Morphological learning in an online language app: Evidence from Lingvist users

Jordan Gallant

McMaster University, Canada

This research explores the acquisition of morphological knowledge in the context of asynchronous online language learning, using extensive real-world data from the app Lingvist (www.lingvist.com). The learning task in this app involves reading a context sentence in the target language and completing the missing target vocabulary item using a complete gloss sentence in the source language, including both morphologically complex and simplex items.

We investigate the effects of the type frequency of encountered suffixes on the future production of targets containing those suffixes, distinguishing it from token frequency effects. To determine the role of morphosemantic knowledge in these learning processes, we additionally investigated the type and token frequency effect of three-letter sequences in the final rime of morphological simplex words that, by definition, had no morphological or semantic structure.

The analysis of user data from 3902 Spanish-speaking and 7115 German-speaking learners of English revealed a significant facilitatory effect of type frequency, but not token frequency, for English suffixes. This suggests that exposure to suffixes in various morphological contexts improved production accuracy, while repeated exposures to suffixes in the same contexts did not provide the same benefit. Interestingly, we observed similar effects when investigating repeating orthographic patterns in the rime of morphological simplex words, as the type frequency of orthographic patterns was greater when they were phonologically consistent.

These findings imply that the morphological learning effect may be primarily driven by surface-level orthographic and phonological forms rather than deeper semantic or morphological structures. We discuss these results in relation to the acquisition of additional language literacy and writing skills, as well as their contribution to our understanding of morphological knowledge from a psycholinguistic perspective.