

Introduction

As a pro-drop language, Mandarin Chinese allows pronouns at subject position reduced to a zero element under certain conditions (Huang, 1984). Therefore, zero-pronouns, in addition to overt-pronouns and overt referring expressions, are among the available anaphoric expressions in Mandarin Chinese (Yang, Gordon, Hendrick, & Wu, 1999). Among the three possible anaphoric expressions listed above, the zero-pronoun is found to be the most frequent in Chinese discourse according to corpus studies (J.-G. Chen, 2008; Ren, 2015). Nevertheless, its widespread use also presents a computational challenge: how do parsers pick out the correct antecedent for zero-pronouns when no overt information about the antecedent is given?

(1a) 约翰 去 哪里 了?
John go where ASP
“Where did John go?”

(1d) (referring expression): 约翰 去 学校 了。
John go to school ASP
“John went to school.”

(1b) (zero-pronoun): \emptyset 去 学校 了。
 \emptyset go to school ASP
“ \emptyset (he) went to school.”

(1e) Ambiguous Reference:
A: 约翰 把 汤姆 介绍 给 格里高利 了 吗?
John BA Tom introduce to Gregory ASP MOD
“Have John introduced Tom to Gregory?”

(1c) (overt-pronoun): 他 去 学校 了。
he go to school ASP
“He went to school.”

B: 没有, 因为 \emptyset 今天 没 去 公司。
No because \emptyset today no go to company
“No, because \emptyset (he) didn't go to the company today.”

Previous Approaches

- Li and Thompson (1979): semantic information imposes constraints.
- Chen (1986): “Topic chain” of the discourse governs reference: zero-pronouns sensitive to the coherence of the discourse.
- Yang, Gordon, and Wu (1999): Readers use syntactic cues to find antecedents: “syntactic prominence”
- Simpson, Wu, and Li (2016):
 - logic chain disruption weakens preference for subject-position antecedents for overt pronouns in Chinese. (Using “transfer of possession” (TOP) verbs).
 - Kehler and Rohde (2013) found similar effect in English.

Research Question and Hypothesis

Research Question: Would the disruption of “logic chain” (e.g. usage of TOP verbs) change antecedent preference for zero-pronouns in Chinese?

Hypothesis: zero-pronouns in Chinese are also sensitive to topic chain disruption, and thus post-verbal antecedents would be more preferred when following TOP verbs compared to non-TOP verbs.

Methods

Participants: native Chinese speaker living in Evanston, Illinois, and Providence, Rhode Island. Participants are tested using paper-based questionnaires.

Four lists with Latin Square design (TOP/non-TOP, subject/object reversed)

(Non-TOP) Sentence 1:

小明 看到 了 小刚。
Xiaoming see ASP Xiaogang
“Xiaoming saw Xiaogang.”

(TOP) Sentence 1:

小明 递 给 了 小刚 一 封信。
Xiaoming hand ASP Xiaogang a letter
“Xiaoming handed Xiaogang a letter.”

