No grammatical illusion with L2-specific memory retrieval cues in agreement processing

Zoe Schlueter¹, Shota Momma², Ellen Lau¹
¹University of Maryland; ²University of California, San Diego

Introduction

L2 learners have to acquire grammatical knowledge plus appropriate processing routines to implement it online

*The key to the target are rusty.*

Subject-verb agreement processing: cue-based retrieval susceptible to similarity-based interference

Chinese: no subject-verb number agreement, only structural cues used for establishing subject-verb dependency

Are advanced Chinese learners of English able to use the verb’s number cue for retrieval in subject-verb agreement processing in English?

Exp. 1: Speeded Acceptability

If L2 learners use the verb’s number cue for retrieval, ungrammatical sentences are expected to be judged acceptable more frequently with a plural attractor

*The key to the cabinet/cabinets was/were rusty.*

L1 & L2 group show different patterns (3-way interaction with language: p < .001)

L1 Group:
- sensitive to grammaticality (p < .001)
- attraction effect (interaction: p < .001)

L2 Group:
- sensitive to grammaticality (p < .001)
- no attraction effect! (interaction: p = .47)

Exp. 2: Self-paced reading

If L2 learners are sensitive to agreement violations in online processing, but do not use the verb’s number cue for retrieval:
- slow down in ungrammatically conditions
- no reduction of the slowdown with plural attractor

L2 Group (N=32)
- same pattern as speeded acceptability
- sensitive to grammaticality (p < .05)
- no attraction effect

L1 Group (N=30, not pictured)
- grammaticality effect and agreement attraction effect, as expected

Post-experiment offline judgments
- same pattern for L1 and L2 groups
- ungrammatical sentences rejected more frequently
- small attraction effect for both groups!
- but: untimed task, whole sentences displayed

Summary

- Advanced Chinese L2 learners clearly sensitive to agreement violations in online processing
- No illusion of grammaticality in ungrammatical sentences with plural attractors
- lack of native-like processing helps L2 learners avoid a native-like processing error
- Grammatical knowledge of subject-verb agreement not implemented as retrieval cues

References