Raised Signing

Heritage Language Effects

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Part 1: Codas as Heritage Language Users

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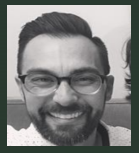
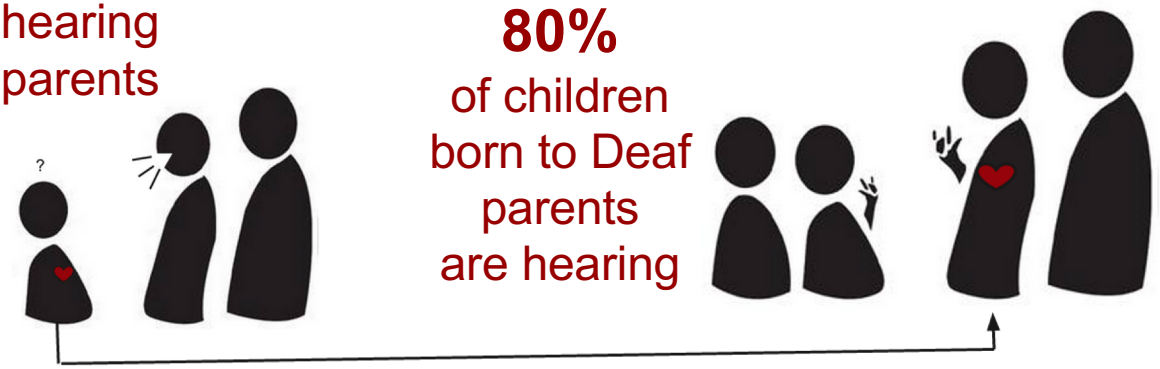


Wanette Reynolds

95%
of deaf children are born to hearing parents

CODA:
Child of Deaf Adults

80%
of children born to Deaf parents are hearing



Unique context of language transmission **(Compton 2014)**

statistics: Mitchell & Karchmer (2004), Mitchell et. al, (2006)

Characteristics	Deaf native signers	Bimodal bilingual heritage signers
Home language status	Minority	Minority
Language in education	Sign Language	Spoken Language
Language settings	Limited	Limited
Proficiency in home sign language	Variable?	Highly variable

Heritage signers language context

Examples: Variable proficiency in sign

- Interviewer: Are you involved in the Deaf community?
- Participant: Well, I've been living in a place different from the one where I grew up. So, yes, I'm involved, but it's not like it would be if I were in my home area, where I've known people for a long time. So yeah, I've been involved in some different things, but it's not like it would be at home.

Examples: Variable proficiency in sign

- Interviewer: Are you involved in the Deaf community? (several times)
- Participant: So I don't know what that means.
- 'Interpreter': So what do you do in the community.
- Participant: Oh, that's 'community'?
- Interpreter: Yeah
- Participant: I never knew the sign for that. What do I do?

Examples: Variable proficiency in sign

- Interviewer: The Deaf community
- Participant: Oh, the Deaf community!
- Interviewer and Interpreter: Do you have any involvement in the Deaf community?
- Participant: No!
- Interviewer: What work do you do?
- Participant: I drive a truck. I'm a truck driver.
- Interviewer: Do you like your work?
- Participant: Do I like working? NO! I want to retire. I'm finished. I'm 55. I'm finished. I'm full.

Examples: Variable proficiency in sign

- Interviewer: What languages do you use?
- Participant: Well, English – you know, with my friends in the hearing world. Yeah, English, right.
- Interviewer : What about sign language?
- Participant: Signing? Yeah, with my parents – not in the community. You know: “I’m hungry;” ”I’m cold;” “it’s hot;” you know, “left” and “right”, ”eat”, “leave”, “come home”, “sleep”. I was a small child!

Brazilian Bimodal Bilinguals
Monolingual Task

Group	Participant	Interpreter?	Sign Rating *	Speech Rating *
Bimodal bilinguals	CL	yes	7	7
	MR	no	6	7
	JB	no	4	7
	NT	no	3	6
Deaf signers	RM	no	7	n/a
	FR	no	7	n/a
	SD	no	7	n/a
	MS	no	7	n/a
Hearing non-signers	ZE	no	n/a	7
	SZ	no	n/a	7
	AR	no	n/a	7
	VS	no	n/a	7

* Ratings are based on the observation of a native bimodal bilingual.

