ACKNOWLEDGMENTS

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  – research assistants

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INTRODUCTION

Intermodality

THEORETICAL FRAMEWORK

• One Computation
  – Lillo-Martin, Quadros, Koulidobrova & Chen Pichler (2009)
• MacSwan’s (2000, 2005) Minimalist Model of Code-Switching

A minimalist model of code-switching

MacSwan (2000, 2005)
Code-switching can be accounted for using only the mechanisms needed to describe monolingual competence

MacSwain’s model as illustrated by Cantone & Müller (2005)
Distributed Morphology

Important Notes:
• In the first steps, there are only abstract hierarchical features and roots with no phonological material (no language specification).
• At VI, elements from either language can be inserted as long as the Vocabulary Items match (do not conflict) in features (may lead to code-switching or cross-linguistic influence).
• Elements from both languages may be inserted if they do not compete for articulation (code-blending).

Predictions

• One proposition may be expressed in either or both modalities
• Bilinguals will not produce two different utterances simultaneously – i.e., will not produce:
  – One proposition in sign while two are produced in speech (or vice-versa)
  – One proposition in sign while a different one is produced in speech (or vice-versa)

Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Lang’s</th>
<th>Age Range</th>
<th>Sess’ns</th>
<th># Coded Ut’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Igor</td>
<td>Libras / BP</td>
<td>2;01 – 2;11</td>
<td>10</td>
<td>3610</td>
</tr>
<tr>
<td>Ben</td>
<td>ASL / AE</td>
<td>2;01 – 2;06</td>
<td>2</td>
<td>994</td>
</tr>
<tr>
<td>Lex</td>
<td>ASL / AE</td>
<td>3;03 – 3;09</td>
<td>2</td>
<td>608</td>
</tr>
<tr>
<td>Tom</td>
<td>ASL / AE</td>
<td>2;04 – 2;07</td>
<td>2</td>
<td>398</td>
</tr>
</tbody>
</table>

All participants have at least one Deaf parent and relatively equal exposure to both sign and spoken languages.

BINATIONAL STUDY OF BIMODAL BILINGUAL LANGUAGE ACQUISITION

We examine the development of a sign language and a spoken language in two language pairs:
– Brazilian Sign Language (Libras) and Brazilian Portuguese (BP)
– American Sign Language (ASL) and English (E)

Bimodality under One Computation

• Modality
  – Speech
  – Sign
  – Bimodal
    • Bimodal Types
    • Bimodal Overlap
    • Bimodal Redundancy
Quadros, Lillo-Martin & Chen Pichler

2 Oct. 2010

Modality

Bimodal Types

Bimodal Overlap

Bimodal Overlap

Bimodal Redundancy

Potential Counterexamples – 1

- Timing overlap – Multis

Igor (2;10)
Lengthening

• Holding or repeating of the sign or word
• Used as a conversational strategy
  – Holding attention
  – Maintaining the topic
  – Cohesion across utterances
  – Repairs
• (Bennett-Kastor 1994; Huang 2010)

Potential Counterexamples – 2

• Timing overlap – Mismatches

Ben (2;01)

Coordination

• Children are still developing the ability to coordinate well manual and vocal outputs
• Repetition is used to repair the ill-coordinated timing

Potential Counterexamples – 3

• Non-redundancy

Ben (2;01)

Igor (2;07)

One Proposition

• According to our model, these are not counterexamples as long as combined they express one proposition
  – Look, she’s sick
  – This one is black.
  – I want that toy.

CONCLUSIONS

• Multiple kinds of blending are possible with multiple articulators.
• Our model, incorporating MacSwan’s proposals for code-switching and concepts from Distributed Morphology, can capture these possibilities.
CONCLUSION

One proposition is one computation with intermodal expression.

Signed words
Facial expressions
Gestures
Spoken words

SELECTED BIBLIOGRAPHY

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