READING, LISTENING TO AND PRODUCING ENGLISH WORDS PROMPTS UNCONSCIOUS ACCESS TO CHINESE TRANSLATION EQUIVALENTS IN CHINESE-ENGLISH BILINGUALS.

Guillaume Thierry, & Yan Jing Wu

Bangor University, Wales

Whether or not the native language of bilingual individuals is active during second language comprehension and production remains the subject of a lively debate becasue studies of bilingualism have often used a mix of first and second language words, thereby creating an artificial "dual-language" context. I will present a series of experiments which target implicit access to the first language when bilinguals read, listen to, or retrieve words exclusively in their second language. In two experiments, Chinese-English bilinguals were required to decide whether or not English words presented in pairs are related in meaning; they were unaware of the fact that half of the words concealed a phonological and/or orthographic repetition when translated into Chinese. The hidden factor generally failed to affect behavioural performance, but it significantly modulated the N400 wave of brain potentials showing that English words are automatically and unconsciously translated into Chinese. Furthermore, it is the phonological form of the Chinese equivalent which is activated, not its orthographic form. A third experiment tested repetition priming in Chinese of two visually presented pictures rhymed. In this context again, significant repetition priming indexed by the N400 ERP component indicated that the Chinese translation equivalents of the words had been activated. These findings demonstrate that native language activation is an unconscious correlate of second language comprehension and production.