Self-Control Brain Circuits

Adam Aron
Associate Professor, Psychology

CURRENT RESEARCH

Developing behavioral paradigms for self control rooted in human neuroscience

How do people control inappropriate actions, thoughts, motivations and urges? Such self-control can be achieved by many different strategies including changing one's environment, thinking about things differently, redirecting one's attention, and, as a last recourse, stopping the action, and perhaps the cognition or motivation from being expressed. Dr. Adam Aron of the University of California, San Diego, has focused on the last element in this self control chain - the stopping process. His research develops behavioral self-control paradigms in the lab that are also amenable to modern neuroscience tools (such brain recording and brain stimulation methods). He has taken a unique research approach for a cognitive neuroscientist of bringing diverse tools to bear on the focused problem of stopping action. This has allowed him to identify a core brain circuit in humans for stopping inappropriate action. This is likely to have greater generality for the control of thoughts, motivations and urges. Knowledge from this research program has already been applied to investigate a number of impulse control disorders such as ADHD, Tourette's syndrome and dopamine-treated Parkinson's disease.

His groundbreaking research was recognized by a recent American Psychological Association award nomination (http://www.apa.org/science/about/psa/2013/05/distinguished-award.aspx) in which the APA recognized his research as an "outstanding example of how neuroscientific methods can provide insights into complex psychological...

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AFFILIATION

University of California, San Diego

EDUCATION

- Ph.D. in Department of Psychiatry, 2003

University of Cambridge

AWARDS

- James S. McDonnell Foundation Award, 2013
- APA Distinguished Scientific Award for Early Career Contributions to Psychology, 2013
- Young Investigator Award, Cognitive Neuroscience Society, 2012
- NARSAD Young Investigator Award, 2008
- Alfred P. Sloan Foundation Fellowship, 2008

RESEARCH AREAS

Humanities, Psychology, Sociology, Neurological / Cognitive

FUNDING REQUEST

Your contributions will support the continued research of Dr. Aron, of UCSD, as he develops neuroscience-based human behavioral paradigms in the lab that are proxies for self control in the real world. Your donations will support the $170K per year required for personnel, equipment, and experiment costs. In choosing to donate, you take part in improving our understanding of human neuroscience and developing better tools for evaluating cognitive training, pharmacological and brain stimulation approaches.