

Brenden Eum

PHD CANDIDATE · SOCIAL & DECISION NEUROSCIENCE

California Institute of Technology, 1200 E. California Blvd. MC 228-77, Pasadena, CA 91125
☎ 714-906-7269 | ✉ beum@caltech.edu | 🏠 brendeneum.com | 📄 github.com/BrendenEum

Education

California Institute of Technology

PHD SOCIAL & DECISION NEUROSCIENCE

- Advisor: Prof. Antonio Rangel

Pasadena, CA

2019 - 2024

Columbia University

MA ECONOMICS

- Advisor: Prof. Brendan O'Flaherty

New York, NY

2016 - 2017

New York University

BA ECONOMICS, MAGNA CUM LAUDE

- Minor in Mathematics

New York, NY

2014 - 2016

Chapman University

BA POLITICAL SCIENCE, ECONOMICS (TRANSFERRED OUT)

- Accelerated 4+1 MBA Program

Orange, CA

2012 - 2014

Awards, Fellowships, & Grants

2023	Kanel Scholarship , The John and Ursula Kanel Charitable Foundation	\$ 10,000
2022	Chen Graduate Innovator Grant , T&C Chen Center for Social & Decision Neuroscience	\$ 10,000
2021	Brass Division Teaching Award , Humanities and Social Sciences, Caltech	\$ 1,500
2019	Chen Graduate Fellowship , T&C Chen Center for Social & Decision Neuroscience	\$ 95,700
2017-2019	Predoctoral Fellowship , Joint Micro- & Macroeconomics, Columbia Business School	\$ 105,400
2016	NYU Founder's Day Scholar Award , New York University	
2014	Parliamentary Debate Gold Medalist , Pacific Southwest Collegiate Forensics Tournament	

Publications

Eum, B., Dolbier, S., & Rangel, A. (2023). Peripheral Visual Information Halves Attentional Choice Biases. *Psychological Science*, 34(9), 984-998. <https://doi.org/10.1177/09567976231184878>

WORK IN PROGRESS

Eum, B., Gonzalez, S., & Rangel, A. Attentional Over-Weighting in Gains, Attentional Under-Weighting in Losses.

Onderdonk, E., **Eum, B.**, & Rangel, A. Evidence weights in sequential sampling.

Eum, B., Rangel, A. & Woodford, M. Causal manipulation of early noise biases numerosity judgements towards adaptive prior means.

Eum, B., Enkavi, Z., O'Doherty, J., & Rangel, A. Value signals in the orbitofrontal cortex incorporate reference-dependent news utility

Presentations

INVITED TALKS

Eum, B., Gonzalez, S., & Rangel, A. "Attentional Over-Weighting in Gains, Attentional Under-Weighting in Losses" 2023. Society for Neuroeconomics, Vancouver, Canada.

- Eum, B.,** Dolbier, S., & Rangel, A. “Looking at Attention in Value-Based Decision Making” 2023. Brownbag Seminars, Rotman School of Management, University of Toronto.
- Eum, B.,** Dolbier, S., & Rangel, A. “Looking at Attention in Value-Based Decision Making” 2023. Shenhav Lab, Brown University.
- Eum, B.,** Enkavi, Z., O’Doherty, J., & Rangel, A. “Value signals in the orbitofrontal cortex incorporate reference-dependent news utility” 2023. Caltech Brain Imaging Center, California Institute of Technology.
- Eum, B.,** Enkavi, Z., O’Doherty, J., & Rangel, A. “Value signals in the orbitofrontal cortex incorporate reference-dependent news utility” 2023. Chen Institute Symposium, California Institute of Technology.
- Eum, B.,** Dolbier, S., & Rangel, A. “Peripheral visual information halves attentional choice biases” 2022. Computational Cognitive Neuroscience Lab, University of California, Irvine.

