

L2 word stress speech production from orthography

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By means of psycholinguistic experiments, the present study will address the issue on how two distinct systems, concerning print-to-sound relationships – shallow and deep orthographies - , interact in the production of L2 word stress from orthography. The two linguistic systems we are focusing on are Brazilian Portuguese as L1 and American English as L2. The former is a fairly shallow print-to-sound system and the latter is a deep system. L2 print-to-sound processing and production are not well-understood phenomena and even more limited is the knowledge about the retrieval of L2 word stress from orthography. There are indications from L1 naming tasks that stress patterns are produced faster when their frequency in the lexicon is high. Word stress which is stochastically regular helps speed performance in reading especially when words are low frequent in the lexicon (Colombo, 1992; Rastle and Coltheart, 2000). Thus, lexical frequency and stress regularity are factors that were considered in this investigation of the production of L2 word stress from orthography. American English and Brazilian Portuguese differ on the complexity of their orthographic systems, however, both languages are comparatively complex at the suprasegmental level. They are defined as lexical stress languages, because stress assignment can happen in different syllable positions and there are no explicit rules for it. We hypothesize that stochastic word stress evidence from both lexicons interact in the bilingual lexicon and on the retrieval of L2 word stress from orthography. An inventory on stress pattern frequency distributions in both lexicons was made in order to define stress regularities of L2 word stress patterns and to investigate their

implications in speech production. In a reading aloud task, words that share more similarities in both lexicons are easily recognized from the sublexical sequence (Dijkstra and van Heuven, 1998, 2002), but the implications of the cognate status of words in stress assignment is not clear. We created a bilingual corpus of English-Portuguese translation word pairs in which we define them as cognate or non-cognate pairs relative to their normalized Levenshtein distance values for orthography and phonology (Post da Silveira and van Leussen, submitted). We found evidence that equally frequent stress patterns in L1 and L2 cause longer latency times in naming L2 words, which mirrors the strong competition between L1 and L2 representations, especially in cognate words (Post da Silveira et al. 2014).

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