L2 NONWORD RECOGNITION AND THE PHONOTACTIC CONSTRAINTS.

Research shows that by adulthood monolingual speakers become constrained by rules of their native language (L1) in their processing of both native and non-native sounds, words and structures (Hale *et.al.,* 1998). Speakers tend to mispronounce and misinterpret novel or borrowed words consistently adapting them to the L1 constraints. Whether fluent bilinguals (speakers of two or more languages) always process foreign/second language (L2) material through the constraints of their L1 has a practical implication for the study of second language acquisition. Researchers disagree on whether L2 speakers stay forever impervious to certain contrasts or constraints of the non-native language (Brown, 1998; Larson-Hall, 2004) or whether learning and the resulting high proficiency in L2 makes them sensitive to the constraints of L2 in addition to the constraints of their L1 (Cook, 1991; Van Heuven *et.al.,* 1998; Jared & Kroll, 2001; Paradis, 2006).

This experiment tests if *illegal* English non-words with sound clusters impossible for English (such as *dvest* which contains a cluster impossible for English words) but which are at the same time *legal* for Russian (which means there are words that contain *dv* in Russian), are sooner recognized as such than those nonwords that do not violate constraints of either L1 or L2 (such as *flind*). The participants (test group of 20 fluent Russian-English bilinguals and control group of 23 native speakers of English) performed a lexical decision task. The stimuli consist of 96 words (48 critical items and 48 distracters). All critical items have the same structure (CCVCC) with one-to-one grapheme-phoneme correspondence and are controlled for frequency and neighborhood density.

Our hypothesis that *illegal* monosyllabic non-words (*dvest, snovk*) would be recognized by both the native speakers and L2 speakers more accurately and faster than *legal* non-words (*flind)* was supported for both groups. Since word processing is incremental, we also hypothesized that nonwords with word-initial violations of English phonotactic constraints (*dvest*) would be detected earlier than those with illicit consonant clusters at the word end (*snovk*). This hypothesis was supported for the bilinguals, with no significant difference for native speakers. Lastly, as expected, both groups had significantly lower accuracy and took longer to process legal non-words, which confirming the results of Rastle *et.al*. (2002). Native English speakers, as expected, had faster processing times, and better accuracy than the bilingual group.

The results of the experiment and the debriefing session suggest that at the level of phonological processing, bilinguals seem well aware of the information that is impossible in L2 and thus reject illegal items before accessing the lexical knowledge. Longer reaction time and lower accuracy for legal nonwords might be explained by the necessity to access lexical knowledge and in order to make a lexical judgment.

Word count: 446

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