

Alek Chakroff

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Education:

BA. Hampshire College. Amherst, MA. (2006) Concentration in Cognitive Neuroscience

Senior Thesis: An EEG investigation of the "Flow State." A Study of Attention, comparing states of intense concentration in musicians to Meditation.

Selected Coursework: Neuropsychology; Advanced Issues in Cognitive Science; The Plastic Brain; Culture, Mind and Brain; Brain and Cognition II; Organic Chemistry II; Biochemistry; Philosophy of Mind; Philosophy of Happiness; Psychological Theories of Religion; Statistics

Funding:

Hampshire College Culture, Brain and Development Research Grant (2005)

Presentations:

CL Harenski, AG Chakroff, MS Shane, KA Kiehl. Electrophysiological correlates of moral processing: an event related potential study. Cognitive Neuroscience Society 16th Annual Meeting. San Fransisco, CA. March 21-24, 2009.

AG Chakroff, C Harenski, MS Shane, KA Kiehl. Subliminal emotion perception is modulated by psychopathic traits: An ERP study. Society for Neuroscience 37th Annual Meeting. San Diego, CA. Nov. 3-7, 2007.

AG Chakroff, CL Harenski, J Shoemaker, KA Kiehl. Abnormal processing of moral stimuli in psychopathic offenders. Society for Neuroscience 38th Annual Meeting. Washington, DC. Nov. 15-19, 2008.

N Moser, A Pressman, AG Chakroff. Cognitive processing of auditory rhythmic structure and novel stimuli. Hampshire College Culture, Brain and Development poster session. Amherst, MA. December, 2005.

In the Media:

Science News. Morality askew in psychopaths' brains. Web edition: Nov 15, 2008

Research Experience:

Technical Assistant - Massachusetts Institute of Technology

FMRI acquisition and analysis, matlab script development, web development, coffee consumption.

Data Analyst – University of New Mexico Biology Department (December 2008 - Present)

Created custom MATLAB scripts for analysis of large multivariate data sets. Developed GUI interfaces for interactive visualization of data, using both GUIDE and standard uicontrol methods.

Research Associate - The MIND Research Network (March 2007 – December 2008)

fMRI: Routinely acquired and analyzed data on Mobile Siemens Avanto 1.5T and Siemens 3T Trio Scanners – over 50 subjects scanned. Oversaw preprocessing and statistical analysis of over 200 clinical subjects. Personally established and tested stimulus presentation, triggering, eyetracking and analysis systems for the new Mobile Siemens 1.5T.

ERP: Managed operations, acquired and analyzed ERP data from two Biosemi systems at The MIND Institute: One 64-channel and one 128-channel system. Oversaw automated analysis of over 1000 subjects. Personally established stimulus presentation and analysis systems for both systems.

Clinical: Experience with multiple psychopathy measures, including the Psychopathy Checklist – Revised. Regularly worked with incarcerated and clinical populations, including psychopathic and schizophrenic individuals. Attended the Psychopathy Research and Assessment workshop at the University of New Mexico and The MIND Institute.

Research Associate - The Olin Neuropsychiatry Research Center (May 2006 – March 2007)

Acquired and analyzed fMRI data on a Siemens Allegra 3T scanner. Acquired and analyzed ERP data on a 64-channel EEG system. Worked with antisocial and clinical populations, including psychopathic, bipolar, schizophrenic individuals. Attended the Olin fMRI Image Acquisition and Analysis Course, Co-sponsored by the Olin Neuropsychiatry Research Center and Yale University.

Student, Research Assistant - The Hampshire College ERP Lab (2004-2006)

Worked with students and professors on a wide range of studies. Recruited subjects, acquired funding, received IRB approval, acquired and analyzed ERP data on a 32-channel Neuroscan system for thesis project.

Software:*Stimulus Presentation:*

Presentation, E-Prime, VAPP

Design Optimization:

Optseq, OptimizeDesign1.1

EEG Acquisition:

Biosemi Activeview, Digitize, Neuroscan

FMRI Analysis:

SPM99, SPM2, SPM5, GIFT ICA Toolbox

ERP Analysis:

EEGLAB Toolbox, ERPSS

Web development:

Python, PHP, Xhtml, Javascript, CSS

Data analysis and scripting:

MATLAB, some Perl and Bash

Miscellaneous:

ViewPoint EyeTracker, SPSS, Linux, Unix, DOS

References:

Rebecca Saxe, Supervisor

Assistant professor, Massachusetts Institute of Technology

saxe@mit.edu

Marcy Litvak, Supervisor

Assistant professor, University of New Mexico

mlitvak@unm.edu

Keith Harenski, Supervisor

MRI research coordinator, Mind Research Network

kharenski@mrn.org

Carla Harenski, Collaborator

Postdoctoral Fellow, Mind Research Network

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