ALYSSA H. SINCLAIR | Curriculum Vitae

Duke University, *Center for Cognitive Neuroscience*, Durham, NC
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Lab Phone: (919)-681-4601 *Email*: allie.sinclair@duke.edu
ORCID 0000-0003-0447-3959

Research Interests: *Prediction error, episodic memory, belief updating, hippocampus, reconsolidation*

Education

Ph.D., Duke University — *Psychology & Neuroscience, Cognitive Neuroscience* 2018 — 2023 (anticipated)

Cumulative GPA: 4.0/4.0
Advisors: Dr. R. Alison Adcock & Dr. Gregory R. Samanez-Larkin
Committee Members: Dr. Elizabeth Marsh & Dr. Felipe de Brigard

M.A., Duke University — *Psychology & Neuroscience, Cognitive Neuroscience* 2018-2021

Cumulative GPA: 4.0/4.0

B.Sc. *with High Distinction, Valedictorian*, University of Toronto — *Research Psychology* 2014 — 2018

Cumulative GPA: 4.0/4.0, *recipient of the Governor General's Academic Medal*
Honors Thesis: *Prediction Error Influences Episodic Memory Reconsolidation*
Advisors: Dr. Morgan Barense & Dr. William Cunningham

Teaching Experience

Lecturer — Cognitive Neuroscience Research Internship, *Duke University* 2020-2021

Topics: *Cog Neuro Methods, Memory & Motivation, Reinforcement Learning*

Lecturer — Duke Neuro Methods Workshops, *Duke University* 2020-2021

Topics: *Mixed Effects Regression, Advanced Data Visualization*

Teaching Assistantships — Dep. of Psychology & Neuroscience, *Duke University*

PSY444: Neuroscience Service Learning *(Dr. Minna Ng)* 2021

NEUROSCI101: Biological Bases of Behavior *(Drs. Karen Murphy & Minna Ng)* 2020, 2021

Teaching Assistantship — Victoria College, *University of Toronto*

VIC171: Method, Theory, & Practices in Natural Sciences *(Dr. Brian Baigrie)* 2017-2018

Independent Tutor for University and High School Students — *Toronto, ON* 2016-2018

Fellowships & Research Grants

Charles Lafitte Foundation Outreach Grant, *Duke University, CNRI* $36,434, **2021—22**

NSF Graduate Research Fellowship, *National Science Foundation* $138,000, **2019—23**

Postgraduate Scholarship, *Natural Sci. and Eng. Research Council of Canada* $63,000, **2019—21**

Special Topics COVID-19 Research Grant, *Duke University* $2,500, **2020**

Research Germinator Award, *Duke Institute for Brain Sciences* $25,000, **2019—20**

James B. Duke Graduate Fellowship, *Duke University* $20,000, **2018—2021**

NSERC Canada Graduate Scholarship- Master's *(Declined)* $17,500, **2018**

NSERC Undergraduate Student Research Award, *University of Toronto* $5,625, **2018**

Undergraduate Research Grant, *University of Toronto* $1,500, **2018**

George Mandler Research Fund, *University of Toronto* $550, **2018**

Awards & Honors

Trainee Professional Development Award, *Society for Neuroscience* **2019**

SARMAC 2019 Travel Award, *Society for Applied Research on Memory & Cognition* **2019**

Charles Lafitte Foundation Travel Awards, *Duke University* **2018, 2019**

Governor General's Academic Medal, *Government of Canada*, *University of Toronto* **2018**

National award granted to the highest-performing undergraduate student.

John Black Aird Scholarship, *University of Toronto* **2018**

Awarded to the top student of the tri-campus graduating class.

Rose Sheinin Award, *University of Toronto* **2018**

Awarded for academic excellence in an undergraduate science program.

