Crosslinguistic priming of syntactic and thematic roles: Evidence from Polish-English bilingual children

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What is the nature of syntactic and thematic representations in bilingual children's two languages? Are they shared cross-linguistically?

Structural priming evidence in adults suggests that:

- Proficient L2 learners can rely on shared syntactic structures [1]
- Thematic role ordering can be primed across languages [2, 3].

The evidence for shared syntax in bilingual children is more limited:

- Children show significant syntactic priming effects in one [4] or both directions [5].
- Children have shown word order, but not syntactic, priming [6].
- No evidence for whether bilingual children are sensitive to the priming of thematic roles instead of or alongside the priming of syntactic structure.







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The current study

48 UK-based Polish-English bilinguals

- 26 girls; M_{age} 9;5, range: 7;11–11;4.
- vocabulary measured by WISC-V

Two sessions of a Snap! game

- 18 prime-target trials per condition:
 - baseline = first 18 trials
 - active, passive, (OVS) = mixed priming phase

Bidirectional crosslinguistic priming:

- English primes → Polish targets, and
- Polish primes → English targets

Stimuli

Pictures and primes



Pirat_[Agent] ciągnie_[V] piłkę_[Theme]

The $pirate_{[Agent]}$ $pulls_{[V]}$ the $ball_{[Theme]}$

Passive:

Piłka_[Theme] jest ciągnięta_[V] przez pirata_[Agent] The ball_[Theme] is pulled_[V] by the pirate_[Agent]

OVS:

Piłkę[Theme] ciągnie[V] pirat[Agent]

(The pirate pulls the ball)

Predictions

Syntactic priming:

 Children produce more passives in English/ Polish after Polish/ English passive primes.

Thematic role priming:

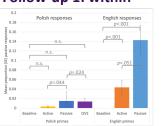
- Children produce more passives in English after Polish OVS primes.
- Children produce more OVS in Polish after English passive primes.

Results



Both: more passives in *all* conditions in priming phase (inc. active) vs baseline.
English: same effect of OVS /passive primes vs active.
Polish: no effect of passive vs active primes.

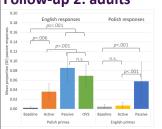
Follow-up 1: within



48 UK-based bilinguals

• 27 F; M_{age} 10;1, 8;0–12;4 Priming **within** languages. English: more passives after primes vs baseline. Polish: more passives after passive vs active/OVS.

Follow-up 2: adults



25 UK-based bilinguals

• 25 F; M_{age} 36;9, 19–59;9 Priming **between** languages English: same pattern of results as children.

Polish: more passives after passive vs active/baseline.

Conclusions

- Crosslinguistic priming for syntactic structure and thematic role order.
- Crosslinguistic priming was bidirectional in adults but not children.
- Weak passives priming and OVS responses only in within language study – greater societal language competence? Contrasts with [2] results
- Items could be more conducive to passives.

References: [1] Van Gompel, & Arai. (2018). Bilingualism: Language and Cognition, 21(3), 448-455; [2] Fleischer, Pickering, & McLean. (2012). Bilingualism: Language and Cognition, 15(3), 568-579; [3] Vernice, Pickering, & Hartsuiker, (2012). Language and Cognitive Processes, 27(5), 631-664; [4] Wolleb, Sorace, & Westergaard. (2018). Linguistic Approaches to Bilingualism, 8(5), 606-636; [5] Gámez, & Vasilyeva. (2020). Language Learning and Development, 16(1), 89-106; [6] Wesierska, Serratrice, Cieplinska, & Messenger. (in press). Bilingualism: Language and Cognition.