Mark K Ho

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codec-lab.github.io

Employment

2024– New York University
Assistant Professor, Psychology
Affiliated Faculty, Computer Science and Center for Data Science

2023–24 Stevens Institute of Technology
Assistant Professor, Computer Science

2022–23 New York University
Faculty Fellow, Center for Data Science

2020–22 Princeton University
Postdoctoral Researcher, Computer Science

2018–20 University of California, Berkeley
Postdoctoral Researcher, Electrical Engineering and Computer Sciences

Education

2018 Ph.D., Cognitive Science, Brown University

2015 M.S., Computer Science, Brown University

2014 M.S., Cognitive Science, Brown University

2011 B.A., Philosophy, Princeton University

2007 Bronx High School of Science

Grants and Funding

2026–29 Office of Naval Research Young Investigator Award
Assessing and optimizing mental model fluency. $750,000. Role: PI.

2026–29 Toyota Research Institute
Cognition-Aware Co-adaptation with Humans. $938,419. Role: PI.

2026 NYU Google Cloud Platform for Research Grants Program
Training and evaluating machine-learning models on human-like social reasoning. $20,000. Role: Co-I (PI: M. Dillon).

2025–26 Defense Advanced Research Projects Agency (DARPA)
Predicting Algorithmic Trust at Scale. $887,716 subaward; $1,722,222 total. Role: Co-PI (lead PI: T. Griffiths, Princeton).

2024–26 Toyota Research Institute
Optimal Teaching Strategies for Humans in Hybrid Domains. $420,440. Role: PI.

2024–27 National Science Foundation, CISE Research Initiation Initiative (CRII)
Formalizing Human-Interpretable Machine Learning. $175,000. Role: PI.

Awards and Honors

2026 Young Investigator Award, Office of Naval Research

2021 Outstanding Paper Award, NeurIPS

2019 Fellow, Diverse Intelligences Summer Institute

2017 Best Paper Award, RLDM

Top Presentation Award, New York Academy of Sciences Machine Learning Symposium

Lorrin A. Riggs Dissertation Fellowship, Brown University

2016 Peter D. Eimas Graduate Research Award, Brown University

2014 Graduate Research Fellowship, National Science Foundation

Open Graduate Education Fellowship, Brown University

2012 Betty R. H. and James M. Pickett Fellowship, Brown University

Journal Articles

* equal contribution † equal senior authorship

Under review

26. Kuperwajs, I., **Ho, M.K.**, & Ma, W.J. (under review). Heuristics for meta-planning from a normative model of information search.

25. Su, E., Srinivasan, D., **Ho, M.K.**, & Gureckis, T.M. (under review). Language Reshapes Experiential Learning in Humans and Machines.

In preparation

24. Olieslagers, J. & **Ho, M.K.** (in prep). Interactions between tree search and task simplification in planning.

23. Zhang, M.Y., Malaviya, M., Leslie, S.J., Rhodes, M., & **Ho, M.K.** (in prep). Generic language as a source of abstract conceptual knowledge.

Published

22. Harootonian, S., Griffiths, T.L., Niv, Y., & **Ho, M.K.** (2026). Mentalizing and heuristics as distinct cognitive strategies in human teaching. *Nature Human Behaviour*. https://doi.org/10.1038/s41562-026-02540-2

21. Abel, D. & **Ho, M.K.** (2026). The syntax and semantics of goals. *Topics in Cognitive Science*, e70082. https://doi.org/10.1111/tops.70082

20. Dubey, R., **Ho, M.K.**, Mehta, H., & Griffiths, T. (2026). Aha! moments correspond to metacognitive prediction errors. *Cognition*, *274*, 106537. https://doi.org/10.1016/j.cognition.2026.106537

19. Wu, C.M., Deffner, D., Kahl, B., Meder, B., **Ho†, M.K.**, & Kurvers†, R.H. (2025). Adaptive mechanisms of social and asocial learning in immersive collective foraging. *Nature Communications*, *16*, 3539. https://doi.org/10.1038/s41467-025-58365-6

18. Schulze, C., Aka, A., Bartels, D.M., Bucher, S.F., Embrey, J.R., Gureckis, T.M., …, **Ho, M.K.**, …, Newell, B.R. (2025). A timeline of cognitive costs in decision-making. *Trends in Cognitive Sciences*, *29*(9), 827–839. https://doi.org/10.1016/j.tics.2025.04.004