Women's Centenary Silver Medal, *Victoria College, University of Toronto* **2018**

Treble & Barber Travelling Scholarship, *Victoria College, University of Toronto* **2018**

Dean's List Scholar, *University of Toronto* **2014—18**

James Mark Baldwin Prize for Best Essay, *University of Toronto* **2017**

Moscovitch Award for Outstanding Contribution to Discussion, *TAMeG Conference* **2017**

Outstanding Poster Presentation, *NeuroXchange Con*ference **2017**

University of Toronto Scholars Award, *University of Toronto* **2014—17**

Academic Merit Scholarships, *Victoria College, University of Toronto* **2014—17**

Preprints

Sinclair, A.H., Manalili, G.M., Brunec, I.K., Adcock. R.A., & Barense, M.D. (revision requested, 2021). Prediction errors disrupt hippocampal representations and update episodic memories. *Proceedings of the National Academy of Sciences*. DOI: https://doi.org/10.1101/2020.09.29.319418

Publications

Sinclair, A.H.*, Hakimi, S.*, Stanley, M.L., Adcock. R.A., & Samanez-Larkin, G.R. (2021). Pairing facts with imagined consequences improves pandemic-related risk perception. *Proceedings of the National Academy of Sciences, 118*(32), e2100970118. DOI: https://doi.org/10.1073/pnas.2100970118 **Denotes equal contribution.*

Sinclair, A.H., Stanley, M.L., Hakimi, S., Cabeza, R., Adcock. R.A., & Samanez-Larkin, G.R. (2021). Imagining a personalized scenario selectively increases perceived risk of viral transmission for older adults. *Nature Aging*, 1. DOI: https://doi.org/10.1038/s43587-021-00095-7

Sinclair, A.H., Stanley, M.L., & Seli, P. (2020). Closed-minded cognition: Right-Wing Authoritarianism is negatively related to belief updating following prediction error. *Psychonomic Bulletin and Review*, *27*, 1348–1361. DOI: 10.31234/osf.io/94a7v

Stanley, M.L., **Sinclair, A.H.**, & Seli, P. (2020). Intellectual humility and perceptions of political opponents. *Journal of Personality*, *88*(6), 1-21. DOI: https://doi.org/10.1111/jopy.12566

Sinclair, A.H. & Barense, M.D. (2019). Prediction error and memory reactivation: How incomplete reminders drive reconsolidation. *Trends in Neurosciences*, *42*(10), 728-740. DOI: 10.31234/osf.io/h8fy9

Sinclair, A.H. & Barense, M.D. (2018). Surprise and destabilize: Prediction error influences episodic memory reconsolidation. *Learning & Memory*, *25*(8), 369-381. DOI: 10.1016/j.tins.2019.08.007

Conference Talks

Sinclair, A.H., Hakimi, S., Stanley, M.S., Adcock. R.A., Samanez-Larkin, G.R. (2021, July). Pairing facts with imagined consequences improves pandemic-related risk perception. *Society for Applied Research on Memory and Cognition*, Virtual Conference.

Barense, M.D. & **Sinclair, A.H.** (2020, May). Past meets present: Prediction error drives episodic memory updating. *Cognitive Neuroscience Society*, Virtual Conference.

Sinclair, A.H., Manalili, G.M., & Barense, M.D. (2019, June). Surprise drives episodic memory updating and distortion. *Society for Applied Research on Memory and Cognition*, Cape Cod, MA.

Sinclair, A.H. & Barense, M.D. (2018, May). Prediction error influences episodic memory reconsolidation. *Toronto Area Memory Group Conference*, Toronto, ON.

Sinclair, A.H. & Barense, M.D. (2018, May). Prediction error influences episodic memory reconsolidation.

Undergraduate Thesis Conference, Toronto, ON. ***Awarded Notable Presentation.***

Sinclair, A.H. & Barense, M.D. (2018, April). Surprise and destabilize: Prediction error influences episodic memory reconsolidation. *NeuroXchange Conference*, Hamilton, ON.

Poster Presentations

Sinclair, A.H., Hakimi, S., Stanley, M.S., Adcock. R.A., & Samanez-Larkin, G.R. (2020, October). Perceived vs. actual virus transmission risk during the COVID-19 pandemic. *Society for Neuroeconomics*, Virtual Conference.

