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BILINGUAL CHILDREN WITH SLI (BISLI)

Language Acquisition in Special Circumstances
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How does one become bilingual?
- Immigrants
- Indigenous minorities
- Bidialectal populations
- Privileged populations (e.g. Anglophones in Canadian French immersion programs, Israelis who have returned from extended stays in North America)
- By parental choice

Bilingualism and Second Language Acquisition
- Who is bilingual?
- How does one become bilingual?
- Is it a homogeneous group?
- Are these facts related? Why? How?
- How are bilinguals different from monolinguals?

Is it a homogeneous group?
- Age of acquisition
- Birth order and family size
- Order of L1/L2 acquisition (simultaneous/sequential)
- Acquisition context (e.g. one parent for each language/L1 at home and L2 at school).

Who is bilingual?
- A bilingual knows two languages
- A bilingual speaks two languages
- A bilingual is native or near-native in two languages
- Functional Bilingualism - “those children who need and use two (or more) languages in their everyday life”. (Grosjean 1992, Kohnert 2008)

Are these facts related? Why? How?
- Age – most L2 learners are older than L1 learners
- Degree of success attained by the learner
- Fossilization – L2 learners often get stuck at a point short of native-like grammar
Related issues

- Simultaneous vs. sequential bilingualism
- Critical period
- Transfer vs. access

Some of the characteristics of bilingual acquisition

- A minor delay in the acquisition of inflections (in simultaneous bilingualism)
- Smaller lexicon when measured in each language separately but age appropriate when the combined lexicon is evaluated
- Transfer of syntactic structures across the languages (code interference – mostly, but not only, in sequential acquisition)
- Code switching – moving from one language to the other within utterance of across utterances
- In sequential acquisition length of exposure matters

How are bilinguals different from monolinguals?

Bilingual SLI


Bilingual SLI (BISLI)

Bilingual children who are below chronological age in both languages.

Simultaneous bilingual (age 3;7)

1. "EFR: Do you want to read the Jungle Book?"
2. "YAR: I can see Mowgli going."
3. "EFR: what can you see here?"
4. "YAR: Bagheera take him to the animals."
5. "EFR: who are these?"
6. "YAR: the wolf (wolves)."
7. "EFR: and here?"
8. "YAR: I can see Baloo and the Mowgli."
9. "EFR: what are they doing?"
10. "YAR: they throwing nuts."
11. "EFR: and now?"
12. "YAR: Mowgli going quickly and Bagheera’s sleeping."
14. "YAR: now Baloo want to eat the monkeys."
15. "EFR: and now?"
17. "EFR: what happened to Mowgli?"
18. "YAR: and he is doing fits to Shere Khan."
19. "EFR: why?"
20. "YAR: he is afraid of Mowgli."
21. "YAR: yeah, from the wolf (wolves)."

L1 English-L2 Hebrew 6;4

1. "EXP: what’s Mowgli doing?"
2. "YON: walking in in near the trees."
3. "EXP: here is a a... panther"
4. "YON: have a doll."
5. "EXP: the panther ha a ... you are right ... but the panther has a..."
7. "EXP: and what is the panther doing?"
8. "YON: looking for the wolves."
9. "EXP: and then, what is Mowgli doing now?"
10. "YON: playing on stairs."
11. "EXP: what’s he playing with?"
12. "YON: bears and coconuts."
13. "EXP: what’s he doing with the coconuts?"
14. "YON: try to get it."
15. "EXP: and who else do we have?"
16. "YON: a a tiger and a snake."
17. "EXP: oh oh. what’s the panther doing?"
18. "YON: ask where the kid is."
19. "EXP: you think he is asking them where the kid is."

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Hakansson, Salameh, & Nettelbladt. 2003

- Swedish-Arabic children with and without SLI
- Migrant children with simultaneous to successive acquisition of Swedish (matched for exposure to Swedish and Arabic).
- Children with LI tended to produce early stage structures in both of their languages while children with typical development tended to produce more complex or later developing structures in each of their languages.
- Unimpaired L1/L2 children are L1-like in at least one language
- Children with SLI are impaired in both languages
- The differences are held over time while development follows the predicted patterns in each of their languages (Salameh et al., 2004)


- First studies of bilingual children with Specific Language Impairment (BISLI) - French-English simultaneous bilingualism in Canada. L1 and L2 French-speaking children with SLI
- A range of measures related to the ‘optional infinitive’ phenomenon
  - Significant similarities between SLI and L2 learners:
    - Tense marking
    - Avoidance of object clitics
    - Verb diversity
- Use of general purpose verbs (e.g. do, make).
  ➔ A parallel is found between the language of sequential bilingual children and the language of children with SLI – both use bare verbs (Optional Infinitives).
  ➔ Tense-marking may not be an effective clinical indicator of SLI for second language learners.

