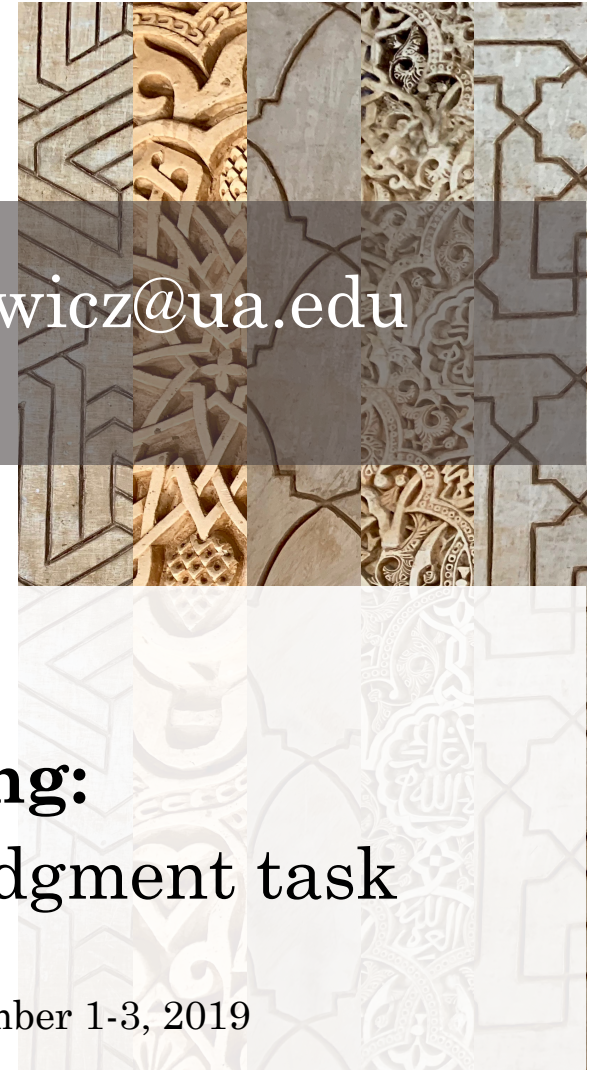Bryan Koronkiewicz | bjkoronkiewicz@ua.edu
The University of Alabama

Testing adverb position in Spanish-English code-switching:

Evidence from an acceptability judgment task

Adverb Position

- Restrictions on adverb position can vary based on language
- For example, in English post-verbal adverb position is restricted, but not pre-verbal adverb position

(1)	* Hannah **speaks always** English.
(2)	Hannah **always speaks** English.

Adverb Position

- Spanish is more flexible with respect to adverb position
  - Generally acceptable either pre-verbally or post-verbally

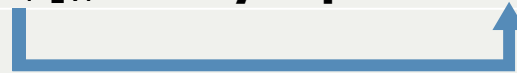| (3)	Juana	**habla**	**siempre**	español.	
	Juana	speaks	always	Spanish	
	'Juana always speaks Spanish.'				
(4)	Juana	**siempre**	**habla**	español.	
	Juana	always	speaks	Spanish	
	'Juana always speaks Spanish.'				

What about code-switching (CS)?

V-to-T Movement

- Argued that verb (V) and tense (T) determine adverb position
  (Camacho & Sánchez, 2017; Pollock, 1989; Suñer, 1994; Zagona, 2002; among others)
    - V-to-T movement is one option for feature checking
    - Or if an agreement relationship occurs between V and T, there is no need for movement (i.e., affix lowering)
- Languages can be categorized as either verb-raising (e.g., French) or non-raising (e.g., English)
- Spanish is a so-called hybrid language (Ayoun, 2005)
    - There is always movement, but with a lower spell-out can occur (Camacho & Sánchez, 2017)

(5) $[_{TP}$ Hannah $[_{T'}$ **t**$_i$ $[_{VP}$ **always speaks**+**T**$_i$ Spanish]]]   *non-raising*

(6) $[_{TP}$ Jeanne $[_{T'}$ **parle**$_i$+**T** $[_{VP}$ **toujours t**$_i$ français]]]   *verb-raising*
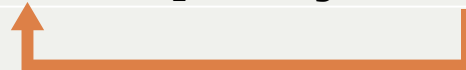
        Jeanne   speaks   always   French

'Jeanne always speaks French.'

