Updated April 2024

Jacob Gant Elsey

Curriculum Vitae

Johns Hopkins University
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EDUCATION

Johns Hopkins University, Baltimore, MD 2018-present
PhD Candidate in Psychological and Brain Sciences (Biopsychology)
Supervisor: Veit Stuphorn, PhD
Dissertation Topic: Neural mechanisms of response inhibition and self-control

Johns Hopkins University, Baltimore, MD 2020
MA in Psychological and Brain Sciences (Biopsychology)
Supervisor: Veit Stuphorn, PhD
Master's Thesis: Attentional sampling strategies in multi-attribute decision making

University of South Carolina, Columbia, SC 2012-2016
B.A. in Experimental Psychology

RESEARCH EXPERIENCE

Johns Hopkins University, Department of Psychological and Brain Sciences 2018-present
PhD Track Graduate Student
Laboratory of Veit Stuphorn

- Researching the neurophysiological mechanisms of response inhibition and self-control in prefrontal cortex using multi-channel linear electrode recordings in nonhuman primates.
- First year project explored the effects of choice menu complexity on the role of attention and option sampling strategies in human risky decision-making using eye-tracking.

Vanderbilt University, Department of Psychology 2016-2018
Postbaccalaureate Research Assistant
Laboratory of Jeffrey Schall

- Studied the functional architecture of frontal eye field using spatial clustering of common neuronal modulation.
- Techniques included single-unit neurophysiology, electroencephalography, tDCS and manipulation of neural activity, behavioral testing with nonhuman primates, assistance in surgical procedures and preparation, animal husbandry. Part time support in the laboratory of Geoffrey Woodman collecting human and nonhuman EEG data during visual attention and working memory behavioral tasks.

University of South Carolina, Department of Psychology 2015-2016
Undergraduate Research Assistant
Laboratory of Dawn Wilson

- Conducted behavioral and physical assessments during family intervention sessions for minority adolescents and their families.
- Recruited, screened and scheduled participants.

PUBLICATIONS

Fan, X., **Elsey, J.**, Wyngaard, A., Sampson, A. L., Yang, Y. P., Emeric, E. E., ... & Niebur, E. (2025). Overt Visual Attention in the Formation of Preference Between Complex Lottery Options. Computational Brain & Behavior, 1-20.

Lee, K-E, **Elsey, J**, Hwang, J, Emeric, E, & Stuphorn, V. (2024). Neural basis of self-control. *BioRxiv*, 2024-02. https://doi.org/10.1101/2024.02.07.578652

Manuscripts in preparation

Elsey JG, Leong, A, Niebur E, Stuphorn V. Attentional sampling strategies for multi-attribute decision making.

Elsey JG & Stuphorn V. Value representation of delayed and probabilistic rewards in the supplementary eye field.

TALKS

Elsey JG. 2024. "Role of attention during multi-attribute decision making. Universal value coding in individual neurons. Neural mechanisms of motor and motivational control." Dr. Tianming Yang lab meeting, Chinese Academy of Sciences, Shanghai, China.

Elsey JG. 2023. "Prefrontal contributions to response inhibition and self-control." Johns Hopkins Psychological & Brain Sciences Seminar Series, Baltimore, MD.

Elsey JG. 2023. "The role of frontal eye field in response inhibition and self-control." Baltimore Brain Series, University of Maryland School of Medicine, Baltimore, MD.

Elsey JG. 2022. "Value representation of delayed and probabilistic rewards in the supplementary eye field." 20th Annual meeting of the Society for Neuroeconomics, Crystal City, VA.

Elsey JG. 2022. "Value representation of delayed and probabilistic rewards in the supplementary eye field." Johns Hopkins Psychological & Brain Sciences Interview Weekend, Baltimore, MD.

Elsey JG. 2021. "Value representation of delayed and probabilistic rewards in the supplementary eye field." Johns Hopkins Psychological & Brain Sciences Biopsychology Lunch Speaker Series, Baltimore, MD.

