ALYSSA H. SINCLAIR | Curriculum Vitae

Duke University, *Center for Cognitive Neuroscience* Google Scholar @sinclair_allie

Phone: (919)-907-9338 *Email*: allie.sinclair@duke.edu 0000-0003-0447-3959

Research Interests: *Learning & memory, motivation, belief & behavior change, interventions*

Education

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

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

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

Cumulative GPA: 4.0/4.0

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

Cumulative GPA: 4.0/4.0, ***Valedictorian***
Honors Thesis: *Prediction Error Influences Episodic Memory Reconsolidation*
Thesis Advisor: Prof. Morgan Barense
Independent Project Advisor: Prof. William Cunningham

Teaching Experience

Lecturer — Cognitive Neuroscience Research Internship, *Duke University* 2020-2022

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*

NEUROSCI101: Biological Bases of Behavior, Team-Based *(Prof. Minna Ng)* 2021

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

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

Teaching Assistantship — Victoria College, *University of Toronto*

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

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

Publications

Sinclair, A.H., Taylor, M.T., Weitz, J.S., Beckett, S., & Samanez-Larkin, G.R. (2023, in press). Reasons for receiving or not receiving bivalent COVID-19 booster vaccinations among adults — United States, November 1–December 10, 2022. *Morbidity & Mortality Weekly Reports*, *72*(3).

Sinclair, A.H., Manalili, G.M., Brunec, I.K., Adcock. R.A., & Barense, M.D. (2021). Prediction errors disrupt hippocampal representations and update episodic memories. *Proceedings of the National Academy of Sciences*, *118*(51), e2117625118.

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. **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, 677-683.

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.

Stanley, M.L., **Sinclair, A.H.**, & Seli, P. (2020). Intellectual humility and perceptions of political opponents. *Journal of Personality*, *88*(6), 1-21.

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

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

Preprints & Submitted Manuscripts

Sinclair, A.H.*, Wang, Y.C.*, & Adcock, R.A. (2022). Instructed motivational states bias reinforcement learning and memory formation. Under review at *PNAS*. Preprint posted to *PsyArXiv*.

** denotes equal contribution*

Sinclair, A.H., Taylor, M.K., Davidson, A., Adcock, R.A., Weitz, J.S., Samanez-Larkin, G.R., & Beckett, S.J. (2022). Scenario-based messages on social media motivate COVID-19 information seeking. Resubmitted after revision at *JARMAC*. Preprint posted to *PsyArXiv*.

Sinclair, A.H., Taylor, M.K., Brandel-Tanis, F., Davidson, A., Chande, A.T., Rishishwar, L., Andris, C., Adcock, R.A., Weitz, J.S., Samanez-Larkin, G.R., & Beckett, S.J. (2022). Real-time interventions counteract COVID-19 risk misestimation in the United States. Under review at *PLOS One*. Preprint posted to *PsyArXiv*.

Manuscripts in Preparation

Sinclair, A.H., Wang, Y.C., & Adcock, R.A. (in prep). Early and late rewards bias value memory and preferences over different timescales. To be submitted to *Psychological Science*.

Sinclair, A.H., Hsiung, A., Wright, R., Hakimi, S., & Adcock, R.A. (in prep). Pausing to reflect during information seeking counteracts negativity biases in memory. To be submitted to *JARMAC*.

Sinclair, A.H., Wright, R., Samanez-Larkin, G.R., Marsh, E.M., & Adcock, R.A. (in prep). Reconceptualizing failure enhances knowledge updating by increasing sensitivity to surprising feedback. To be submitted to *npj Science of Learning*.

Fellowships

Graduate Research Fellowship, *National Science Foundation*	$138,000, **2019—23**
Postgraduate Scholarship, *Natural Sci. and Eng. Research Council of Canada*	$63,000, **2019—22**
James B. Duke Graduate Fellowship, *Duke University*	$20,000, **2018—2022**
NSERC Canada Graduate Scholarship- Master's *(Declined)*	$17,500, **2018**
NSERC Undergraduate Student Research Award, *University of Toronto*	$5,625, **2018**

Grants

Coronavirus Contract Co-PIs: J. Weitz & G.R. Samanez-Larkin **2021—23**
Title: "Modeling SARS-CoV-2 Risk, Interventions, and Impacts on Healthcare Resources" $600,000
Funding Agency: Centers for Disease Control and Prevention (CDC)
Grant Numbers: 75D30121P10600, 75D30122C15294
Role: Lead investigator for Aims 2/3 (developing online risk assessment tools, improving risk literacy, increasing booster vaccine uptake, and motivating information seeking)

