



## Lisa Aziz-Zadeh, Ph.D.

Assistant Professor of Occupational Science and Cognitive Neuroscience

University of Southern California, Los Angeles

Born in 1976 in Washington, D.C.

Studied Psychology and Cognitive Neuroscience at the University of California, Los Angeles, at the University of California, Berkeley, and at the University of Parma, Italy

FOCUS

### PROJECT

## Embodied Cognition

An Attempt to Unify Language Production, Reasoning and Motor Control

Our research explores how rudimentary sensory-motor systems may underlie higher cognitive processes such as language, thought, and social cognition. We utilize different brain imaging techniques including functional imaging and transcranial magnetic stimulation to understand these processes in the human brain. For example, we have explored how semantic representation for actions may be represented in motor-related cortices, how internal speech is subserved by motor imagery, and how visual and auditory perceptions of actions activate one's own motor representations. We are also interested in how emotions, group dynamics, and social relations modulate these systems.

### Recommended Reading

Aziz-Zadeh, L., S. Wilson, G. Rizzolatti, and M. Iacoboni. 2006. "A comparison of premotor areas activated by action observation and action phrases." *Current Biology* 16, 18: 1818-1823.

Aziz-Zadeh, L., L. Koski, E. Zaidel, J. Mazziotta, and M. Iacoboni. 2006. "Lateralization of the human mirror neuron system." *Journal of Neuroscience* 26, 11: 2964-2970.

Aziz-Zadeh, L., L. Cattaneo, M. Rochat, G. Rizzolatti. 2005. "Covert speech arrest induced by rTMS over both motor and nonmotor left hemisphere frontal sites." *Journal of Cognitive Neuroscience* 17, 6: 928-938.