Elsey JG. 2021. “Attentional sampling strategies for multi-attribute decision making.” Johns Hopkins Psychological & Brain Sciences Seminar Series, Baltimore, MD.

Elsey JG, Niebur E, & Stuphorn V. 2020. “Attentional sampling strategies in multi-attribute decision making.” Neuromatch Conference 3.0.

Elsey JG. 2020. “The role of attention in multi-attribute decision making.” Johns Hopkins Psychological & Brain Sciences Seminar Series, Baltimore, MD.

Elsey JG. 2019. “Strategies for choice menu evaluation in complex multi-attribute decision making.” Johns Hopkins Psychological & Brain Sciences Biopsychology Lunch Speaker Series, Baltimore, MD.

Elsey JG. 2019. “Behavioral predictors of preference in multi-attribute decision making.” Johns Hopkins Department of Neuroscience Summer Seminar Series, Baltimore, MD.

Elsey JG. 2019. “Menu complexity affects decision making.” Johns Hopkins Psychological & Brain Sciences Seminar Series, Baltimore, MD.

Elsey JG. 2018. “Preference reversal in multi-attribute decision making.” Johns Hopkins Psychological & Brain Sciences Biopsychology Lunch Speaker Series, Baltimore, MD.

ABSTRACTS AND POSTER PRESENTATIONS

Leong W, **Elsey JG**, Niebur E & Stuphorn V. “Neural mechanisms of response inhibition and self control in non-human primates.” Program No. 247.05. 2024 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2024.

Elsey JG, & Stuphorn V. “Neural mechanisms of response inhibition and self control in non-human primates.” Program No. 132.11. 2024 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2024.

Elsey JG, & Stuphorn V. “The role of primate prefrontal cortex in response inhibition and self-control.” ICPBR Summer School in Non-Human Primate Systems Neuroscience. Shanghai, China, 2024.

Elsey JG, & Stuphorn V. “Prefrontal mechanisms of response inhibition and self control in non-human primates.” Simian Collective Conference. Pittsburgh, PA, 2024.

Elsey JG, & Stuphorn V. “The role of frontal eye field in response inhibition and self control.” International conference on Motivational and Cognitive Control. Lyon, France, 2023.

Elsey JG, & Stuphorn V. “The role of frontal eye field in response inhibition and self control.” Program No. 368.13. 2023 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2023.

Lee, K., **Elsey JG**, Hwang, J., Emeric, E., & Stuphorn V. “Self-Control in the Supplementary Eye Field.” Program No. 368.12. 2023 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2023.

Elsey JG, & Stuphorn V. “The role of primate prefrontal cortex in response inhibition and self control.” International conference on Motivational and Cognitive Control. Lyon, France, 2023.

Elsey JG, Levy D, Usher M, Niebur E, & Stuphorn V. “The interaction between menu complexity and attentional sampling strategies in multi-attribute decision making.” Curiosity, Creativity and Complexity Conference. Columbia University, New York, NY, 2023.

Elsey JG, Levy D, Usher M, Niebur E, & Stuphorn V. “Attentional sampling strategies in multi-attribute decision making.” Program No. 402.08. 2022 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2022.

Elsey JG, & Stuphorn V. “The role of primate prefrontal cortex in response inhibition and self control.” Program No. 235.04. 2022 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2022.

Elsey JG. Hwang, J., & Stuphorn V. 2022. “Value representation of delayed and probabilistic rewards in the supplementary eye field.” Johns Hopkins Department of Neuroscience Retreat, Baltimore, MD.

Elsey JG, Katz VS, Sampson AL, Moreira-González S, Emeric E, Lipski W, González-Martínex J, Stuphorn V, Niebur E. “Information Sampling Strategies and Neural Correlates in Human Multi-Attribute Decision Making Task.” Winter Conference on Brain Research, 2022.

Elsey JG, Niebur E, & Stuphorn V. “Attentional sampling strategies in multi-attribute decision making.” Johns Hopkins Department of Neuroscience Interview Weekend, 2021. Virtual due to COVID-19.

