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#### EDUCATION

University of Waterloo:

# Ph.D., Cognitive Neuroscience, August 2015

- Perceptual and Memory Deficits in Unilateral Neglect
- Adviser: James Danckert
- Area of Study: Stroke, Perception, and Memory.

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

- Development of a Measure of Visuomotor Control for Assessing the Long-term Effects of Concussion
- Adviser: 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).

#### Publications

**Locklin, J.** (2015). Perceptual and Memory Deficits in Unilateral Neglect. (Dissertation, University of Waterloo, Waterloo, Canada). Retrieve from hdl.handle.net/10012/9590

**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 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:

Newman, G., Duffy, C., Powell, A., Gray, R., & Locklin, J. (2012). Position Paper on Electromagnetic Hypersensitivity (Idiopathic Environmental Intolerance Attributed to Electromagnetic Fields). Canada: *Bad Science Watch*.

Retrieve from www.badsciencewatch.ca/projects/investigation-of-anti-wifi-activism-in-canada

**Locklin, J.**, & Danckert, J. (2010). Do we have Independent Visual Streams for Perception and Action? a Response. Preprint. Retrieve from 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.

# LEADERSHIP ROLES

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

• Student organization, administration of 8, over 600 members.

Laboratory Coordinator: Clinical Psychology.

Sep. 2005 to Aug. 2006

• Researcher: Dr. Scott McCabe, University of Waterloo.

Science Advisor, Advisory Committe: Bad Science Watch.

Sep. 2012 to Cur

• Non-profit public interest advocacy group.

## RESEARCH

### Department of Psychology, University of Waterloo:

**Perception, action and brain injury:** Research Assistant. May. 2007 to Aug. 2015 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.

Desision making: Research Assistant.

Jan. 2007 to Apr. 2007

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

Psychophysics. Research Assistant.

Jun. 2005 to Dec. 2006

- Supervisor: Dr. James Danckert
- Develop a computer-based task for a graduate student's project.

Attention and clincal depression. Research Assistant. Sep. 2004 to Aug. 2006

- Supervisor: Dr. Scott McCabe
- Train research assistants, oversee several covert-orienting experiments.

#### TEACHING

#### Department of Psychology, University of Waterloo:

## Physiological Psychology: T.A.

Winter 2011 & 2014

• Provide weekly office hour extra instruction to students.

## Human Neuropsychology: T.A.

Fall 2012

• Provide weekly office hour extra instruction to students.

# Res. in Human Cognitive Neuroscience: T.A.

Winter 2010

• Provide assistance and feedback to students developing a research paper.

# Physiological Psychology: T.A.

Winter & Fall 2009

• Provide weekly office hour extra instruction to students.

# Cognitive Processes: T.A.

Fall 2008

• Provide extra instruction during office hours, grade term papers, give feedback to students.

# Basic Data Analysis: T.A. & Lab Instructor

Winter 2008

- 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 teaching assistants.

# Advanced Data Analysis: T.A. & Lab Instructor

Fall 2007

• 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.

#### Graduate Level

## Training

# University of Waterloo, selected examples follow:

#### **Technical**

- Multiple Regression (Psychology 632), Jonathan Oakman.
- Analysis of Variance (Psychology 630), Stephen Spencer.
- Experimental Design (Statistics 830), Jeanette O'Hara-Hines.
- Computer Vision (Systems Design Engineering 677), Hamid Tizhoosh.
- Data Analysis in Neuroscience (Biology 681), Mattheijs van der Meer.

#### Non-technical

- Visual Perception (Psychology 287), Daniel Smilek.
- Neurobehavioral Analysis of Perceptual and Motor Deficits (Kinesiology 656), Eric Roy.
- Nature & Computational Correllations of Intelligence (Psychology 670), Britt Anderson.
- Cognitive Neuropsychology I (Psychology 779A), Michael Dixon.
- Human Neuroanatomy and Neuropathology (Psychology 784), Britt Anderson.

# 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

- R, statistics programming, data visualization.
- SPSS, statistical analysis for social sciences,
- Scipy/Pylab, Python library for scientific computation, data visualization.
- Matlab, high-level technical computing langague.

## Laboratory Equipment and Software

- EyeLink II host control (For controlling eye-tracking equipment).
- Psychopy, Python library for building psychopysics and cognitive psychology experiments.
- Trained in lesion overlay analysis (Analysis of MRI 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).
- 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 Software

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

#### 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

# Affiliations

Danckert Attention and Action Group (thedaag.uwaterloo.ca)
Bad Science Watch (Advisory Council) (badsciencewatch.ca)
Vision Sciences Society (VisionSciences.org)
Society of Ontario Freethinkers (sofree.ca)
KW Amateur Radio Club (Callsign: VE3MAL, kwarc.org)