POSTERS

- Eum, B.,** Gonzalez, S., & Rangel, A. “Attentional Over-Weighting in Gains, Attentional Under-Weighting in Losses” 2023. Society for Judgement and Decision Making, San Francisco, California.
- Eum, B.,** Gonzalez, S., & Rangel, A. “Attentional Over-Weighting in Gains, Attentional Under-Weighting in Losses” 2023. Association for Consumer Research, Seattle, Washington.
- Eum, B.,** Gonzalez, S., & Rangel, A. “Attentional Over-Weighting in Gains, Attentional Under-Weighting in Losses” 2023. Interdisciplinary Symposium on Decision Neuroscience, Fox School of Business, Temple University.
- Eum, B.,** Gonzalez, S., & Rangel, A. “Attentional Over-Weighting in Gains, Attentional Under-Weighting in Losses” 2023. Neuroeconomics Summer School, University of Pennsylvania.
- Eum, B.,** Enkavi, Z., O’Doherty, J., & Rangel, A. “Value signals in the orbitofrontal cortex incorporate reference-dependent news utility” 2023. Curiosity, Creativity, Complexity. Columbia University.
- Eum, B.,** Dolbier, S., & Rangel, A. “Peripheral visual information halves attentional choice biases” 2022. Society for Judgement and Decision Making, San Diego, California.
- Eum, B.,** Dolbier, S., & Rangel, A. “Peripheral visual information halves attentional choice biases” 2022. Society for Neuroeconomics, Arlington, Virginia.
- Eum, B.,** Dolbier, S., & Rangel, A. “Peripheral visual information halves attentional choice biases” 2022. Cognitive Computational Neuroscience, San Francisco, California.
- Eum, B.,** Dolbier, S., & Rangel, A. “Peripheral visual information halves attentional choice biases” 2022. Chen Institute Retreat, Pasadena, California.
- Eum, B.,** Dolbier, S., & Rangel, A. “Peripheral visual information halves attentional choice biases” 2022. The Neurobiology of Reward and Decision-Making, Lake Arrowhead, California.

Teaching Experience

- 2020-2023 **Certificate of Practice in University Teaching**, from Caltech Teaching, Learning, & Outreach
- 2021-2023 **Bayesian Statistics**, Teaching Assistant for Prof. Antonio Rangel
- 2020-2023 **Social & Decision Neuroscience Bootcamp**, Instructor, Microeconomics & Statistics
- 2020 **Introduction to Economics**, Teaching Assistant for Prof. Charlie Plott

Mentoring

- 2023 **Ella Onderdonk**, Caltech SURF Program, Co-Mentor with Prof. Antonio Rangel
- 2021 **Trinity Pruitt**, WAVE Fellowship Program, Co-Mentor with Prof. Antonio Rangel

Professional Experience

- 2016 **Economic Research Assistant**, Haver Analytics
- 2014-2015 **White Collar Criminal Justice Legal Assistant**, Varghese & Associates, PC
- 2013 **Intern to Market Analyst**, Harvey & Company LLC

Professional Development

AD HOC REVIEWER

Conference on Cognitive and Computational Neuroscience (2022)

SERVICE

Volunteer, Caltech Y Youth Outreach (2023)

Graduate Student Representative, Caltech Graduate Student Council (2021-2022)

Co-Organizer, Social & Decision Neuroscience Bootcamp (2020-2023)

Question Curator for Prof. Colin Camerer and Prof. Dean Mobbs, Chen Institute Seminar (2020)

Co-Founder & Managing Editor, NYU Economics Review (2016)

TRAINING COURSES ATTENDED

Neuroeconomics Summer School, University of Pennsylvania (upcoming in 2023)

Summer School on the Cognitive Foundations of Economic Behavior in Vitznau, Switzerland (2022)

MEMBERSHIPS

Society for Neuroeconomics

Society for Judgement and Decision Making

Association for Consumer Research

Phi Beta Kappa

CODING

R, Python (+PsychoPy), MATLAB (+PsychToolbox), Stata, \LaTeX

SELECTED PROJECTS I PROVIDED RESEARCH ASSISTANCE FOR

Backus, M., Blake, T., Larsen, B., & Tadelis, S. (2020). Sequential Bargaining in the Field: Evidence from Millions of Online Bargaining Interactions. *The Quarterly Journal of Economics*.

Backus, M., Blake, T., & Tadelis, S. (2019). On the Empirical Content of Cheap-Talk Signaling: An Application to Bargaining. *Journal of Political Economy*.

Backus, M. & Little A. T. (2020). I Don't Know. *American Political Science Review*.

Sicherman, N., Charite, J., Eyal, G., Janecka, M., Loewenstein, G., Law, K., Lipkin, PH., Marvin, AR., Buxbaum, JD. (2021). Clinical signs associated with earlier diagnosis of children with autism Spectrum disorder. *BMC Pediatrics*.

HOBBIES

rock climbing, snowboarding, hiking