Sinclair, A.H., Hakimi, S., Adcock. R.A., & Barense, M. D. (2020, August). Effective connectivity among cortico-hippocampal regions predicts memory for naturalistic episodes. *Context and Episodic Memory Symposium*, Virtual Conference.

Sinclair, A.H., Poh, J.H., Adcock. R.A., & Barense, M. D. (2020, May). Neural representations of emotional valence and intensity during naturalistic events. *Cognitive Neuroscience Society*, Virtual Conference.

Sinclair, A.H., Manalili, G.M., & Barense, M. D. (2019, Nov). Surprising event boundaries modulate hippocampal activity and distort episodic memories. *Psychonomic Society*, Montreal, QC.

Sinclair, A.H., Manalili, G.M., & Barense, M. D. (2019, Oct). Prediction errors at event boundaries drive episodic memory reconsolidation. *Society for Neuroscience*, Chicago, IL. ***Trainee Prof. Dev. Award***

Sinclair, A.H., Manalili, G.M., & Barense, M.D. (2019, Apr). Neural mechanisms of prediction error and episodic memory distortion. *Smokies Cognition and Neuroscience Symposium*, Asheville, NC.

Sinclair, A.H., Manalili, G.M., & Barense, M.D. (2019, Mar). Neural mechanisms of episodic memory reconsolidation: A critical role for prediction error. *Cognitive Neuroscience Society*, San Fran., CA.

Sinclair, A.H. & Barense, M. D. (2017, Nov). Surprise and destabilize: Prediction error triggers episodic memory updating. *Society for Neuroscience*, Washington, D.C.

Sinclair, A.H. & Barense, M. D. (2017, Apr). Prediction errors in episodic memory reconsolidation. *NeuroXchange Conference*, McMaster University, Hamilton, ON. ***Outstanding Poster Award.***

Service & Outreach

Ad Hoc Reviewer — *Psychological Science, Learning & Memory, Learning & Motivation, Memory & Cognition, WIREs Cognitive Science, Personality Science*

Nominated Representative — *Graduate Student Affairs, Duke University* 2019-Present
Graduate Student Liaison representing the Cognitive Neuroscience Program.

Project Coordinator & Mentor — *Cognitive Neuroscience Research Internship* 2020-Present
Contributed to developing and leading a research internship program that seeks to provide equitable and accessible research opportunities for undergraduate students from historically underrepresented backgrounds. Lectured, mentored, performed administration, and obtained funding (*Charles Lafitte Foundation Outreach Grant*).
https://sites.duke.edu/cogneuroresearchinternship/

Mentor — *Científico Latino: Graduate School Mentorship Initiative* 2019-2021
Guiding STEM graduate school applicants from underrepresented minorities. Revised graduate and NSF-GRFP applications, conducted mock interviews.

Volunteer Editor — *The Inkblot: Undergraduate Journal of Psychology* 2017-2018
Reviewed & edited papers from undergraduate psychology students.

Let's Talk Science Challenge — *University of Toronto* 2017
Outreach poster fair, communicating neuroscience to middle school students.

Skills

- fMRI Data Collection & Analysis (FSL, SPM)
- Computational Neuroscience (NeuroHackademy 2020)
- Transcranial Magnetic Stimulation Certification
- Programming and statistics with R, Python, Bash, MATLAB, SPSS, PsychoPy/Pavlovia, & EyeLink
- Data Visualization with R and Adobe Illustrator

Affiliations

- Society for Neuroscience
- Cognitive Neuroscience Society
- Society for Applied Research in Memory and Cognition
- Society for Neuroeconomics
- Psychonomic Society

References

Dr. R. Alison Adcock, *Duke University* alison.adcock@duke.edu

Dr. Morgan D. Barense, *University of Toronto* morgan.barense@utoronto.ca

Dr. Gregory Samanez-Larkin, *Duke University* g.samanezlarkin@duke.edu

Dr. William Cunningham, *University of Toronto* cunningham@psych.utoronto.ca