

Topicality and the processing of implicit consequentiality in L2 Chinese

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Introduction: Reference resolution requires the integration of semantic and discourse cues. When completing sentences involving implicit consequentiality (e.g., ‘**Xu Gang**_{Topic-1} because **t₁** likes Mary, so...), L1 Chinese speakers tend 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 L2 speakers weigh semantic and discourse cues for reference resolution remains debated [e.g., 3,4]. This study investigates the influence of thematic roles and topicality in L1 and L2 speakers’ processing of implicit consequentiality.

Methods: We conducted a sentence completion task, manipulating the factors *Verb Bias* (Stimulus-Experiencer verbs vs. Experiencer-Stimulus verbs) and *Topicality* (Topic/Non-topic) of the subject. See (1) for an example target. 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 Gang₁ because t₁... vs. Because Xu Gang...*). The two referents are of different genders so that coreference with the experiencer or stimulus referent can be reliably identified. 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; ≈ 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.

Results: Mixed effects logistic regressions were used to analyze the coreference choices (**Fig.1**). The omnibus analysis indicates that both thematic roles 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 due to a three-way interaction in the omnibus analysis and *Topicality* x *Language* interactions within each *Verb Bias* level (p ’s < 0.05): L2 speakers relied less on topicality and more on thematic roles. The subsequent L2 proficiency analysis (see **Fig.2**) shows that the topicality effect becomes stronger as L2 proficiency increases, suggesting that highly advanced L2 speakers can effectively recruit discourse information. Finally, the analysis of referential forms suggests that L2 speakers were less adept at using (overt/null) pronouns vs. full NPs in contexts with varying degrees of ambiguity (graph not displayed due to space).

Discussion: Our results show that both topicality and thematic roles modulate reference resolution 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.

(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...

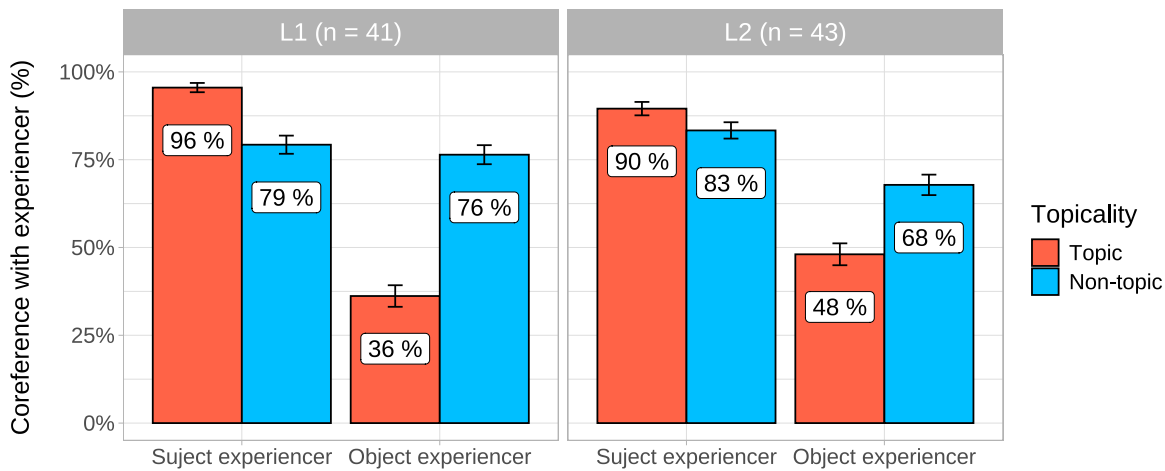


Fig.1: Mean coreference with experiencer referent by group and condition.

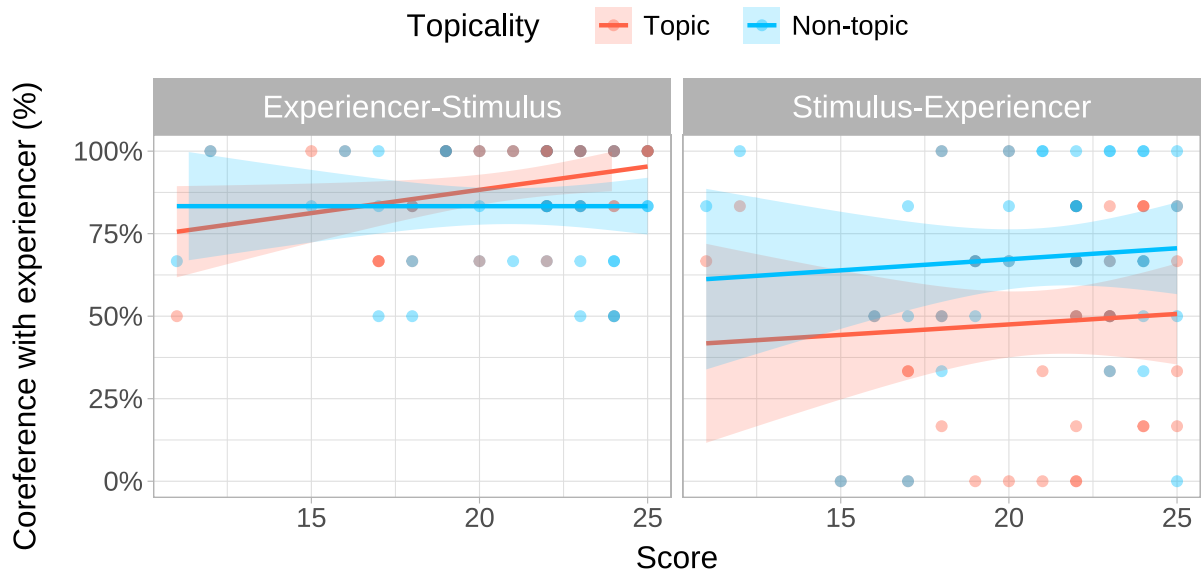


Fig.2: Correlation between L2 proficiency and the topicality effect.

References

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