

Talk 2 – 13.11.15**Metaphors in learning and in research on learning:
a prop or a trap?**

In this talk, I will be reflecting on the role metaphors in two inter-related fields: in learning of subjects such as mathematics and in research on that learning. Since metaphors are generally believed to belong mainly to the domain of literature and poetry, speaking about them in the context of mathematics, science or of educational research may initially seem strange. However, closer analysis of how we speak or write while doing either research in education or in science and mathematics reveals that metaphors are central to our ability to explore new territories and to build new knowledge. In consequence, they shape our thinking all along and, through thinking, they mold our actions.

The focus of the talk will be on one particularly ubiquitous metaphor, called metaphor-of-objects that underlies our abstract thinking. I will first note the all important constructive role of this particular metaphor in natural sciences and mathematics. While reflecting on the way the same metaphor functions in research on learning, I will pay special attention to those of its uses that are potentially harmful. I will then review some of the most prominent metaphors that permeate out thinking about learning and while doing this, I will consider their mutual relations as well as their relative strengths and weaknesses. I will conclude with an attempt to answer the question of how to utilize metaphors in both education research and in teaching so as to make sure they serve as props rather than traps.