# BETTINA BUSTOS | bettina@dartmouth.edu | bettinabustos.com


## EDUCATION

2021 – 2026 | Ph.D., Psychological and Brain Sciences, University of Iowa
Advisor: Jiefeng Jiang, Ph.D.
*Cognitive Control as Navigation Through Task Space*

2018 | B.A., Psychology & Health and Society, Minor in Philosophy, University of Texas at Austin
Advisor: Jarrod Lewis-Peacock, Ph.D.
*The Interaction of Depression and Cognitive Control on Prospective Memory*

## EMPLOYMENT

2026 – present | Postdoctoral Fellow, Cognitive Science Department, Dartmouth College
*Advisors*: Steven Frankland Ph.D., Jonathan S. Phillips Ph.D.

2019 – 2021 | Lab Manager, Washington University in St. Louis
Control and Decision-Making Lab, PI: Wouter Kool, Ph.D.

2018 – 2019 | Research Assistant, University of Pittsburgh & Carnegie Mellon
Adult Health, Aging and Behavior longitudinal study
PIs: Stephen Manuck, Ph.D., Anna Marsland, Ph.D. & Peter Gianaros, Ph.D.

Research Assistant, University of Texas at Austin
2016 – 2018 | Lewis-Peacock Lab, PI: Jarrod Lewis-Peacock, Ph.D.
2015 – 2016 | Categorization and Decision-Making Lab, PI: W. Todd Maddox, Ph.D.

## AWARDS

2026-2028 | Society of Fellows Postdoctoral Fellowship, Dartmouth College
March 2026 | CNS (Cognitive Neuroscience Society) Travel award
Dec. 2025 | Neuroscience Scholars Program (Society for Neuroscience)
Sept. 2025 | Ballard and Seashore Dissertation Fellowship
May 2024 | J. Richard Simon Award - Recognizes graduate student excellence early in graduate training
Nov. 2022 | Mental Effort Workshop at Brown University - Travel award
April 2022 | CNS (Cognitive Neuroscience Society) Graduate student award
March 2018 | COSYNE (Computational & Systems Neuroscience Conference) Undergrad travel award

## PUBLICATIONS

**Bustos, B.,** Jiang, J. & Kool, W. Reward masks the learning of cognitive control demand. *Cogn Neurodyn* **19**, 114 (2025). https://doi.org/10.1007/s11571-025-10307-0

**Bustos, B**., Mordkoff, J.T., Hazeltine, E., Jiang, J., (2024) Task switch costs scale with dissimilarity between task rules. *Journal of Experimental Psychology: General.* https://doi.org/10.1037/xge0001598

**Bustos, B.*,** Colvett, J. S.*, Bugg, J. M., & Kool, W. (2024). Humans do not avoid reactively implementing cognitive control. *Journal of Experimental Psychology: Human Perception and Performance, 50*(6), 587–604. https://doi.org/10.1037/xhp0001207

### In prep.

**Bustos, B**.,* Dolgin, J.,* Wilson, R.C., and Kool, W. (2026) Directed exploration involves deciding not just whether, but also, when to explore. *In prep* (draft available upon request; Preregistered on OSF: https://osf.io/fq5z2, code and data to be published).

## CODE

**Bustos, B.**, Zalabak, T., Kool, W. (2020) Four sequential decision-making tasks to distinguish between multiple reinforcement-learning systems (OSF: https://osf.io/g2suz/)

## PRESENTATIONS

**Bustos, B.,** Hazeltine, E., Jiang, J. (2026) EEG Decoding of Goal Representations During Multistep Actions. Poster to be presented by B.B. at the Cognitive Neuroscience Society.
**Bustos, B.,** Jiang, J. (2025) Hippocampo-cortical contributions to the structured organization of tasks. Poster presented by B.B. at the Society for Neuroscience.
**Bustos, B.,** Mordkoff, J.T., Hazeltine, E., Jiang, J. (2024) Temporal Dynamics of Parametric Task Switching. Poster presented by B.B. at the Cognitive Neuroscience Society.
**Bustos, B.,** Mordkoff, J.T., Hazeltine, E., Jiang, J. (2023) Multimodal Evidence for the Reorganization of Task Rules. Poster presented by B.B. at the Society for Neuroscience.
**Bustos, B**., Jiang, J., and Kool, W. (2022) Reward masks the learning of cognitive control demand. Talk delivered by B.B at the University of Iowa Annual Departmental Data Blitz & at the UIowa Cognitive Control Collaborative.
**Bustos, B.**, Mordkoff, J.T., Hazeltine, E., Jiang, J. (2022) Task switch costs scale with dissimilarity between task-rules in a cognitive map-like manner. Talk delivered by B.B. at the 3rd Annual Meeting of the Virtual Working Memory Conference. Blitz talk given at the Mental Effort Workshop at Brown University. Talk delivered by B.B at the University of Iowa Annual Departmental Data Blitz and talk given at the UIowa Cognitive Control Collaborative. Poster presented by B.B. at the 29th Annual Meeting of the Cognitive Neuroscience Society.

## CONFERENCE REVIEWS

2023: Cognitive Computational Neuroscience Conference Reviewer.

## TEACHING

Probabilistic Machine Learning
Research Methods I

## MENTORING

Arsha Vaddadi, Caleb Greene, Jackson Han, William Cheng

## PROGRAMS, LANGUAGES & SKILLS

**Programming**: Python, JavaScript/HTML/CSS

**Analysis:** FSL, SPM, R, SPSS, JASP

**Qualifications**: MRI, EEG, e-Mini International Neuropsychiatric Interview, Low-Level Light Therapy Technique, Heart Rate Variability (HRV), administration of Neuropsychiatric battery, fluent in verbal and written Spanish.

## LEADERSHIP & VOLUNTEER POSITIONS

*2023 - present* Co-founded Girls Who Code segment in collaboration with the Iowa City Public Library occurring weekly during Fall and Spring.

*2022* Vice president of Bridging the Gap in Psyience initiative aiming to improve retention and well-being of underrepresented graduate students at the University of Iowa.

*2019* Assisted in creating and updating large database of BIPOC owned businesses in St. Louis area as a part of March for Reparations.

*2017* Volunteer for the Texas Tribune covering politics and a range of policy issues that affect all Texans.

*2016* Dell Medical School Health Sciences Summer Camp (Austin, TX) - Taught neuroscience lesson plans for middle and high school students.