Quadros & Lillo-Martin (2018)

Brazilian Bimodal Bilinguals
Monolingual Task

Group	Participant	Sign MLUw	Speech MLUw	%Sign VMorph Errors
Bimodal bilinguals	CL	5.50	7.46	0
	MR	3.63	6.40	3
	JB	3.70	6.47	12
	NT	2.54	5.00	59
Deaf signers	RM	7.27	n/a	n/a
	FR	6,68	n/a	n/a
	SD	6,04	n/a	n/a
	MS	5,64	n/a	n/a
Hearing non-signers	ZE	n/a	9.88	n/a
	SZ	n/a	9.00	n/a
	AR	n/a	8.96	n/a
	VS	n/a	6.37	n/a

Quadros & Lillo-Martin (2018)

Part 1 Conclusion

- There is a great deal of variability in the outcomes of heritage SL acquisition for Codas
- Some Codas have very high proficiency in their SL; others do not
- (Our research with children shows that these differences sometimes are present from early stages; at other times they emerge around the time we suspect that dominance shifts)

Part 2: Code-blending

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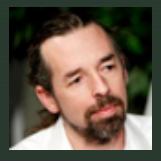
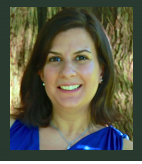


Deanna Gagne



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Sabine Laszakovits

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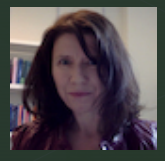


Code-blending

- Simultaneous production of (aspects of) an utterance in sign and speech
- Bimodal Bilingual Codas ((hearing adult) child of Deaf adults)

Bishop & Hicks (2005);
Emmorey, Borinstein, Thompson & Gollan (2008); Pyers & Emmorey (2008); Emmorey et al. (2012); et seq.

Heritage languages and code-mixing

- Heritage language speakers use code-switching
- Code-switching is more systematic with higher degrees of proficiency
- Code-blending is the bimodal bilingual analogue to code-switching

Research Questions

- Do we see differences in code-blending for those with higher and lower degrees of proficiency in their heritage sign language?
- What are the linguistic constraints on code-blending?

Code-blending Constraints

- How similar/different are speech and sign in code-blending?

