

## *Cognate facilitation in the trilingual mental lexicon: the role of learning experience*

Agnieszka Lijewska

Faculty of English, Adam Mickiewicz University  
[alijewska@wa.amu.edu.pl](mailto:alijewska@wa.amu.edu.pl)

Hanka Blaszkowska

Institute of Applied Linguistics, Adam Mickiewicz University

[Hanka.Blaszkowska@amu.edu.pl](mailto:Hanka.Blaszkowska@amu.edu.pl)

The typical finding in experiments involving reaction times (RTs) to cognates (words sharing form and meaning across languages) and language specific control words is that they take shorter to respond to in comparison to control words. This discrepancy between RTs obtained for cognates and controls (the cognate facilitation effect) is typically taken to indicate that during lexical access words from all languages known to an individual are activated and/or that representations of cognates are shared across languages (Costa, Santesteban, & Caño, 2005; Dijkstra, Miwa, Brummelhuis, Sappelli, & Baayen, 2010; Lemhöfer & Dijkstra, 2004; Peeters, Dijkstra, & Grainger, 2013). The majority of studies reported in the psycholinguistic and neurolinguistic literature have investigated the processing of cognates only in the bilingual context. Only a few studies have looked into the cognate processing patterns in trilingual participants (Lemhöfer, Dijkstra, & Michel, 2004; Szubko-Sitarek, 2011, 2014; Poarch & van Hell, 2012; Lijewska & Chmiel, 2014, Poarch & van Hell, 2014). Interestingly enough, only a few of the trilingual studies have tested the processing of those cognates which are shared between two foreign languages rather than between the native and a foreign one (Lijewska & Chmiel, 2015; Szubko-Sitarek, 2014). The results reported by Szubko-Sitarek (2014) revealed no significant cognate facilitation effect for L3-L2 cognates in an L3 lexical decision task. Szubko-Sitarek interpreted this as a lack of evidence for the influence of psychotypology (the perception of cross-linguistic similarity) on the internal structure of the trilingual mental lexicon and hinted at the possible influence of learning experience. Similarly, on the basis of the results recorded in two translation tasks, Lijewska and Chmiel (2015) suggested that the lack of cognate facilitation effect for L2-L3 cognates may indicate that it is not psychotypology but learning experience which influences how words are linked in the trilingual mental lexicon.

The present study aimed to investigate processing patterns of L1-L3 non-identical cognates (i.e. shared between the native language and the second foreign language) and L2-L3 non-identical cognates (i.e. shared across two foreign languages) in a group of trilingual speakers. A group of Polish learners of German as L2 and English as L3 translated L1-L3 cognates (e.g. AKTOR-ACTOR) and L2-L3 cognates (e.g. BLUT-BLOOD) and matched control words (e.g. DIARY) in two single-word translation tasks. Task 1 involved L3-L1 translation (from English into Polish) and Task 2 involved L3-L2 translation (from English into German). All of the participants learned their L3 via their L1. Such a design enabled us to look into the possible influences of learning experience on the cross-language connections in the trilingual mental lexicon. The analysis of reaction times and error rates recorded in the study revealed cognate facilitation effect for both types of cognates but L3-L1 cognates showed stronger facilitation than L3-L2 ones. These results will be discussed in the light of the current hypotheses and models concerning lexical processing and cross-language connections in the mental lexicon of trilingual speakers.

(481 words)

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