September 2025

EUNICE YIU

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Employment

Sept 2025 - present **University of California, Berkeley, Berkeley, CA**
Postdoctoral Fellow, Department of Psychology
Advisor: Alison Gopnik

Education

Aug 2020 – August 2025 **University of California, Berkeley, Berkeley, CA**
Ph.D. in Psychology
Dissertation: Relational Reasoning in Children and Machines: Insights into Causal Generalization and Innovation
Committee: Alison Gopnik, Jitendra Malik, Steve Piantadosi & Shiry Ginosar

Aug 2016 – May 2020 **Cornell University, Ithaca, NY**
B.A. in Psychology (Magna Cum Laude), Biological Sciences (Magna Cum Laude), and Economics; Cumulative GPA: 3.996/4.0

Grants & Fellowships

2025-2026 **Canadian Institute for Advanced Research Next Generation Trainee Fellowship for the Learning in Machines & Brains program**
Amount: $10,000 CAD

2025-2026 **7th Google - Berkeley Artificial Intelligence Research Commons Grant**
Title: Teaching Causal Tool Use to Vision–Language Models with Human Development Data
Amount: TBD

2025 **Departmental Semester Fellowship at UC Berkeley**
Amount: $18,750

2024-2025 **6th Google - Berkeley Artificial Intelligence Research Commons Grant**
Title: Learning and Optimizing Causal Structures through Intrinsic Objectives: A Comparative Study of Human and Artificial Agents
Amount: $41,000 (with $20,000 in Google Cloud Credits)

2023-2024 **5th Meta - Berkeley Artificial Intelligence Research Commons Grant**
Title: A Curriculum for Foundational AI Models Inspired by Human Cognition
Amount: $35,000

2023, 2025 **Berkeley Graduate Division Conference Travel Grant**
Amount: $1500 (each year)

Honors & Awards

2025	**Society for Research in Child Development SECC Poster Competition Winner** Poster Title: Thinking Step-by-Step Facilitates Visual Analogical Reasoning in Children and Adults
2023	**Curiosity, Creativity and Complexity Conference Travel Award**, Columbia University Poster Title: Discovering New Functions in Everyday Tools By Children, Adults and LLMs
2023	**Computational Cognitive Models of Learning and Development Workshop Travel Award**, Harvard University
2020	**Phi Beta Kappa**, Chapter of Cornell University Honor Society Membership for top 10% graduating class
2020	**T.A. Ryan Award** , Cornell University Best Undergraduate Honors Project in Psychology Thesis Title: Does Toddler Mental Rotation Relate to Their Processing Strategies and Play?
2020	**Robert R. Capranica Award**, Cornell University (Undergraduate Research Award for Outstanding Thesis in Neuroethology) Thesis Title: The Relationship between Spatial Occupancy Time & Firing Patterns of Hippocampal CA1 Neurons in Response to Changes in the Social Context

Publications

* equal contribution, † undergraduate mentee

1. **Yiu, E.**, Allen, K.R., Ginosar, S., & Gopnik, A. (*in press*). Empowerment Gain and Causal Model Construction: Children and adults are sensitive to controllability and variability in their causal generalization and interventions. *Philosophical Transactions of the Royal Society A*. (Special Issue: World models, A(G)I, and the Hard problem(s) of life–mind continuity).
2. Dahmani, A.*, **Yiu, E.***, & Gopnik, A. (*2025*). Children Spontaneously Design Curricula to Tackle Challenging Tasks. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 47).
3. **Yiu, E.,** Qraitem, M., Wong, C.†, Majhi, A. N.†, Bai, Y., Ginosar, S., ... & Saenko, K. (2025). KiVA: Kid-inspired visual analogies for testing large multimodal models. In *International Conference on Learning Representations*.
4. Goddu, M. K.*, **Yiu, E.***, & Gopnik, A. (2024). Causal relational problem solving in toddlers. *Cognition*, *254*, 105959.
5. **Yiu, E.**, Kosoy, E., & Gopnik, A. (2024). Transmission versus truth, imitation versus innovation that large language and language-and-vision models cannot (yet). *Perspectives on Psychological Science*, 17456916231201401.
6. **Yiu, E.***, Sandbrink, K. J.*, & Gopnik, A. (2024). To observe or to bet? Investigating purely exploratory and purely exploitative actions in children, adults, and computational models. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 46).
7. Wu, W. Y., **Yiu, E.**, Ophir, A. G., & Smith, D. M. (2023). Effects of social context manipulation on dorsal and ventral hippocampal neuronal response. *Hippocampus*, *33*(7), 830-843.
8. **Yiu, E.**, Collins, J., & Gopnik, A. (2022). Three-Dimensional Object Completion in Humans and Computational Models. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 44).
9. Bambha, V. P., Beckner, A. G., Shetty, N., Voss, A. T., Xie, J., **Yiu, E.,** ... & Casasola, M. (2022). Developmental Changes in Children's Object Insertions during Play. *Journal of Cognition and Development*, 1-20.

