

### **Abstract**

This study explored the feasibility of a naturalistic observation approach to study second language (L2) acquisition in everyday environments. Specifically, it examined how the linguistic distance between Cantonese and first language (L1) of non-native Cantonese speakers is related to their daily Cantonese use and Cantonese proficiency. Sixteen non-native Cantonese speakers, half of them had their L1 in Chinese origin while the remaining did not, wore the Electronically Activated Recorder (EAR), an unobtrusive observation method that periodically records fragments of ambient sounds, over two days to observe their daily language use in their natural context. The sound recordings collected were coded to identify different types of Cantonese use. Participants completed a Cantonese proficiency test assessing their listening and speaking skills. Consistent with theories on L2 acquisition, linguistic distance was associated with lower Cantonese proficiency whereas naturalistically observed Cantonese use was associated with higher Cantonese proficiency. A statistical trend, despite only marginally significant, showed that naturalistically observed Cantonese use negatively mediated the relationship between linguistic distance and Cantonese proficiency. As a complement to traditional research methods in L2 acquisition, a naturalistic observation approach using EAR can contribute to a more comprehensive understanding of the role that L2 use in daily lives plays in the attainment of that language.

*Key words:* Electronically Activated Recorder, naturalistic observation, linguistic distance, second language acquisition, language use, language proficiency