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Processing and production of lexical stress in second language German

Lexical stress is an important cue to a word’s meaning, and previous studies have shown that failure to produce correct lexical stress can have a negative impact on the comprehensibility of utterances, especially those produced by second language (L2) learners (e.g., Trofimovich & Isaacs, 2012). The question remains as to what the source of the errors is: whether it is merely an issue of performance or whether the underlying representations of the words are non-nativelike. The goal of the current study is threefold. First, we will determine how English-German L2 learners process licit and illicit word stress patterns in morphologically complex words. Secondly, we will determine how they produce similar words with predictable lexical stress. Taken together, the data enable us to determine the role of explicit awareness in the processing and production of L2 German word stress.

Participants in the processing portion of the study were 22 intermediate (B1 and B2) level English-German L2 learners. They heard a series of trisyllabic German words from one of the following conditions over loudspeakers:

a. morphologically complex German words with a predictable stress pattern based on the word’s suffix (e.g., Heiter+keit, Univers+i+tät, Demonsˈtr+ant); or
b. morphologically complex German words of Latin origin (neoclassical word-formation) with English cognates in which the cognate differs in stress assignment (e.g., Elefˈt+ant, Mineˈr+al).

Half of the words were correctly stressed, and the remainder incorrectly stressed. Participants were asked to judge whether the word they heard was stressed correctly, as has been done in previous studies (e.g., Domahs et al., 2008). Responses to the explicit task along with electrophysiological (i.e., EEG) responses were measured to calculate ERPs (event related potentials) in order to determine whether there are differences in the processing of correctly vs. incorrectly stressed words.

For the production portion of the study, a comparable group of 24 English-German L2 learners produced similar German words as in the processing task, but the words in production study contained both three and four syllables, and an additional condition was also added: words with a final syllable containing schwa.

Preliminary findings indicate that participants are relatively unaware of morphological and phonological regularities in lexical stress assignment in German and that they tend to rely upon a single across-the-board rule for lexical stress assignment when making their decisions.

References