L1 transfer modulates positioning bias of demonstrative-classifiers in Chinese relatives: A contrastive study on Japanese- and Korean-speaking L2-Chinese learners

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Chinese is similar to Japanese and Korean, as they all have classifiers and prenominal relative clauses (RCs). Chinese is also typologically distinct from these two languages because, first, it is extremely rare for a (S)VO language to have prenominal RCs (Dryer, 1992, 2014) and, second, only Chinese demonstratives (Ds) can take on a classifier, yielding a demonstrative-classifier phrase (DCL). Crucially, when both a DCL and a RC modify a nominal phrase (NP), the DCL can either precede or follow the RC. Existing L1-Chinese literature indicates an asymmetrical DCL positioning bias in RCs (Ming, 2010; Sheng & Wu, 2013; Wu & Sheng, 2014): DCLs tend to precede the subject-extracted RCs (SRCs, ex. (1)) — as they are short, light in syntactic weight, and thus highly **ACCESSIBLE** (Hawkins,1983), and can serve the function of **SIGNALING** an upcoming head noun (HN), and follow object-extracted RCs (ORCs, ex. (2)) — presumably to **AVOID SEMANTIC CLASH** induced by the local classifier-(RC-subject)noun mismatch (Wu, Kaiser, & Anderson, 2011). In Japanese and Korean, on the other hand, when a D co-occurs with a RC to modify the NP, the D tends to follow the RC in Japanese (Sheng, 2010), and must strictly follow the RC in Korean (Sohn, 1994:224-225). Therefore, it remains to be seen (i) whether Japanese and Korean L2-Chinese learners can acquire the asymmetrical DCL distributional pattern in producing Chinese RCs, and (ii) whether they behave differently regarding this configuration given that the strength of L1 constraint on D positioning in Japanese and Korean is different.

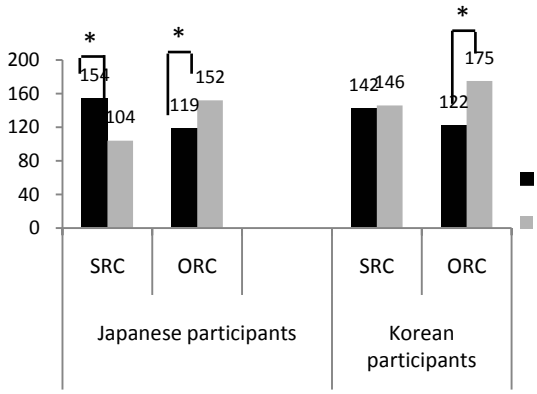
The Shallow Structure Hypothesis (SSH, Clahsen & Felser, 2006) argues that L2 learners process language structures based on shallow lexical-semantic information and that their native-like processing strategies are restricted to local domains. In addition, L1 transfer is not as frequent as expected. Therefore, SSH predicts that (i) both Japanese and Korean L2-Chinese learners should show a tendency to position the DCL adjacent to the head noun regardless of the RC extraction type — after all, preposing the DCL otherwise would require the establishment of a long-distance (non-local) dependency between the classifier and the head noun, and (ii) no L1-related linguistic difference should impact L2 production patterns. The Unified Competition Model (UCM, MacWhinney, 2005), on the other hand, posits that late L2-learners can rely on the residual neuronal plasticity to attain native-like processing strategies. Furthermore, L1 transfer will occur whenever possible. Consequently, UCM predicts that (i) L2 learners can acquire the pre-RC DCL positioning bias in SRCs, and (ii) the difference inL1-constraintstrength on D positioning in the RC might modulate the production patterns by Japanese and Korean natives. To test these hypotheses, advanced L2-Chinese speaking Japanese natives (N=26) and Korean natives (N=27) were recruited for an online production experiment.

PROCEDURE: 24 sets of target sentences were chunked into four parts: DCL, Head Noun, RC, and Main Clause. Participants viewed on a computer monitor all the stimuli which appeared in a random order. They had 10s to read the words after which, prompted by a beep,

they were required to utter an “acceptable” sentence using all the chunks within 15s.

RESULTS: The Japanese participants showed an asymmetrical DCL positioning bias characteristic of native Chinese speakers. This suggests that, contrary to what SSH predicts, the Japanese participants can establish syntactic dependency relationships beyond the local domain (in SRCs), and given their sensitivity to classifier-noun mismatch in ORCs, they can avoid the semantic clash effect by postposing DCLs.

The Korean participants showed a different pattern. In SRCs, slightly more post-RC DCL configurations were produced suggesting that L1 transfer neutralized the accessibility effect of DCLs. In ORCs, the post-RC DCL positioning bias was found to be statistically significant probably due to the combined influence of semantic clash avoidance strategy and L1 transfer. The fact that L1 transfer only exerted its influence on linguistic behaviors of the Korean (but not Japanese) participants indicates that complete acquisition of native-like processing strategies may be subject to the strength of L1 transfer, i.e., the D must be positioned after the RC in Korean.



(1) **SRC**: (**DCL**) [__knock-over pedestrian DE] (DCL) bike needs repairing.

(2) **ORC**: (DCL) [pedestrian knock-over__DE] (**DCL**) bike needs repairing.

Left panel: **Japanese participants** showed the asymmetrical DCL positioning bias.

Right panel: **Korean participants** showed a post-DCL bias in ORCs.

Taken together, our experiment results are inconsistent with the predictions of SSH. Rather, our findings are congruent with UCM. The Japanese participants can acquire the pre-RC DCL bias in SRCs. The dissimilar patterns shown by the Japanese and the Korean participants suggest that L1 transfer plays a large role in determining the outcome of L2 syntax acquisition.

Selected References

Clahsen, H. & Felser, C. 2006.Grammatical processing in language learners.*Applied Psycholinguistics* 27: 3-42.

Hawkins, J. A. 1983. *Word Order Universals*. New York: Academic Press.

MacWhinney, B. 2005.Extending the Competition Model.*International Journal of Bilingualism* 9(1): 69-84.

Sheng, W. 2010.Typological differences in positioning demonstratives in Chinese and Japanese relative clauses. *Riyu xuexi yu yanjiu* (*Japanese Learning and Research)*147: 86-91.

Sohn, H. 1994. *TheKorean Language*. Routledge: London.

Wu, F. & Sheng, Y. 2014.Demonstrative-classifier positioning in Chinese relative clauses and its implications to language production models. *Waiguoyu* (*Journal of Foreign Languages)* 37(3): 49-58.