



And

Moss Rehabilitation Research Institute

PRESENT

Lawrence Barsalou, PhD

**Samuel Candler Dobbs Professor of Psychology,
Department of Psychology
Emory University**

Language and Simulation in the Representation of Abstract Concepts

Roughly speaking, an abstract concept refers to entities that are neither purely physical nor spatially constrained. Such concepts pose a classic problem for theories that ground knowledge in the environment, bodies, and simulation. How could such theories represent a concept like TRUTH? One possibility is that abstract concepts are grounded in simulations of the situations in which they occur. TRUTH, for example, might be grounded in complex multi-modal simulations of relevant situations, such as social lying, courtroom testimony, scientific debate, and religious doctrine. Within these situations, information relevant to an abstract concept is selected and simulated, including mental states, complex events, and relations between them. Alternatively, much evidence supports Paivio's proposal in Dual Code Theory that language is central for representing abstract concepts. In behavioral research, mental images are less important for abstract concepts than for concrete concepts, leaving language as the critical mechanism. In neuroimaging research, abstract concepts have been localized consistently in left-hemisphere language areas. One approach to reconciling these two views is to assume that both are correct, with language representing abstract concepts on some occasions, and simulations representing them on others. Research reviewed supports the account that linguistic forms represent concepts in general (not just abstract concepts) under superficial processing conditions, but that simulation represents concepts under deeper processing conditions. Additional findings illustrate that simulation represents a variety of abstract concepts under deep processing conditions. Both language and simulation—and especially interactions between them—are probably central for representing abstract concepts. Methodologically, it seems important that researchers be aware that task conditions promote differences in how abstract concepts are represented, and that multiple forms of representation are possible.

Friday, October 1, 2010

4:00 – 5:00 pm

Place: MossRehab - Elkins Park, G1 conference room