

Is phonological and lexical access during semantic processing conditioned by age of acquisition in deaf individuals?

Mara Moita*

Instituto Ciências da Saúde da Universidade Católica Portuguesa de Lisboa

Abstract

Is access to semantic knowledge structure of deaf individuals conditioned by their age of language acquisition? It is clearly that semantic knowledge structure is affected by language structure. In general, it is accepted that human knowledge organization involves hierarchical and taxonomic categories and phonological decoding skill. Experiments based on semantic processing in which deaf individuals performed using sign language are only available in a few studies, and none focus on the phonological and lexical access between the prelingually and postlingually deaf signers. Focusing on categorization skill, findings reveal that hearing children between 4 and 7 years of age do not categorize in a restricted form, as suggested by traditional literature. Instead, children of early ages have available taxonomic, script, and evaluative categories. It is well known that these ages represent the critical period of improvement of language acquisition: morphological and syntactic rules become more complex, the vocabulary expands, the semantic and phonological knowledge develop, the speech acts are created, and the skills for reading and writing mature (Johnson & Newport, 1989; Newport, 1990). Other studies corroborate this evidence, showing that there is a parallel critical period for the development of the visual and linguistic systems in deaf children (Mayberry, 1998), confirming the existence of a development pattern in hearing children. Factors such as limited phonological information available and poor semantic knowledge in deaf individuals reveals poor vocabulary skills (Marschark et al. 2002), and emphasizes the benefits of a bilingual knowledge. Bilingual knowledge provides a vast semantic knowledge, which combined with cultural influences can affect semantic organization, enhancing that a bilingual child will learn two words for the same referent.

To explore the correlation between semantic processing and language acquisition, it was particularly observed the subjects of an exploratory semantic study to analyse the phonological and lexical clustering used to assess the semantic knowledge in a categorial fluency task, between two groups of subjects: deaf adult signers who have learned Portuguese Sign Language (LGP) in early ages and deaf adult signers who have learned LGP in late ages – both groups were bilinguals (LGP/Portuguese). The obtained data have demonstrated no significant differences in the use of phonological clusters between both groups. However, looking through results, it is possible to verify that there are differences between the types of used phonological and lexical clusters, in special lexical components of word-compounds, which may contribute to better understand the phonological and lexical access related with age of acquisition.

References

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* marapmoita@gmail.com