

The Influence of Sentence Contexts on Processing of Words in Japanese as a Second Language

Investigation of Inhibitory Effects in Correctness Decision of Mixed-Language Sentences

KOMORI, Kazuko, TAMAOKA, Katsuo, & KONDOH, Atsuko

Key words: lexical processing, sentential context effects, sentence correctness decision task, reaction time, error rates

It has been widely suggested on lexical processing in first language (L1) that sentence contexts facilitate word recognition. However, the previous studies did not examine what variables are more facilitative for prediction of the up-coming words in sentence contexts. Besides, little researches have been carried out in the lexical processing in second language (L2). Therefore, the question is still open concerning how structural differences between L1 and L2 influence the processing of L2 words. The present study aims to investigate the contextual effects on lexical processing in sentences of Japanese as L2.

Two experiments were conducted using a sentence correctness decision task in mixed-language sentences. The participants were 44 graduate and undergraduate university students. All of them were Chinese (Mandarin)-native speakers learning Japanese at super-advanced and less-intermediate proficiency level. In experiment 1, the stimulus sentences were L2 sentences embedding L1 target words (eg. 父への プレゼントは 手表です). The target words had meanings that were congruous within the semantic context of the L2 sentences, while the sentences should be judged “incorrect” because the target words were not L2 real words. The structures of the stimulus sentences were in three types of sentences; noun-predicate, adjective-predicate, and verb (two-argument verb)-predicate sentences. The response latencies to judge the sentence correctness, namely the reaction time were measured for each sentence for each participant. In experiment 2, the L1 stimulus sentences were created in the identical way with experiment 1 (eg. 我 喜好看 映画).

The result of Experiment 1 showed that the verb-predicate sentences had statistically significant effects on lexical processing for the super-advanced learners, but not for the intermediate learners. The verb-predicate sentence was composed of a locative adjunct with particle “で” (eg. 銀行で) and an internal argument (object of a

transitive verb) with particle “を” (eg. お金を). The particle “で” assigns the semantic roll of place to the adjunct, and the particle “を” governs the structural relations between two words linked by “を” so that the readers can predict the specific transitive verb. Therefore, it is reasonably suggested that the advanced L2 learners can effectively utilize the syntactic and semantic information of particles during processing the Japanese words in sentences. In experiment 2, on the other hand, no significant differences were detected among three structures for either group of learners. It is because the participants could rapidly and correctly recognize the embedded L2 words in L1 sentences regardless of the sentence structures. In addition, an interesting finding in experiment 2 was that the error rates of the super-advanced group were significantly higher than those of less-intermediate group although linguistic transfer generally occurs from L1 to L2. This result indicates that the L2 learner with near-native L2 proficiency transferred L2 knowledge into L1, which implies that L1 and L2 lexical representation shares the semantic representation so that both L1 and L2 lexicon mutually activate through the shared semantic representation.

(KOMORI: Graduate School, University of Tokyo; TAMAOKA: Hiroshima University; KONDOH: University of Tokyo)