Central Issues

- Can we disentangle bilingualism from SLI in impaired children?
- How do we diagnose SLI in bilingual population?
- Are bilingualism and SLI are “two of a kind” (Crago & Paradis, 2003)
  - Do bilingual children with SLI show a “double delay” (Paradis 2007; Paradis et al. 2003; Paradis et al. 2005/6).
  - Can bilingualism be instructive for children with SLI (Roeper 2009).

But …

Paradis & Crago 2000

- While children with SLI tend to omit the auxiliary in past or future periphrastic verb constructions, L2 children substitute the auxiliary with the base or present tense form.

Paradis. 2008

- only L2 children generalize the use of BE, in order to fill a gap between their communicative demands and their knowledge of the L2 with a morphosyntactic expression.
  - Both the high proportions of commission errors and the overgeneralization of BE single out L2 children from children with SLI.
Paradis, Crago, Genesee, and Rice. 2003

- French-English bilingual children with SLI - monolingual age mates with SLI, in each language.
- Morphosyntax in language production - the extended optional infinitive (EOI) framework (children’s use of tense-bearing and non-tense-bearing morphemes in obligatory context in spontaneous speech).
- All children with SLI showed greater accuracy with non-tense than with tense morphemes.
- All children with SLI had similar mean accuracy scores for tense morphemes. The bilingual children did not exhibit more profound deficits in the use of these grammatical morphemes than their monolingual peers.
- SLI may not be an impediment to learning two languages, at least in the domain of grammatical morphology.

Study I – Language use in Narrative (Moldinov 2010)
Russian-Hebrew Bilinguals with and without SLI & Hebrew Monolinguals with SLI

<table>
<thead>
<tr>
<th>Study I – Language use in Narrative (Moldinov 2010)</th>
<th>#</th>
<th>Age</th>
<th>LoE</th>
<th>Hebrew score</th>
<th>L2 evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BiTLD</td>
<td>20</td>
<td>5-0-6:2</td>
<td>2&lt;</td>
<td>Within norms (Goralnik 1995)</td>
<td>No history of language impairment in Russian. Z-score higher than -1 (based on 80 Russian-Hebrew bilinguals in regular preschool) on NWR, sentence imitation, and MLU in narrative in Russian.</td>
</tr>
<tr>
<td>BiSLI</td>
<td>9</td>
<td>6:3-6:10</td>
<td>2&lt;</td>
<td>-1.5 SD</td>
<td>Parents reported delay in production of Hebrew. All were receiving treatment by an SLP.</td>
</tr>
<tr>
<td>MoSLI</td>
<td>14</td>
<td>5:1-6:5</td>
<td>-1.5 SD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Task: telling a story from a set of pictures

Study II – Inflections Use in L2 Hebrew by Bilinguals with TLD

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<th>#</th>
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<th>Hebrew evaluation</th>
<th>L2 evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian-Hebrew</td>
<td>15</td>
<td>5-7</td>
<td>2&lt;</td>
<td>Within norms (Goralnik 1995)</td>
<td>No history of language impairment in Russian. Z-score higher than -1 (based on 80 Russian-Hebrew bilinguals in regular preschool) on NWR, sentence imitation, and MLU in narrative in Russian.</td>
</tr>
<tr>
<td>English-Hebrew (Shimon 2008)</td>
<td>11</td>
<td>5-7</td>
<td>2&lt;</td>
<td>Within norms (Goralnik 1995)</td>
<td>Within norms (CELF2 preschool)</td>
</tr>
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Sentence completion
TLD vs. MOSLI

- All errors – no difference between BiTLD and MoH-SLI (p = .12)
- Only errors which are not due to code interference (non-CI errors) – BiTLD had significantly less errors than MoH-SLI (p < .05) and BiSLI (p<.001) with no difference between the impaired groups (p=.14).

Overall errors
CL errors
Non-CL errors

- 25.00%
- 20.00%
- 15.00%
- 10.00%
- 5.00%
- 0.00%

- TLD (English) (Sharon Lotem, in preparation)
- BiSLI (Shimon, in preparation)
- MoSLI (Jordi et al., 1999)
Major Findings

- Speakers of Hebrew as L2 whose L1 is English, are almost at ceiling for all three morphemes after two years of exposure to Hebrew
- Speakers of Hebrew whose L1 is Russian with a similar length of exposure are at ceiling for two of the three morphemes, but score like monolingual children with SLI on the plural morpheme.
- The few errors documented in the Hebrew L2 data were erroneous choice of tense which did not involve a fewer number of features, or, for the children with L1 Russian use of the more complex agreement morpheme (fem. pl.) due to code interference from L1 Russian.
- These data confirm that SLI and L2 are not "two of a kind".

