Incorporating Syntactic Information in a Second Language: Evidence from Lingering Garden Paths

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Research Question
Do L1 syntactic characteristics, like word order, affect online processing expectations in an L2?

Introduction

- Parsing in L1 is incremental and anticipatory
- using semantic [1], pragmatic [2], and syntactic information [3]
- Processing in L2 seems different [4], but what drives differences in L1 vs L2 parsing?
- Language specific differences?
- General differences in the nature of processing?

Self-Paced Reading Study

- 24 Targets; 48 Fillers
- Lingering Garden Path Sentences [5]? While the man hunted (.), the deer ran into the woods near the house.
- 2 Comprehension Question Types
  - Main Clause: Did the deer run through the woods?
  - While-Clause: Did the man hunt the deer?
- 2 Verb Types
  - Optional Transitive: Null, Inferred Object (e.g. hunt)
  - Reflexive Absolute Transitive: Null, referential Object (e.g. bathed)
- Participants
  - Native English (n=20)  Avg Cloze: 22.25/25
  - L1 Mandarin/L2 English (n=24)  Avg Cloze: 18.8/25
  - L1 Korean/L2 English (n=20)  Avg Cloze: 18.5/25

Hypothesis & Predictions

- While the man hunted (.), the deer
- Garden Paths (Ambiguous)
  - Slower RTs
  - Lower Question Accuracy

- No Garden Path Penalty
  - Comparable RTs for Ambig & Unambig sentences
  - Comparable Accuracy rates for Ambig & Unambig sentences

Question Accuracy Results

- English
- Mandarin
- Korean

Reaction Time Results

- In ambiguous conditions, slow down at disambiguating verb for all languages
- Effect of Ambiguity lasts longer for native English speakers: both Mandarin and Korean speakers’ RTs in Ambiguous sentences converge towards Unambiguous sentences faster
- Both Mandarin and Korean speakers “recovered” from misinterpreted garden paths faster than English speakers did

Conclusions

- Korean speakers were not using Korean SOV order to guide expectations. They built expectations based on English SVO order and had to reanalyze at the disambiguating verb.
- L2 processor’s weaker commitment to the parse may facilitate faster restructuring [6]. L1 speakers build stronger expectations about (larger amounts of) upcoming structure

References: