

So what happens next?: Reference prediction in implicit consequential events in L2 Chinese

Introduction: Reference resolution requires the integration of semantic and discourse cues. Previous work shows that when completing sentences involving implicit consequentiality (e.g., ‘**Xu Gang**_{1-Topic} because **t₁** likes Mary, so...’), native (L1) Chinese speakers are more likely to continue with the **experiencer** referent (e.g., ‘Xu Gang’) when it is a topic (by moving to a position preceding the connective ‘because’) than when it is a non-topic [e.g., 1,2]. However, how non-native (L2) speakers weigh semantic and discourse cues for reference resolution remains debated [e.g., 3,4], as L2 speakers may have a “reduced ability to generate predictions.” This study investigates the influence of thematic roles and topicality in L1 and L2 speakers’ predictions of upcoming referents in implicit consequential events.

Methods: We conducted a sentence completion task, manipulating the factors *Verb Bias* (Stimulus-Experiencer verbs vs. Experiencer-Stimulus verbs) and *Topicality* (Topic vs. Non-topic). See (1) for an example target item. Eight verbs from [1] (4 SE verbs, 4 ES verbs) were used. The topical status of the subject was manipulated via left-dislocation (e.g., *Xu Gang*_{1-Topic} because *t₁*... vs. *Because Xu Gang*...). Subject and object referents were of different genders so that coreference with the experiencer or stimulus can be reliably identified. Proper names were confirmed to be gender-biased in a norming test. When comparing the two groups, we included *Language* (L1 vs. L2) as an additional factor. Forty-one L1 Chinese and 43 advanced L2 Chinese speakers (HSK 4-6 levels; $\approx$ CEFR B1-C1) participated. The stimuli consisted of 24 target items and 24 fillers. L2 speakers additionally completed a cloze test, the score of which was used as a measure of L2 proficiency.

(1) An example target item (Chinese sentences transliterated to English).

Condition	Example target item
a. ES- Topic	Xu Gang _{male} because liked _{ES} Lixue _{female} , so...
b. ES- NonTopic	Because Xu Gang _{male} liked _{ES} Lixue _{female} , so...
c. SE- Topic	Xu Gang _{male} because moved _{SE} Lixue _{female} , so...
d. SE- NonTopic	Because Xu Gang _{male} moved _{SE} Lixue _{female} , so...

Results: Mixed effects logistic regressions were used to analyze the coreference choices. See **Fig.1** for results. The omnibus analysis including both groups indicates that both verb semantics and topicality were used by L1 and L2 speakers alike: participants tended to continue the sentence with the experiencer referent when the subject was non-topical; this preference was either strengthened or substantially weakened when topicality aligns with or conflicts with the experiencer role (p 's < 0.005). However, the strength of topicality effects differed between the two groups, as reflected in a three-way interaction; subsequent analyses indicate *Topicality* x *Language* interactions within each *Verb Bias* level (p 's < 0.05): L2 speakers exhibited stronger sensitivities to verb cues than topicality.

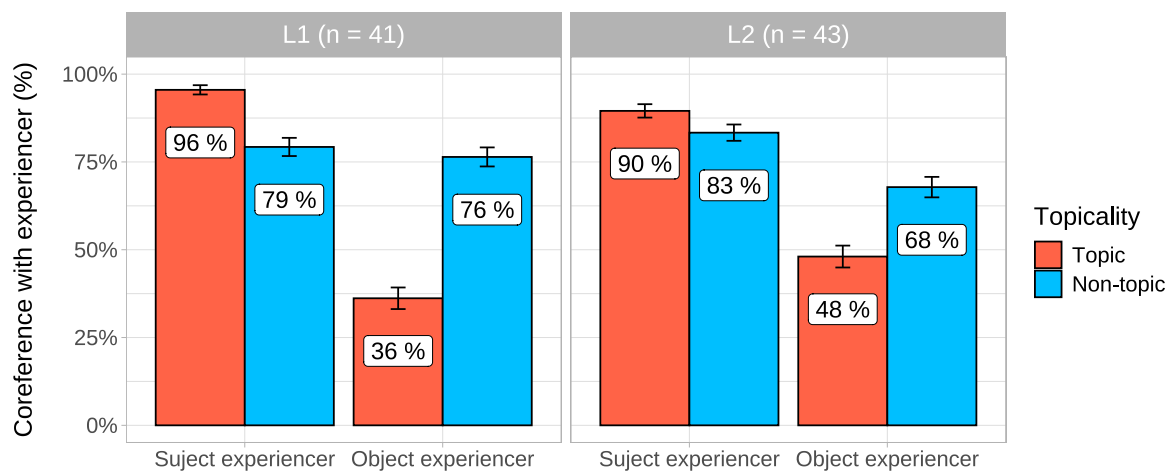


Fig.1: Mean coreference with experiencer referent by group and condition.

