

# Grammatical gender acquisition in sequential trilinguals

Influence of a gendered L1 vs. L2

Megan Brown

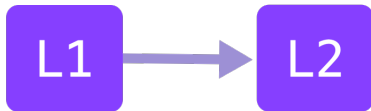
Boston University

Linguistic Society of America 2020 Annual Meeting  
Saturday, January 4th 2020



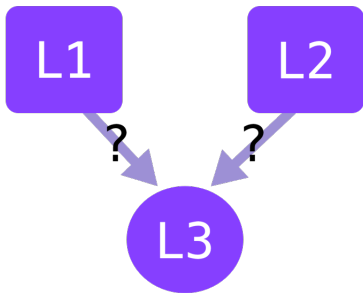
# Multiple Potential Sources of Transfer

In L2 acquisition the L1 is the only source of transfer.



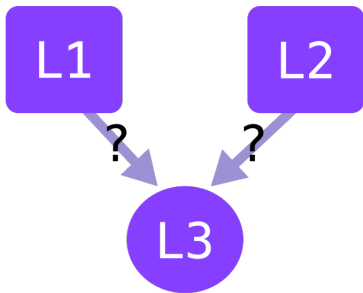
# Multiple Potential Sources of Transfer

L3 learners have 2 potential transfer sources, the L1 and the L2.



# Multiple Potential Sources of Transfer

L3 learners have 2 potential transfer sources the L1 and the L2.



Which language or language(s) transfer and why?

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# Models of L3 Acquisition

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## Whole-Transfer Models

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## Whole-Transfer Models

### L1 Transfer

Hermas, 2010

### L2 Status

Bardel & Falk, 2007

## Typological Primacy

Rothman, 2010

## Language of Community

Fallah et al, 2016

# Models of L3 Acquisition

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Whole-Transfer Models

**Partial-Transfer Models**

L1 Transfer  
Herms, 2010

L2 Status  
Bardel & Falk, 2007

Typological Primacy  
Rothman, 2010

Language of Community  
Fallah et al, 2016



# Models of L3 Acquisition

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L1 Transfer  
Herms, 2010

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## Partial-Transfer Models

**Cumulative Enhancement**  
Flynn et. al, 2004

**Linguistic Proximity**  
Westergaard et al, 2017

**Scalpel Model**  
Slabakova, 2017

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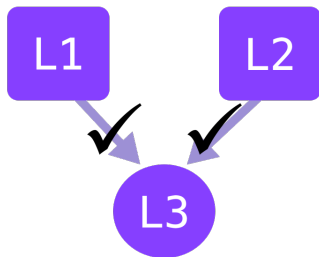
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**Cumulative Enhancement**  
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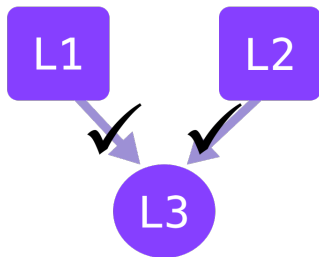
Scalpel Model  
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# The Cumulative Enhancement Model



# The Cumulative Enhancement Model

All beneficial grammatical  
knowledge is accessible.

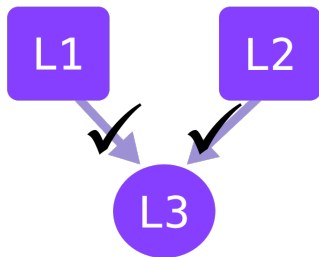


# The Cumulative Enhancement Model

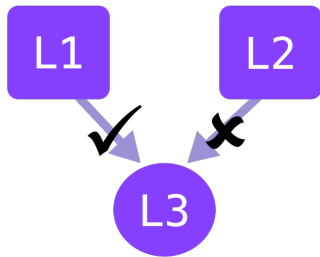
All beneficial grammatical  
knowledge is accessible.

Language learning is  
**cumulative.**

(Flynn et al., 2004; Berkes & Flynn, 2012)

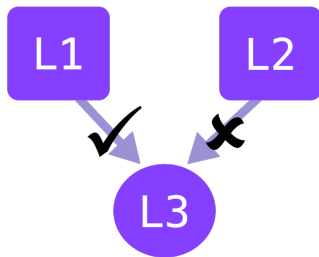


# The L1 Transfer Proposal



# The L1 Transfer Proposal

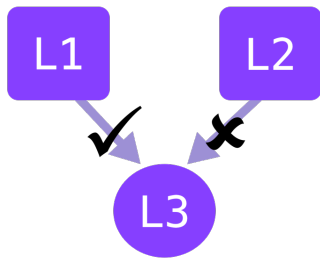
L1 grammar serves the initial  
state for new languages.



