

# Patrick Sadil

POSTDOCTORAL RESEARCH FELLOW

Johns Hopkins Bloomberg School of Public Health; Biostatistics

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## Education

### PhD, Cognitive Psychology

UNIVERSITY OF MASSACHUSETTS, AMHERST

Amherst, MA

2019–2020

### MS, Cognitive Psychology

UNIVERSITY OF MASSACHUSETTS, AMHERST

Amherst, MA

2015–2019

### BA, Biology

REED COLLEGE

Portland, OR

2010–2014

## Publications

### PREPRINTS

Sadil, P., Cowell, R. A., & Huber, D. E. (2021). Every Response is both an Attraction to the Prior Response and a Repulsion from the Prior Stimulus. In *PsyArXiv*. <https://doi.org/10.31234/osf.io/f52yz>

Sadil, P., Huber, D. E., & Cowell, R. A. (2021). NeuroModulation Modeling (NMM): Inferring the form of neuromodulation from fMRI tuning functions. In *bioRxiv*. <https://doi.org/10.1101/2021.03.04.433362>

### PEER-REVIEWED

Cowell, R. A., Barense, M. D., & Sadil, P. (2019). A Roadmap for Understanding Memory: Decomposing Cognitive Processes into Operations and Representations. *eNeuro*, 6(4). <https://doi.org/10.31234/osf.io/b7e8k>

Sadil, P., Cowell, R. A., & Huber, D. E. (2019). A hierarchical Bayesian state trace analysis for assessing monotonicity while factoring out subject, item, and trial level dependencies. *Journal of Mathematical Psychology*; IF: 2.176, 90, 118–131. <https://doi.org/10.1016/j.jmp.2019.01.003>

Sadil, P., Potter, K. W., Huber, D. E., & Cowell, R. A. (2019). Connecting the dots without top-down knowledge: Evidence for rapidly-learned low-level associations that are independent of object identity. *Journal of Experimental Psychology: General*; IF: 4.107, 148(6), 1058–1070. <https://doi.org/10.17605/osf.io/bqp32>

Ross, D. A., Sadil, P., Wilson, M. D., & Cowell, R. A. (2017). Hippocampal Engagement during Recall Depends on Memory Content. *Cerebral Cortex*; IF: 6.308, 28(8), 2685–2698. <https://doi.org/10.1093/cercor/bhx147>

Sadil, P., & Cowell, R. A. (2017). A Computational Model of Perceptual and Mnemonic Deficits in Medial Temporal Lobe Amnesia. *Journal of Cognitive Neuroscience*; IF: 3.468, 29(6), 1075–1088. [https://doi.org/10.1162/jocn\\_a\\_01106](https://doi.org/10.1162/jocn_a_01106)

Sadil, P., & Cowell, R. A. (2016). A Computational Model of Perceptual Deficits in Medial Temporal Lobe Amnesia. *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*.

## Grants and Awards

### Oracle for Research

Johns Hopkins Bloomberg School of  
Public Health

\$50,000.00

2021

- Study biases in automated diagnoses from medical imaging

### Keith Rayner Memorial Graduate Student Research Award

University of Massachusetts,  
Amherst

\$1,500.00

2018

### Center for Research on Families Travel Grant

University of Massachusetts,  
Amherst

\$300.00

2018

- Presented research at the 14th annual Context and Episodic Memory Symposium.

## Edna M. Dahlquist Scholarship

\$2,000.00

### Biology Undergraduate Research Proposal

\$1,500.00

- Characterized serotonin's role in generating rhythmic, vocal behavior in South African claw-toed frog with electrophysiology

### Summer Undergraduate Research Fellowship

\$5,500.00

- Set up immunohistochemistry protocols including tract tracing and Golgi Staining.

University of Massachusetts,

Amherst

2016

Reed College

2014

Reed College

2013

## Presentations

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Sadil, P., Cowell, R. A., & Huber, D. E. (2022). *Uncovering the neural and behavioral factors that underlie changes in processing visual orientation*. Invited talk given at Arizona State University seminar series.

Sadil, P., Cowell, R. A., & Huber, D. E. (2020). *The serial dependence effect is both attraction to the previous response and repulsion from the previous stimulus*. Poster presented at the 61<sup>st</sup> annual Psychonomics Society Meeting. Virtual.

Sadil, P., Cowell, R. A., & Huber, D. E. (2019). *A hierarchical bayesian state trace analysis for assessing monotonicity factoring out subject, item, and trial level dependencies*. Poster presented at the 52<sup>nd</sup> Annual Meeting of the Society for Mathematical Psychology Montreal, Quebec. CA.

Sadil, P., Huber, D. E., & Cowell, R. A. (2018). *A hierarchical bayesian model for inferring neural subpopulation tuning functions from fMRI*. Poster presented at the 1<sup>st</sup> Annual UMass Interdisciplinary Neurosciences Conference. Amherst, MA.

Sadil, P., Huber, D. E., & Cowell, R. A. (2018). *A hierarchical bayesian model for inferring neural tuning functions from voxel tuning functions*. Talk given at the annual Vision Science Society Meeting. St. Pete Beach, Florida.

Sadil, P., Huber, D. E., & Cowell, R. A. (2018). *Episodic-like retrieval mechanisms for non-episodic memories: Visual recollection in the absence of identification*. Talk given at the 14<sup>th</sup> annual Context and Episodic Memory Symposium. Philadelphia, PA.

Sadil, P., Huber, D. E., & Cowell, R. A. (2017). *A novel method for fMRI analysis: Inferring neural mechanisms from voxel tuning*. Poster presented at the 1<sup>st</sup> annual Conference on Cognitive Computational Neuroscience. New York, NY.

Sadil, P., Potter, K., Huber, D. E., & Cowell, R. A. (2017). *A continuous flash suppression study of implicit visual recollection*. Talk given at the 13<sup>th</sup> annual Context and Episodic Memory Symposium. Philadelphia, PA.

Sadil, P., Huber, D. E., & Cowell, R. A. (2016). *Computational model of perceptual deficits in medial temporal lobe amnesia*. Poster presented at the 12<sup>th</sup> annual Context and Episodic Memory Symposium. Philadelphia, PA.

Sadil, P., Potter, K., Huber, D. E., & Cowell, R. A. (2016). *A continuous flash suppression study of implicit visual recollection*. Poster presented at the 57<sup>th</sup> annual Psychonomics Society Meeting. Boston, MA.

Sadil, P., Huber, D. E., & Cowell, R. A. (2015). *Visual recollection*. Poster presented at the 11<sup>th</sup> annual Context and Episodic Memory Symposium. Philadelphia, PA.

## Peer Review

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### AD HOC BOOK REVIEW

- Springer

### AD HOC REVIEW FOR JOURNALS

- Journal of Mathematical Psychology

## Workshops Attended

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- 2018 New England Statistics Symposium – Introduction to Bayesian Inference with Stan
- 2016 NIH funded training course in fMRI

*University of  
Massachusetts,  
Amherst  
University of  
Michigan*