Constraints on Code-blending: Evidence from Acceptability Judgments

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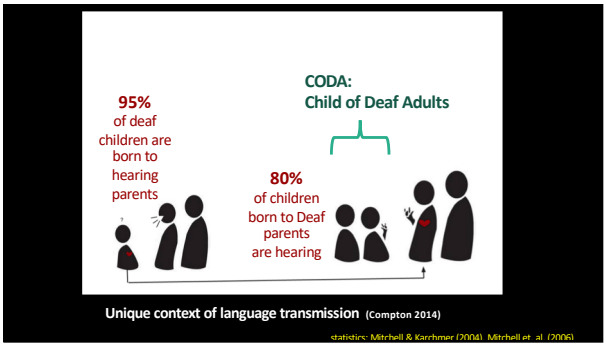

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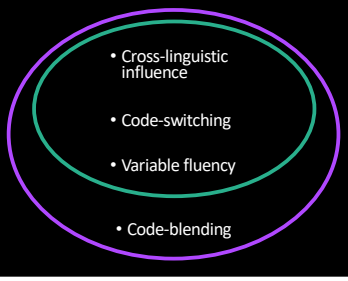
Heritage Bilingualism effects



Bilingual heritage language users

CODAs

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Code-blending

Simultaneous production of (aspects of) an utterance in sign and speech

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

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Types of code-blending

- Coinsertion
  - Simultaneous production of (one or more) spoken words and signs
- Full blending
  - Both languages use the same structure
  - Both languages follow the structure of one
- Simultaneous production of distinct structures
  - When is this permitted?

Note: A single utterance may combine more than one blend

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Questions

- What are the linguistic constraints on code-blending?
  - Is it possible to account for code-blending patterns using one derivation that combines features from the two languages? (Lillo-Martin, Quadros & Chen Pichler 2016; Koulidobrova 2016)
  - Or is it necessary to allow for two separate derivations, one for each language? (Branchini & Donati 2016)
- Are there differences between individuals based on competence levels (a potential heritage language effect)?

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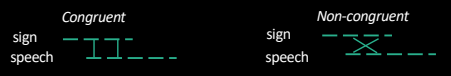
Code-blending Constraints

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



- Possible differences
  - Word order
  - Morphological expression
  - Prosody
  - Lexical choice

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Method: Participants

- Coda participants from two language pairs: ASL/English (US) and Libras/Portuguese (BR)
- All have at least one Deaf, signing parent

	Group	N (US)	N (BR)
1	High sign fluency	7	5
2	Low sign fluency	7	6 (+8)
	COMBINED	14	18

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Method: Task

- Acceptability judgment task
- Sentence types very similar across the language pairs

➢Target items designed to check most likely cases of non-congruence

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Item types

- Word order
- Possible language contrasts
  - Causative
  - Passive
  - Idiom
- Additional structures
- *Fillers

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Method: Procedure

Acceptability Judgment

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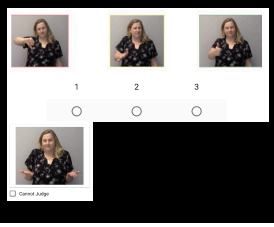
Method: Procedure

Acceptability Judgment



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Results: Group Differences

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

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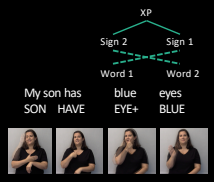
Results: Order inversions

US BR
H L H L
2.40 2.67 2.59 2.84

Generally high ratings for inversions under one node



My son has blue eyes
SON HAVE EYE+ BLUE

❖ Late linearization

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Results: Causative (a)

US BR
H L H L
2.37 2.62 2.67 2.43

Spoken & sign language transitive causative

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

❖ Both languages use the same transitive causative structure
❖ Late linearization: word order inversion in the adjunct phrase

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Results: Causative (b)

US BR
H L H L
1.83 1.14 1.67 1.57

Spoken language transitive causative with signed intransitive change-of-state

WOOD LOGS LEFTOVER BURN
He burned all the leftover logs

❖ Two structures – too distinct for blending

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Results: Passive (a)

US BR
H L H L
2.50 2.71 2.78 2.71

Spoken language passive with signed OV

MAN WALLET STEAL
The man's wallet was stolen

❖ Initial NP is topic
❖ No agent expressed
❖ Impersonal verb in sign with spoken passive verb

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Results:
Passive (b)

	US		BR	
	H	L	H	L
Spoken language passive with signed SVO	1.50	1.00	1.54	1.75

FAMILY BUY DOG
The dog was bought by a family

❖ Two structures – too distinct for blending

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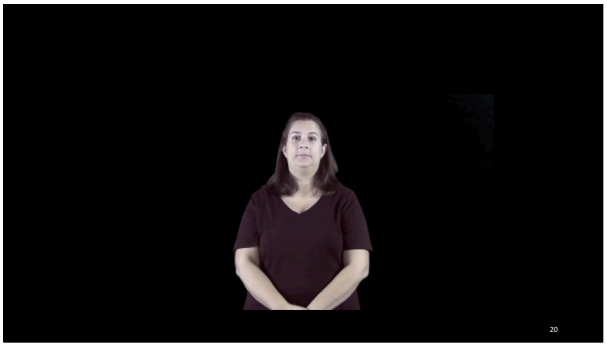

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Results:
Idioms (a)

	US		BR	
	H	L	H	L
Spoken language idiom with signed literal translation equivalents	1.10	1.75	1.49	1.78

WE SHOOT+ WIND
We were shooting the breeze

❖ Structural synthesis isn't enough

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Results:
Idioms (b)

	US		BR	
	H	L	H	L
Spoken language idiom with signed meaning equivalent	2.66	2.86	2.72	2.85

NOT WORRY SMALL PROBLEM
Don't worry over spilt milk

❖ Structural synthesis isn't enough

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Discussion: Return to research questions (a)

- What are the linguistic constraints on code-blending?
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Discussion: Constraints on code-blending

- Congruent structures preferred
  - Following either/both languages
- Non-congruent structures allowed for
  - Inversions under one node
- Structural incompatibilities
  - Transitive causative and intransitive change-of-state
  - Passive with by-phrase and active SVO
- Semantic compatibility is required above syntactic compatibility
  - Idioms

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Discussion: Return to research questions (b)

- ✓Are there differences between individuals based on competence levels (a potential heritage language effect)?
- Codas with higher ASL fluency are more critical than those with lower fluency

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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

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Acknowledgments

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Thank you

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