The mapping of lexical form to meaning is a crucial part of vocabulary acquisition in a second language (L2). This study investigated the difference between advanced speakers of English and native speakers of English in the representation and processing of English vocabulary. In addition, the study investigated the involvement of the semantic structures of the native language in L2 form-meaning mapping for advanced speakers of English. This study followed a similar design as Jiang’s (2002, 2004) studies; however, a major difference between the present study and Jiang’s work is that this study has another ESL sample. There were 14 Arab ESL speakers along with 13 native speakers of English asked to perform a semantic judgment task in which they decided whether or not 2 English words were related in meaning. There were 2 types of related word pairs that served as critical stimuli: word pairs where either the 2 words in the pair shared one translation in Arabic or had 2 different translations in Arabic. The native speakers of English responded significantly faster to all related word pairs than the Arab participants. Another finding was that the pair-type effect, the effect of the translation status of the word pair, was present in both groups of participants. However, the pair-type effect was found to be more significant for Arab participants than for the native speakers of English. The current findings indicated the difference between the representation and processing of English vocabulary between native speakers of English and Arab ESL speakers. However, the evidence of the involvement of L1 semantic structures in L2 vocabulary representation and processing should be treated with caution. The methodological issues which may have contributed to the current findings were discussed, and suggestions were made for future research.

Keywords: Arab, mapping of lexical form, pair-type effect, semantic structure, vocabulary acquisition