

京都大学デザイン学大学院連携プログラム

第3回京大デザイン心理学講演会

日 時 : 2013年6月3日(月) 13:30~16:30

場 所 : 京都大学教育学部本館1階 第一会議室

http://www.kyoto-u.ac.jp/ja/access/campus/map6r_y.htm

(構内マップの21番の建物です。東側からお入りください。)

講演者1 : Professor Yuko Munakata (University of Colorado at Boulder)

講演題目 : Developmental transitions in the dynamics of cognitive control: Implications for memory and intervention

講演要旨 : Children show dramatic improvements in cognitive control over the first decade of life. For example, children show a shift in the dynamics of cognitive control, from a reactive form, where control is engaged only as needed in the moment, to a proactive form, where control is engaged in anticipation of needing it. Although this shift is generally viewed as adaptive, there are also cognitive trade-offs, such that the development of proactive control can confer costs. I will discuss such trade-offs in the context of memory retrieval processes. The shift from reactive to proactive control also has implications for interventions to improve children's inhibitory control: our work suggests that supporting reactive processes is effective in children prior to the shift, while training proactive processes is effective in children after the shift.

講演者2 : Professor Randall C. O'Reilly (University of Colorado at Boulder)

講演題目 : How adaptive control emerges from multiple interacting brain systems

講演要旨 : Everyone seems to agree that the prefrontal cortex (PFC) plays a critical role in executive control. But often it is treated as somewhat of a homunculus -- a "little person" in the head that mysteriously manifests the very same intelligence that we seek to understand in the first place. In ongoing work, my colleagues and I have been attempting to deconstruct this homunculus, by understanding how adaptive cognitive control emerges from the interactions of multiple specialized brain systems, including the basal ganglia and associated subcortical affective systems, the parietal cortex, and the hippocampus, all interacting with different subregions of the vast PFC system. We use biologically-based computational models to understand how these systems interact in complex ways to produce adaptive overall behavior. This talk will present an overview of the current state of our models, and some exciting new directions of current research on the role of anterior ci!

ngulate cortex (ACC) and orbital frontal cortex (OFC) in using activation-based processing to monitor executive function.

主 催 : 博士課程教育リーディングプログラム「デザイン学大学院連携プログラム」

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