# The L1 Transfer Proposal

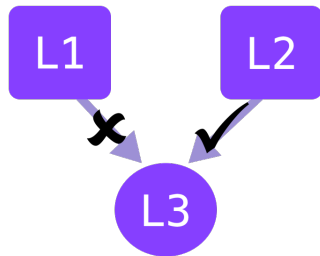
L1 grammar serves the initial  
state for new languages.

Transfer can be facilitative or  
non-facilitative. (Hermas,2010)



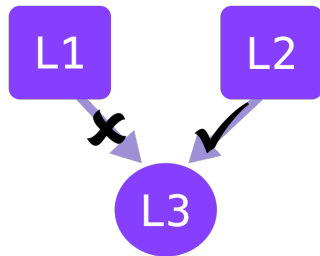


# The L2 Status Factor Model



# The L2 Status Factor Model

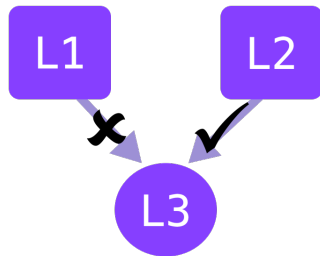
The L2 grammar serves as  
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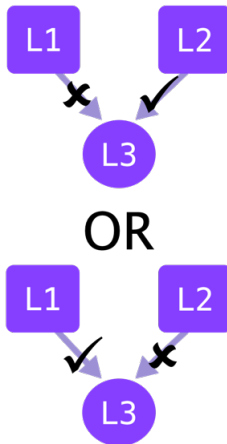
# The L2 Status Factor Model

The L2 grammar serves as the initial state for L3.

Transfer can be facilitative or non-facilitative  
(Bardel & Falk, 2007 et. seq)



# The Typological Primacy Model



# The Typological Primacy Model

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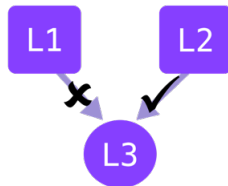
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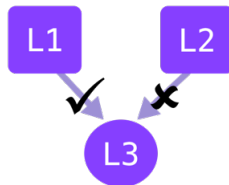
Summary

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One language is selected based  
on similarities in:



OR

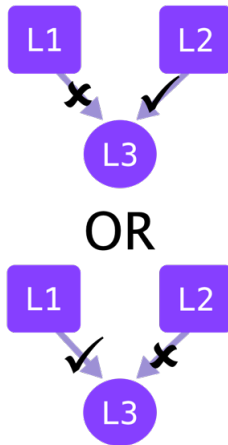


# The Typological Primacy Model

One language is selected based on similarities in:

1. Lexicon
2. Phonological/Phonetic Cues
3. Functional Morphology
4. Syntactic Structure

(Rothman, 2010 et. seq)



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# Grammatical Gender



# Grammatical Gender

<b>Der Mann</b>	<b>Die Frau</b>	<b>Das Mädchen</b>
The man	The woman	The girl
<b>Masculine</b>	<b>Feminine</b>	<b>Neuter</b>

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L1 gender can transfer to L2 (Franceschina, 2005)

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L1 gender can transfer to L2 (Franceschina, 2005)  
Even between typologically different languages  
(Sabourin, 2001)

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L1 gender can transfer to L2 (Franceschina, 2005)

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L2ers without gender in their L1 are able to develop a  
gender system

(White et al., 2004; Sagarra and Herschensohn, 2010)

# Grammatical Gender

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<b>Der Mann</b>	<b>Die Frau</b>	<b>Das Mädchen</b>
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L1 gender can transfer to L2 (Franceschina, 2005)  
Even between typologically different languages  
(Sabourin, 2001)

L2ers without gender in their L1 are able to develop a  
gender system

(White et al., 2004; Sagarra and Herschensohn, 2010)

