Jason Locklin, BSc, MA

Contact Information

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Education

University of Waterloo:

Ph.D., Cognitive Neuroscience, (Expected completion December 2013)

- Thesis Topic: Perception and Action Biases under Saccadic and Prism Adaptation.
- Adviser: Professor James Danckert
- Area of Study: The neuroanatomy and psychophysics of human action and perception.

M.A., Behavioural and Cognitive Neuroscience, August 2009

- Thesis Title: Development of a Measure of Visuomotor Control for Assessing the Long-term Effects of Concussion
- Adviser: Professor James Danckert
- Area of Study: Fine Motor Control, Concussion Research.

B.Sc. (Honours), Psychology, Biology (minor), June 2007

- Course load including strong mix of Psychology and Natural Science: Biology, Physics, Chemistry, Biochemistry, Organic Chemistry, and Calculus (including all associated laboratory courses).
- Achieved a 95% in Advanced Data Analysis and a GPA over final 4 terms of 84%.

Publications

Locklin, J., Bunn, L., Roy, E. & Danckert, J. (2010). Measuring Deficits in Visually Guided Action Post-Concussion. *Sports Medicine*, *40*, 183-187. doi:10.2165/11319440-000000000-00000

Locklin, J. (2009). *Development of a measure of visuomotor control for assessing the long-term effects of concussion.* (Master's thesis, University of Waterloo, Waterloo, Canada). Retrieve from `http://hdl.handle.net/10012/4740`

Striemer, C., **Locklin, J.**, Blangero, A., Rossetti, Y., Pisella, L. & Danckert, J. (2008). Attention for action? Examining the link between attention and visuomotor control deficits in a patient with optic ataxia. *Neuropsychologia*, *47*, 1491-1499. doi:10.1016/j.neuropsychologia.2008.12.021

Non-Refereed Publications:

Locklin, J., & Danckert, J. (2010) *Do we have Independent Visual Streams for Perception and Action? a Response.* Preprint. Retrieve from `http://cogprints.org/6854/`

Locklin, J., Danckert, J. (2009). Changes in Visuomotor Performance of Concussed Individuals. Poster. Abstract published in *Journal of Vision*, *9:8*, 1103-1103. doi:10.1167/9.8.1103

Law, A., McCabe, S., **Locklin, J.**, Tan, C., & Morris, S. (2006). *Perceptions of social rank as a predictor of anger and depression symptoms.* Poster presented at the Graduate Student Research Conference, University of Waterloo, Waterloo, Canada.

Awards

Government of Ontario

Ontario Graduate Scholarship	2010–2011
Aiming for the Top Tuition Scholarship	2002–2003

University of Waterloo

University of Waterloo Graduate Scholarship	2012
President's Graduate Scholarship	2010–2011
UW/Faculty of Arts Graduate Scholarship	2010
Psychology Memorial Fund Scholarship	2010
Arts Graduate Enhancement Scholarship	2009
University of Waterloo Merit Scholarship	2009
MERIT/Faculty of Arts Graduate Scholarship	2008–2009
Arts Grad Enhancement Scholarship	2007–2008
Dean of Science Honours List (non-monetary)	2004
Dean of Science Honours List (non-monetary)	2005

Teaching

Department of Psychology, University of Waterloo:

Advanced Data Analysis: *Teaching Assistant & Lab Instructor* Fall 2007

- Instructor: Jonathan Fugelsang
- Develop and lead regular 1 hour tutorials instructing 30 students to utilize the statistical software package SPSS in analyzing real world experimental and observational data.

Basic Data Analysis: *Teaching Assistant & Lab Instructor* Winter 2008

- Instructor: Derek Koehler
- Instruct a weekly tutorial for 30 students, consisting of a 30 minute review lecture of the week's topic, and 30 minutes of practical instruction on solving data analytic problems.
- Develop weekly tutorial lesson plans in cooperation with other TAs.

Cognitive Processes: *Teaching Assistant* Fall 2008

- Instructor: Jonathan Fugelsang
- Provide extra instruction during office hours, grade term papers, give feedback to students.

Physiological Psychology: *Teaching Assistant* Winter & Fall 2009

- Instructor: Michelle Jarick and Erin Skinner respectively.
- Provide weekly office hour extra instruction to students.

