

- Keynote 1 -

Embodied Language Learning with the Humanoid Robot iCub

Angelo Cangelosi

Centre for Robotics and Neural Systems, School of Computing and Mathematics, University of
Plymouth, UK.
acangelosi@plymouth.ac.uk

Abstract

Growing theoretical and experimental research on action and language processing and on number learning and space representation clearly demonstrates the role of embodiment in cognition. These studies have important implications for the design of communication and linguistic capabilities in cognitive systems and robots, and have led to the new interdisciplinary approach of Cognitive Developmental Robotics. In the European FP7 project “ITALK” (www.italkproject.org) and the Marie Curie ITN “RobotDoC” (www.robotdoc.org) we follow this integrated view of action and language to develop cognitive capabilities in the humanoid robot iCub. During the talk we will present ongoing results from iCub experiments on embodiment biases in early word acquisition studies, word order cues for lexical development and number and space interaction effects. The talk will also introduce the simulation software of the iCub robot, an open source software tool to perform cognitive modeling experiments in simulation

<http://www.tech.plym.ac.uk/soc/staff/angelo>