**How do L1 vs L2 gender systems transfer to L3?**

# Current Project

English

Spanish

# Current Project

English

Spanish

L3 German

## Current Project

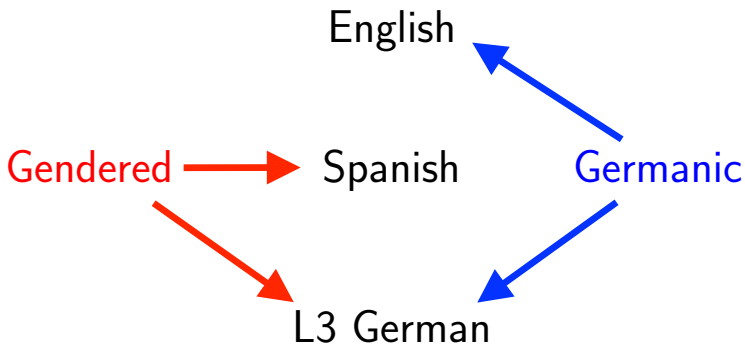
English

Gendered → Spanish

L3 German



## Current Project



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# Predictions of L3 Models

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Will L3 learners transfer their Spanish grammatical gender knowledge to L3 German?

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## Predictions of L3 Models

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Will L3 learners transfer their Spanish grammatical gender knowledge to L3 German?

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	L1 English L2 Spanish	L1 Spanish L2 English
<b>Cumulative Enhancement Model</b>	Yes	Yes
<b>L1 Transfer</b>	No	Yes
<b>L2 Status Factor Model</b>	Yes	No
<b>Typological Primacy Model</b>	No	No

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# Participants

# Participants

## Sequential Spanish/English bilinguals

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L3 German was being learned as a foreign language

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L3 German was being learned as a foreign language

Intermediate or higher L2 proficiency

(LexTALE vocabulary test, Lemhöfer & Broersma, 2012; Izura et al., 2014)



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Sequential Spanish/English bilinguals

L3 German was being learned as a foreign language

Intermediate or higher L2 proficiency

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Online survey-style task

# Participants

**Language  
Background**

**Abbreviation**

**German  
Level**

**Number of  
Participants**

---

## Participants

<b>Language Background</b>	<b>Abbreviation</b>	<b>German Level</b>	<b>Number of Participants</b>
L1 English			
L2 Spanish	E-S-G	Beginner	11
L3 German			

## Participants

Megan Brown

<b>Language Background</b>	<b>Abbreviation</b>	<b>German Level</b>	<b>Number of Participants</b>
--------------------------------	---------------------	-------------------------	-----------------------------------

L1 English

L2 Spanish

L3 German

E-S-G

Beginner

11

L1 Spanish

L2 English

L3 German

S-E-G

Beginner

10

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## Participants

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Language Background	Abbreviation	German Level	Number of Participants
L1 English	E-S-G	Beginner	11
L2 Spanish			
L3 German			
L1 Spanish	S-E-G	Beginner	10
L2 English			
L3 German			
L1 English	E-G	Beginner	11
L2 German			

## Participants

Language Background	Abbreviation	German Level	Number of Participants
L1 English L2 Spanish L3 German	E-S-G	Beginner	11
L1 Spanish L2 English L3 German	S-E-G	Beginner	10
L1 English L2 German	E-G	Beginner	11
Native German	N-G	Native	7

## Participants

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Language Background	Abbreviation	German Level	Number of Participants
L1 English		Beginner	11
L2 Spanish	E-S-G	Advanced	8
L3 German			
L1 Spanish		Beginner	10
L2 English	S-E-G	Advanced	8
L3 German			
L1 English		Beginner	11
L2 German	E-G	Advanced	10
Native German	N-G	Native	7

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Language Background	Abbreviation	German Level	Number of Participants
<b>L1 English</b>	<b>E-S-G</b>	<b>Beginner</b>	<b>11</b>
<b>L2 Spanish</b>		Advanced	8
<b>L3 German</b>			
<b>L1 Spanish</b>	<b>S-E-G</b>	<b>Beginner</b>	<b>10</b>
<b>L2 English</b>		Advanced	8
<b>L3 German</b>			
<b>L1 English</b>	<b>E-G</b>	<b>Beginner</b>	<b>11</b>
<b>L2 German</b>		Advanced	10
Native German	<b>N-G</b>	Native	7



