Paul B. Sharp

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Academic Appointments

Bar-Ilan University *October 2024-*
Senior Lecturer (Assistant Professor Equivalent)

Education

University of North Carolina at Chapel Hill *2016-2019*
PhD Psychology and Neuroscience

University of Illinois at Urbana-Champaign *2013-2016*
MA (clinical/community psychology PhD program)

Temple University, Honors College *2010-2013*
BA Psychology and Political Science, *Magna Cum Laude*

Awards, Fellowships, & Grants

2024-2027	**Azrieli Early Career Faculty Fellowship**, Azrieli Foundation	*$ 202,000*
2022-	**eLife Early-Career Reviewer**, eLife	
2021-2023	**Fulbright Postdoctoral Fellowship**, Fulbright Foundation	*$ 95,000*
2015-2016	**Teaching Excellence**, UIUC	
2015	**Departmental Grant**, University of Illinois at Urbana-Champaign	*$ 6,000*
2015	**NIMH fMRI Training**, University of Michigan	
2014	**Kanfer Fellowship**, University of Illinois at Urbana-Champaign	*$ 8,000*
2008	**American Mathematics Competition Honor Roll**, MAA	

Publications

Published

Sharp, PB, Eldar, E. Humans adaptive deploy forward and backward prediction. *Nature Human Behaviour.*
2022 IF=29.9, R 2022 = Psychology: 10/1710 (Q1); Neuroscience: 7/756 (Q1) .

Solomyak, L, **Sharp PB**, Eldar E. Training diversity promotes absolute-value-guided choice. (2022).
PLOS Computational Biology.
2022 IF=4.78, R 2022 Neuroscience: 74/756 (Q1)

Sharp PB, Fradkin I, Eldar E. Hierarchical inference as a source of human biases. (2022).
Cognitive, Affective and Behavioral Neuroscience.
2022 IF=2.9, R 2022 = Neuroscience: 211/756 (Q1)

Sharp PB, Russek, E., Huys, Q., Dolan RJ, Eldar E. Humans perseverate on punishment avoidance goals in multigoal
reinforcement learning. (2022). *eLife*.
2022 IF=8.71, R 2022 = Neuroscience: 15/756 (Q1)

Sharp PB, Dolan RJ, Eldar E. Disrupted state transition learning as a computational marker of compulsivity. (2021).
Psychological Medicine.
2022 IF =6.9, R 2022 = Psychology: 68/1710 (Q1)

Sharp PB, Do KT, Lindquist KA, Prinstein MJ, Telzer EH. Cognitive control deployment is flexibly modulated by social
value in early adolescence. (2021). *Developmental Science*.

2022 IF=4.94, R 2022 = Psychology: 119/1710 (Q1)

Thomas, J.G., **Sharp PB**, Niznikiewicz M, Heller W. Beyond the Placebo: A Double-Blind Randomized Control Trial of Expectation as a Mechanism of Therapeutic Change. (2021).*Psychotherapy Research*.
2022 IF=4.11, R 2022 = Psychology: 278/1710 (Q1)

Sharp PB,Miller, GA, Dolan RJ, Eldar E. Towards formal models of psychopathological traits that explain symptom trajectories. (2020). *BMC Medicine*.
2022 IF=9.3, R 2022 = Medicine: 232/10965 (Q1)

Do KT*, **Sharp PB***, Telzer EH (2020). Modernizing conceptions of valuation and cognitive control deployment in adolescent risk taking. *Current Directions in Psychological Science*.
2022 IF =7.86, R 2022 = Psychology: 35/1710 (Q1)

Sharp PB, Eldar E. Computational models of anxiety: Nascent efforts and future directions. (2019). *Current Directions in Psychological Science*.
2022 IF =7.86, R 2022 = Psychology: 35/1710 (Q1)

Thomas JG , **Sharp PB**. Mechanistic science: A new approach to comprehensive psychopathology research that relates psychological and biological phenomena. (2019). *Clinical Psychological Science*.
2022 IF=7.21, R 2022 = Psychology: 94/1710 (Q1)

Sharp PB, Miller, GA. Reduction and autonomy in psychology and neuroscience: A call for pragmatism. (2019). *Journal of Theoretical and Philosophical Psychology*.
2022 IF=1.3, R 2022 = Psychology: 969/1710 (Q3); Philosophy: 120/733 (Q1)

Sharp PB, Sutton BP, Paul EJ, Sherepa N, Cohen NJ, Hillman CH, Kramer AF, Prakash R, Heller W, Telzer EH, Barbey AK. (2018). Mindfulness training induces structural connectome changes in insula networks. *Scientific Reports*.
2022 IF=4.6, R 2022 = Multidisciplinary: 13/144 (Q1)

Sharp PB, Telzer EH. (2017). Structural connectomics of anxious arousal in early adolescence: Translating clinical and ethological findings. *NeuroImage: Clinical*.
2022 IF=4.2, R 2022 = Neurosience: 128/756 (Q1)

Sharp PB, Heller W, Telzer EH. (2017). Selective neural sensitivity to familial threat in adolescents with weak family bonds. *Social Neuroscience*.
2022 IF=2.0, R 2022 = Neuroscience: 438/756 (Q3)

Sharp PB, Miller GA, Heller W. (2015). Transdiagnostic dimensions of anxiety: Neural mechanisms, executive functions, and new directions. *International Journal of Psychophysiology*.
2022 IF=2.9, R 2022 = Psychology: 524/1710 (Q2)

In Prep

Sharp, PB, Eldar, E. Humans infer how to rationally delay planning.

