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Neuropsychological mechanisms of the topological and metric principles in spatial processing

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The concept of two principles of spatial processing (topological and metric) is proposed in this paper. It is shown that the topological principle of processing has a wide circulation at early stages of phylogenesis, ontogenesis and perceptogenesis. The computer technique of a ratio of topological and metric choices is designed. In neuropsychological research it is revealed that the relation of topological and metric principles is based on the interaction of temporal and parietal cortical lobes mainly in the right hemisphere of a brain, and character of this interaction undergoes essential changes in individual development.

Keywords: spatial representation, topological and metrical principles, methodology topological and metric elections, brain organization, functional asymmetry of the brain.

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