John Nadra jnadra@ucdavis.edu

EDUCATION

Ph.D. Psychology, University of California, Davis (in progress) — Candidacy: June 2022
M.A. Psychology, University of California, Davis — December 2021
B.A. Psychology, Cum Laude, Sonoma State University — May 2019
A.A. Psychology, with Honors, Cosumnes River College — May 2017
A.A. Sociology, with Honors, Cosumnes River College — May 2017

RESEARCH EXPERIENCE

Laboratory for the Neural Mechanisms of Attention, UC Davis, CA — July 2019 – Present
Cognitive neuroscience research, EEG/fMRI lab
Graduate Student Researcher
Working with Dr. George Ron Mangun utilizing electroencephalography, eye-tracking and functional magnetic resonance imaging to investigate the neural correlates of visual attention.

Bengson Laboratory, Sonoma State University, CA — 2018 – 2019
Cognitive neuroscience research, EEG lab
Research Assistant
Conducted data analysis and assisted with data collection in an electroencephalogram laboratory.

GRANTS AND FELLOWSHIPS

NEI T32 EY015387 (P.I., Burns, M.) "Training Program in Vision Science" — 2022-2024
Role: Trainee

NIMH R01 MH117991 (P.I., Mangun, G.R.) "Mechanisms of attentional control: Structure and dynamics from simultaneous EEG-fMRI and machine learning" — 2019-2022
Role: Graduate Student Researcher

HONORS AND AWARDS

Trainee Professional Development Award, Society for Neuroscience — 2023
Michael S. Gazzaniga Prize, UC Davis Center for Mind and Brain — 2023
Psychology Department Best Poster Award, University of California, Davis — 2023
Graduate Student Association Travel Award, University of California, Davis — 2023
Early Career Scientist Travel Grant, National Eye Institute — 2023
Psychology Diverse Mentoring Initiative Award, University of California, Davis — 2021-2024
Dukes Travel Award, University of California, Davis — 2021
Student Research Award, Sonoma State University — 2018-2019
School of Social Sciences Student Travel Award, Sonoma State University — 2018-2019

PUBLICATIONS

Nadra, J. G., & Mangun, G. R. (2023). Placing willed attention in context: A review of attention and free will. *Frontiers in Cognition*, 2. doi: 10.3389/fcogn.2023.1205618.

Nadra, J. G., Bengson, J. J., Morales, A. B., & Mangun, G. R. (2023). Attention Without Constraint: Alpha Lateralization in Uncued Willed Attention. *eNeuro*, 10(6):ENEURO.0258-22.2023. doi: 10.1523/ENEURO.0258-22.2023. PMID: 37236786

Nadra, J., Bengson, J., Ding, M., & Mangun, G.R. (in progress). Neural Mechanisms of Willed Attention in Overt Visual Search. This manuscript will describe three completed EEG and eye tracking experiments that extent our studies of covert willed attention to overt willed attention by investigating the antecedent neural activity that predicts initial saccade direction during visual search.

Nadra, J., Ding, M., & Mangun, G. R. (in progress). The Neural Mechanisms of Color Willed Attention. This report will describe our EEG findings of the neural correlates of willed attention to non-spatial stimulus features, specifically, color. The goal of the research is to understand whether and how willed attention may differ during spatial versus non-spatial attention.

CONFERENCE PRESENTATIONS

Nadra, J., Bengson, J., Ding, M., & Mangun, G. (2024, April). Decoding EEG Correlates of Willed Overt Attention During Visual Search. Poster presentation. Cognitive Neuroscience Society Annual Meeting, Toronto, Canada.

Nadra, J., Ding, M., & Mangun, G. (2023, November). Does volitional attention operate the same across domains? An investigation of willed attention to color. Poster presentation. Neuroscience 2023, Washington D.C.

Nadra, J., Bengson, J., Ding, M., & Mangun, G. (2023, May). Predicting a Volitional Eye Movement Before a Visual Search: An Investigation of Overt Willed Attention. Poster presentation. Vision Sciences Society Annual Meeting, St. Pete's Beach, FL.

Nadra, J., Ding, M., & Mangun, G. (2023, March). The Neural Mechanisms of Color Willed Attention. Poster presentation. Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

Nadra, J., Bengson, J., Ding, M., & Mangun, G. (2022, April). Neural Mechanisms of Willed Attention in Overt Visual Search. Poster presentation. Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

Nadra, J., Bengson, J., Ding, M., & Mangun, G. (2021, May). Tracking the Onset of Willed Attention: EEG, Alpha Oscillations & Machine Learning. Poster presentation. Association for Psychological Science Annual Meeting, Virtual.

Nadra, J., Mittal, A., Bengson, J. & Mangun, G. (2020, May). Mechanisms of overt attention in visual search: Eye tracking, hemifield bias and willed attention. Poster presentation. Cognitive Neuroscience Society Annual Meeting, Virtual.

Nadra, J., Holm, A., Falk, R., Liu, D. & Bengson, J.J. (2019, January). Inference of willed attentional focus via local field potentials in humans. Poster presentation. California State University Annual Biotechnology Symposium at Hyatt Regency Orange County, Garden Grove, California.

Nadra, J., Holm, A., Falk, R. & Bengson, J.J. (2018, November). Predicting Where You Will Attend: The Neural Circuitry of Decision Driven Attention. Poster presentation. Southern California Conferences for Undergraduate Research at Pasadena City College, Pasadena, California.

TEACHING

Instructor: Introduction to Cognitive Neuroscience (co-taught with Dr. George R. Mangun) — Winter 2022

Teaching Assistant: Supported courses at UC Davis, such as Human Memory, Introduction to Cognitive Neuroscience and Health Psychology. Lead discussion sections, wrote and graded exams, held office hours and supported student development. — 2020-2023

SERVICE AND VOLUNTEER EXPERIENCE

Invited Reviewer, IEEE Transactions on Neural Systems & Rehabilitation Engineering — 2023
Invited Reviewer, Brain Research — 2023
Marketing Lead, 2022 Games User Research Summit — 2022
Invited Reviewer, European Journal of Neuroscience — 2021
EEG Laboratory Demonstration, AvenueB, University of California, Davis — 2021
Brain Computer Interface Demonstration, Hanna Boys Center for At-Risk Youth — 2019