ON CANTONESE HERITAGE SPEAKERS' CLASSIFIER EPISTEMOLOGIES THROUGH SEMANTIC AND GRAMMATICAL CUES

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An area of confusion among heritage speakers of Chinese is classifier epistemologies of determining which classifier to use for functional and/or geometrical categories with nouns. Heritage Language (HL) acquisition is a type of bilingual first language L1 acquisition (Mai & Deng, 2019, cited from Montrul, 2008, 2016; Polinsky, 2007; Rothman, 2009). Heritage language development is defined as a speaker who grows up with the language they speak (or perhaps, only listen to) in a heritage/minority language as their first language, but a majority language (such as English) is used in societal needs, which dominants the heritage speakers' first language development. In this vein, the current study examines the classifier epistemologies of Cantonese heritage speakers, and how semantic and grammatical cues can aid in the processing of classifiers. The primary motivation of the study was to check the study's findings and confirm in what has been found in the research literature.

We show that (i) heritage speakers acquire native-like classifier epistemologies similar to native speakers of Cantonese, and through closer examination (ii) heritage speakers of Cantonese seem to employ similar strategies found in Grüter, Lau, and Ling (2020). Grüter and colleagues compared L1 and L2 speakers of Chinese, classifiers constitute a dual source of information, which is (i) purely semantic, and (ii) formal property of the grammar, the classifier system.

Method. By using Tsang and Chambers' (2011) Cantonese stimuli, we tested the participants' knowledge of through a visual world experiment, as well as a vocabulary test to assess participants' knowledge of the target classifier-noun pairings (n=20, age 18-40yrs); participants looked at visual scenes through a SMI RED250 eye-tracker at 250 Hz, or a mobile REDn Scientific eye-tracker at 60 Hz). Gaze data were classified automatically as fixations.

Results. The eye-tracking data reveals the fixation of classifiers in functional categories, which illustrates that the semantic compatibility with the target is of no relevance. Heritage learners seem to have some sort of understanding for semantic cues with functional categories, such as tools and vehicles, but have longer processing times for geometrical categories like cylindrical and small and round objects.

We further examined Cantonese heritage speakers' preference for using the abstract noun classifier 個 *go3*, which is often the default choice as it is deemed as "safe" and reliable in classifier-noun pairs. The overreliance of 個 *go3*, may be attributed to a lack of conceptual understanding that there are different categories for specific nouns, and specific geometrical and functional categories that nouns are categorized into when using classifiers. We conclude that classifiers in Cantonese are acquired with ease, but a delayed understanding of classifier epistemologies are found through semantic and grammatical cues.

Selected References

Grüter, T., Lau, E., & Ling, W. (2020). How classifiers facilitate predictive processing in L1 and L2 Chinese: The role of semantic and grammatical cues. *Language, Cognition and Neuroscience*, *35*(2), 221-234. https://doi.org/10.1080/23273798.2019.1648840

Mai, Z, & Deng, X. 2019. Selective vulnerability and dominant language transfer in the acquisition of the Chinese cleft construction by heritage speakers. *Linguistic Approaches to Bilingualism*, *9*(2): 202-227. http://dx.doi.org/10.1075/lab.16040.mai

Montrul, S. (2008). *Incomplete acquisition in bilingualism: re-examining the age factor*. Amsterdam: John Benjamins. 10.1075/sibil.39

Montrul, S. (2016). *The Acquisition of Heritage Languages*. Cambridge, UK: Cambridge University Press. 10.1017/CBO9781139030502

Polinsky, M. (2007). Reaching the end point and stopping midway: Different scenarios in the acquisition of Russian. *Russian Linguistics*, 31, 157–199. doi: 10.1007/s11185-007-9011-2

Rothman, J. (2009). Understanding the nature and outcomes of early bilingualism: Romance languages as heritage languages. *International Journal of Bilingualism*, 13(2), 155–163. doi: 10.1177/1367006909339814

Tsang, C., & Chambers, C. G. (2011). Appearances aren't everything: Shape classifiers and referential processing in Cantonese. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *37*(5), 1065. https://psycnet.apa.org/doi/10.1037/a0023601