INTERPRETING TRAINING AND MODALITY-SPECIFIC SHORT-TERM MEMORY ADVANTAGE

Shunjie Xing (Guangdong University of Foreign Studies), Jing Yang（Zhejiang University）

yangjing17@zju.edu.cn

Interpreting is a highly demanding bilingual task in which interpreters seamlessly switch between two activated languages and rapidly translate the source language into the target language under extreme time pressure. Therefore, short-term memory (STM), the passive storage capacity of working memory (WM), is crucial for interpreters. While a large body of previous studies has indicated that interpreting training fostered WM capacity and central executive of WM, the beneficial role of interpreting on STM remained inconsistent. Additionally, auditory modality is indispensable for interpreting since language control in interpreting is achieved through language-modality connections according to the attentional control model (Dong and Li 2020). However, it is unclear whether the advantages of interpreters in STM are modality-specific (i.e. auditory-specific).

The current study investigated the effect of interpreting training on both verbal and nonverbal STM and whether any advantages were specific to the auditory modality. We recruited three groups of late Chinese-English bilinguals with different amounts of interpreting training experience: the More-IE group, the Less-IE group, and the No-IE group. The More-IE group and the Less-IE group were second-year postgraduate students majoring in English interpreting and translation, with the former having completed a greater number of interpreting courses and after-class practice during their first year of postgraduate study. The No-IE group was a control group comprising second-year postgraduate students majoring in English literature. All participants completed verbal STM tasks (i.e. digit span task and word span task) and nonverbal STM tasks (i.e. pure-tone and luminance probe-recognition task) in both auditory and visual modalities.

Results showed that the More-IE group outperformed the other two groups only in the auditory verbal and nonverbal STM tasks. Moreover, only the More-IE group exhibited a better performance in the auditory modality compared to the visual modality in both verbal and nonverbal tasks. Our findings suggested that interpreting training, as an intense bilingual experience, significantly contributed to STM performance only in auditory modality regardless of verbal and nonverbal stimuli. Our study provided empirical evidence for the attentional control model (Dong and Li 2020) and motivated further research into the memory mechanism involved in bilinguals.