**Michael Bronstein**

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**EDUCATION**

Yale University, Clinical Psychology, PhD student Aug 2015-present
Washington and Lee University, Lexington, VA May 2015

Bachelor of Science with honors in psychology, summa cum laude. In-major GPA: 3.985. Overall GPA: 3.966. Class rank: top 2% (approximate).

Additional Coursework:

 University of Michigan 3-day ERP Boot Camp:

 Taught by Dr. Steven Luck. This is a workshop series intended to teach ERP researchers about ERP research methods and advanced analysis of ERP data.

 University of Michigan fMRI Training Course:

 An 11-day graduate level class on how to conduct fMRI research. This course included lectures on the design of fMRI research studies, the physics behind MRI and BOLD, real- time fMRI and arterial-spin labeling, the use of fMRI to assess connectivity, as well as on the statistics used in fMRI research. This course also included a laboratory component which conferred hands-on experience using MATLAB to process and analyze fMRI data (SPM and GLM).

Test Scores:

 -Psychology Subject Test (10/25/14): Score: 790 (98th percentile), Experimental Psychology: 79 (97th percentile), Social Psychology: 79 (98th percentile)

 -GRE (July 12, 2014): 165 Verbal (95th percentile), 164 Quantitative (88th percentile), 5.5 Analytical Writing (98th percentile).

**RESEARCH**

**Senior Honors Thesis Topic**

My thesis, which is currently ongoing, has thus far involved demonstrating that neural noise can be induced by noise in the visual environment. This demonstration is consistent with the notion that brains generate neural noise to make sense of the world because one would expect that if this were the case then the amount of neural noise in brains should change as a function of their environments. I am currently conducting follow up experiments to try to determine whether the neural noise induced by noise in the visual environment might alter perception in other sensory modalities (e.g., by causing false alarms of differences between identical tones).

**Clinical Psychology Research**

**I.** Assisted in the development and implementation of several research projects for Wediko Children's Services with limited supervision by coordinating the research activities centering around 4 clinical groups (over 40 children aged 10-13). Was also responsible for making research results available and accessible to these groups so that they could inform clinical decisions. This responsibility included administering peer assessment inventories and presenting results to groups in poster format. Also assisted in the development and implementation of a data management computer program which was designed to make cognitive behavioral data collected from patients visually explicit for clinicians.

**II.** Completed research on the how emotional intelligence and gender influenced the therapeutic effects of the "non-therapeutic" family campus visit. In this role, I independently designed and implemented an experiment to assess the impact of the family visit on the Wediko residential treatment center's 10-13 year old population. I found significant results and identified potential target populations for which additional support may be helpful during this period in the residential treatment program.

**III.** Volunteered to work with Dr. Bill Gehring at the University of Michigan as a research assistant. In this role, I designed and coded a set of scripts to automate the gathering of relevant metrics (e.g., ERP amplitude, post-error slowing, flanker effect size) from EEG data files and to then automatically export these metrics to a spreadsheet to facilitate easy analysis of behavioral and electrophysiological data. I also helped to process and gather EEG data characterizing the ERN in clinical (including OCD) and healthy populations. These responsibilities involved the regular use of MATLAB and the EEGlab toolbox.

**IV.** Completed research on the interactions between psychological health and cellular phone use under the supervision of Dr. K.K. Murdock. In addition to running participants, I was responsible for providing technical assistance to the lab including troubleshooting in Opensesame, configuring and collecting data from Actiwatch systems. I also was responsible for searching relevant literature to optimize the lab's measures of sleep quality and general wellbeing.

**Other Psychology Research**

**I.** Volunteered to be a primary investigator under the supervision of Dr. Carlson. In this role, I designed and implemented my own experiment to assess how simultaneous feelings of cognitive dissonance in multiple domains influences both actual and predicted task performance in narcissistic individuals. I was also responsible for supervising and mentoring one underclassman and for managing lab affairs.

**II.** Designed and implemented original research using inhibition of return to study whether items in visual working memory are stored as individual feature maps or rather as conjunctions of features under Dr. W. Whiting.

**III.** Worked with a partner to design and conduct an experiment that assessed prediction accuracy of future events in a film at event boundaries and non-boundaries in order to test the tenet of event segmentation theory which states that prediction is the driver behind event segmentation. Conducted under the supervision of Dr. D. Johnson.

**Neuroscience Research
I.** I have completed research each semester for the last 3 years regarding neural noise and the olfactory system under the supervision of Dr. Tyler Lorig. My role in this lab group has expanded from solely collecting data to include assisting in experimental design, troubleshooting, and data analysis. Because of this evolving role, I have been able to gain skills with many different laboratory technologies including EEG, as well as skills in programming languages that I taught myself, such as MATLAB and Python. I used my knowledge of Python to test and evaluate a new experiment management method for this lab group. I continue to regularly use my skills in MATLAB to program experiments for work of my own design that is associated with the lab group's interests. Currently, I serve as the senior member in this lab, which entails instructing new members on the use of lab technology (including EEG), troubleshooting issues that arise, and generally overseeing the research of others in the lab.

**Biology Research
I.** Completed research focused on illuminating the wound healing properties of Apligraf, a product of Organogenesis Inc. This included analyzing tissue samples using a variety of immunohistochemical and chemical techniques. Also included substantial amounts of several types of microscopy.

**II.** Completed research on spidroins in L. geometricus under the supervision of Dr. Ayoub. In this role, I designed primers to amplify genes I had selected, annotated ESTs, and examined intron-exon relationships in spider silk gland DNA in order to learn about the conservation of genes in these glands between spider species.

**III.** Completed research on water quality and sources of contamination with Charles Winder. In this role, I examined micro and macro organisms as markers of water quality, and also assisted in processing the data gathered.

