



University of Rijeka, Faculty of Maritime studies

PROJECT ACRONYM AND TITLE: English words in Croatian: Identification, affective-semantic norming and investigation into cognitive processing via behavioural and neuroscientific methods (ENGR1)

FUNDING PROGRAMME: Croatian Science Foundation

PERSON RESPONSIBLE: Irena Bogunović

FINANCIAL DATA

Project total cost	Overall funding assigned to PFRI
1,095,600.00 HRK	164,340.00 HRK (15%)

SUMMARY

While unadapted English words have frequently been studied from the perspective of linguistic borrowing and sociolinguistics, there are not many studies on the cognitive processing of these words. In Croatian lexical processing research English has been treated either as a global and/or foreign language or a second language (L2). Although English is taught as a foreign language in Croatia, language exposure often starts at preschool age through various activities enabling incidental language learning. Research has shown that English is becoming a part of individual as well as societal bilingualism in Croatia. It therefore seems fitting to discuss the proposed research within the theoretical framework of bilingual language processing. Although lexical processing studies have recognized word frequency as the most significant influencing factor, frequency data for English words in Croatian is still unavailable. Despite many computer-language tools in existence (e.g. CLARIN, ReLDI, Inflectional Lexicon HrLex 1.2 (Ljubešić, Klubička & Boras, 2016), Croatian Frequency Dictionary (Moguš, Bratanić & Tadić, 1999), which undergo regular maintenance (cf. [Natural language Processing group](#)), neither can enable a search for English words in Croatian. The first goal of this project is to develop a corpus and a database of unadapted English words with frequencies and Croatian equivalents. There are also other linguistic factors influencing lexical processing. Studies have shown that emotional words are processed faster than neutral words. Differences in brain activity have been noted in ERP and fMRI studies. There are two Croatian databases available at the moment (Ćoso et al., 2019; Peti-Stantić et al., 2018), but neither of them includes English words. Therefore, the second goal is to norm unadapted English words and their Croatian equivalents according to affective and semantic properties. Bilingual lexical processing models view L2 learning as learning/acquisition of new forms for existing concepts – however, English words are often used for novel concepts for which the recipient language has yet to establish adequate lexical items, which makes them particularly interesting in bilingual mental lexicon and lexical access research. The third goal is to investigate lexical access in the case of unadapted English words, where priming method will be used in combination with lexical decision task. Similar studies have reported differences in L1 and L2 word recognition, but their findings are inconsistent due to nonlinguistic and methodological factors. The effect of these factors will be minimised in the proposed study through nonlinguistic and linguistic variable control. This research stage will also be used as preparation for the ERP study (4th goal), which will include a neurocognitive study of unadapted English word processing at the lexical and syntactic level. Research into ERP components has indicated a shift in the levels of brain waves measured by EEG, which have been labelled as event-related potentials (ERP). Some components were labelled according to the positivity/negativity of amplitudes they exhibit, or the time window in which they appear; e.g. N400 is associated with deviations at the semantic level, N250 with the mapping of sublexical and lexical



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representations, while P600 is associated with deviations at the syntactic level. Literature review did not yield any ERP studies into unadapted English words. The fifth goal includes an update of the corpus and English word database, as well as a meta-analysis of the two databases, which will enable an insight into the diachronous aspect of the intake of English words into Croatian.

Start date	End date
February, 2020.	February, 2025.

PARTNERSHIP

Br.	Partner organization	Country	Role
1.	Faculty of Maritime Studies Rijeka	Croatia	Lead partner

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