17. Correa, C.G., Sanborn, S., **Ho, M.K.**, Callaway, F., Daw, N.D., & Griffiths, T.L. (2025). Exploring the hierarchical structure of human plans via program generation. *Cognition*, *255*, 105990. https://doi.org/10.1016/j.cognition.2024.105990

16. Arumugam*, D., **Ho*, M.K.**, Goodman, N.D., & Van Roy, B. (2024). Bayesian reinforcement learning with limited cognitive load. *Open Mind*, *8*, 395–438. https://doi.org/10.1162/opmi_a_00132

15. Collins, K.M., Sucholutsky, I., Bhatt, U., Chandra, K., Wong, L., Lee, M., …, **Ho, M.K.**, …, Griffiths, T.L. (2024). Building Machines that Learn and Think with People. *Nature Human Behaviour*, *8*(10), 1851–1863. https://doi.org/10.1038/s41562-024-01991-9

14. Allen, K., Brändle, F., Botvinick, M., Fan, J.E., Gershman, S.J., Gopnik, A., …, **Ho, M.K.**, …, Schulz, E. (2024). Using games to understand the mind. *Nature Human Behaviour*, *8*(6), 1035–1043. https://doi.org/10.1038/s41562-024-01878-9

13. Sumers, T., **Ho, M.K.**, Griffiths, T.L., & Hawkins, R. (2024). Reconciling truthfulness and relevance as epistemic and decision-theoretic utility. *Psychological Review*, *131*(1), 194–230. https://doi.org/10.1037/rev0000437

12. **Ho, M.K.**, Cohen, J.D., & Griffiths, T.L. (2023). Rational Simplification and Rigidity in Human Planning. *Psychological Science*, *34*(11), 1281–1292. https://doi.org/10.1177/09567976231200547

11. Sumers, T.R., **Ho, M.K.**, Hawkins, R.D., & Griffiths, T.L. (2023). Show or tell? Exploring when (and why) teaching with language outperforms demonstration. *Cognition*, *232*, 105326. https://doi.org/10.1016/j.cognition.2022.105326

10. Correa, C.G., **Ho, M.K.**, Callaway, F., Daw, N.D., & Griffiths, T.L. (2023). Humans decompose tasks by trading off utility and computational cost. *PLOS Computational Biology*, *19*(6), e1011087. https://doi.org/10.1371/journal.pcbi.1011087

9. **Ho, M.K.**, Abel, D., Correa, C.G., Littman, M.L., Cohen, J.D., & Griffiths, T.L. (2022). People construct simplified mental representations to plan. *Nature*, *606*(7912), 129–136. https://doi.org/10.1038/s41586-022-04743-9

8. **Ho, M.K.**, Saxe, R., & Cushman, F. (2022). Planning with Theory of Mind. *Trends in Cognitive Sciences*, *26*(11), 959–971. https://doi.org/10.1016/j.tics.2022.08.003

7. **Ho, M.K.** & Griffiths, T.L. (2022). Cognitive science as a source of forward and inverse models of human decisions for robotics and control. *Annual review of Control, Robotics, and Autonomous Systems*, *5*, 33–53. https://doi.org/10.1146/annurev-control-042920-015547

6. **Ho, M.K.**, Cushman, F., Littman, M.L., & Austerweil, J.L. (2021). Communication in action: Planning and interpreting communicative demonstrations. *Journal of Experimental Psychology: General*, *150*(11), 2246–2272. https://doi.org/10.1037/xge0001035

5. Gates*, V., Callaway*, F., **Ho, M.K.**, & Griffiths, T. (2021). A rational model of people's inferences about others' preferences based on response times. *Cognition*, *217*, 104885. https://doi.org/10.1016/j.cognition.2021.104885

4. Sarin, A., **Ho, M.K.**, Martin, J.W., & Cushman, F.A. (2021). Punishment is organized around principles of communicative inference. *Cognition*, *208*, 104544. https://doi.org/10.1016/j.cognition.2020.104544

3. **Ho, M.K.**, Cushman, F., Littman, M.L., & Austerweil, J.L. (2019). People teach with rewards and punishments as communication, not reinforcements. *Journal of Experimental Psychology: General*, *148*(3), 520–549. https://doi.org/10.1037/xge0000569

