Jeffrey B. Dennison

PHD STUDENT · PSYCHOLOGY

Temple University,Weiss Hall 1701 North 13th Street Philadelphia, PA 19122

✉ jeffrey.dennison@email.com | ⌂ https://jbdenniso.github.io/ | ⓖ https://github.com/jbdenniso/ | 🐦 @jbdenniso

Education

Temple University   *Philadelphia, PA*

PHD PSYCHOLOGY   *2018 - present*

- Advisor: Dr. David Smith

New York University   *New York, NY*

MS PSYCHOLOGY   *2014 - 2016*

- Advisor: Dr. Paul Glimcher
- Honors thesis: A principal components analysis of self report and econometric measures of risk preferences and impulsivity

Hawaii Pacific University   *Honolulu, HU*

BS PSYCHOLOGY   *2009 - 2013*

- Undergrad research advisors: Dr. Patricia Ellerson, Dr. Kaatherine Aumer
- Honors thesis: The effect of implicit and explicit self esteeem on cortisol following a stress manipulation

Professional Experience

2018-2023	**Graduate Research Assistant** , David V. Smith, Temple University	
2016-2018	**Lab Manager and Research Assistant** , Mauricio Delgado, Rutgers University	
2016	**Graduate Teaching Assistant**, Psychology, New York University	

Publications

PREPRINTS AND UNDER REVIEW

Wyngaarden, J.B, Johnston, C.R., Sazhin,D. **Dennison, J. B.**, Zaff,O. Fareri,D., McCloskey,M., Alloy,L.B., Smith, D.V., Jarcho,J.M., (2022). Substance use is related to differential activation and connectivity for social relative to monetary rewards. bioRxiv.doi: https://doi.org/10.1101/2023.01.17.524305

PUBLISHED

Dennison, J. B., Tepfer, L. J., & Smith, D. V. (2023). Tensorial Independent Component Analysis Reveals Social and Reward Networks Associated with Major Depressive Disorder. *Human Brain Mapping* DOI: 10.1002/hbm.26254

Dennison, J. B., Sazhin, D., & Smith, D. V. (2022). Decision neuroscience and neuroeconomics: Recent progress and ongoing challenges. *Wiley Interdisciplinary Reviews: Cognitive Science*, 13(3), e1589.

Sazhin D, Frazier AM, Haynes CR, Johnston CR, Chat IK, **Dennison J.B.**, Bart CP, McCloskey ME, Chein JM, Fareri DS, Alloy LB, Jarcho JM, Smith DV. The Role of Social Reward and Corticostriatal Connectivity in Substance Use. *Journal of Psychiatry and Brain Science.* 2020;5:e200024. doi: 10.20900/jpbs.20200024. Epub 2020 Oct 29. PMID: 33215046; PMCID: PMC7673297.

Botvinik-Nezer, R., Holzmeister, F., Camerer, C.F.,... **Dennison, J.B.**,... Variability in the analysis of a single neuroimaging dataset by many teams. *Nature* 582, 84–88 (2020). https://doi.org/10.1038/s41586-020-2314-9

IN PREPERATION

Dennison, J.B. ,Umar, F., Dachs, A., Zaff, O., & Smith, D.V., Reward-Dependent Corticostriatal Connectivity: A PPI Meta-analysis

Smith, D.V., Fereri, D., Olson, I., **Dennison, J.B.**, & Zaff, O., Identifying the effects of Multi-band and Multi-echo fMRI sequences on BOLD activation and connectivity in a Social Reward task

Sazhin, D., Wyngaarden, J.B.,**Dennison, J.B.**,Johnston, C.R., Zaff, O., Fareri, D., McCloskey, M., Alloy, L., Jarcho, J.M., & Smith, D.V, When Do We Choose to Be Fair? Strategic Choices in Bargaining Situations are Associated with Elevated Corticostriatal Connectivity

Awards, Fellowships, & Grants

2015   **Teaching Honorarium**, New York University Psychology Department   *$ 500*

2012   **Outstanding Research Practicum Student Award**, Hawaii Pacific University, Psychology Department
        Undergraduate Research Award, Psi Chi, International Honor Society in Psychology   *$ 2,000*

Presentations
* mentored student

CONFERENCE POSTERS

Dennison, J.B., Umar, F.*, Dachs, A.*, Smith, D.V. (2022), Reward-Dependent Corticostriatal Connectivity: A Meta-analysis of Psychophysiological Interactions, Society for Neuroeconomics Annual Conference, Arlington VA -Note won honors for a "Poster Spotlight" presentation

Zaff, O*., Sazhin, D., Wyngaarden, J.B., **Dennison, J.B.**, Vafiadis, A., Nguyen,A., Jarcho, J.M., Alloy, L., Chein, J., Fareri, D., & Smith, D.V. (2022),Individual differences in substance use associated with elevated temporoparietal junction responses to rewards shared with friends, Society for Neuroscience Annual Conference, San Diego CA

Sazhin, D., Dennison, J.B., Wyngaarden, J.B., Vafiadis, A., Zaff, O.*, Kahn, N.A., Collins, M., Nguyen, A., Kohli, I., Fareri, D., McCloskey, M., Jarcho,J.M., & Smith, D.V. (2022), Strategic Decisions in Bargaining Situations Are Associated with Activation in the Caudate, Society for Neuroscience Annual Conference, San Diego CA

