

*Specific research topic:*

Code-Switching/Code-Mixing

*Method:*

Event-related potentials

*Slavic languages studied:*

Russian, Belarusian

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### **Processing code-switches between closely and less closely related languages. An ERP study.**

In spite of a huge interest in the phenomenon of bilinguals switching between languages, its psycholinguistic nature is so far poorly understood. In this talk, we will show how the event-related potential (ERP) technique can be used to shed some light on the mechanisms of processing code-switches (CS).

We will begin with a short review of the basic concepts of the ERP-technique and a discussion of some of the main language-related components of ERP. Then, we will discuss two of our studies which focus on code-switching constellations, differing (among other things) in the degree of similarity between the involved languages.

Replicating Moreno et al. (2002) the first study investigated the processing of CS from German into Russian by Russian-L1-speakers. Three groups participated: 16 Germans (L1) without knowledge of Russian, 14 Russian-L1-speakers with moderate and 18 Russian-L1-speakers with excellent knowledge of German (L2, AoA>12). Stimuli were auditorily presented German sentences that ended with a semantically adequate German word, a semantically odd German word or a Russian equivalent of the semantically adequate ending. The results indicate that CS can to a certain degree be compared to lexical-semantic integration difficulties (as indicated by an N400). Late positivity effects indicate that CS are also treated as unexpected events. The finding that these effects are smaller when speakers are more proficient in their L2 suggests that L2 proficiency makes switching between L2 and L1 easier, or less costly.

In the second study, we investigate the effects of CS between two closely related languages. 32 young Belarusians participated, all of them with high competence in Russian, but with varying degree of competence in Belarusian. The make-up of the study was comparable to the previous study, but involving both Belarusian-Russian and Russian-Belarusian CS. The first results indicate that the processes are similar to those observed in the previous study, but differ in magnitude.

References:

Moreno, E. M.; Federmeier, K. D. & Kutas, M. 2002: Switching languages, switching palabras (words): an electrophysiological study of code switching. *Brain and Language* 80, 188-207.