A Psycho/neurolinguistic Approach to Cross-linguistic Morphological Processing

조정화

(홍익대학교)

In this talk, I discuss how morphology is represented within the same language and across different languages. In Study 1, I present results from a priming experiment on the English past tense suffix -ed as well as a Bayesian meta-analysis on 81 morphological priming experiments. The findings suggest that different kinds of morphemes (i.e., roots, derivational prefixes, derivational and inflectional affixes) show different sizes of priming effects. Specifically, the linear position of the morphemes seems to be a crucial factor, as roots and prefixes, but not suffixes, show morphological priming effects that are statistically distinguishable from form-based priming effects. Based on the robust prefix priming effects in Study 1, Study 2 examines morphological priming effects of cognate prefixes across different languages: between English and Spanish. The results indicate differences in the representation and processing of L2 prefixes based on the age of acquisition: only early English-Spanish bilinguals show robust prefix priming from L1 English to L2 Spanish. In Study 3, I introduce a machine-learning based method called neural decoding to probe the neural representation of grammatical features that are often realized as suffixes (e.g., past tense and plural number) in English and Korean. Tested with early Korean-English bilinguals, the time window for decoding lexical items generally overlapped for both nouns and verbs across the two languages while the time window for grammatical features diverged. Interestingly, decoding of the number feature was generalizable between the two languages, suggesting some common neural correlates for processing this feature. Together, these studies provide converging evidence that both linear position and language background shape how morphemes are represented and processed across languages.