Bedder, R, Hitchcock PF, **Sharp, PB**. Computations of Negative Repetitive Thinking.

Sharp, PB. Anxiety involves planning.

Presentations

Conference Workshops

Co-Chair. *Repetitive Negative Thinking and Simulation in Natural and Artificial Cognition*. The 5th Multidisciplinary Conference on Reinforcement Learning and Decision Making, Brown University, Providence, RI, June 2022.

Co-Chair. *Constructing riskier tests of theory, linking psychological and biological phenomena, and introducing a new mechanistic philosophy of science*. Society for Psychophysiological Research, Vienna, Austria, Fall 2017.

Conference Papers

Sharp, PB, Eldar, E. *Predecessor representation for efficient backwards planning*. The 5th Multidisciplinary Conference on Reinforcement Learning and Decision Making, Brown University, Providence, RI, June 2022.

Solomyak, L., Sharp, P., Eldar, E. *Training diversity promotes absolute-value-guided choice*. The 5th Multidisciplinary Conference on Reinforcement Learning and Decision Making, Brown University, Providence, RI, June 2022.

Invited Talks

August 2022. *Understanding worry using planning algorithms*. Laboratory of Neural Computation and Cognition (Michael J. Frank Lab), Brown University, RI

June 2022. *Using a science of planning to understand the dynamics of worry*. The 5th Multidisciplinary Conference on Reinforcement Learning and Decision Making

Feburary 2022. *Efficient planning algorithms humans use to pursue multiple goals*. Israeli Society for Cognitive Psychology

September 2021. *Computations of Chronic worry: Dysfunction in Multigoal Learning and Planning Efficiency*. Society for Research in Psychopathology

March 2021. *Neuroscience only leads to understanding with computation: A brief history of efforts to understand human anxiety*. Lee lab. Virginia Tech, VA.

December 2019. *How task-irrelevant emotion affects model-building: Implications for basic learning processes and psychopathology*. Tel-Aviv University. Bar-Haim lab. 2019.

October 2019. *Computations in human anxiety: New developments in a nascent field*, National Institute of Mental Health, Pine lab. Bethesda, MD.

February 2018. *Current Issues in Developmental Science: Replicability Representation*. UNC-Duke Annual Research Meeting in Developmental Psychology. Chapel Hill, NC.

March 2015. *The neuroscience of mindfulness. Teachers of Champaign*. Illinois.

Conference Presentations

Effects of emotional cues on state transition learning. Sharp PB, Dolan, RJ, Eldar E. Society of Biological Psychiatry. Spring, 2020.

Testing a computational model of anxious mood in adolescence. Sharp PB, Telzer EH, Eldar E. Developmental Cognitive Neuroscience. Summer, 2018.

Structural Connectomics of Affective Disturbances in Adolescence. Sharp PB, Heller W, Telzer EH Society of Biological Psychiatry. Spring, 2017.

Reduced habituation to familial threat in adolescents with low family connectedness: A Novel use of MVPA. Sharp PB, Telzer EH. Society for Affective Science. Spring, 2016.

Trait negative affect and executive function in childhood: Neural mechanisms and mindfulness. Sharp PB, Menon S, Khan F, Davis MM, Weldon A, Sutton, BP, Heller W. Society for Research in Psychopathology. Spring, 2015.

Past Employment

Yale University *August 2023-Current*
Postdoctoral Fellow

Alena *December 2022-May 2023*
Senior Research Scientist

Hebrew University of Jerusalem *2021-March 2023*
Fulbright Postdoctoral Scholar

Max Planck UCL Centre for Computational Psychiatry and Ageing Research *2019-2021*
Postdoctoral Fellow

Teaching

2018-2019	**Intro to Python**, Lead Instructor, Telzer Lab	*UNC*
Spring 2017	**Intro to Neuroscience**, Teaching Assistant	*UNC*
2015-2016	**Abnormal Psychology**, Lead Instructor	*UIUC*

Mentoring

2021-2023	**Noa Peled**, Psychology Undergraduate, Hebrew University of Jerusalem
2021-2023	**Aviad Aharon**, Computer Science Undergraduate, Hebrew University of Jerusalem
2021-2022	**Lena Gorina**, PhD Research, Hebrew University of Jerusalem
2018-2019	**Sinclaire Scales**, Psychology Undergraduate Thesis, UNC at Chapel Hill
2017	**Charles Wright**, Psychology Undergraduate, UNC at Chapel Hill

Service and Outreach

Cientifico Latino GSMI Mentor, 2021, UNC Science Expo Organizer and Educator, 2018.

Ad Hoc Reviewer

eLife, Nature Communications, PLOS Computational Biology, Current Opinion in Behavioral Sciences, Journal of Neuroscience, Neuroscience and Biobehavioral Reviews, Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, Behavior Research and Therapy, Developmental Science, Clinical Psychology Review, Cognitive Affective and Behavioral Neuroscience

Professional Memberships

Computational Psychiatry, Reinforcement Learning and Decision Making, Cognitive Computational Neuroscience, Society of Biological Psychiatry, Society for Research in Psychopathology