Sentence 2: Test Sentence

因为 \emptyset 在 想 别 的 事情, \emptyset 并 没 有 和 (?) 说 话。

Because \emptyset is think other thing, \emptyset by no means with (?) talk

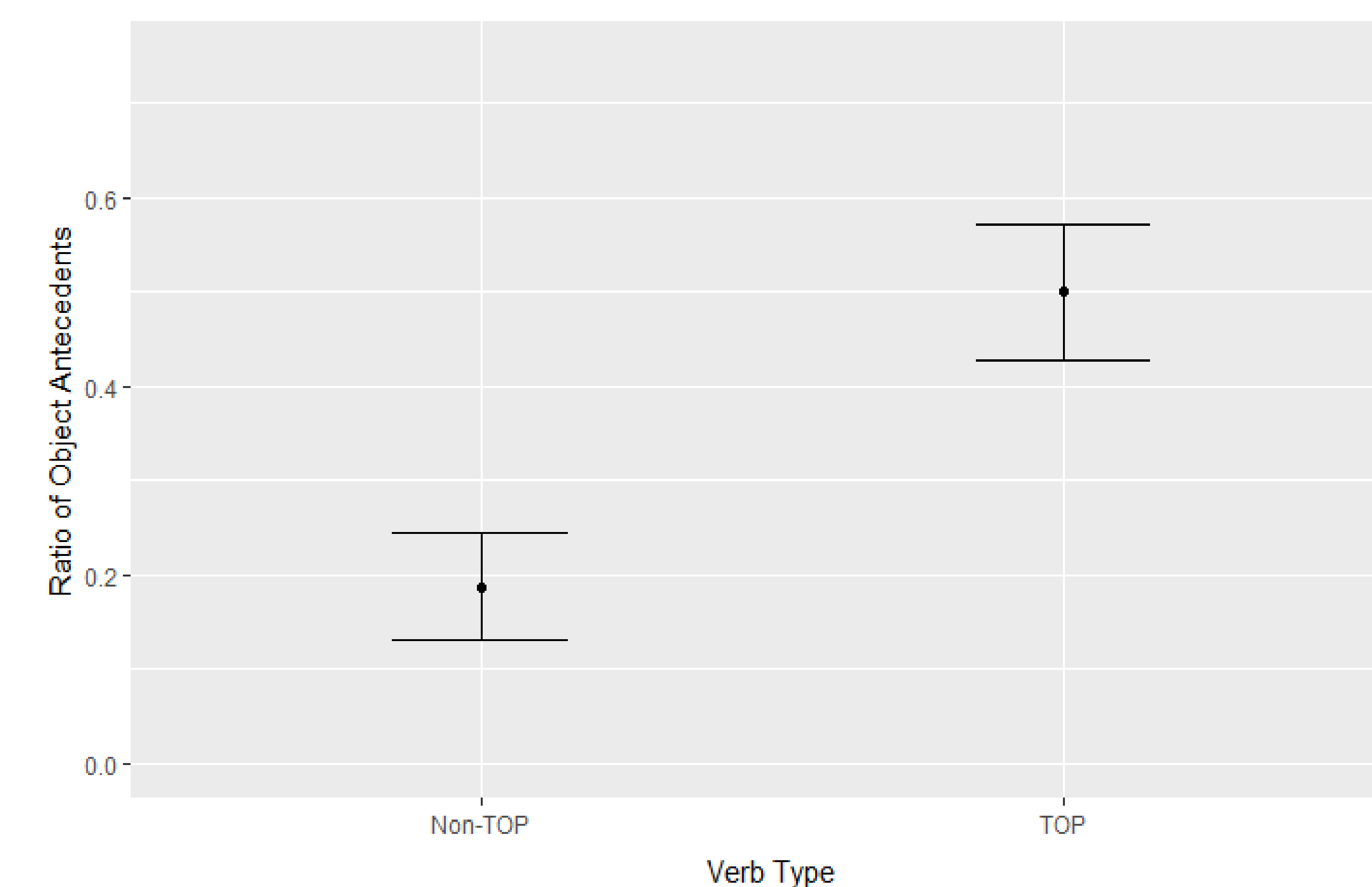
“Because (he) was thinking about something else, (he) didn't talk to (?)”

- Participants are asked to choose from two options to fill in the blank:

(a) 小明 (Xiaoming)

(b) 小刚 (Xiaogang)

Preliminary Results



- Data from 12 participants are included;
- TOP condition yields significantly higher object-antecedent responses than non-TOP condition ($t=2.38$, $p<0.05$);
- Non-TOP condition favors subject-antecedent interpretation.

Speculations: In Chinese, zero pronouns preferably bind with subject position antecedents in active sentences; Transfer of Possession (TOP) verbs in Chinese, and thus can alter preferred antecedents for zero pronouns to those at object positions; This supports that claim that semantic and pragmatic factors affect zero pronoun reference in Chinese.

References

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