# German Grammaticality Judgement Task

## Gender Mismatch

\*Das Baum ist groß

The<sub>[N]</sub> tree<sub>[M]</sub> is tall

# German Grammaticality Judgement Task

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## Gender Mismatch

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Words reflecting biological gender were not included

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## Gender Mismatch

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Error questions were balanced in terms of:

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Error questions were balanced in terms of:

German Gender

Error Type

Spanish Gender

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# Lexical vs. Grammatical Gender

## Lexical vs. Grammatical Gender

## Grammatical Gender Task

## Lexical vs. Grammatical Gender

## Grammatical Gender Task

## **Tür (Door<sub>F</sub>)**

## Lexical vs. Grammatical Gender

### Grammatical Gender Task

#### **Tür** (Door<sub>F</sub>)

Der<sub>M</sub>

Die<sub>F</sub>

Das<sub>N</sub>



## Lexical vs. Grammatical Gender

### Grammatical Gender Task

#### **Tür (Door<sub>F</sub>)**

Der<sub>M</sub>

Die<sub>F</sub>

Das<sub>N</sub>

Grammaticality judgement tasks were graded based on participants' perceived gender of individual lexical items.

# Results: Native German Speakers

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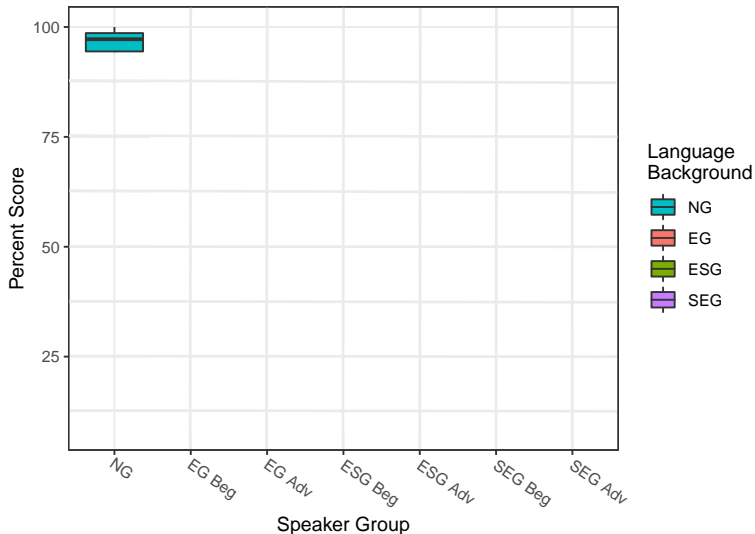
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Figure 1: Participant scores between language groups



# Results: Advanced German Learners

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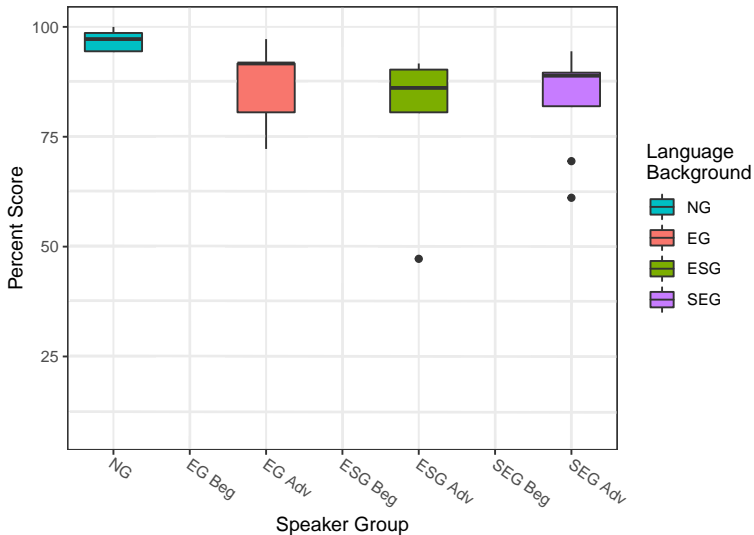
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Figure 1: Participant scores between language groups



