Semantic networks of space and time between deaf signers and Spanish listeners
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The mental lexicon is defined as a container of all the information about the meaning of a lexical piece and all its characteristics. Regarding the semantic dimension, this lexicon helps to describe the relationships between individual concepts as members of conceptual domains. Studies on the processing, functional, and social distribution of spoken languages and signed languages suggest partial overlaps between them. However, factors such as ontogenetic development, language acquisition conditions, the development of deaf culture, conceptual domains concreteness, and the lexical repertoire available in each linguistic modality could suggest important differences. The objective of this study was to explore the semantic networks of the conceptual domains of space and time in the Uruguayan deaf signers population and Spanish listeners. 60 participants (30 deaf signers and 32 listeners, matched in age and education) carried out a word association task in their respective languages and with semantically equivalent lexical items. Regarding the structure of their respective semantic networks, both groups showed an important similarity in measurements such as the clustering coefficient, the degree of centrality, or the betweenness. However, only one (SUMMER) of 40 nodes showed over a .80 of similarity in the associates between both populations. A categorical-semantic analysis of the participant's responses showed a bias of the listeners to taxonomic and introspective semantic relationships. In contrast, the deaf signers showed a bias toward situational semantic relationships and entities. These findings suggest differences in the involvement of memory mechanisms and concrete / abstract thinking between both populations when organizing their mental lexicon.

Keywords: Language Modality, Space, Time, Mental lexicon

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