

We live in our bodies - we move in them, thanks to them we feel the touch, warmth and coldness. Do our bodily experiences influence the formation of concepts not directly related to physical sensations? Embodied cognition - a modern cognitive science paradigm – assumes, that cognitive processes are intrinsically connected, and even rooted in the body and the experience of its relation with the world. Functional brain tests show that when we hear or speak words related to movement, the areas of the cerebral cortex involved in real motion are activated. Many abstract concepts also refer to bodily experiences. According to George Lakoff and Mark Johnson, our language, the concepts used in it, and thus also thinking, is based on metaphors. Some of them stem from the physical experience of being in the world. "We grab moments of happiness" and "we gather experience". "We are climbing the career ladder", but and sometimes "we act on base motives". These metaphorical terms also refer to bodily experiences.

Previous studies of embodied cognition were conducted with the participation of healthy people. In our project, we ask the questions "is the difference in bodily experiences reflected in language? is it associated with other development of concepts and metaphors?". The research includes people who suffer from significantly limited mobility since their birth or very early developmental period (for example due to underdevelopment of the limbs). Computer eye tracking systems are used in the study - all tasks can be performed only with a "eyesight".

The results of the study can be significant for verifying the paradigm of embodied cognition. They can also be important for better understanding of the cognitive processes of people with physical disabilities.