2. **Ho, M.K.**, Abel, D., Griffiths, T.L., & Littman, M.L. (2019). The Value of Abstraction. *Current Opinion in Behavioral Sciences*, *29*, 111–116. https://doi.org/10.1016/j.cobeha.2019.05.001

1. **Ho, M.K.**, MacGlashan, J., Littman, M.L., & Cushman, F. (2017). Social is special: A normative framework for teaching with and learning from evaluative feedback. *Cognition*, *167*, 91–106. https://doi.org/10.1016/j.cognition.2017.03.006

Peer-Reviewed Conference Papers

In computer science, conference papers are full-length papers that undergo rigorous peer review and are published in formal proceedings. They are the field's primary venue for new work.

Under review

33. Banerjee, S., Gopinath, D.E., Yang, B., Sumner, E., Rosman, G., Vinitsky, E., & **Ho, M.K.** (under review). Inferring Cognitive Profiles with Cognition-Conditioned Deep Inverse Planning.

32. Yang, H.A., **Ho, M.K.**, & Thompson, B.D. (under review). Hypothesis-guided discovery of cognitive algorithms via program refinement.

Published

31. Btesh, V. & **Ho, M.K.** (2026). Let's be friends! People work together even when there is no incentive to do so. In *Proceedings of the 48th Annual Conference of the Cognitive Science Society*. https://doi.org/10.31234/osf.io/kg8de_v1

30. Malaviya, M. & **Ho, M.K.** (2026). Optimal and heuristic teaching in vast concept spaces. In *Proceedings of the 48th Annual Conference of the Cognitive Science Society*. https://escholarship.org/uc/item/68s7b1j2

29. Malaviya, M., Srinivasan, D., Collins, K.M., Sucholutsky, I., & **Ho, M.K.** (2026). Thinking time increases perceived trustworthiness of human but not AI advice. In *Proceedings of the 48th Annual Conference of the Cognitive Science Society*. https://escholarship.org/uc/item/6ds1p9rf

28. Cao, A., **Ho, M.K.**, & Rehder, R. (2026). Abstraction Modulates Judgments of Intentional Action. In *Proceedings of the 48th Annual Conference of the Cognitive Science Society*. https://escholarship.org/uc/item/4nx7f7hc

27. Yang, H.A., **Ho, M.K.**, & Thompson, B.D. (2026). Spontaneous meta-learning of efficient problem-solving algorithms. In *Proceedings of the 48th Annual Conference of the Cognitive Science Society*. https://escholarship.org/uc/item/9sw813q0

26. Banerjee, S., Cornelisse, D., Gopinath, D., Sumner, E., DeCastro, J., Rosman, G., …, **Ho, M.K.** (2025). Estimating cognitive biases with attention-aware inverse planning. In *Advances in Neural Information Processing Systems* (Vol. 38). https://doi.org/10.52202/085713-0489
    ▸ ***Spotlight presentation*** *(3.2% of 21,575 submissions)*

25. Zhang, M.Y., Leslie, S.J., Rhodes, M., & **Ho, M.K.** (2025). Learning about Inductive Potential from Generic Statements. In *Proceedings of the 47th Annual Conference of the Cognitive Science Society*. https://escholarship.org/uc/item/2rs3j5vq

24. Su, E., **Ho, M.K.**, & Gureckis, T.M. (2025). Integration of Language and Experience via the Instructed Bandit Task. In *Proceedings of the 47th Annual Conference of the Cognitive Science Society*. https://escholarship.org/uc/item/1j746305

23. Pennisi, B., Budiono, R., Gureckis, T.M., & **Ho, M.K.** (2024). Investigating Flexible Role Binding in AI Agents. In *Proceedings of the 46th Annual Conference of the Cognitive Science Society*. https://escholarship.org/uc/item/72s1k52q

22. Abel, D., **Ho, M.K.**, & Harutyunyan, A. (2024). Three Dogmas of Reinforcement Learning. In *Proceedings of the Reinforcement Learning Conference* (Vol. 2, pp. 629–644). https://doi.org/10.48550/arXiv.2407.10583

21. Rane, S., **Ho, M.K.**, Sucholutsky, I., & Griffiths, T.L. (2024). Concept Alignment as a Prerequisite for Value Alignment. In *Proceedings of the 46th Annual Conference of the Cognitive Science Society*. https://doi.org/10.48550/arXiv.2310.20059