Selected Conference Presentations

* equal contribution, † undergraduate mentee

1. **Yiu, E.**, Majhi, A.N.†, Allen, K.R., Ginosar, S., & Gopnik, A. (2025). Children use both controllability and variability for generalization (2025). Poster presented at the 46th Annual Meeting of the Cognitive Science Society; 2025 July 30-August 2; San Francisco, USA.
2. **Yiu, E.,** & Gopnik, A. Thinking Step-by-Step Facilitates Visual Analogical Reasoning in Children and Adults (2025). Poster presented at the Society for Research in Child Development; 2025 May 3; Minneapolis, MN, USA.
3. **Yiu, E.,** Qraitem, M., Wong, C.†, Majhi, A. N.†, Bai, Y., Ginosar, S., Gopnik, A. & Saenko, K. KiVA: Kid-inspired visual analogies for testing large multimodal models (2025). Poster presented at the Thirteenth International Conference on Learning Representations; 2025 April 24; Singapore.
4. **Yiu, E.,** Qraitem, M., Wong, C.†, Majhi, A. N.†, Bai, Y., Ginosar, S., … & Saenko, K. KiVA: Kid-inspired visual analogies for testing large multimodal models (2024). Spotlight talk presented at the Multimodal Algorithmic Reasoning Workshop at NeurIPS; 2024 December 15; Vancouver, Canada.
5. **Yiu, E.***, Sandbrink, K.*, Liu, E.†, & Gopnik, A. To observe or to bet? Investigating purely exploratory and purely exploitative actions in children, adults, and computational models (2023). Poster presented at the 45th Annual Meeting of the Cognitive Science Society; 2024 July 24-27; Rotterdam, The Netherlands.
6. **Yiu, E.**, Goddu, M., & Gopnik, A. Causal-functional Reasoning in Children and AI (2024). Talk presented at the Functions, relations, and abstractions in infants, preschoolers, and AI Symposium at Cognitive Development Society Conference; 2024 March 23; Pasadena, CA, USA.
7. **Yiu, E.***, Sandbrink, K.*, Liu, E.†, & Gopnik, A. Children prioritize purely exploratory actions in observe or bet tasks (2023). Poster presented at the Intrinsically Motivated Open-ended Learning Workshop at NeurIPS; 2023 December 16; New Orleans, LA, USA.
8. **Yiu, E.***, Dahmani, A.*, Lee, T. E., Ke, N. R., Kroemer, O., & Gopnik, A. Towards Understanding Automated Causal Curriculum Learning in Humans and Reinforcement Learning Agents (2023). Talk presented at the Interactive Causal Learning Conference; 2023 December 1-2; Boca Raton, FL, USA.
9. **Yiu, E.**, & Gopnik, A. Discovering New Functions in Everyday Tools by Children, Adults and LLMs (2023). Poster presented at the Curiosity, Creativity and Complexity Conference; 2023 May 23-25; Columbia University, NY, USA.
10. **Yiu, E.**, Collins, J., & Gopnik, A. Three-Dimensional Object Completion in Humans and Computational Models (2022). Talk presented at CogSci; 2022 July 28-30; Toronto, Canada.
11. **Yiu, E.**, Collins, J., & Gopnik, A. Symmetry Preference in 3D Object Completion (2022). Talk presented at From Neuroscience to Artificially Intelligent Systems (NAISys) Conference; 2022 April 5-9; Cold Spring Harbor Laboratory, NY, USA.

Invited Talks

2025	Cognitive Tools Lab (PI: Judith Fan), Stanford University, USA
2025	The Nature of Intelligence Workshop, Santa Fe Institute, USA
2025	Early Learning and Cognition Lab (PI: Caren Walker), UC San Diego, USA
2025	Computation, Cognition and Development Lab (PI: Tomer Ullman), Harvard University, USA
2024	Language and Cognition Lab (PI: Michael Frank), Stanford University, USA
2024	AI, Psychology and Neuroscience Summer Cluster, Simons Institute for the Theory of Computing, USA
2024	Brain Science and Large Language Models Symposium, Leopoldina and Max Planck Institute for Brain Research, Germany (media coverage: *Frankfurter Allgemeine Zeitung*)