(Non-)Raising in Spanish

(7) [$_{TP}$ Juana [$_{T'}$ **t**$_i$ [$_{VP}$ **siempre habla**+**T**$_i$ español]]]   *non-raising*
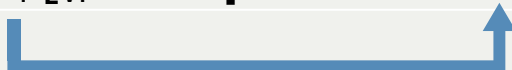
Juana   always   speaks   Spanish

'Juana always speaks Spanish.'

(8) [$_{TP}$ Juana [$_{T'}$ **habla**+**T**$_i$ [$_{VP}$ **siempre t**$_i$ español]]]   *verb-raising*
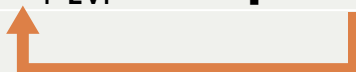
Juana   speaks   always   Spanish

'Juana always speaks Spanish.'

Research Question

- Adopting a Minimalist approach to CS (MacSwan, 1999), predictions about adverb switches can be made
  - Essentially, the language of the finite verb (i.e., V+T) should dictate acceptability in both monolingual and CS contexts
- Does the availability of adverb position in CS pattern with the language of the verb?
  - Is a Spanish adverb switched with an English verb required to be preverbal (i.e., English-like non-raising)?
  - Is an English adverb switched with a Spanish verb flexible (i.e., Spanish-like non-raising *or* verb-raising)?

Participants

- US Spanish-English early bilinguals (n = 24)
  - Learned both from a young age (M = 1.8 years) (i.e., 2L1 bilinguals)
  - 19-49 years old (M = 23.2)
  - Born in the US (n = 20) or arrived at a young age (M = 4.8 years)
  - English dominant (M = 26.1 out of ±218)
    - Bilingual Language Profile (Birdsong, Gertken & Amengual, 2012)
  - Advanced English proficiency
    - *Modified English cloze test* (O'Neill, Cornelius & Washburn, 1981)
  - Intermediate/advanced Spanish proficiency
    - *Diplomas del Español como Lengua Extranjera* (DELE) (Montrul & Slabakova, 2003)
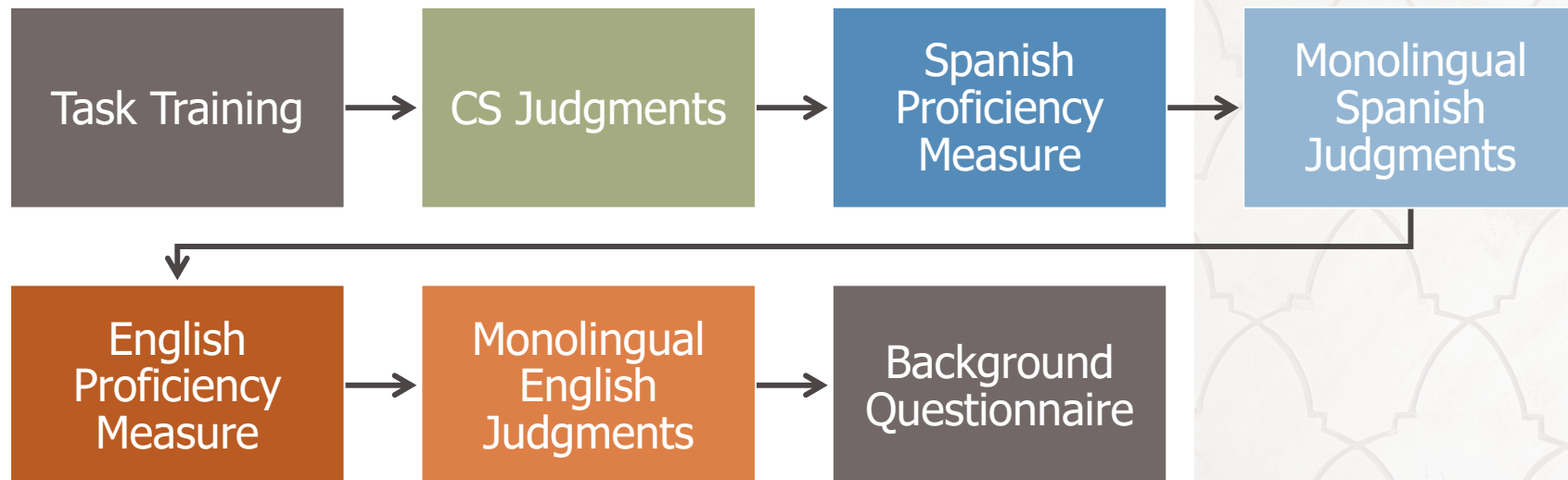
Task

- Written acceptability judgment task (AJT)
  - 7-point Likert scale (1 = lowest)
  - Completed online via Qualtrics

That guy pidió un vaso de agua.

