Balanced biliteracy as a predictor of word identification in bilinguals

Maria Andreou¹, Christiane Bongartz², Eva Knopp², Ianthi Tsimpli³

¹University of Thessaloniki, Greece  
²University of Cologne, Germany  
³University of Cambridge, United Kingdom

Performance on visual lexical decision tasks (LDT) presupposes vocabulary knowledge and decoding skills as it reflects reading ability (Katz et al., 2012). Vocabulary development in monolingual and bilingual children is directly influenced by input quantity and schooling. Our study examines (1) how bilingual education influences performance on LDT in bilinguals and (2) which factors best predict this performance.

Fifty-seven Greek-German, 10-12 year-old children living in Germany participated in the study: Greek-DOM (N=20, Greek schooling with 9 hrs/week of German), Greek-CLIL (N=19, German schooling with 8 hrs/week of Greek Content-Language-Integrated Learning) and German-DOM (N=18, German schooling with 2 hrs/week of Greek afternoon class). 20 Greek and 20 German monolinguals served as controls. The LDT in both languages included 60 real words and 60 pseudo-words. Expressive vocabulary, verbal working memory in each language and Raven’s matrices were used as background measures. Oral and written language exposure in German and Greek was measured through parental questionnaires.

Greek-DOM and Greek-CLIL bilinguals had smaller Greek vocabulary; however, they did not differ from monolinguals in accuracy on the Greek LDT. German-DOM scored significantly lower in both tasks. Similar results were found in the RTs for real words, although Greek monolinguals were faster than all bilinguals in pseudo-words. Accuracy scores in the German LDT were similar for German-DOM and German controls and lower for the other two bilingual groups. RTs for real words were affected by frequency, and German monolinguals outperformed all bilinguals. Greek-CLIL students showed balanced performance in the two LDTs suggesting a favorable setting for biliteracy. Predictors, identified on the basis of regression analyses, were vocabulary size and literacy exposure in each language, with both predictors being stronger in German than in Greek. We argue that lower vocabulary scores in the weak language of bilinguals are counterbalanced by good biliteracy levels.

Keywords: bilingualism, biliteracy, bilingual schooling, lexical decision task.