Bettina Bustos | 340 Iowa Ave. Iowa City, IA. 52242
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Education

University of Iowa

2021 - | Ph.D., in progress: Psychological and Brain Sciences
Advisor: Jiefeng Jiang, Ph.D.

University of Texas at Austin

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

Awards

March 2018 | CNS (Cognitive Neuroscience Society) Graduate student award

April 2022 | COSYNE (Computational & Systems Neuroscience Conference) UT undergraduate travel award

Manuscripts

Bustos, B., Jiang, J., and Kool, W. (2022) Reward masks the learning of cognitive control demand. Submitted (draft available upon request; code and data on OSF: https://osf.io/nxv7t/).

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. In preparation (draft available upon request; code and data to be published OSF).

Bustos, B., Colvett, J., Bugg, J., and Kool, W. (2022) Working Hard or Hardly Working: Learning Based Reactive Control Does Not Produce Demand Differences. In preparation (draft available upon request; Preregistered on OSF: https://osf.io/962ch, code and data to be published).

Dolgin, J., **Bustos, B**., Wilson, R.C., and Kool, W. (2022) Directed exploration involves deciding not just whether, but also, when to explore. In preparation (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., 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.

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. Poster presented by B.B. at the 29th Annual Meeting of the Cognitive Neuroscience Society.

Co-authored:

Dolgin, J., **Bustos, B.**, Wilson, R.C., and Kool, W. (2021) Directed exploration involves deciding not just whether, but also, when to explore. Poster presented by J.D. at the 62nd annual meeting of Psychonomic Society, and the 2nd Workshop on Mental Effort.

Research

University of Iowa – Graduate student

2019 - 2021 | Lab for Adaptive Behavior
PI: Jiefeng Jiang, Ph.D.

Washington University in St. Louis - Lab Manager

2019 - 2021 | Control and Decision-Making Lab
PI: Wouter Kool, Ph.D.

University of Pittsburgh - Research Assistant

2018 - 2019 | Adult Health, Aging and Behavior longitudinal study
PIs: Stephen Manuck, Ph.D., Anna Marsland, Ph.D. & Peter Gianaros, Ph.D.

University of Texas at Austin - Research Assistant

2016 - 2018 | Lewis-Peacock Cognitive Neuroscience of Memory Lab
PI: Jarrod Lewis-Peacock, Ph.D.

2015 - 2017 | Cognitive Neuroscience of Categorization and Decision-Making Lab
PI: W. Todd Maddox, Ph.D.

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

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.