	Completely unacceptable	Mostly unacceptable	Somewhat unacceptable	Unsure	Somewhat acceptable	Mostly acceptable	Completely acceptable
¿Qué le parece esta oración?	○	○	○	○	○	○	○

Task

Task Training → CS Judgments → Spanish Proficiency Measure → Monolingual Spanish Judgments

English Proficiency Measure → Monolingual English Judgments → Background Questionnaire

Target Stimuli

- Spanish-English sentences containing finite verbs switched with adverbs ($n = 16$)
    - Four conditions:
        - English V + Verb-Raising (i.e., *speaks siempre*)
        - English V + Non-Raising (i.e., *siempre speaks*)
        - Spanish V + Verb Raising (i.e., *habla always*)
        - Spanish V + Non-Raising (i.e., *always habla*)
    - Four different adverbs (Camacho & Sánchez, 2017):
        - *always/siempre; carefully/cuidadosamente; completely/completamente; frequently/frecuentemente*
    - Subject always a proper name; always an explicit direct object
        - Always matched the language of the adjacent element

Target Stimuli

SUBJECT > ADVERB > VERB > DIRECT OBJECT

Hannah always habla español.

SUBJECT > VERB > ADVERB > DIRECT OBJECT

Hannah speaks siempre español.

SUBJECT > ADVERB > VERB > DIRECT OBJECT

Juana siempre speaks English.

SUBJECT > VERB > ADVERB > DIRECT OBJECT

Juana habla always English.

Comparison Stimuli

- Comparison monolingual equivalents were tested in Spanish
  (*n* = 8) and English (*n* = 8)
    - Four conditions:
        - English Verb-Raising (i.e., *speaks always*)
        - English Non-Raising (i.e., *always speaks*)
        - Spanish Verb-Raising (i.e., *habla siempre*)
        - Spanish Non-Raising (i.e., *siempre habla*)
    - Four different adverbs:
        - *always/siempre; carefully/cuidadosamente; completely/completamente; frequently/frecuentemente*

Comparison Stimuli

SUBJECT > ADVERB > VERB > DIRECT OBJECT

Hannah always speaks English.

SUBJECT > VERB > ADVERB > DIRECT OBJECT

Hannah speaks always English.

SUBJECT > ADVERB > VERB > DIRECT OBJECT

Juana siempre habla español.

SUBJECT > VERB > ADVERB > DIRECT OBJECT

Juana habla siempre español.

Monolingual Results: Average z-score by stimulus type

	Sample stimulus	*M*	*SD*
English Verb-Raising	Hannah **speaks always** English.	-0.13	1.85
English Non-Raising	Hannah **always speaks** English.	4.66	0.97
Spanish Verb-Raising	Juana **habla siempre** español.	2.74	2.49
Spanish Non-Raising	Juana **siempre habla** español.	3.76	2.04

