Base-Generated or Movement-Derived: On-Line Processing of Chinese OSV Topic Sentence

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Chinese has been claimed to be a topic-prominent language, in contrast to English, which is recognized as subject-prominent. In addition to the typical SVO word order, Chinese allows variations of SOV and OSV. With regard to the OSV pattern like (1), there has been a prolonged debate on whether the topic is derived from movement, or base-generated.

(1) Pingguo, Mary yikouqi chi-le shiduo-ge, John yigong cai chi-le liang-ge.
   Apple Mary in one breath eat-perf over ten-CL , John in total only eat-perf two-CL.

Mary ate over ten apples in one breath, while John just had two apples in total.

To my knowledge, no convincing empirical evidence has been provided to dissociate those two possibilities so far. In addition, with an increasing number of Chinese learners in the United States, nothing has been known about how Chinese learners with a subject-prominent language like English as their L1 process Chinese OSV topic structure.

Considering the fact that the rare cases of argument topicalization are normally perceived as movement in English, it is possible that English-Chinese bilinguals may also interpret Chinese SVO structure as movement. Nevertheless, this does not necessarily mean in real-time processing, Chinese learners are able to keep the topic in the working memory and reactivate it when the syntactic gap is identified, as is suggested by the Trace Reactivation Hypothesis (TRH). Actually there are a larger number of researches supporting an alternative hypothesis in on-line L2 processing, namely the Direct Association Hypothesis (DAH), which claims that the dislocated constituents are linked directly to their lexical subcategorizer when the latter is encountered.

We adopt the cross-modal antecedent priming technique to examine whether the topic is mentally reactivated at the possible trace positions in Chinese OSV topic sentence in L1 and L2 processing. With an experimental design similar to Felser and Roberts (2007), participants were asked to respond to different types of picture targets (identical/unrelated to the topic) presented at post-subcategorizer (plausible gap) position, post-quantifier (suggested gap) position, or pre-subcategorizer control position. Reaction time (RT) will be measured and the RT differences between the identical and the unrelated targets at each position will be compared to each other.

30 native Chinese speakers participated in the present study. The mean RTs of L1 participants’ processing are calculated for each condition and aggregately presented in Figure 1. The RT to identical target is significantly shorter than RT to unrelated target only in the pre-gap control position, suggesting there is no gap reactivation at the possible gap positions. This result is essentially different from those found in subject-prominent languages like German and English, and supports the base generated hypothesis for Chinese OSV topic sentence.

Data of 18 L2 participants display no significant trace reactivation at any of those three tested positions: a null effect is observed. Possible explanations include the task may be too difficult for the current group of participants, and English-Chinese bilinguals may process Chinese OSV topic sentences in distinct individual ways.

**References**