Adjunct island effects for topicalization in L1 English, L1 Chinese and L1-Chinese L2-English

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Background: Generative linguists disagree about whether a domain-specific mental system is involved in adult L2 acquisition (e.g., Bley-Vroman, 1990; Schwartz & Sprouse, 1996). This study investigates whether native speakers of Chinese can become sensitive to a syntactic constraint in English that is not present in Chinese, not taught explicitly, and not learnable from the input alone using general problem-solving strategies, viz., a poverty of the stimulus (POS) problem. If L1-Chinese L2 learners of English can overcome this POS problem, it would suggest that the domain-specific system is involved in adult L2 acquisition.

The phenomenon at issue is the “Adjunct Island Constraint,” which prohibits extraction from an adjunct clause (Ross, 1967). While in English (1a) is grammatical, (1b) shows that topicalizing those students out of the adjunct because-clause results in ungrammaticality.

The status of island constraints in Chinese is more controversial. The Chinese sentences in (2) and (3) from Huang, Li, and Li (2009, p. 210) both violate Ross’ “Complex Noun Phrase Constraint”; however, Huang and colleagues observe that (2) is acceptable but (3) is not. While (3) has an empty pronominal subject, Huang (1982, p. 466) also argues that it should not be possible to extract even an object from an adjunct clause such as the one in (4). Huang (1982, 1984) proposed that the availability of the empty pronoun in all argument positions in Chinese is what makes sentences like (2) acceptable, while the Generalized Control Rule (GCR), which states that empty pronouns must be coindexed with the nearest nominal, can help to explain why (3) and (4) are unacceptable.

However, Huang’s (1984) account has been questioned. For instance, Xu (1986) argued that some apparent GCR violations are acceptable in Chinese, such as the sentence in (5) (Xu, 1986, p. 80).

The present study makes use of sentences such as (6), which is the Chinese translation equivalent of (1b). Although this sentence violates the GCR and bears a striking resemblance to the sentence in (4), several native speaker consultants report that it is acceptable in an appropriate discourse context.

Method: A contextualized acceptability judgment task is administered to Chinese learners of English and native speakers of English in this ongoing study to test their sensitivity to adjunct island effects in English. A Chinese version of the task is also administered to the Chinese speakers to see how their response patterns compare in their first language. The stimuli include 20 target items distributed across 4 conditions (see next page) in a Latin square design (k = 5 per condition), alongside 45 fillers. Participants rate sentences using a 4-point Likert scale with an additional “I don’t know” option.

Analysis: Responses are converted into z-scores following Sprouse, Phillips, and Wagers (2012) to eliminate scale bias. Inferential statistics involving mixed effects models and ANOVA are performed separately on the 3 sets of data (L1 English, L1 Chinese, L2 English) to determine whether there is a significant interaction effect between word order (i.e., canonical vs. topicalization) and clause type (i.e., complement vs. adjunct); an interaction in which Condition 4 (i.e., topicalization out of adjunct clauses) is rated significantly lower would indicate the presence of an island effect. For the L2 group, in addition, a simple regression analysis using differences-in-differences scores (Maxwell & Delaney, 2003) is conducted to assess whether the strength of the adjunct island effect is modulated by English proficiency as measured by a cloze test (Brown, 1980).

Results: While testing is still underway, analysis of initial results shows a significant interaction effect for word order and clause type on the English task for both the native English group (n = 29; p < 0.001) and the L1-Chinese group (n = 23; p < 0.01); by contrast, the L1-Chinese group did not show such an interaction on the Chinese task (p > 0.05). These findings suggest that the (advanced) L1-Chinese L2 participants display clear adjunct island effects for topicalization in English but not in Chinese, in support of the hypothesis that the domain-specific mental system constrains adult L2 acquisition.
Critical Conditions

NB: The 4 critical conditions below are for the Chinese version of the task; the 4 critical conditions in the English version of the task are shown in the glosses (Condition 4 in English is unacceptable).

Condition 1: Canonical word order with a complement clause
Danshi wo hen gaoxing [Dawei biaoyang le na xie xuesheng] but I very happy David praise PRF that CL student
“But I was happy that David praised those students.”

Condition 2: Canonical word order with an adjunct clause
Danshi wo hen gaoxing [yinwei Dawei biaoyang le na xie xuesheng] but I very happy because David praise PRF that CL student
“But I was happy because David praised those students.”

Condition 3: Topicalization out of a complement clause
Danshi na xie xuesheng, wo hen gaoxing [Dawei biaoyang le ___] but that CL student I very happy David praise PRF
“But those students, I was happy [that David praised ___].”

Condition 4: Topicalization out of an adjunct clause
Danshi na xie xuesheng, wo hen gaoxing [yinwei Dawei biaoyang le ___] but that CL student I very happy because David praise PRF
* “But those students, I was happy [because David praised ___].”

References