Major Findings

- On the three inflectional categories which were tested in both studies, no significant difference was found between the two groups, neither in the degree of success, nor in the type of errors (choosing the 3rd person form which has no suffix instead of a form inflected with a suffix for 1st or 2nd person).
- Impaired bilinguals achieve a similar level of performance to impaired monolinguals, thus showing no double delay effects for the impaired children.

Study III – Hebrew Inflections in BISLI

- 9 bilingual English-Hebrew children, ages 5-7, who attend language preschool following an earlier diagnosis for SLI.
- The bilingual children were all sequential bilinguals and were exposed to Hebrew for at least two years.
- All scored lower than -1 SD below norm on the CELF2 preschool for English and lower than -1.5 SD below norm on the Goralnik for Hebrew.

Sentence completion BISLI and MOSLI

- Bilingual children with SLI are not only as accurate as monolingual children with SLI, and sometimes even do better
- In the present tense, bilingual children with SLI do better than Dromi et al.’s monolingual children with SLI (and also better than our sample of MOSLI tested by the same RA at the same schools as the BISLI group)
- This is noteworthy in the use of the rare and marked feminine plural.
- Is bilingualism instructive to children with SLI?
- Do bilingual children with SLI rely on their knowledge of L1 in acquiring the L2, which gives them an advantage over monolingual children with SLI?
Prepositions as a test case – in-class assignment

- Which kind of errors are typical for each population?
- Does length of the input influence the quantity and quality of errors?
- Are these errors comparable with the inflection errors?

Prepositions and SLI: Predications

- Children with SLI show difficulties with structures which are grammatically motivated, and do better with structures which are semantically motivated.
- In Hebrew, restricted prepositions have a very limited semantic motivation and their omission is expected.
- In English, a sub-group of the restricted prepositions (particles) changes the meaning of the verb and has a semantic basis.
- Particles in particle verbs in English promote awareness of the obliactivity of prepositions in phrasal verbs in both languages of a English-Hebrew bilingual child, and can facilitate the use of obligatory prepositions in a language which has no particles (e.g., Hebrew).
- Children with BSLI whose L1 is English have a better chance at realizing that restricted prepositions are indeed obligatory, than children who have no place in their language where restricted prepositions are semantically motivated (e.g., monolingual Hebrew speaking children with SLI, or Russian-Hebrew bilinguals with SLI).

A few words on prepositions

- Prepositions are a locus of code interference in bilingual populations.
- Some children with SLI show omission of prepositions (Roeper et al., 2001).
- Hebrew - two major types of prepositions:
  - restricted prepositions (e.g., laugh at) - have mainly a grammatical function.
  - free prepositions (temporals and locatives, e.g., on the table in the morning) - have a semantic function, as well, contributing to the meaning of the sentence.
- English – a third type:
  - restricted prepositions in particle verbs (turn on, look for) - have a semantic function, changing the meaning of the verb.

Error type per preposition type (Hebrew)

<table>
<thead>
<tr>
<th>Task – Sentence Repetition, two types of preposition.</th>
<th>#</th>
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<tbody>
<tr>
<td>Russian-Hebrew</td>
<td>3</td>
<td>6-7</td>
<td>2c</td>
<td>&lt; -1.5 SD</td>
<td>&lt; -1 SD (CELF2 preschool)</td>
</tr>
<tr>
<td>English-Hebrew</td>
<td>8</td>
<td>5-7</td>
<td>2c</td>
<td>&lt; -1.5 SD</td>
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<td>5-6-7</td>
<td>2c</td>
<td>&lt; -1.5 SD</td>
<td>&lt; -1 SD (CELF2 preschool)</td>
</tr>
</tbody>
</table>

Study V - The use of Prepositions:
Russian-Hebrew Bilinguals with SLI, English-Hebrew Bilinguals with SLI & Hebrew Monolinguals with SLI

- English-Hebrew bilingual children benefit from the bilingual situation in the use of preposition.
- Russian-Hebrew bilingual children, whose L1 Russian has no particles, do not show benefits of bilingualism.
- Such findings suggest that knowing one language could help children with SLI bootstrap the learning of a second one.
- Bootstrapping depends on the nature of the two languages.