinny and seems** very happy.
Study 2: Contextual Modulation in Real-Time

**Iberian Spanish:**

**Adjective + 2 words**

Estar-favoring + *estar*: Longer Reading times

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**Sentence**

- Red: Estar-favoring+ESTAR
- Green: Neutral+SER
- Blue: Estar-favoring+SER
- Black: Neutral+ESTAR

---

**Graph Details:**

- X-axis: Segment
  - ...movies
  - SER/ESTAR
  - skinny
  - and
  - seems
  - very...
- Y-axis: Reading Time (ms)
  - 255
  - 260
  - 265
  - 270
  - 275
  - 280

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**Statistical Significance:**

- * * *

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**Example Sentence:**

"...movies SER/ESTAR skinny and seems very..."
Study 2: Contextual Modulation in Real-Time

**Mexican Spanish:**
No differences in RTs across segments

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**Sentence**
- Red: Estar–favoring+ESTAR
- Green: Neutral+SER
- Blue: Estar–favoring+SER
- Black: Neutral+ESTAR

---

**Reading Time (ms)**

![Graph showing reading times for different segments in Mexican Spanish.](image-url)
Self-Paced Reading: Main Findings

Iberian:
- *Estar*'s contextual modulation is reflected in longer reading times when preceded by a neutral context.
- Context that explicitly provides alternatives to estar’s presupposition facilitates processing of *estar* sentences

Mexican:
- No differences in contextual modulation across segments.
- Mexican speakers rely less on explicit contingency cues from context.
Talk Outline

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Innovative *estar* in Heritage Speakers

Are these uses *true* innovations of HS? Are they part of the *estar*’s encroachment?

- There is variation in copula use in monolingual speakers across dialects.

- Variation can be understood as a *continuum* of explicit-context dependence

- HS innovations could reflect copula variation in speakers whose Spanish input is Mexican Spanish

- Underscores the importance of controlling for Spanish variety
What are the sources of language variation?

- Variation is induced by pragmatic factors (i.e., it is facilitated by the contextual information).

- It is the greater informative value of estar (contingency presupposition) that drives estar's encroachment.

- Proposal: it is the greater informatively of estar that all varieties appear to be sensitive to, but that HS particularly exploit.
Research Funded by NSF INSPIRE Grant #1248100 to Ashwini Deo, María Mercedes Piñango, Todd Constable & Mokshay Madiman.
Variation in Spanish Copula Use
Thank you!
Supplemental Slides
PREGUNTA TIPO 1: En esta pregunta, vas a leer unas frases. Tu tarea consiste en indicar si las frases podrían ser dichas por un hablante nativo de español de México. Tu respuesta debe corresponder a una de las siguientes categorías:

1. **Definitivamente NO**: No suena bien y no entiendo lo que la frase quiere decir. Un hablante nativo no lo diría.

2. **NO**: No suena bien, aunque entiendo lo que quiere decir. Un hablante nativo no lo diría.

3. **No estoy seguro/a**: Suena bien, pero no estoy seguro/a de si un hablante nativo lo diría.

4. **Sí**: Entiendo lo que la frase quiere decir y puedo que la dijera o no.

5. **Definitivamente Sí**: Entiendo la frase perfectamente y yo mismo la diría.
Questionnaire: SER sentences

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- Iberian
- Mexican
- Argentinian

Spanish Variety

Sentence type
- Estar-favoring+SER
- Neutral+SER

Score
- Iberian
- Mexican
- Argentinian

* * *
Study 2: Estar-favoring + \textit{estar}: Longer Reading times

Sentence
- Red: Estar-favoring+ESTAR
- Green: Neutral+SER
- Blue: Estar-favoring+SER
- Black: Neutral+ESTAR

<table>
<thead>
<tr>
<th>Segment</th>
<th>Reading Time (ms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>movies</td>
<td>270</td>
</tr>
<tr>
<td>SER/ESTAR</td>
<td>280</td>
</tr>
<tr>
<td>skinny</td>
<td>290</td>
</tr>
<tr>
<td>and</td>
<td>300</td>
</tr>
<tr>
<td>seems</td>
<td>280</td>
</tr>
<tr>
<td>very...</td>
<td>290</td>
</tr>
</tbody>
</table>

28 men

33 women
Study 2: Main Effect of Verb Type in Women

Adjective:

*estar* sentences > *ser* sentences

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Study 2: Main Effect of Verb Type for Women

**Sentence**
- **Estar**
- **Ser**

**Reading Time (ms)**
- **28 men**
- **33 women**

Segment:
- ...movies
- SER/ESTAR
- skinny
- and
- seems
- very...
Study 2: Main Effect of Context Type

Sentence
- Estar–favoring
- Neutral

Sentence
- Estar–favoring
- Neutral

Segment

Reading Time (ms)

28 men

33 women

* *
Corvalán 1986’s Participants

<table>
<thead>
<tr>
<th>GROUP</th>
<th>AGE</th>
<th>SEX</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>15−29</td>
</tr>
<tr>
<td>I</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>30−65</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>II</td>
<td>15−29</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>30−65</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>III</td>
<td>15−29</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>30−65</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2.

Group I includes speakers born in Mexico, who immigrated into the United States after the age of eleven. Group II encompasses speakers who were born in the US or who immigrated from Mexico before the age of six (they have had all their schooling in the US); furthermore, at least one of their parents must fit the definition of Group I. Group III comprises speakers born in the US; in addition, the speakers’ parents must be of Mexican ancestry, and must fit the definition of Group II.