Elsey JG, Niebur E, & Stuphorn V. “Attentional sampling strategies in multi-attribute decision making.” 18th Annual meeting of the Society for Neuroeconomics. Virtual due to COVID-19.
*selected as a Spotlight Poster Presentation, PS1-1, 2020

Elsey JG, Niebur E, & Stuphorn V. “Behavioral predictors of preference in multi-attribute decision making.” Annual Convention of the Maryland Psychological Association. Baltimore, MD, 2019.

Elsey JG, Yang Y-P, Emeric E, Niebur E, & Stuphorn V. “Menu complexity effects on attribute integration in risky multi-attribute decision making.” Program No. 518.04. 2019 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2019.

Elsey JG, Yang Y-P, Emeric E, Niebur E, & Stuphorn V. “Menu complexity affects sampling strategy in risky multi-attribute decision making.” Annual Department of Neuroscience Retreat. Janelia Research Campus, Ashburn, VA, 2019.

Elsey JG, Lowe KA, Middlebrooks PG, Cosman JD, & Schall JD. “Functional architecture of frontal

eye fields: spatial clustering of common modulation." Program No. 60.21. Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2017. Online.

TEACHING EXPERIENCE

Introduction to Psychology (AS.200.101) 2021
Teaching Assistant
- Responsible for grading, assistance in developing assessments and exams, private tutoring.
- Led content review sessions

Design and Statistical Analysis for Psychology (AS.200.201) 2021
Advanced Teaching Assistant
- Led a weekly lab section presenting a lecture and guidance through the R programming language
- Responsible for grading, assistance in developing assessments and exams, private tutoring.

Neuroscience of Decision Making (AS.200.304) 2020
Guest Lecture
- "Dopamine, Reward and Reinforcement Learning"

Introduction to Social Psychology (AS.200.133) 2020
Teaching Assistant
- Responsible for grading, assistance in developing assessments and exams, private tutoring.

Animal Behavior (AS.200.208) 2019
Teaching Assistant
- Responsible for grading, assistance in developing assessments and exams, private tutoring.

Training laboratory personnel 2018-present
Mentor
- Assistance in training and supervising 11 graduate and undergraduate members of Veit Stuphorn's lab.

VOLUNTEERING AND OUTREACH

Brainfest (Project Bridge) 2023
Volunteer
- Conducted hands-on neuroscience experiments for children at the Cherry Hill Enoch Pratt Public Library.

Skype a Scientist 2021-2022
Guest Speaker
- Hosted a virtual workshop and Q&A session on decision making and the brain with elementary school students.

Science Café (Project Bridge) 2019-2022
Committee Leader
- Assistance in the organization of events aimed to increase public understanding of scientific discoveries through informal discussions with local researchers in a variety of venues to engage diverse populations across Baltimore.

Science at the Market (Project Bridge) 2019-2021
Volunteer
- Conducting hands-on experiments for all ages at a monthly science communication booth at the Baltimore 32nd Street Farmer's Market.

Psychological & Brain Sciences Graduate Steering Committee 2019-present
Social Chair
- Organizing departmental social and professional development events.

Nashville STEM Preparatory Academy 2017
Workshop Volunteer
- Co-led a workshop designed to teach 6th grade students about classical experiments and recording techniques in neuroscience.

PROFESSIONAL MEMBERSHIPS

Society for Neuroscience	2017-present
Maryland Psychological Association	2019-present
New York Academy of Sciences	2019-present
Society for Neuroeconomics	2019-present

HONORS AND AWARDS

Baltimore Brain Series Award	2023
Travel Award, Curiousity, Creativity and Complexity Conference	2023
Best Poster Award, Johns Hopkins Department of Neuroscience Annual Retreat	2022
Walter L. Clark Service Award, Psychological & Brain Sciences, Johns Hopkins	2020
University of South Carolina Dean's List	2014-2016
South Carolina Life Scholar	2012-2016
Golden Key Honor Society	2014-2016