Congruent

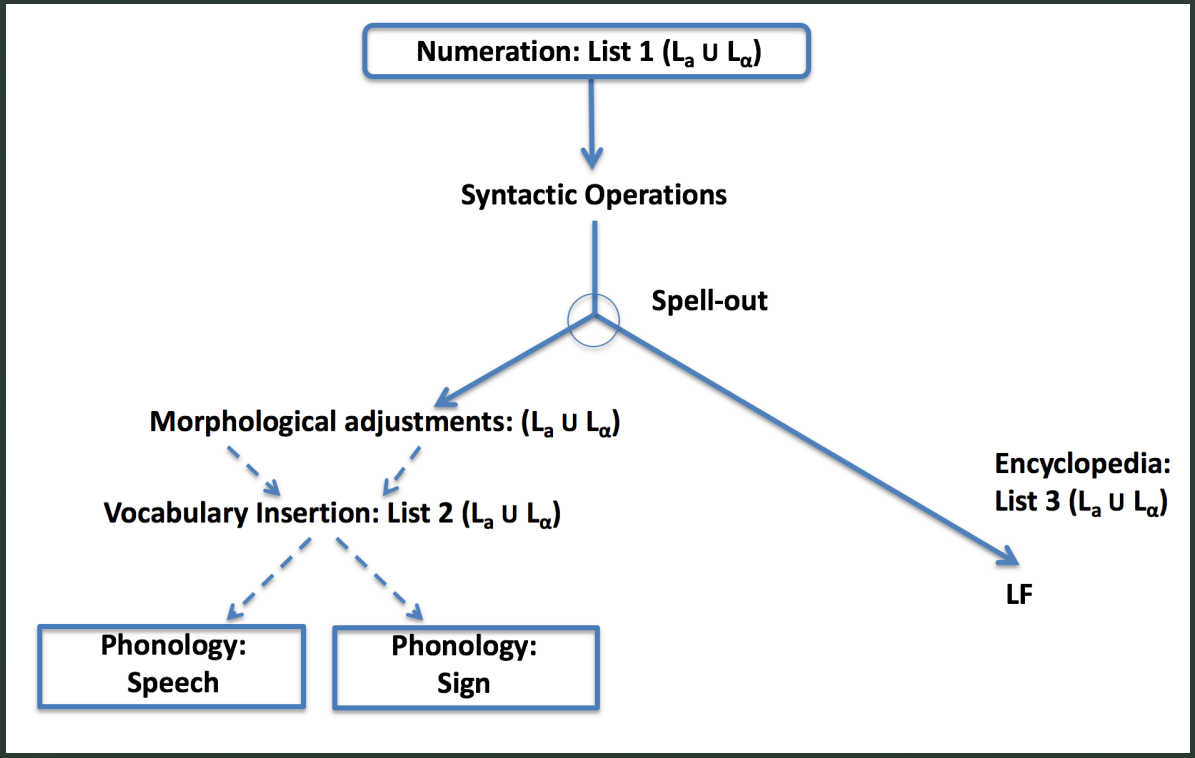
sign
speech

Non-congruent

sign
speech

Constraints on Code-blending

Language Synthesis model



Lillo-Martin, Quadros & Chen Pichler (2016)

Constraints on Code-blending

Participants

- Coda Adults

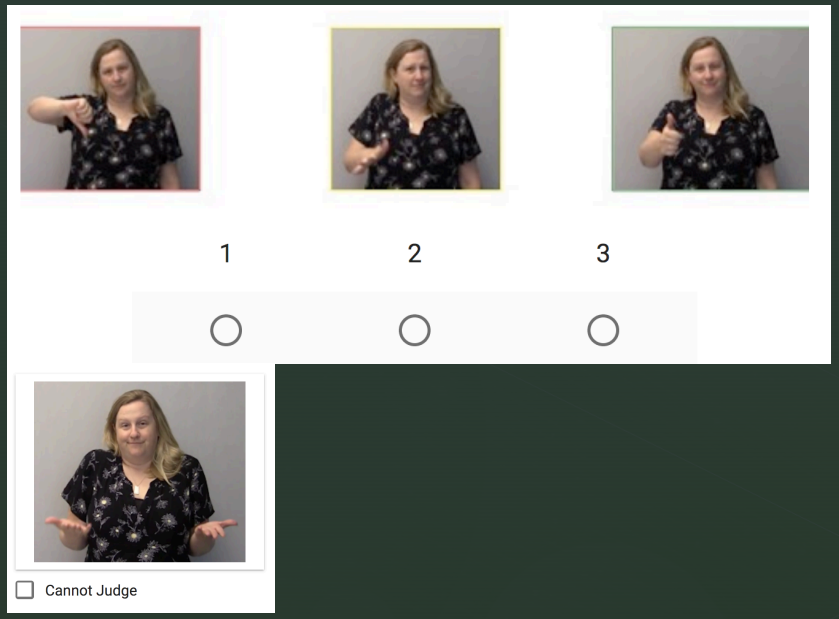
	Group	N (US)	N (BR)
1	High sign fluency	7	5
2	Low sign fluency	7	5
			(+8)
	COMBINED	14	18

Procedure

- Acceptability Judgment

Procedure

- Acceptability Judgment



Materials

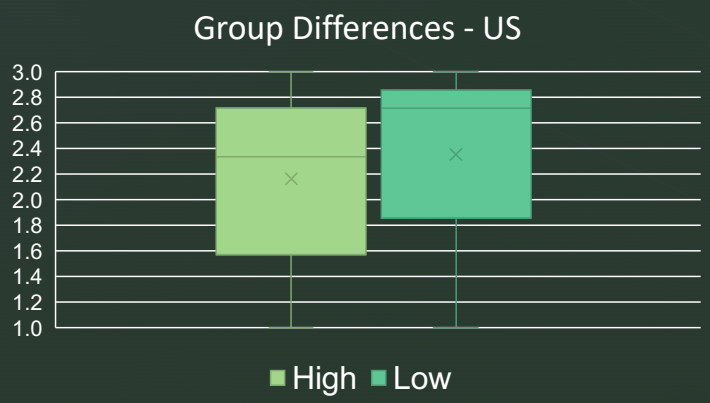
Production

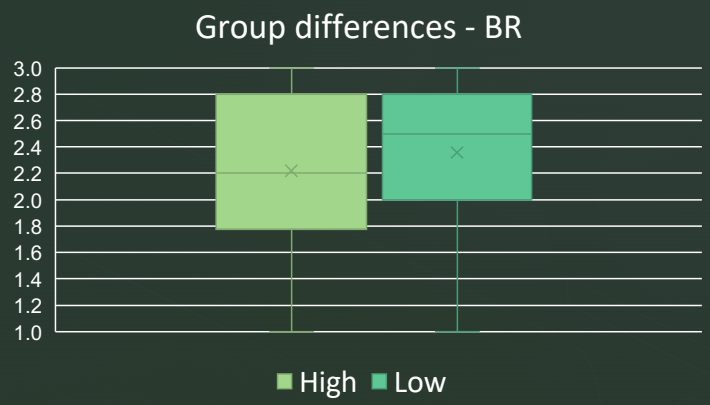
- Co-insertion
- Word order
- Possible language contrasts
  - Passive
  - Causative
  - Idiom
- * Fillers

Judgment

Group Differences: Judgment Task

- The average scores for the lower proficiency groups are more compressed compared with the higher proficiency groups.