20. Peng, A., Netanyahu, A., **Ho, M.K.**, Shu, T., Bobu, A., Shah, J., & Agrawal, P. (2023). Diagnosis, feedback, adaptation: A human-in-the-loop framework for test-time policy adaptation. In *Proceedings of the 40th International Conference on Machine Learning* (Vol. 202, pp. 27630–27641). https://doi.org/10.48550/arXiv.2307.06333
▸ ***Poster presentation*** *(27.9% of 6,538 submissions)*

19. Sumers, T.R., Hawkins, R.D., **Ho, M.K.**, Griffiths, T.L., & Hadfield-Menell, D. (2022). How to talk so AI will learn: Instructions, descriptions, and autonomy. In *Advances in Neural Information Processing Systems* (Vol. 35, pp. 34762–34775). https://doi.org/10.52202/068431-2519
▸ ***Poster presentation*** *(25.7% of 10,411 submissions)*

18. Abel, D., Dabney, W., Harutyunyan, A., **Ho, M.K.**, Littman, M., Precup, D., & Singh, S. (2021). On the Expressivity of Markov Reward. In *Advances in Neural Information Processing Systems* (Vol. 34, pp. 7799–7812). https://doi.org/10.48550/arXiv.2111.00876
▸ ***Outstanding Paper Award*** *(0.07% of 9,122 submissions)*

17. Sumers, T.R., **Ho, M.K.**, Hawkins, R.D., Narasimhan, K., & Griffiths, T.L. (2021). Learning rewards from linguistic feedback. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 35, pp. 6002–6010). https://doi.org/10.1609/aaai.v35i7.16749
▸ ***Poster presentation*** *(21.4% of 7,911 submissions)*

16. Sumers, T.R., Hawkins, R.D., **Ho, M.K.**, & Griffiths, T.L. (2021). Extending rational models of communication from beliefs to actions. In *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. https://doi.org/10.48550/arXiv.2105.11950

15. Wu, C.M., **Ho, M.K.**, Kahl, B., Leuker, C., Meder, B., & Kurvers, R.H. (2021). Specialization and selective social attention establishes the balance between individual and social learning. In *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. https://doi.org/10.1101/2021.02.03.429553

14. **Ho, M.K.**, Abel, D., Cohen, J., Littman, M., & Griffiths, T. (2020). The efficiency of human cognition reflects planned information processing. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 34, pp. 1300–1307). https://doi.org/10.1609/aaai.v34i02.5485
▸ ***Oral presentation*** *(5.9% of 7,737 submissions)*

13. Correa*, C.G., **Ho***, **M.K.**, Callaway, F., & Griffiths, T.L. (2020). Resource-rational task decomposition to minimize planning costs. In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society* (pp. 2974–2980). https://doi.org/10.48550/arXiv.2007.13862

12. Sumers, T.R., **Ho, M.K.**, & Griffiths, T.L. (2020). Show or tell? Demonstration is more robust to changes in shared perception than explanation. In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society* (pp. 3073–3079). https://doi.org/10.48550/arXiv.2012.09035

11. Wang, G., Trimbach, C., Lee, J.K., **Ho, M.K.**, & Littman, M.L. (2020). Teaching a robot tasks of arbitrary complexity via human feedback. In *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction* (pp. 649–657). https://doi.org/10.1145/3319502.3374824
▸ ***Oral presentation*** *(23.6% of 279 submissions)*

10. **Ho, M.K.**, Korman, J., & Griffiths, T.L. (2019). The computational structure of unintentional meaning. In *Proceedings of the 41st Annual Conference of the Cognitive Science Society* (pp. 1915–1921). https://doi.org/10.48550/arXiv.1906.01983

9. Carroll, M., Shah, R., **Ho, M.K.**, Griffiths, T., Seshia, S., Abbeel, P., & Dragan, A. (2019). On the utility of learning about humans for human-ai coordination. In *Advances in Neural Information Processing Systems* (Vol. 32). https://doi.org/10.48550/arXiv.1910.05789
▸ ***Poster presentation*** *(21.2% of 6,743 submissions)*