**IV.** Completed immunohistochemical research focused on identifying optimal methods of characterizing Dorsal Root Ganglia and Rohon-Beard neurons in *Xenopus laevis* withDr.F Watson. This was done in order to be able to better examine the role of organophosphate pesticides on this species.

**WORK EXPERIENCE**

**Teaching Assistant: Introduction to Statistics for Psychology: Washington and Lee University**

In this role, I taught students SPPS, statistics, and research methods in tandem with the teaching provided by their main professor. I was personally chosen by my department head for this role from among other students.

**Direct Care: Wediko Children's Services (AmeriCorps Professional Corps Member)**

In this role, I provided 24-hr direct care counseling services at an intensive, 45-day residential treatment program for children ages 7-20 with a wide range of emotional/behavioral issues and psychiatric disorders. During this time, I facilitated individual and group therapies and engaged in several forms therapeutic interventions on a daily basis. I also developed engaging activities geared towards behavior modification, emotion regulation and improving social skills.

**Writing Center Tutor**

In this role, I provided instruction in writing both formal scientific papers and literary analysis to students of all years. I was one of two tutors specializing in providing instruction on the writing of scientific papers, including psychology research papers. I was jointly nominated for this position by the Psychology and English departments.

**Freelance Writer**

In this role, I wrote content for several major companies in the United States and abroad. My work has included writing practice MCAT questions in psychology/sociology for a major U.S. test preparation firm.

**Preclinical Research and Development Intern: Organogenesis, Inc.**
In this role, I assisted with the preparation and design of experiments at Organogenesis, Inc. and conducted them with minimal supervision. I also designed and implemented a system for streamlining my department's chemical ordering and inventory.

**Teaching Assistant and Lab Tech: Boston University**
In this role, I assisted with the preparation and guidance of experiments in Boston University programs which impart biotechnology skills to high school students through exposure to research techniques.

**SPECIAL SKILLS**

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| --- | --- | --- |
| **Skill Name** | **Skill Level** | **Last Used/Experience** |
| **EEG** |  **Advanced** | **Currently used/26 months** |

**Microscopy Moderate May 2014/5 months**

**Python Basic May 2013/4 months**

**Matlab Moderate Currently used/22 months**

 **including these toolboxes: EEGlab, ERPlab**

**SPSS Moderate Currently used/8 months**

**E-Prime Moderate Currently used/5 months**

Additional training in: HIPAA, PBIS, TCI, OpenSesame, Psychopy, Fluorescent and Brightfield Microscopy, Electron Microscopy and sample preparation, GLP, GMP, Medical Waste Shipping practices, FDA inspection preparedness.

For samples of my MATLAB code, please visit: https://github.com/MichaelVBronstein

**PUBLICATIONS IN PEER REVIEWED JOURNALS**

Bronstein, M.V. (2014). A review of the models of schizophrenia: And a putative novel, more unified model. *Modern Psychological Studies*, *19*, 47-64.

**PRESENTATIONS AT PROFESSIONAL MEETINGS**

Bronstein, M.V., & Cannon, T.D. (2016, May). *Bias Against Disconfirmatory Evidence In A Large Unselected Sample: Associations With Schizotypy And Delusional Beliefs*. Poster session presented at the 71st Annual Meeting of the Society of Biological Psychiatry, Atlanta, GA.

**ACTIVITIES, ACCOLADES, AND CERTIFICATIONS**

Eagle Scout

Oliver Award Winner (2015)

 Award given to one student/year for the consistent demonstration of intellectual curiosity across the breadth of the field of psychology.

Elmes Pathfinder Prize (2014)

 A cash prize given to one senior who has demonstrated exceptional promise for a career in psychological science through outstanding scholarship in basic or applied psychology

James McDowell Scholarship winner (2014)

 A cash prize given to 6 students/year at Washington and Lee for outstanding 2 year records of achievement

Washington and Lee Psychology Department Award Winner (2014)

 A cash prize given to the rising senior with the highest overall GPA in the department

Johnson Opportunity Grant Winner (2014)

 A competitive $2500 grant award given with consideration of a record of academic excellence to help fund a summer project

Johnson Scholar (2011-2015)

 Highest merit scholarship award given at Washington and Lee University

Robert Alexander Prize Winner (2013)

 Given to 1 person/year for exceptional academic achievement at Washington and Lee

Sidney M. B. Coulling Prize winner (2012)

 For best essay on a literary topic by a first year student at Washington and Lee University

Vice President of Psi Chi Honor Society's Washington and Lee University Chapter (2013-Present)

Vice President of Sigma Phi Epsilon Virginia Epsilon Chapter (2013-14)

 Planned major educational and social events for members

National Merit Scholarship holder

Treasurer of Sigma Phi Epsilon Virginia Epsilon Chapter (2014-15)

 Helped manage budgets and coordinated organizational level fiscal planning and responsibility

Varsity Cross Country (2011-12)

 Previous Academic Liaison and Varsity team member for Washington and Lee University

 ODAC Academic All-Conference team member 2011-2012

Peer Tutor in Psychology for Washington and Lee University (2011-Present)

Member: Phi Beta Kappa, Phi Eta Sigma, and Beta Beta Beta honor societies as well as the Association for Psychological Science

Active Minds member (2011-Present)

 A national organization that strives to erase the stigma of mental health on college campuses

 Safe-Talk Suicide Awareness and Intervention certified

Published Poet in MUSE and Zine literary magazines, featured author in Zine

Sweet Briar Creative Writing Conference Nominee for Washington and Lee (1 of 3 selected)

 Professors were told to select their most "advanced, mature, and promising students"