Teaching Experience

Graduate Student Instructor

Fall 2023	**PSYCH101: Research and Data Analysis in Psychology**
	Instructor: Arman Catteron, UC Berkeley
Fall 2021	**PSYCH133: Psychology of Sleep**
	Instructor: Matthew Walker, UC Berkeley

Undergraduate Teaching Assistant

Spring 2019 –	**PHYS1101-1102: General Physics I-II**
Spring 2020	Instructor: Nicholas Taylor, Cornell University
Spring 2019	**HD3620: Human Bonding**
	Instructor: Cindy Hazan, Cornell University

Mentoring

Roles

2023-2025	Mentor, Research Experience Pathways, Berkeley Department of Psychology
2022-2024	Mentor, Summer Undergraduate Program in Engineering Research at Berkeley (SUPERB), Berkeley Artificial Intelligence Research

Mentorship Highlights

Wei Gao (2023-2024): Master's student at Harvard University, Learning Design, Innovation & Technology Program
Miranda Zhang (2024): Master's student at Harvard University, Department of Education
Kai Hung (2022): PhD student at MIT, Institute of Data, Systems and Society
Fei Dai (2022): PhD student at UC Berkeley, Department of Psychology
Yuki Bian (2021-2022): Product Manager at Roblox
Iran Torres Aleman (2021-2023): Master's in Public Health at UC Berkeley, Class of 2025

Complete List of Mentees

Berkeley undergraduates (‡ supervised honors thesis)

Amaan Ali (present)	Anisa Noor Majhi (present)	Emma Gurevich (present)
Janna Umagat (present)	Kaydee Manikhong (present)	Ray Huang‡ (present)
Verena Ghobrial (present)	Seyeon Min (present)	Nitya Sriram (2023-2025)
Shivalika Jhabua (2023-2025)	Benel Higuchi (2023-2024)	Yuna Lee (2023-2024)
Wei Gao (2023-2024)	Hillary Peng Sim (2023-2024)	Charlie Wong (2023-2024)
Sophia Liu (2022-2024)	Megan Lui (2021-2024)	Miranda Zhang (2024)
Azzurra Cappuccini (2022-2023)	Eileen Liu‡ (2022-2023)	Iran Torres Aleman‡ (2021-2023)
Luc LaMontagne (2021-2023)	Yuki Bian (2021-2022)	

Non-Berkeley undergraduates (summer interns)

Alexis Davis (2024; Howard University)	Kate Choi (2024; Yale University)	Linda Marie Trevino (2024; UT Austin)
Nicole Fan (2024; Cornell University)	Nora Chen (2024; UC San Diego)	Jalaya Allen (2023; Northfolk State University)
Xuan Ma (2023; Bard College)	Fei Dai (2022; UC San Diego)	Kai Hung (2022; Rice University)
Julia Olson (2022; University of Oregon)	Henry Lawrence (2021; Gonzaga University)	

Professional Service

Conference Reviewer

Cognitive Science	Cognitive Science Society (CogSci), Budapest CEU Conference on Cognitive Development (BCCCD)
Artificial Intelligence	Conference on Language Modeling (COLM), Association for Computational Linguistics (ACL), Conference on Computer Vision and Pattern Recognition (CVPR)

Co-Organized Workshops and Challenges

in prep for 2026	Simons Institute for the Theory of Computing: AI, Psychology and Neuroscience Summer Cluster
in prep for 2026	Cognitive Development Society (CDS) Preconference Workshop: A Unified Account of Motivation in Development
2025	Kid-inspired Visual Analogies (KiVA) Challenge (multi-month competition), Guest Track Challenge at Google DeepMind's Third Perception Test Workshop, International Conference on Computer Vision (ICCV)
2024	Cognitive Development Society (CDS) Preconference Workshop: AI & Cognitive Development

Professional Development

2024	Diverse Intelligences Summer Institute, St. Andrews, Scotland, UK
2023	Computational Cognitive Models of Learning and Development Workshop, Harvard University, Cambridge, USA
2022	Brains, Minds and Machines Summer Course, Woods Hole, USA

Programming Skills

- Python (PyTorch, NumPy, Pandas, Matplotlib, PyGame)
- R (statistical analysis, data visualization, Bayesian modeling with Stan)
- Matlab (statistical analysis, computational modeling)
- JavaScript / jsPsych (online behavioral experiment design)
- HTML/CSS (web-based experiment interfaces and project sites)
- GitHub, Google Cloud & Firebase (collaborative coding, online data collection and storge)