SLI Across Languages

LING419_14OCT08
Detailed Schedule

- October 14, 16 and 21 = Topic II lectures
- October 23: guest lecture on phonological impairments in children – Anne-Michelle Tessier
- October 28: No class (I’m out of town) – use the time to meet for your presentations
- October 30, Nov 4 and 6 = article presentations
Article Presentations

• Purpose
  – Exposure to primary research
  – Explain primary research to your peers

• Format of Presentation
  – 15 minutes; both partners participate
  – Introduction
  – Methods
  – Results
  – Discussion
    • Critical comments
Article Presentations

• Format of summary outline
  – Same sections as presentation
  – Not more than 2 pages
  – Understandable on its own

• Logistics

• Evaluation
  – Content, clarity and organization = 20 pts
  – Depth of understanding = 5 pts
  – Effective communication = 5 pts
<table>
<thead>
<tr>
<th>October 30: Romance</th>
<th>Authors and Journal Titles</th>
<th>Authors and Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 4: Germanic</td>
<td>Authors and Journal Titles</td>
<td>Authors and Affiliations</td>
</tr>
<tr>
<td>November 6: New Concepts, New Languages</td>
<td>Authors and Journal Titles</td>
<td>Authors and Affiliations</td>
</tr>
</tbody>
</table>
SLI Across Languages

Leonard (2000)
Why Study SLI Across Languages?

• Are there universals in the manifestation of SLI across languages?
  – Or are the manifestations language-specific?
• Theoretical debate on the nature of the deficit in SLI
  – Processing vs. representational theories
• Assessment and intervention:
Grammatical morphology in SLI across languages

• Best candidate for a “universal”
• Leonard (2000): numerous studies on Spanish, Swedish, Italian, Hebrew
  – Grammatical morphemes examined
  – Children with SLI and younger, MLU TD
• 45 morphemes across the languages
  – 24 showed deviance pattern
  – Deviance pattern held for all MLU lengths
    • SLI < MLU for period of time
### Table 7.2: Children with SLI relative to MLU-matched ND children in four languages

<table>
<thead>
<tr>
<th>Language</th>
<th>Present singular</th>
<th>Past</th>
<th>Dir. Object clitic pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>plays</td>
<td>played</td>
<td>Jill saw him</td>
</tr>
<tr>
<td></td>
<td>21% &lt; 48%</td>
<td>32% &lt; 65%</td>
<td>93% = 96%</td>
</tr>
<tr>
<td>Hebrew</td>
<td>mitgaleshet</td>
<td>hitgalsha</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘she slides’</td>
<td>‘she slid’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>84% = 89%</td>
<td>77% &lt; 91%</td>
<td></td>
</tr>
<tr>
<td>Italian</td>
<td>dorme</td>
<td></td>
<td>Paula lo vede</td>
</tr>
<tr>
<td></td>
<td>‘sleeps’</td>
<td></td>
<td>‘Paula sees him’</td>
</tr>
<tr>
<td></td>
<td>88% = 92%</td>
<td></td>
<td>26% &lt; 66%</td>
</tr>
<tr>
<td>Spanish</td>
<td>abre</td>
<td>abrió</td>
<td>Lisa lo persigue</td>
</tr>
<tr>
<td></td>
<td>‘opens’</td>
<td>‘opened’</td>
<td>‘Lisa chases him’</td>
</tr>
<tr>
<td></td>
<td>85% = 91%</td>
<td>82% = 84%</td>
<td>40% &lt; 60%</td>
</tr>
</tbody>
</table>
Error Patterns

• Random errors?
• Omission vs. substitution
  – Poorly vs. richly inflected languages
• Bare stem vs. infinitive
  – Eng: inf = bare stem
    • (he) plays vs. (he) play
  – Swedish: inf = “a”
  – Klipper ‘she/he cuts’ vs. klippa ‘to cut’
Error Patterns

• Paradis & Crago (2001)
• Default errors forms
• Survey of languages: one or two errors forms most common
  – Target: j’ai mangé hier
  – Child: je mange hier/je mangé/er hier

• Default form
  – Not always the infinitive by semantics/syntax
  – Phonologically closest to verb stem
  – Frequent form in the input
Error Patterns

• Leonard (2000)
  – “one-feature-removed” errors
  – Sing for plu in Italian present tense
dorme --> dormono
  ‘he sleeps’ ‘they sleep’
  – Masc for fem in Hebrew past tense
hitgalesh --> hitgalsha
  ‘he slid’ ‘she slid’
Tense/Agreement Inflections Across Languages

<table>
<thead>
<tr>
<th>Present</th>
<th>English</th>
<th>German</th>
<th>Italian</th>
<th>Hebrew</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd sing</td>
<td>21%</td>
<td>53%</td>
<td>94%</td>
<td>-</td>
</tr>
<tr>
<td>3rd sing masc</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>93%</td>
</tr>
<tr>
<td>3rd sing fem</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>88%</td>
</tr>
</tbody>
</table>
Tense/Agreement Inflections Across Languages

• Richness of inflection plays a key role
• Spanish and Hebrew = rich agreement on verbs
  – More complex verb paradigms = more problems
  – Degree of difficulty less than English
Spanish - Past and Person

- Overall % correct for Spanish children with SLI on past tense = 82% (=MLU)
  - English = 32% (< MLU)
- Breakdown by person:
  - 1st sing = 90%; 1st plu = 91%
  - 3rd sing = 82%; 3rd plu = 65%

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>gax\text{a}</td>
<td>gax\text{b}</td>
</tr>
<tr>
<td>Second</td>
<td>gax\text{c}</td>
<td>gax\text{d}</td>
</tr>
<tr>
<td>Third</td>
<td>gax\text{e}</td>
<td>gax\text{f}</td>
</tr>
</tbody>
</table>
Hebrew - Past and Person

- Overall percent correct for Hebrew children with SLI on past = 77% (< MLU)
- On present tense, Hebrew SLI do better
  - Present tense = only number and gender

<table>
<thead>
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<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>gaxa</td>
<td>gaxb</td>
</tr>
<tr>
<td>Second</td>
<td>M: gaxc</td>
<td>F: gaxd</td>
</tr>
<tr>
<td>Third</td>
<td>M: gaxf</td>
<td>F: gaxg</td>
</tr>
</tbody>
</table>


Why “more is better”?

- Rich inflection = more salient and frequent
- Functional load
- Leonard (2000): “more is better” only up to a point
Function Words Across Languages

• Auxiliary verbs in Italian
  – Ha comprato un gelato ‘(he/she) bought an ice-cream’
  – È arrivato alle cinque ‘(he/she) arrived at five’
  – Hanno comprato un gelato ‘They bought an ice-cream’
  – Sono arrivato alle cinque ‘I arrived at five’

• Direct object Clitics in Italian
  – Lisa lo persigue ‘Lisa chases him’
  – Mamma vuole comprarlo ‘Mamma wants to buy it’

• Monosyllabic auxiliaries and preverbal clitics, Italian children with SLI < MLU
  – Aux: 65 vs. 88%
  – Clitics: 45% vs. 86%
Prosodic Factors in Morpheme Production

• TD English children more likely to omit weak than strong syllables
  – Even more so in WS than SW sequence
• Grammatical morphemes often in weak syllable positions
  – The doggie is running
  – W SW W SW
• Weak syllable omission extended in children with SLI, across languages
• Prosody just one factor that might explain why grammatical morphemes are affected crosslinguistically