Ludwig, R., **Dennison, J.B.**,Hackett, K., Giovanetti, T., Fareri and Smith, D.V. (2022), Older and Wiser? Young Adults and Seniors Respond Differently to Social Context in an Ultimatum Game, Society for Neuroeconomics Annual Conference, Arlington VA

Dennison, J.B. and Smith, D.V. (2021) Understanding How Individual Beliefs About Risk Contribute to Ambiguity Aversion, Society for Neuroeconomics Annual Conference Virtual

Dennison, J.B., Ng, T., Alloy,.L., Smith,D.V. (2019) Using corticostriatal networks to disentangle reward value and salience, Society for Neuroscience Annual Conference, Chicago, IL

Henniger, N.M., Kelly, V., Hackett, K., Fareri, S., Katta, L., Tepfer, L.J., Reek, C., Giovannetti, T., Beard, E.C., **Dennison, J.B.**, Muzekari, B., Desalme, D.F., Kinmartin, R., Lang.,A., Cipriaso, J.M., Hunter, E., Morrison, C., Smith, D.V., (2019) Age-related reductions in functional connectivity in social brain systems during an economic trust task, Society for Neuroscience Annual Conference, Chicago, IL

Chat, I. K. Y., Bart, C., **Dennison, J.B.**, Smith, D., Miller, G., Nusslock, R., & Alloy, L. (2021). Inflammatory Signaling and Corticostriatal Functional Connectivity to Anticipated Valence and Salience of Reward and Threat Stimuli: An Investigation in Depressed vs. Non-Depressed Young Adults. Biological Psychiatry, 89(9), S298-S299.

Watanabe., N., Dennison, J.B., Delgado, M.R.,(2018) Differential effects of acute stress on effort and reward sensitivity during decision making, Society for Neuroscience Annual Conference San Diego, CA

Konova, A.B., Lopez-Guzman, S., Uramanche A. A., **Dennison, J.B.**,Ross,S., Louie, K., Rotrosen, J., Glimcher, P. W. (2016) Week-to-week fluctuations in risky decision making track heroin use in treatment-seeking opioid users, Society For Neuroscience Annual Conference. Sandiego, CA

Lopez-Guzman, S.,Konova, A.B., Uramanche A. A., **Dennison, J.B.**,Ross,S., Louie, K., Rotrosen, J., Glimcher, P. W. (2016)Temporal discounting as an individualized computational marker of treatment trajectory for opioid use disorder, Society For Neuroscience Annual Conference. Sandiego, CA

Ellerson, P., **Dennison, J.B.**, Purring, A.(2014) Who Knows You Best. Association for Psychological Sciences Annual Conference. Washington, D.C.

TALKS AND WORKSHOP PRESENTATIONS

Yovanno, R., Buckner, A., Kamath, R., **Dennison, J.B.**(2022) Comparing the visual hierarchy to layers of convolutional neural networks to probe visual abstraction. Neuromatch Academy Annual Workshop, Virtual

Dennison, J.B.(2019) Working with Neuroimaging data in Python via NiPy. Temple University Coding Outreach Group Summer Workshops

Teaching Experience

2019-2022	**Neuroimaging: Image to Inference*, Sensation and Perception, Statistics in Psychology, Clinical Neuropsychology, Functional Neuroanatomy, Brain Matters** , Teaching Assistant	*Temple University*
Summer 2020	**Psychology and Neuroscience: Exploring Mind, Brain, and Behavior**, Instructor	*Temple University*
Fall 2016	**Introduction to Psychology**, Teaching Assistant	*New York University*
Spring 2013	**Statistics in Psychology**, Teaching Assistant	*Hawaii Pacific University*

Mentoring

2020-2022	**Fatima Umar**, Undergraduate Researcher, Temple University	*Philadelphia, PA*
2021-2022	**Avi Dachs**, Undergraduate Researcher, Temple University	*Philadelpha, PA*
2021-2022	**Ori Zaff**, Post-Graduate Researcher, Temple University	*Philadelphia, PA*

Programming and Computational Tools

General Computing

Statistics Software: Python (Scipy, Numpy, Statsmodels, Seaborn), R, SAS, SPSS, JASP
Programming Languages: Bash, Python, Matlab, JavaScript, Latex
Development Tools: Git, Docker, Jupyter

Neuroimaging

Brain Imaging Data Structures
fMRIPrep (Docker & Singularity)
heudiconv(Docker, Singularity, & python)
FMRIB Software Library (FSL)
Seed-based D-mapping (SDM)
Ginger-ALE
Python: Nilearn, NiBabel, NiMARE, ANTsPy, TEDANA

Outreach & Professional Development

Service and Outreach

2018-2022	**TU Coding Outreach Group:**, Organizer and Peer Worker	*Philadelphia, PA*
2016-2017	**Graduate Student Association**, Committee Member	

Development

Neuromatch Academy 2022:, Virtual: Summer seminar for computational neuroscience. Introduction and practicum for modeling, machine learning, dynamical systems, and reward learning with applications for neuroscience

Coastal Coding for Reproducible Neuroimaging: 2019, Miami, FL: Topical training in issues that affect the reproducibility of neuroimaging research (data acquisition, experimental methods, analyses, record keeping, reusability, and data sharing)

Peer Review

Human Brain Mapping (with advisor)
Cell Reports (with advisor)
Journal of Visual Experiments

Professional Memberships

Society for Neuroeconomics Student Member
Society for Neuroscience Student Member