Res. in Human Cognitive Neuroscience: *Teaching Assistant* Winter 2010

- Instructor: Mike Dixon.
- Provide assistance and feedback to students developing a research paper.

Physiological Psychology: *Teaching Assistant* Winter 2011

- Instructor: James Danckert
- Provide weekly office hour extra instruction to students.

Human Neuropsychology: *Teaching Assistant* Fall 2012

- Instructor: James Danckert
- Provide weekly office hour extra instruction to students.

Research

Department of Psychology, University of Waterloo:

Research Assistant May 2007 to Current

- Supervisor: Dr. James Danckert
- Develop a motor-accuracy task for the measurement of concussion symptoms.
- Test neurological patients using a variety of neuropsychological tests and procedures, including Prism Adaptation.
- Develop and test a gaze-contingent task using real-time eye-tracking equipment.

Research Assistant Jan. 2007 to Apr. 2007

- Supervisor: Dr. Jon Fugelsang
- Develop web-based decision making experiments and collect data.

Laboratory Coordinator Sep. 2005 to Aug. 2006

- Supervisor: Dr. Scott McCabe
- Train research assistants, coordinate lab events, oversee several experiments.

Research Assistant Jun. 2005 to Dec. 2006

- Supervisor: Dr. James Danckert
- Develop a computer-based task for participants to pursue moving targets on a touch-screen computer.

Other Relevant Experience

U.W. Undergraduate Psychology Society: President. Sep. 2005 to Apr. 2007

Mathematical Expertise

Basic Statistics and Data Analysis

- Hypothesis testing via means comparisons and correlations, including techniques for the prevention of elevated experiment-wise error.
- Data reduction and simplification using measures of central tendency, variance, and periodicity.
- Data visualization, including experience with the problem of communicating high-dimensional data on paper/screen.
- Experiment power and effect size calculations.
- Experimental design optimization.

Advanced Statistics

- Analysis of Variance and Covariance, as well as Logistic Regression (Generalized Linear Models).
- Multiple Regression, including model comparisons and variable coding for non-typical data sets.
- Bayesian hypothesis testing.

Technical Skills

Statistical / Data Analytical Software

- SPSS, a statistical analysis package for the social sciences,
- R, a powerful statistics programming language and data visualization package.
- Scipy/Pylab, a Python library for scientific computation and data visualization.

Laboratory Equipment and Software

- EyeLink II host control (For controlling eye-tracking equipment).
- Psychopy, a Python library for building psychopysics and cognitive psychology experiments.
- Authored a library to interface the EyeLink host with Psychopy.
- Trained in lesion overlay analysis using a variety of software packages (Analysis of fMRI brain imaging data)
- AcqKnowlege software in combination with BIOPAC laboratory equipment for physiological measurement (Electromyography (EMG) and Galvanic Skin Response (GSR))
- E-Prime for data collection in Psychology Research.

Programming and Scripting Languages

- Day-to-day familiarity with several scripting languages including Python, UNIX shell scripting (BASH), and BASIC (E-Basic).
- Experience using a variety of programming languages (C, Pascal, and JAVA).
- Experience using PHP with HTML and CSS in the development of web-based research experiments.

Typesetting and Productivity Software

- Comfortable writing with TeX, LaTeX, and BibTeX for technical and scientific documents, as well as common office suites such as Microsoft Office and OpenOffice.

Other Interests

Teaching scientific skepticism and wonder.

Astronomy, Birding, Geology, Botany, History, Physics, Chemistry...

Analogue and digital electronics, radio and network communication technologies, robotics, computer vision, artificial intelligence, multimedia over IP, Linux...

Free (as in Freedom or "Libre") software, culture and openaccess science, as well as copyright reform.

Environmental conservation and active transportation.

Cycling, hiking, camping, canoe tripping.

Projects:

- Asterisk home phone PBX system
- MythTV Network PVR and XBMC based media centre
- Digital TV antenna system including homemade VHF Yagi
- Antennas for portable amateur satellite and repeater use.
- Bluetooth TNC (modem) for wireless connection between handheld radio and Android phone or laptop.

Affiliations

Danckert Attention and Action Group (thedaag.uwaterloo.ca)

Bad Science Watch (badsciencewatch.ca)

Vision Sciences Society (VisionSciences.org)

Society of Ontario Freethinkers (sofree.ca)

KW Amateur Radio Club (Callsign: VE3MAL, kwarc.org)