# Results: E-G Beginners

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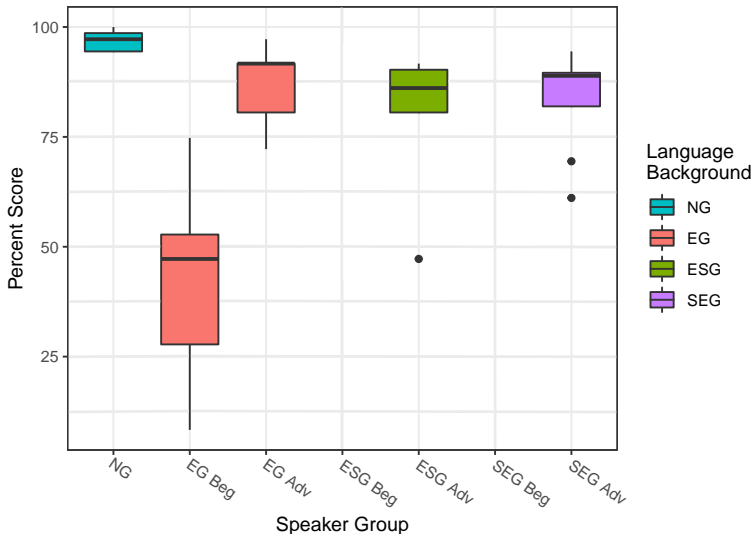
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# Results: E-S-G Beginners

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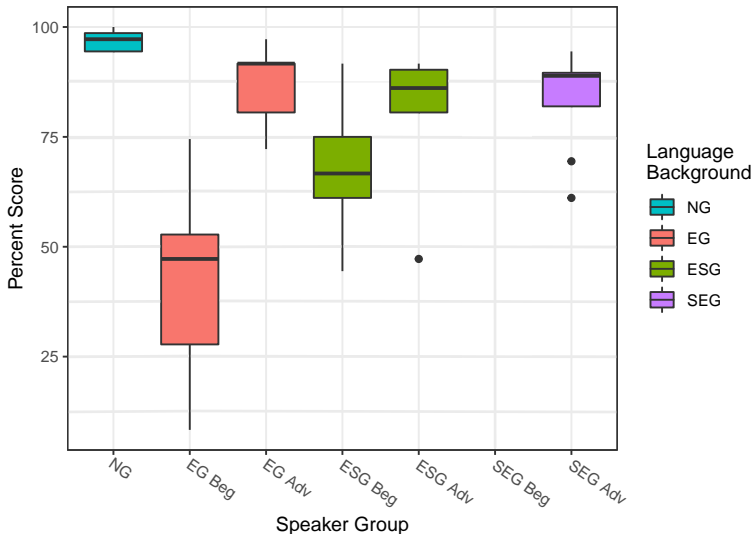
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# Results: S-E-G Beginners

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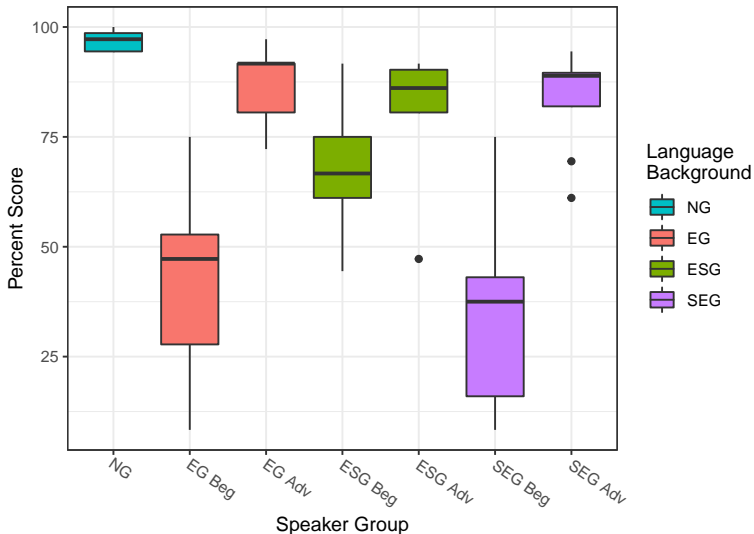
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# Results: S-E-G Beginners

