

Stress and Morphology in Second Language Production and Processing

Johannes Knaus & Mary Grantham O'Brien

Department of Linguistics, Languages and Cultures, University of Calgary

jaknaus@ucalgary.ca

mgobrien@ucalgary.ca

Second language (L2) learners often produce incorrectly stressed words, which can have a negative impact on the comprehensibility of utterances (e.g., Trofimovich & Isaacs, 2012). However, the source such errors is still unknown: Is it merely an issue of performance or are the underlying representations of the words non-nativelike? Morphologically complex words provide an interesting test case for this question, as suffixes can influence stress placement in a principled way. We examine how English-German L2 learners process licit and illicit word stress patterns in morphologically complex words in an ERP (event related potential) study. In a further production study, we determine how they produce similar words with predictable lexical stress. Finally, we gain further insight into participants' metalinguistic awareness of lexical stress assignment rules through the use of a think-aloud protocol. Taken together, the data enable us to determine the role of explicit awareness in the processing and production of L2 German word stress.

In the ERP study, 22 intermediate (B1 and B2) level English-German L2 learners 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, Demons'tr+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., Ele'f+ant, Mine'r+al).

Half of the words were correctly stressed, and the remainder incorrectly stressed. The participants' task was to evaluate whether the word they heard was stressed correctly or not, 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 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. After they produced the words, participants completed a think-aloud protocol along the lines of Osbourne (2003). That is, they listened to their own productions and provided information about the rule they followed when they assigned stress to the words.

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

- Domahs, U., Wiese, R., Bornkessel-Schlesewsky, I., & Schlesewsky, M. (2008). The processing of German word stress: Evidence for the prosodic hierarchy. *Phonology*, 25, 1–36.
- Osbourne, A. G. (2003). Pronunciation strategies of advanced ESOL learners. *International Review of Applied Linguistics in Language Teaching* 41, 131–141.
- Trofimovich, P., & Isaacs, T. (2012). Disentangling accent from comprehensibility. *Bilingualism: Language and Cognition*, 15(4), 905–916.