Acquiring the Telicity Constraint in L2 Chinese Passives without Positive Evidence

This empirical study probes the L2 acquisition of the telicity constraint in Chinese passives by adult English native speakers.

Chinese *bei* passives are subject to a telicity constraint (Liu, 2012). Unlike English, Chinese *bei* passives are incompatible with atelic events and must describe events with an endpoint. In contrast to the ungrammatical Chinese examples (1) and (2) which describe atelic events, sentences like "The beer is being drunk by dad" and "Perhaps that book will be looked for by Xiaoli" are perfectly acceptable in English. The aim of the study is to test whether L1 English L2 Chinese learners can identify violations caused by these atelic events.

The study involved an untimed Acceptability Judgement Task (AJT) and a reaction-time Picture Elicited Rearrangement (hereafter PER) task. The PER examined whether L2 learners are sensitive to the telicity constraint in Chinese *bei* passives in real-time. There were 24 sets of pictures in total, 8 sets (2 conditions × 4 tokens) were critical items testing the telicity of *bei* passives. For each set of pictures, participants were required to use the beginning part of a sentence and some individually given words to orally make a grammatical sentence according to the picture given. If they felt unable to make a grammatical sentence, they could say it is impossible to do so. Their response times were recorded by the computer. We propose that PER involves both the language-processing system and the memory system, similar to Elicited Imitation (Bley-Vroman & Chaudron, 1994), because participants have to reconstruct a sentence with words shown in random order in real-time, which adds an extra advantage over Elicited Imitation by avoiding rote imitation (Erlam, 2006).

A prerequisite test was first administered to ensure that learners had acquired the basic syntactic structure of *bei* passives. In total, 75 English native speakers with intermediate and advanced Chinese proficiency, and 33 native Mandarin Chinese speakers passed this screening test and completed the experiment. A Pearson's chi-square test of the PER data reveals a significant association ($\chi^2(2) = 57.535$, $p < 0.001$) between response accuracy and L2 Chinese proficiency. While Native Chinese speakers are able to correctly identify 88.3% of ungrammatical *bei*-constructions with telicity violations, the performance of Intermediate learners is no better than random, with only 50.0% of their responses being correct. The Advanced group performed in a more target-like way, showing 79.3% accuracy in dismissing ungrammatical *bei*-constructions describing atelic events. One-way ANOVAs and paired-samples t-tests indicate that although the reaction times of Intermediate and Advanced groups are significantly longer than that of the Native Chinese group, all three groups show sensitivity to telicity differences by slowing down significantly ($p < 0.001$) in the atelic condition. The result of the AJT shows that although Intermediate learners can accept grammatical telic *bei*-constructions, their on-line indeterminacy in detecting atelic *bei*-constructions is extended to off-line judgements, indicating a stage of overgeneralization as a result of L1 transfer (Schwartz & Sprouse, 1996). Furthermore, the increase in convergence in real-time response by Advanced learners found in PER is also confirmed, suggesting that given prolonged exposure to the target language, learners are indeed able to acquire the telicity constraint of *bei* passives, despite the absence of positive evidence in the input. The gradualness of the disappearance of overgeneralization errors lends support to the acquisition model that reconciles the generative approach with probabilistic learning (Yang & Montrul, 2017).

Keywords: L2 Chinese, passive, reaction-time

Examples of test items

    (1) *Picture Elicited Rearrangement (PER)*

Experimental   *atelic *bei*-constructions
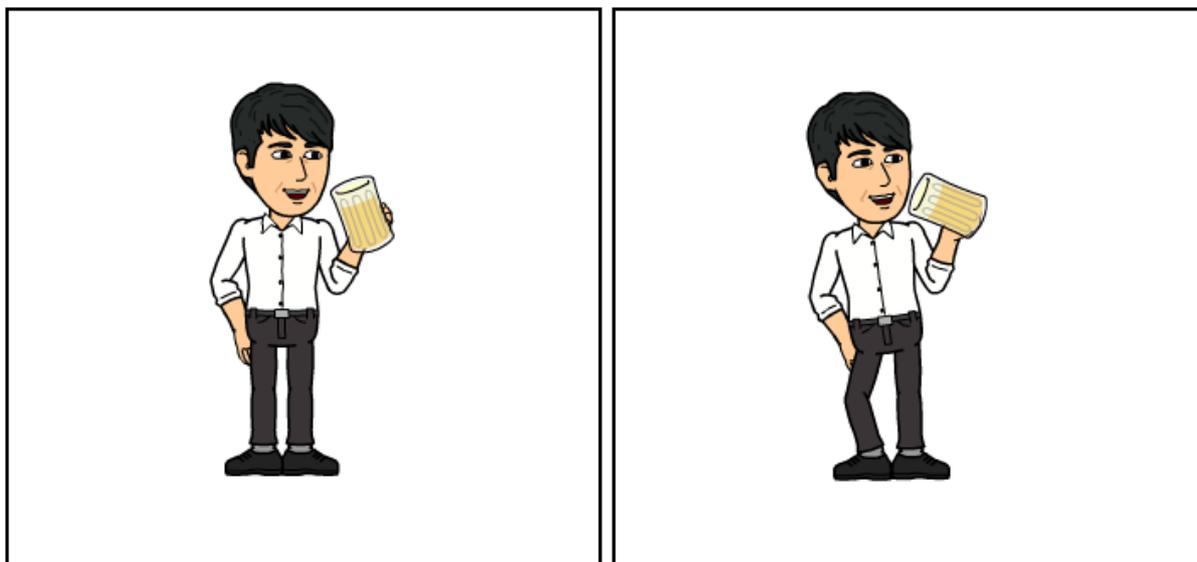
pijiu   bei ____   ____   ____.

beer   BEI (*English translation not provided in the stimuli*)

Words (in random order) to fill in the blanks: *baba* (dad), *he* (drink), *zhe* (progressive marker)

Correct response: Not possible to make a grammatical sentence.

Incorrect response: **pijiu bei baba he zhe*. (The beer is being drunk by dad.)

    (2) *Acceptability Judgement Task (AJT)*

Experimental   *atelic *bei*-constructions

*na-ben   shu   keneng   hui   bei   Xiaoli zhao

that-CL   book perhaps   will   BEI   Xiaoli look.for

Intended reading: "Perhaps that book will be looked for by Xiaoli."

References

Bley-Vroman, R., & Chaudron, C. (1994). Elicited imitation as a measure of second-language competence. *Research methodology in second-language acquisition, 245-261*.

Erlam, R. (2006). Elicited imitation as a measure of L2 implicit knowledge: An empirical validation study. *Applied linguistics*, 27(3), 464-491.

Liu, N. (2012). *On the syntax, semantics and typology of non-canonical passives.* Doctoral dissertation, Beijing Language & Culture University.

Schwartz, B., & Sprouse, R. (1996). L2 cognitive states and the full transfer/full access model. *Second language research, 12(1), 40-72*.

Yang, C., & Montrul, S. (2017). Learning datives: The Tolerance Principle in monolingual and bilingual acquisition. *Second Language Research, 33(1), 119-144*.