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Security and Spatial Searching Strategies. the Comparison of Spatial Abilities and Strategies in Anxiety-secure Dimension.

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Introduction: The success of orientation is influenced not only by spatial abilities but also by spatial orientation strategies. We measured the efficiency of spatial memory with traditional objective spatial exercises.

Objectives: We focused on the relation between spatial abilities, strategies and security. We compared the learning time in CGA and the exploration strategies with spatial memory, as well as with the egocentric and allocentric dominant strategies in Lawton navigation strategy questionnaire.

Aims: We searched for egocentric and allocentric spatial navigation strategies which influence on the information processing and agoraphobic fears.

Methods: Computer Generated Arena (CGA), which simulates the spatial situation of Morris Water Maze (MWM). Corsi Block Task (Corsi, 1972), Block Design (Kohs, 1923), Lawton Navigation Strategy Questionnaire (Lawton, 1996).

Participants: 77 university students, 54 women and 23 men, average age 22,4 years.

Results: The variable of the learning in CGA, in the Block Design and in the Corsi Block strongly correlated with each other. The spatial construction ability strongly correlated with the allocentric strategies, and the spatial security with the spatial memory. With linear regression in CGA 10th trial, the more complex orientation strategies explain the time of finding the target. The strategy of wayfinding had a strong explanation power too. By females the performance is more sensitive to anxiety temperament and agoraphobic level.

Consequences: Spatial learning was influenced not only by memory but also by learning strategies. The secure object relations correlated with the use of more developed allocentric strategies.