8. **Ho, M.K.**, Littman, M.L., Cushman, F., & Austerweil, J.L. (2018). Effectively learning from pedagogical demonstrations. In *Proceedings of the 40th Annual Conference of the Cognitive Science Society* (pp. 505–510). https://escholarship.org/uc/item/16v54626

7. Vazquez-Chanlatte, M., Jha, S., Tiwari, A., **Ho, M.K.**, & Seshia, S. (2018). Learning task specifications from demonstrations. In *Advances in Neural Information Processing Systems* (Vol. 31). https://doi.org/10.48550/arXiv.1710.03875
▸ ***Poster presentation*** *(20.8% of 4,856 submissions)*

6. **Ho, M.K.**, Littman, M.L., & Austerweil, J.L. (2017). Teaching by Intervention: Working Backwards, Undoing Mistakes, or Correcting Mistakes? In *Proceedings of the 39th Annual Conference of the Cognitive Science Society* (pp. 526–531). https://escholarship.org/uc/item/8z48f0ms

5. MacGlashan, J., **Ho, M.K.**, Loftin, R., Peng, B., Wang, G., Roberts, D.L., …, Littman, M.L. (2017). Interactive learning from policy-dependent human feedback. In *Proceedings of the 34th International Conference on Machine Learning* (Vol. 70, pp. 2285–2294). https://doi.org/10.48550/arXiv.1701.06049
▸ ***Oral presentation*** *(25.9% of 1,676 submissions)*

4. **Ho, M.K.**, Littman, M., MacGlashan, J., Cushman, F., & Austerweil, J.L. (2016). Showing versus doing: Teaching by demonstration. In *Advances in Neural Information Processing Systems* (Vol. 29, pp. 3027–3035).
▸ ***Oral presentation*** *(1.9% of 2,425 submissions)*

3. **Ho, M.K.**, MacGlashan, J., Greenwald, A., Littman, M.L., Hilliard, E., Trimbach, C., …, Austerweil, J.L. (2016). Feature-based Joint Planning and Norm Learning in Collaborative Games. In *Proceedings of the 38th Annual Conference of the Cognitive Science Society* (pp. 1158–1163). https://escholarship.org/uc/item/6pt94203

2. Kleiman-Weiner, M., **Ho, M.K.**, Austerweil, J.L., Littman, M.L., & Tenenbaum, J.B. (2016). Coordinate to cooperate or compete: Abstract goals and joint intentions in social interaction. In *Proceedings of the 38th Annual Conference of the Cognitive Science Society* (pp. 1679–1684). https://escholarship.org/uc/item/29z7r7md

1. **Ho, M.K.**, Littman, M.L., Cushman, F., & Austerweil, J.L. (2015). Teaching with Rewards and Punishments: Reinforcement or Communication? In *Proceedings of the 37th Annual Conference of the Cognitive Science Society* (pp. 920–925). https://escholarship.org/uc/item/90k992w4

Book Chapters

2. Chater, N., Griffiths, T.L., & **Ho, M.K.** (2024). From probabilities to actions. In T.L. Griffiths, N. Chater, & J. Tenenbaum (Eds.), *Bayesian Models of Cognition: Reverse Engineering the Mind*. MIT Press. https://doi.org/10.7551/mitpress/8765.003.0010

1. Cushman, F.A., Sarin, A., & **Ho, M.K.** (2021). Punishment as communication. In J. Doris & M. Vargas (Eds.), *Oxford handbook of moral psychology*. Oxford University Press. https://doi.org/10.31234/osf.io/wf3tz

Peer-Reviewed Workshop Papers

5. Harootonian, S.K., **Ho, M.K.**, Griffiths, T.L., Niv, Y., & Sucholutsky, I. (2026). Do Large Language Models Mentalize When They Teach? *ICLR Workshop*. https://doi.org/10.48550/arXiv.2604.01594

4. Li, J., Robinson, S., Gruver, N., Allen, K.R., Radulescu, A., **Ho, M.K.**, & Sucholutsky, I. (2026). Why LLMs Choose Bad Plans: Miscalibrated Capability Beliefs and Their Cost for Planning. *COLM Workshop*.