Psychology & Neuroscience Outreach Grant Co-PIs: A. Hsiung, **A. Sinclair** **2021—22**
Title: "Promoting Equitable Access to Cognitive Research: A Comprehensive Internship Program for Undergraduates" $36,434
Funding Agencies: Duke University, Charles Lafitte Foundation

Research Germinator Grant PI: **A. Sinclair** **2019—22**
Title: "Learning from Error: Cognitive, Motivational, and Neural Mechanisms" $25,000
Funding Agency: Duke Institute for Brain Sciences

Special Topics COVID-19 Research Grant PI: **A. Sinclair** **2020**
Title: "Affective States and Information Seeking During the COVID-19 Pandemic" $2,500
Funding Agency: Duke University, Charles Lafitte Foundation

Academic Awards & Honors

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 (18,500 students).

Rose Sheinin Award, *University of Toronto* **2018**
Awarded for exemplary academic achievement by a woman in science.

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

Treble & Barber Graduate Studies 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**

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

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

Conference Awards

Conference Travel Award, *Duke University* **2022**

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**

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

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

Poster Presentations

Sinclair, A.H., Wang, Y.C., & Adcock, R.A. (2022, Nov). Early and late rewards bias value memory and preferences over distinct timescales. *Psychonomic Society*, Boston, MA.

Sinclair, A.H., Wang, Y.C., & Adcock, R.A. (2022, Apr). First impressions: Early rewards in episodes bias value memory and preferences. *Cognitive Neuroscience Society*, San Fran., CA.

Sinclair, A.H.*, Wright, R.*, Hsiung, A.*, Hakimi, S., & Adcock, R.A. (2022, Apr). Downside of doom scrolling: Pausing to reflect influences information seeking and enhances memory. *Cognitive Neuroscience Society*, San Fran., CA. **Denotes equal contribution.*

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.

Poster Presentations (continued)

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., & Adcock, R.A., & Barense, M. D. (2019, Nov). Surprising event boundaries modulate hippocampal activity & distort episodic memories. *Psychonomic Society*, Montreal, QC.

Sinclair, A.H., Manalili, G.M., Adcock, R.A., & Barense, M. D. (2019, Oct). Prediction errors at event boundaries drive episodic memory reconsolidation. *Society for Neuroscience*, Chicago, IL. ***Trainee Professional Development 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. (2017, Oct). Surprise and destabilize: Prediction error triggers episodic memory updating. *Society for Neuroscience*, Washington, DC.

Conference & Invited Talks

Sinclair, A.H., Wang, Y.C., & Adcock, R.A. (2023, Apr). Instructed motivational states bias reinforcement learning and memory formation. *Learning & Memory*, Huntington Beach, CA.

Sinclair, A.H., Hakimi, S., Stanley, M.S., Adcock. R.A., Samanez-Larkin, G.R. (2022, Feb). Lab and real-world interventions to correct pandemic-related risk perception. *Center for Cognitive Neuroscience Colloquium Series*, Duke University.

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.

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.

Service & Outreach

Ad Hoc Reviewer — *Psychological Science, Nature Communications, Journal of Cognitive Neuroscience, Learning & Memory, npj Science of Learning, Cognition, Learning & Motivation, Memory & Cognition, Neuropsychologia, Journal of Applied Research on Memory and Cognition, WIREs Cognitive Science, Personality Science, Frontiers in Psychology*

Nominated Representative — *Graduate Student Affairs, Duke University* 2019-2023
Student Liaison to the Graduate School, representing the Cognitive Neuroscience Program.

Program Coordinator & Mentor — *Cognitive Neuroscience Research Internship* 2020-2023
Contributed to developing and leading a research internship program that provides equitable and accessible research opportunities for undergraduate students from historically underrepresented backgrounds. Lectured, mentored, performed administration, and obtained funding.

Service Learning Facilitator — *Neuroscience Service Learning Course, Duke University* 2021
Contributed to developing and facilitating a new service learning course. Forged new connections with local community partners that support K-8 children in underserved neighborhoods. Oversaw the design, production, and donation of educational activity kits that introduce children to neuroscience.

Mentor — *Científico Latino: Graduate School Mentorship Initiative* 2019-2022
Guided 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.

Skills

- fMRI data collection & analysis (**FSL**, **SPM**, **bash**, **fMRIprep**)
- Data analysis with **R** (proficient) & **Python** (intermediate)
- Task programming with **Qualtrics** (proficient), **Psychopy/Pavlovia** (proficient)
- Data visualization with **R** (proficient) & **Adobe Illustrator** (intermediate)

Affiliations

- Cognitive Neuroscience Society
- Society for Applied Research on Memory & Cognition
- Society for Neuroscience
- Psychonomic Society
- Society for Neuroeconomics

References

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

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

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