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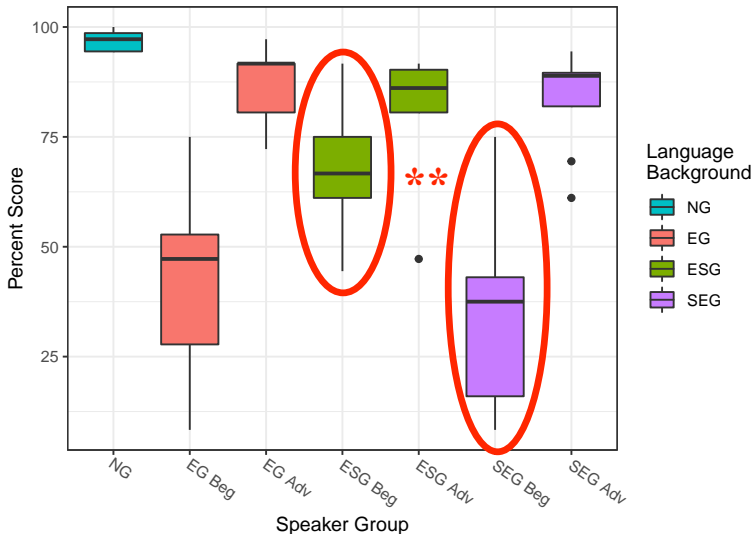
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# Logistic Regression

Overall Group Average = 42.88%



# Logistic Regression

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Overall Group Average = 42.88%

	Variable	Model Estimates
Intercept		
Language Background		
Spanish Gender		
Random Effects		
R <sup>2</sup>		

# Logistic Regression

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	Variable	Model Estimates
Intercept	E-G	-0.2505
Language Background	<b>E-S-G</b>	<b>0.9708**</b>
	S-E-G	-0.2528
Spanish Gender		
Random Effects		
R <sup>2</sup>		

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Intercept	E-G	-0.2505
	Matching Gender	
Language Background	<b>E-S-G</b>	<b>0.9708**</b>
	S-E-G	-0.2528
Spanish Gender	Matching Gender	-0.4771
	Opposite Gender	-0.6260*
Random Effects		
R <sup>2</sup>		

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Spanish Gender	Matching Gender	-0.4771
	Opposite Gender	-0.6260*
Random Effects	Question Speaker	
R <sup>2</sup>		

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Random Effects	Question Speaker	
R <sup>2</sup>		<b>0.2577</b>

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R <sup>2</sup>		<b>0.2577</b>

# Results: S-E-G Beginners

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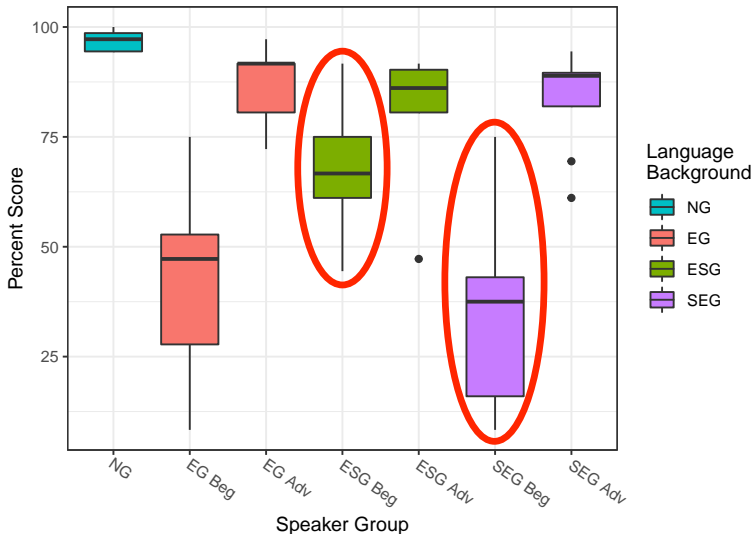
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# Summary



# Summary

Results suggest a benefit of having a gendered L2 in learning L3 gender

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Potential support for L2 Status Factor Model

(Bardel and Falk, 2007)

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(Bardel and Falk, 2007)

BUT, these were not necessarily initial state learners

Puig-Mayenco et. al (2018)

# Summary

Results suggest a benefit of having a gendered L2 in learning L3 gender

Potential support for L2 Status Factor Model

(Bardel and Falk, 2007)

BUT, these were not necessarily initial state learners

Puig-Mayenco et. al (2018)

Current follow-up work

# Thank You!

## Questions?

### Contact:

[mbrown14@bu.edu](mailto:mbrown14@bu.edu)

Slides available at  
[meganmbrown.com](http://meganmbrown.com)

Megan Brown

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