3. Sucholutsky, I., Collins, K.M., Malaviya, M., Jacoby, N., Liu, W., Sumers, T.R., …, **Ho, M.K.**, …, Griffiths, T.L. (2025). Representational Alignment Supports Effective Teaching. *AAAI Workshop*. https://doi.org/10.48550/arXiv.2406.04302

2. Arumugam, D., **Ho, M.K.**, Goodman, N.D., & Van Roy, B. (2022). On rate-distortion theory in capacity-limited cognition and reinforcement learning. *NeurIPS Workshop*. https://doi.org/10.48550/arXiv.2210.16877

1. Abel, D., Barreto, A., Bowling, M., Dabney, W., Hansen, S., Harutyunyan, A., …, **Ho, M.K.**, …, Singh, S. (2022). Expressing non-markov reward to a markov agent. *RLDM*.

Peer-Reviewed Conference Abstracts

21. Yang, B. & **Ho, M.K.** (2026). Attentional Strategies in Social Coordination. *CCN*.

20. Olieslagers, J. & **Ho, M.K.** (2026). Interactions between Tree Search and Task Simplification in Planning. *CCN*.

19. Fayyazi, R., Hartley, C., & **Ho, M.K.** (2026). Planning and Remembering in Partially Observable Settings. *CCN*.

18. Li, J., **Ho, M.K.**, & Radulescu, A. (2026). Do You Know What You Can Do? Measuring Self-Efficacy in Sequential Decision Making. *CCN*.

17. Holton, E., **Ho, M.K.**, & Niv, Y. (2026). Goal-Pursuit Strategies in Volatile Environments. *CCN*.

16. Yasuda, S., **Ho, M.K.**, & Dillon, M.R. (2026). The Baby Intuitions Benchmark 2: Evaluating Social Intelligence in Humans and Machines. *CCN*.

15. Srinivasan, D., Su, E., **Ho, M.K.**, & Gureckis, T.M. (2026). Timing of Guidance Shapes Experiential Learning. *CCN*.

14. **Ho, M.K.** & Gureckis, T. (2023). Learning from Language and Experience. *CCN*. https://doi.org/10.32470/ccn.2023.1514-0

13. Rane, S., **Ho, M.K.**, Sucholutsky, I., & Griffiths, T. (2023). Concept Alignment as a Prerequisite for Value Alignment. *Social Intelligence in Humans and Robots workshop, RSS*.

12. **Ho, M.K.**, Cohen, J.D., & Griffiths, T. (2022). Construal Set Selection and Rigidity in Planning. *CCN*. https://doi.org/10.32470/ccn.2022.1146-0

11. Harootonian, S., **Ho, M.K.**, Klevak, N., & Niv, Y. (2022). The best advice you can give. *CCN*. https://doi.org/10.32470/ccn.2022.1297-0
    ▸ ***Contributed talk***

10. **Ho, M.K.**, Abel, D., Cohen, J.D., Littman, M.L., & Griffiths, T.L. (2019). Optimal planning to plan: People partially plan based on plan specificity. *CCN*. https://doi.org/10.32470/ccn.2019.1423-0

9. Seshia, S., Griffiths, T., **Ho, M.K.**, & Vazquez-Chanlatte, M. (2019). Learning and Teaching Task Specifications from Demonstrations. *NSF Cyber-Physical Systems PI Meeting*.

8. **Ho, M.K.**, Sanborn, S., Callaway, F., Bourgin, D., & Griffiths, T. (2018). Human Priors in Hierarchical Program Induction. *CCN*. https://doi.org/10.32470/ccn.2018.1265-0

7. Vazquez-Chanlatte, M., **Ho, M.K.**, Griffiths, T., & Seshia, S. (2018). Communicating Compositional and Temporal Specifications by Demonstration. *IFAC Conference on Cyber-Physical and Human-Systems*.

6. **Ho, M.K.**, Littman, M., MacGlashan, J., Cushman, F., & Austerweil, J.L. (2017). Showing versus Doing: Teaching by Demonstration. *CCN*.

5. **Ho, M.K.**, Littman, M.L., MacGlashan, J., Cushman, F., & Austerweil, J.L. (2017). Human Teaching by Demonstration: Showing versus Doing Reinforcement Learning Tasks. *NYAS Machine Learning Symposium*.
    ▸ ***Top Presentation Award***

4. Kleiman-Weiner, M., **Ho, M.K.**, Austerweil, J.L., Littman, M.L., & Tenenbaum, J. (2017). Learning to Cooperate and Compete. *RLDM*.
    ▸ ***Best Paper Award***

3. **Ho, M.K.**, Littman, M.L., Cushman, F., & Austerweil, J.L. (2016). Generous Teachers: Evaluative Feedback as Communication. *SPSP*.