Results: Coinsertion

	US	BR
SIGN Speech speech speech	* 1.77	* 1.38
SIGN SIGN SIGN Speech	√ 2.74	√ 2.55

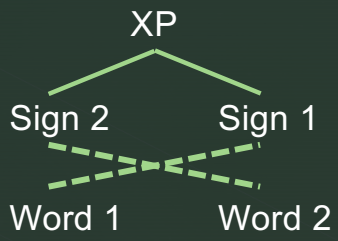
Results: Full blending with matrix language

- Across most item types - high rating for
  - Both languages follow sign structure
  - Both languages follow structure compatible with both

	US	BR
Both languages follow sign structure	2.67	2.64
Both languages follow structure compatible with both	2.66	2.75

Results: Order inversions

	US	BR
Generally high ratings for inversions under one node	2.57	2.62



SON	HAVE	EYE+	BLUE
My son has		blue	eyes

PICK	CHOCOLATE	ICE-CREAM	VANILLA	NOT
He picked	chocolate	ice cream,	but not	vanilla

Results: Causative

US	BR
2.49	2.50

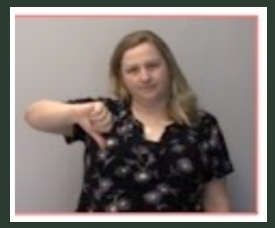
- Spoken and sign language transitive causative

STORY FINISH FS(Dorothy) MELT WITCH
At the end of the story Dorothy melted the witch

Results: Causative

	US	BR
Spoken language transitive causative with signed intransitive change-of-state	1.69	1.67

WOOD LOGS LEFTOVER BURN
He burned all the leftover logs



Results: Passive

- Spoken language passive with signed OV

  MAN WALLET STEAL
  The man's wallet was stolen

US	BR
2.62	2.78

Results: Passive

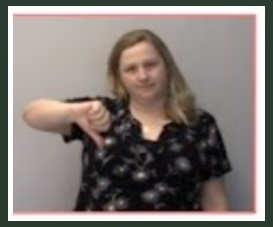
- Spoken language passive with signed OV

  MAN WALLET STEAL
  The man's wallet was stolen

- Spoken language passive with signed SVO

  FAMILY BUY DOG
  The dog was bought by a family

	US	BR
	2.62	2.78
	1.67	1.58



Results: Idioms

- Spoken language idiom with signed literal translation equivalents

  WE SHOOT+ WIND
  We were shooting the breeze

US	BR
1.41	1.52

- Spoken language idiom with signed meaning equivalent

  NOT WORRY SMALL PROBLEM
  Don't cry over spilt milk

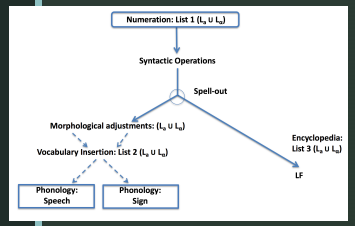
3.00	2.72

Discussion

- Productivity of code-blending
  - One language as matrix usually accepted
  - Short linear reversals OK

Discussion

- Linguistic constraints
  - Coinsertion not always acceptable
  - Congruent structures preferred
  - Structural compatibility (passive and topic) vs. incompatibility (passive and active)
  - Semantic compatibility (idioms)



Discussion

- Heritage effects
  - Judgment: Lower fluency signers have more compressed scores overall,
  - but no clear group effects on particular structures
  - In progress:
    - elicited production blending study;
    - coding of speed, MLU, and other characteristics in each language separately

Conclusion

- "The bilingual is not two monolinguals in one person" – Grosjean (1989)
- Code-blending reveals complex rule-governed interactions between languages
- *Codas – display characteristics of heritage language users*

Acknowledgments

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- Collaborators and research assistants on the projects reported here and other projects: https://slla.lab.uconn.edu

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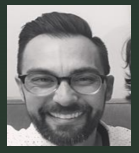
Jeffrey Palmer 

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Acknowledgments

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Thank you