

REVIEW

of the doctoral dissertation submitted by Zhaksylykkyzy Karlygash entitled “Neurolinguistics of trilingualism: markers of lexico-semantic processing in cross-language interaction” submitted for the candidacy of a degree of Doctor of Philosophy (PhD) in “8D02303 – Linguistics”

This dissertation tackles a central question in multilingual neurocognition: how lexical meaning is accessed when three languages coexist, and whether cross-language activation depends on the order of acquisition and the typological properties of the languages involved. The author’s decision to focus on the Kazakh–Russian–English constellation is particularly valuable because it expands ERP-based multilingual research beyond language pairs that dominate international literature.

A major strength is the experimental logic: the author uses a backward translation recognition paradigm in which an L3 English prompt is followed by candidate words in Kazakh or Russian, which are either true translations or incongruent distractors. This design directly targets meaning-level evaluation rather than superficial form overlap. Moreover, the mirror-image grouping (L1 Kazakh vs. L1 Russian, with the other societal language as L2 and English as L3) is a strong quasi-experimental strategy because it enables a principled comparison of learning history effects while keeping the same language repertoire.

The dissertation correctly motivates ERPs as time-sensitive measures and treats the N400 as a key marker of lexical-semantic integration and semantic congruency sensitivity. This framing is appropriate for translation recognition, where the critical theoretical question is *when* congruent vs. incongruent candidates diverge during meaning evaluation, not only whether they differ in behavioural output.

Throughout the preparation of the dissertation, Karlygash Zhaksylykkyzy has demonstrated a high level of independence as a researcher and strong competence in contemporary approaches in linguistics, psycholinguistics, and neurolinguistics. The candidate works critically with scholarly literature, formulates testable hypotheses, designs controlled experiments, and interprets behavioural and EEG/ERP findings within a coherent theoretical framework. A particular strength of the dissertation is the candidate’s confident mastery of specialised EEG/ERP procedures, including rigorous experimental implementation and analytic decision-making, which require methodological discipline and technical expertise. The research was conducted at the Brain Institute of Al-Farabi Kazakh National University and was supported by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan within the framework of Program Targeted Funding No. BR27198099 “Development of Integrative Research in Neuroscience”.

The manuscript is well organised, progressing from theoretical foundations to a detailed methodology chapter and then to behavioural and ERP evidence, ending with an integrated interpretation and implications. The theoretical basis is grounded in established bilingual lexical-access models, L3 processing frameworks, and the classic N400 tradition, which demonstrates good command of the literature and appropriate positioning of the study.

The dissertation has strong approbation: it reports nine publications, including a Scopus-indexed (Q1) article in *Frontiers in Psychology*, and additional publications in nationally recognised journals and conference proceedings. This indicates that the main results have already undergone external scholarly scrutiny and dissemination.

The dissertation presents a complete piece of doctoral research with a clear aim, strong experimental logic, and an appropriate neurolinguistic methodology. The work contributes novel ERP evidence on trilingual lexical-semantic processing in the Kazakh–Russian–English constellation and demonstrates sufficient publication-based approbation. In my judgment, the dissertation fully satisfies doctoral requirements for the program “8D02303 – Linguistics” and should be recommended for public defense.

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