2. **Ho, M.K.**, Littman, M.L., Cushman, F., & Austerweil, J.L. (2015). Evaluative Feedback: Reinforcement or Communication? *RLDM*.

1. **Ho, M.K.** & Cushman, F. (2013). Modeling Social Learning and Working Memory Use. *CogSci*.

Invited Talks

2027	Reinforcement Learning and Decision Making Conference (RLDM), Paris
	Cognitive Sciences Colloquium, UC Irvine
2026	Institute for Language, Cognition and Computation, University of Edinburgh
	Annual Symposium on Computational Neuroscience, NYU
	UT Southwestern Computational Biology Seminar
2025	UC Berkeley Cognition colloquium

2025	Indiana University CogSci colloquium
	Finding the Frame workshop, RLC
	Reasoning Across Minds and Machines workshop, CogSci
	Meta-reasoning workshop, CogSci
	Representational Alignment and Aging workshop, RLDM
2024	Social and Affective Processes Seminar, Columbia University
	Consortium for Interacting Minds, Dartmouth College
	Multimodal Algorithmic Reasoning workshop, CVPR (keynote)
	Center for Cognitive Computation of the Central European University
	Stanford Vision and Learning Lab (Fei-Fei Li, Jiajun Wu)
	Collaborative AI and Modeling of Humans workshop, AAAI (panelist)
	Department of Psychology, New York University
2023	Hitchcock and Treadway labs, Emory University
	Motivation Lab (Gabriele Oettingen, Peter Gollwitzer), New York University
	Triennial Invitational Choice Symposium, INSEAD, Fontainebleau
	Theory of Mind workshop, ICML
	Diverse Intelligences Summer Institute (DISI), St Andrews
	Social Intelligence in Humans and Robots workshop, RSS
	How Does the Mind Discover Useful Abstractions? workshop, CogSci (panel)
	Consciousness Club, Wellcome Centre for Human Neuroimaging, UCL
2022	Social Intelligence in Humans and Robots workshop, CoRL
	Center for Computational Psychiatry, Icahn School of Medicine at Mount Sinai
	Building Blocks of Human World Knowledge workshop, MIT
	Goldenberg and Jordan labs, Harvard Business School
	Social and Cognitive Computational Neuroscience Lab (Stefano Anzellotti), Boston College
	Basis Research Institute (Zenna Tavares), New York
	Concepts and Categories (ConCats) Seminar, New York University
	Center for Data Science Lunch Seminar, New York University
	Causal Cognition Lab (David Lagnado), UCL
	DeepMind, London
	Max Planck Institute for Biological Cybernetics
	COSMOS summer school, Konstanz
	Neurosymbolic Expeditions Project seminar (Armando Solar-Lezama), MIT
	Facebook Reality Labs
	Microsoft Research, New York
	RL4ED workshop, AAAI

2022 Department of Computer Science, New Jersey Institute of Technology
Department of Computer Science, Stevens Institute of Technology
Department of Psychology, University of Southern California

2021 Shenhav Lab, Brown University
Parallel Distributed Processing Seminar, Princeton University
Cognitive Science Brown Bag, Arizona State University
CINEMENTAS Workshop on Transparent Agency and Learning
Using Games to Understand Intelligence workshop, CogSci
Moral Psychology Research Lab (Fiery Cushman, Joshua Greene), Harvard University

2020 Computational Approaches to Social Cognition series, Harvard
Dartmouth Social Brain Brown Bag
Social Learning Lab (Hyowon Gweon), Stanford University
Computational Cognitive Neuroscience Lab (Anne Collins), UC Berkeley
Causality in Cognition Lab (Tobias Gerstenberg), Stanford University
Parallel Distributed Processing Seminar, Princeton University

2019 Center for Human-Compatible AI, UC Berkeley
VeHiCal NSF project meeting, UC Berkeley
Department of Cognitive Science, Central European University
Department of Computer Science, UNC Chapel Hill
Social-Ecological and Environmental Lab (Alexandra Paxton), University of Connecticut
Yale Cognitive Development Laboratory (Julian Jara-Ettinger)
Neuroscience of Social Decision-Making Seminar, Princeton University
Concepts and Categories Seminar, New York University
Project 6 Meeting (Jonathan Cohen), Princeton University

