

Solena D. Mednicoff
Postdoctoral Research Fellow
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Education

Ph.D. in Cognitive Sciences Sept. 2015 – July 2021
Emphasis: Cognitive Neuroscience
University of California, Irvine

M.S. in Cognitive Neuroscience Sept. 2015 – Dec. 2017
University of California, Irvine

B.S. in Neuroscience Aug. 2011 – May 2015
Minor: Piano Performance
University of Nevada, Reno

Research & Professional Experience

Postdoctoral Research Fellow Sept. 2021 – Present
University of Nevada, Las Vegas

- Designed large-scale online, in-person behavioral and EEG studies, which included both surveys and perceptual tasks, to test the above question using Matlab, Qualtrics, and Neurobehavioral Systems Presentation.
- Oversaw day-to-day operations of these large-scale studies with constant communication within teams.
- Recruited and collected data from over 500+ adults and 200+ children and adolescents ages 6-15.
- Managed and trained 65+ undergraduate students to help run experimental studies.
- Mentored these students each semester on individual research projects, ethics, experimental design, and science communication.
- Wrote Matlab and R scripts to organize, manage, and analyze the large-scale behavioral and EEG data to ultimately create pipelines that anyone could use to explore the large datasets.
- Used Bayesian and frequentist statistics to test models with quantitative, qualitative, and predictive analyses.
- Presented multiple talks about my research at conferences, including stakeholders and funders at the Misophonia Research Fund.
- Wrote and published manuscripts to disseminate research findings and communicate my scientific work.
- Awarded a \$200,000 Research Grant for a longitudinal cross-sequential study I designed to investigate how misophonia develops.

Graduate Student Researcher Sept. 2015 – July 2021
University of California, Irvine

- Why do we perceive emotions in music and speech? My research examined the sensitivity of the human auditory system to the emotional content in music and speech.
- Designed mixed methods behavioral and fMRI experiments that test cognitive models on people's responses to music.
- Wrote Matlab and Python scripts to apply univariate statistical tests, regression, principal components analysis, permutation analyses, and Markov Chain-Monte Carlo simulations to model the results for behavioral projects and used R for MVPA for fMRI experiments.
- Built mentorships and oversaw 10 undergraduate students and teams, who have collectively earned \$3,550 in Undergraduate Research awards for their own research projects.

Pre-doctoral Research Fellow July 2016 – July 2018
Center for Hearing Research | University of California, Irvine

- Gained experience in psychoacoustics through audio signal processing and investigating spectrograms of music and speech with Matlab, Python, and Praat.
- Developed statistical models and simulations for experimental data.
- Created agendas for Center for Hearing Research speakers to meet with other professors and give talks on campus.
- Presented my research to various audiences with different research backgrounds.
- Made connections with collaborators to work on current and future projects.

Social Media Marketing Researcher June 2019 – Aug. 2021
University of California, Irvine

- Created content and strategic marketing campaigns for the UC Irvine Graduate Division Social Media platforms: Facebook, Instagram, LinkedIn, Twitter, and YouTube.
- Increased user engagement on all social media platforms by over 100%.

- Wrote and shared stories of graduate students' and postdoctoral fellows' work.
- Managed work-flows and logistics with the communications team to implement content from user engagement analyses.
- Constructed A/B tests across multiple ad campaigns.
- Developed user engagement analyses through statistical modelling based on performance amongst the platforms.
- Built reports for marketing campaign performance to share with University leadership and stakeholders.

Instructor/Teaching Associate

Aug. 2018 – Sept. 2018

University of California, Irvine

- Taught a Psychology Fundamentals/ Psychology & Social Behaviors summer session course. Created my own lectures, learning activities, and examination materials for 50+ students.

Writing Center Consultant

Aug. 2014 – May 2015

University of Nevada, Reno

- Supported and worked with 25+ undergraduate and graduate students a semester at the University of Nevada, Reno in any stage of the writing process to become confident writers.

Skills & Technology

Certification in Science Policy | Scientific Communication | Experimental Design | Data Analysis | Statistics | Modeling | Matlab | Python | SciPy | NumPy | Pandas | R | JASP | SPSS | Tableau Qualtrics | Microsoft Suite | Adobe Photoshop | Public Speaking | Creative Solutions | Self-Initiative | Time/project Management | Ability to collaborate

Publications

- Mednicoff, S., Barashy, S, Benning, S., Snyder, J., Hannon, E. "Misophonic reactions in the general population are correlated with strong emotional reactions to other everyday sensory-emotional experiences" (Submitted Feb. 2024). Under Review in Philosophical Transactions of the Royal Society B. Available on PsyArXiv: <https://osf.io/preprints/psyarxiv/rt3bf/>
- Mednicoff, S., Barashy, S., Gonzales, D., Benning, S., Snyder, J., Hannon, E. "Auditory affective processing, musicality, and the development of misophonic reactions." (2022). Frontiers in Auditory Neuroscience.
- Mednicoff, S., Mejia, S., Rashid, J., Chubb, C. "Many listeners cannot discriminate major vs minor tone-scrambles regardless of presentation rate. (2018). The Journal of the Acoustical Society of America.