

Thomas Biba

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Education

University of San Francisco

B.A. in Psychology, *Summa Cum Laude*
Concentration: Honors in Psychology
Minor in Philosophy

Degree Awarded: December 2016

GPA: 3.94

City College of San Francisco

A.S. in Social and Behavioral Sciences, *High Honors*
A.A. in Liberal Arts and Humanities, *High Honors*

Degrees Awarded: December 2013

GPA: 3.73

Relevant Coursework

Graduate Cognition Seminar (audited), Honors Thesis Seminar, Advanced Research Methods, Philosophy of Social Science, Logic, The Social Implications of Scientific Rationality, Learning and Memory, Cognitive Psychology, Biological Psychology, Research Design, Psychological Statistics, Human Biology

Research Experience

Lab Manager, Hutchinson Lab of Cognitive Neuroscience

July 2017 - Present

PI: Dr. Benjamin Hutchinson, University of Oregon

- Collect and analyze fMRI and behavioral data in an experiment investigating the neural basis of temporal attention. Utilize FSL for fMRI data analysis and R for behavioral data analysis.
- Conduct a meta-analysis of the divided attention literature, exploring the role of attention in episodic memory retrieval, utilizing R for data analysis and Latex for composing the manuscript.
- Build an fMRI analysis pipeline incorporating dcm2Bids and fMRIPrep for preprocessing and FSL for univariate analysis, implemented in Bash and Python in a cluster environment.
- Obtain certification as an fMRI scanner operator to run participants without a supervising technician and run participants in various fMRI experiments: Screening participants, running scans from start to finish, and modifying scan sequences when necessary.
- Help set up a real-time fMRI experiment aimed at resolving the competition between mnemonic and perceptual processing.
- Manage lab operations: compose and revise IRB documents, interview and train research assistants, schedule and screen participants for fMRI and behavioral experiments, and complete various administrative tasks.

Lab Manager, DuBrow Lab

January 2019 - Present

PI: Dr. Sarah DuBrow, University of Oregon

- Design an experiment investigating the effect of context ambiguity on event memory, coding the experiment in Python and analyzing the behavioral data in R.
- Code a stimulus rating task in Inquisit and collect rating data online using Mturk for stimulus development.
- Recruit participants, train research assistants and manage lab operations.

Research Assistant, Memory and Cognition Lab

September 2015 – May 2017

PI: Dr. Benjamin Levy, University of San Francisco

- Designed an experiment examining the mnemonic consequences of thought suppression, coding the task in Matlab and analyzing the behavioral data in R.
- Designed an experiment testing the effects of visual context on cognition and affect, coding the task in Matlab and analyzing the behavioral data in SPSS.

- Generated abstract stimuli algorithmically using Mathematica and ran online surveys using Qualtrics, launched on Mturk, to collect ratings of stimulus features.
- Recruited and trained research assistants and collected behavioral data in various memory experiments using Matlab.

Research Assistant, Psychophysiology Lab

June – December 2015

PI: Dr. James Gross, Stanford University

- Composed an extensive literature review postulating novel mechanisms for the cognitive and affective benefits of experiencing natural environments.
- Collected and analyzed behavioral data in an experiment examining the affective benefits of nature experience, using Qualtrics for data collection and Excel for data analysis.
- Designed and ran online surveys refining stimulus material using Qualtrics.

Supplemental Experience

Behavioral Assistant

June - September 2016

Janet Pomeroy Recreation and Rehabilitation Center, San Francisco

- Conducted art therapy sessions for individuals with neuro-developmental difficulties and traumatic brain injuries.

Teacher's Assistant

New Traditions Elementary School, San Francisco

August 2008 – June 2009

- Worked with students to improve their math, reading and writing skills.
- Organize art workshops for students.

Museum Explainer

January – August 2007

Exploratorium: Museum of Science, Art and Human Perception, San Francisco

- Performed scientific demonstrations to educate guests about science and human perception, including: Sheep brain dissections, cow eye dissections, flower dissections, laser demonstrations, and card tricks that demonstrate the manipulation of attention in visual deception.
- Serve as a guide and facilitator, staffing the information desk and supervising the museum floor.

Technical Skills

Programming Languages

- *Matlab (Psychtoolbox), Bash (shell), R, Python (PsychoPy), Inquisit, Latex (Overleaf)*

fMRI Analysis Software

- *FSL, fMRIPrep*

Online Software

- *Mturk (TurkPrime), Qualtrics*

Conference Presentations

Biba, T., Singh, I., & Hutchinson, J. B. (2019, March). *The neural basis of internal attention: characterizing attentional orienting along a memory array*. Poster presented at the 26th annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Zollars, H., T., Patel, R., Rejer, N., Licas, C., Weiss, J., **Biba, T.**, Ennis, M., & Levy, B. (2019, March). *Exploring the memorial consequences of thought suppression: is the rebound of suppressed thoughts replicable?* Poster presented at the 99th annual meeting of the Western Psychological Association, Sacramento, CA.

Biba, T., Levy, B. J., & Matsko, V. (2017, April). *Influence of the abstract low-level visual features of nature on affect and cognition*. Poster presented at the 97th annual meeting of the Western Psychological Association, Sacramento, CA.

Uchigakiuchi, T., Saito, J., **Biba, T.**, Chi, A., Soriano Smith, R., & Levy, B. J. (2017, April). *The reliability of retrieval-induced forgetting revisited*. Poster presented at the 97th annual meeting of the Western Psychological Association, Sacramento, CA.

Manuscripts in Preparation

Biba, T. & Hutchinson, J. B. (In preparation). *The role of attention in episodic memory retrieval: Insights from a meta-analysis of the divided attention paradigm*.

Professional Memberships

Cognitive Neuroscience Society, 2016-2019

Psi Chi Honors Society Member, 2015