Abstract

The thesis focuses on how different languages influence spatial cognition of their speakers, i.e., whether and how the differences in spatial language (linguistic representation of perspective, location, spatial scenes etc.) affect the non-linguistic spatial reasoning (orientation, spatial memory etc.). This issue has for a long time been a part of the studies of the relation between language and thought under the flag of so called Sapir-Whorf hypothesis/Hypothesis of linguistic relativity.

In the first half of the theoretical part of the thesis, I attempt to summarize the history of the concept of linguistic relativity since 1950s and to revise some critical claims about linguistic relativity by re-reading Whorf’s works (chapter 2). The second half of the theoretical part (chapter 3) focuses in particular on the research of the interrelations between spatial thought and language. In section 3.1, I make a brief note on the notion of space in terms of cognitive linguistics. Section 3.2 provides an selective overview of the previous research of the crosslinguic spatial-cognitive diversity. Sections 3.3 and 3.4 connect the theoretical and the empirical part of the thesis.

The research itself is presented in the chapter 4. It experimentally tests the hypothesis, that the language-specific representation of space in Czech sign language enhances the deaf Czech sign language users’ ability in cognitive tasks that require mental rotation, in comparison to the hearing users of spoken Czech. The specific linguistic means of spatial representation in sign language are subject of section 3.3 in previous chapter, in which I also describe the phenomenon of mental rotation and its relation to perspective choice in sign languages. Section 3.4 pursues the previous research of the influence of perspective in sign languages (American sign language and Balinese village sign language Kata Kalok) on the spatial cognition of their users, particularly the experiment by Emmorey et al. (1998) with deaf users of American sign language and hearing English speakers. My research is a follow-up study. I carry out a replication of the experiment with users of Czech sign languages and Czech Speakers. Chapter 4 contains description of method, procedure, and results of the experiment. In the general discussion, the results are interpreted in the context of the previous studies.