The subsequent L2 proficiency analysis (**Fig. 2**) shows that the topicality effect becomes stronger as L2 proficiency increases, suggesting that highly advanced L2 speakers can effectively recruit topicality information for reference prediction. Finally, analysis of referential forms in sentence completions (**Fig. 3**) indicates that L2 speakers were more likely to use (overt/null) pronouns rather than full NPs in the non-topical context. Assuming that more reduced forms (e.g., pronouns) encode higher referent prominence, this suggests that L2 speakers represent discourse prominence by relying more on verb-based thematic roles.

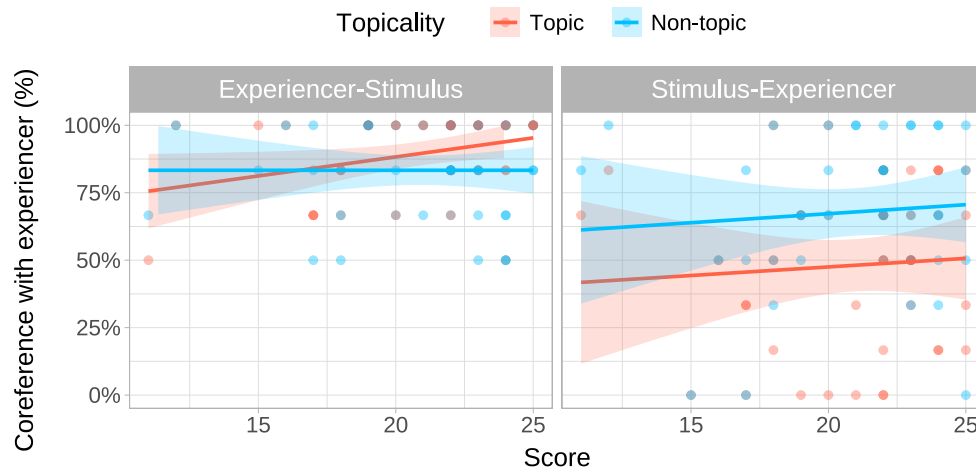


Fig.2: Correlation between L2 proficiency and the topicality effect.

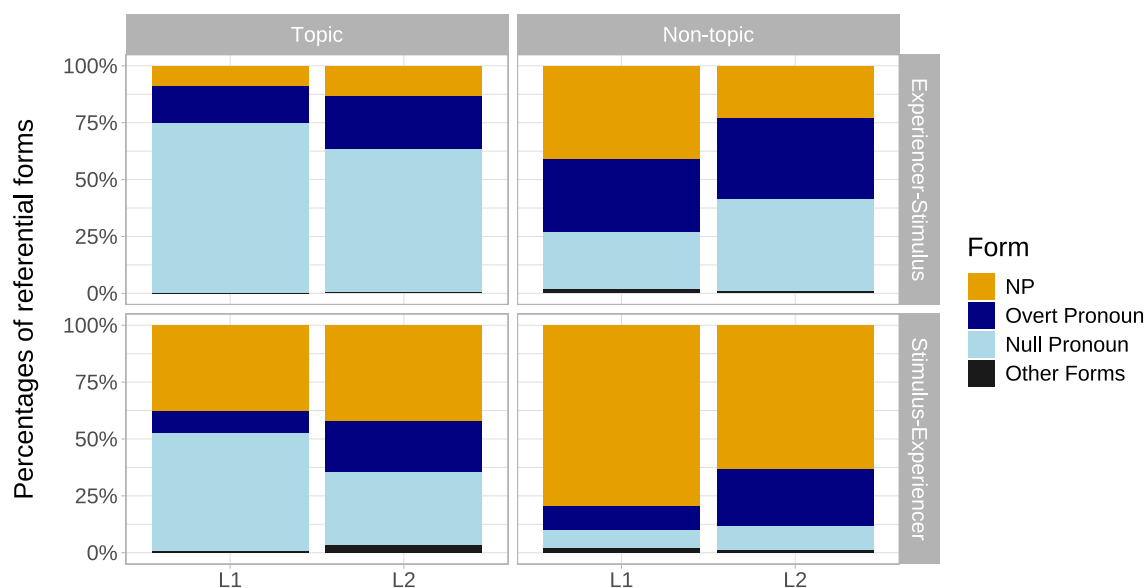


Figure 3: Mean percentages of referential forms by condition.

Conclusion: Our results show that both topicality and thematic roles modulate reference prediction in implicit consequential events in L1 and L2 Chinese. Although L2 speakers patterned similarly with L1 speakers, they relied less on discourse-level topicality information than L1 speakers did. These findings have clear implications for L2 acquisition theories.

References

- [1] Ng et al. (2025). Topicality and attention in pronoun interpretation: the role of accessibility and predictability. *Discourse Processes*.
- [2] Lam & Hwang. (2022). How does topicality affect the choice of referential form? Evidence from Mandarin. *Cognitive Science*.
- [3] Gruter et al. (2017). Coreference and discourse coherence in L2. *Linguistic Approaches to Bilingualism*.
- [4] MacWhinney. (2005). Extending the Competition Model. *Internal Journal of Bilingualism*.