CS Results: Average z-score by stimulus type

	Sample stimulus	*M*	*SD*
English V + Verb-Raising	Hannah **speaks** *siempre* *español*.	1.62	2.49
English V + Non-Raising	*Juana* ***siempre*** **speaks** English.	3.45	2.07
Spanish V + Verb-Raising	*Juana* ***habla*** **always** English.	-0.17	1.48
Spanish V + Non-Raising	Hannah **always** *habla* *español*.	4.04	1.84
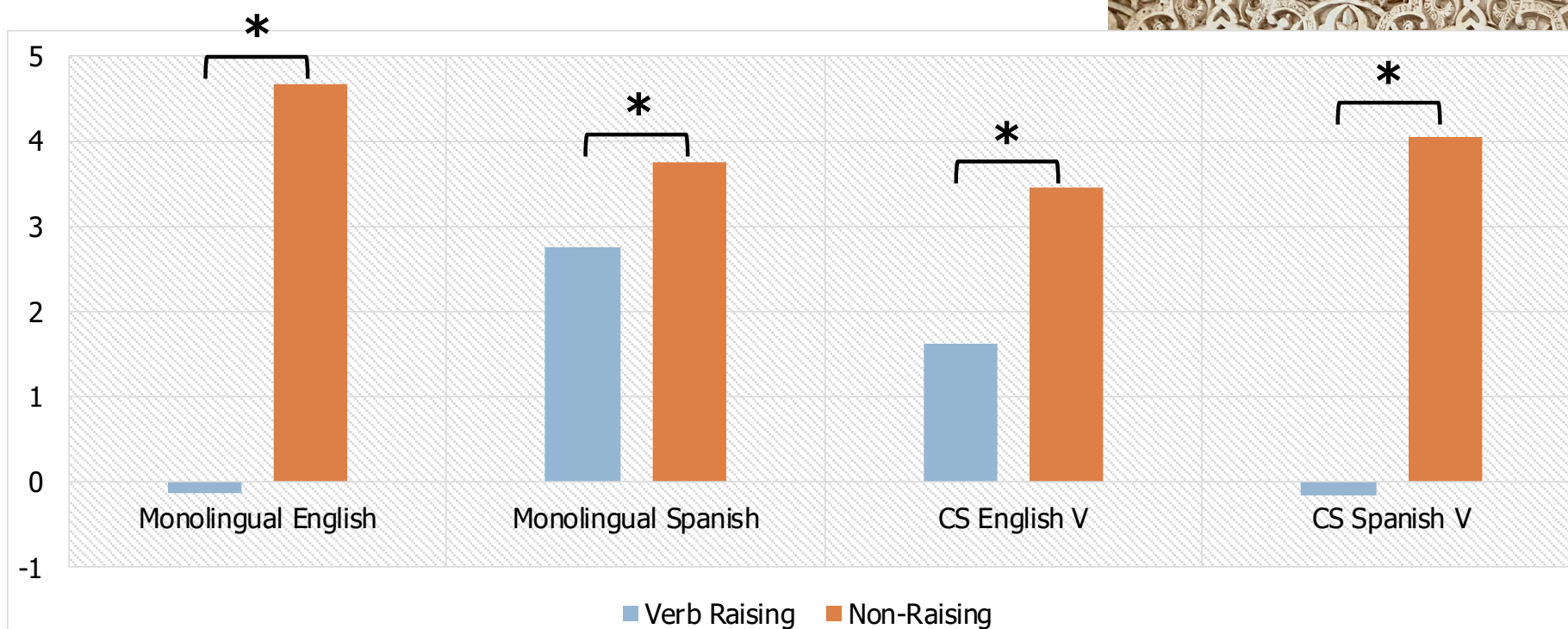
Discussion

- General availability of switched non-raising follows from the syntactic literature
  - Available with Spanish or English verbs either monolingually or in CS

- However, the language of the finite verb did not predict availability of verb-raising in CS
  - Spanish verb-raising was the *least* favored
  - If anything, the language of the adverb was a better predictor

Discussion

- Why were the predictions not confirmed?
  - Task?
    - Inclusion of control stimuli (e.g., pronoun switches, complex-sentence switches, etc.) (Koronkiewicz, 2019) suggest participants completed the task appropriately
  - Theoretical framework?
    - Matrix Language Frame (Myers-Scotton, 1993, 2002) model would similarly depend on the language of the finite verb (i.e., the matrix language)
  - No V-to-T movement?
    - Could argue that these bilinguals have non-raising as the preferred default for both English and Spanish, contra Camacho & Sánchez (2017)
    - Would still need to explain why it is possible (but not preferred) in Spanish

Discussion

- Some other syntactic reason?
  - Verb adjacency to the direct object likely playing a role
  - Stadthagen-González, López, Parafita Couto & Párraga, (2018) have compatible findings with post-verbal adverbs in Spanish-English CS
    - *Olivia preparó rápidamente* the food
      > Olivia prepared quickly *la comida*
      > Olivia prepared *rápidamente la comida*
      > *Olivia preparó* quickly the food
  - "All the constituents within the domain of the [verb-complement] dependency contribute to the perceived (un)acceptability of the construction" (p. 88)
    - That is to say, it's not just V+T, but the language of the adverb *and* the direct object play a role

Future Directions

- Continued look into adjacency constraints
- More fine-tuned analysis of the data concerning specific adverb
- Currently collecting data from French-English bilinguals
  - Can compare current data to a "true" verb-raising language paired with non-raising English

¡Gracias!

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