2018 Cognition/Neuroscience Seminar Series, Stanford University

2017 DREAM Seminar, UC Berkeley
Computational Cognitive Science Group (Josh Tenenbaum), MIT
Brown Robotics Group Meeting, Brown University

2016 Moral Psychology Research Lab (Fiery Cushman, Joshua Greene), Harvard University
HAMLET seminar, UW–Madison

Workshops Organized

2026 Naturalistic problem solving: theories, tasks, and methods
Community event at CCN. Co-organizer (with Liu, S., Nagy, D. G., Mills, T., Chen, T., Zhou, H., Ahmed, Z.).

Framing the problem: Abstraction and task representations in human problem solving
Workshop at CogSci. Co-organizer (with Nagy, D. G., Zhou, H., Liu, S., Mills, T., Chen, T., Ahmed, Z.).

2022 What is the place of planning?
Generative Adversarial Collaboration at CCN. Co-organizer (with MacIver, M., Daw, N. D., Espinosa, G., Hamrick, J. B., Redish, A. D., Stadie, B. C., Wang, J. X.).

Reinforcement Learning as a Model of Agency: Perspectives, Limitations, and Possibilities
Workshop at RLDM. Co-organizer (with Abel, D., Harutyunyan, A.).

2020 Cognition, Collectives, and Human Culture
Workshop at CogSci. Organizing committee and presenter (with Wu, C. M., Vélez N., & Goldstone, R. L.).

2016 Future of Interactive Learning Machines
Workshop at NeurIPS. Organizing and program committee (with Mathewson, K., Subramanian, K., Loftin, R., Austerweil, J. L., Harutyunyan, A., Precup, D., El Asri, L., Gombolay, M., Zhu, X., Chernova, S., Isbell, C. L., Pilarski, P. M., Wong, W. K., Veloso, M., Shah, J. A., Taylor, M., Argall, B., Littman, M. L.).

Teaching

2026 Bayesian Models of Cognition (PSYCH-GA 3405 002)
New York University, Department of Psychology

Computational Cognitive Science (PSYCH-UA.300-011), co-taught with T. Gureckis
New York University, Department of Psychology

2025 Lab in Cognition and Perception (PSYCH-UA.46), spring and fall
New York University, Department of Psychology

Computational Social Psychology (PSYCH-GA.3404)
New York University, Department of Psychology

2024 Readings in Reinforcement Learning and Sequential Decision-Making (CS-810-C)
Stevens Institute of Technology, Department of Computer Science

2023 Computational Cognitive Science (CS-810-C)
Stevens Institute of Technology, Department of Computer Science

2022 Capstone Project and Presentation (DS-GA 1006)
New York University, Center for Data Science

Advising

Postdoctoral researchers

2026– Sevan Harootonian
2026– Wasita Mahaphanit
2024– Marianna Zhang
2024– Sounak Banerjee

Ph.D. students

2026– Bonnie Yang
2026– Miguel Aaron Torres Adame
2026– Junxi Chen
2023– Maya Malaviya

Research staff and collaborators

2026– Divya Srinivasan (lab manager)
2025– Jing Li (graduate student collaborator, Mount Sinai)
2025– Ryan Fayyazi (graduate student collaborator)

Dissertation committees

2026 Sevan Harootonian (Princeton, external reader)
Cara Leong
Shannon Yasuda
Solim LeGris
Rheza Budiono
Tony Chen (MIT)
2025 Yangyang Yu (Stevens)
Elena Korshakova (Stevens)
Guy Davidson

Ph.D. advisory committees

2026 Sixing Chen (first, second, and third year)
Lukas Mayer (UC Irvine, second year)
Meghan Kalvey (first and second year)
Callie Cade (first and second year)
Ryan Fayyazi (first year)
2025 Duygu Yilmaz (first and second year)
Jules Oberschulte (first year)

Undergraduate and master's students

2026 Divya Srinivasan (master's thesis committee, Tandon)
Dariush Nashat (Gallatin colloquium committee, research assistant)
2025 Bonnie Yang (Barnard, Summer Research Institute)
Josh Geel (independent study, Dean's Undergraduate Research Fund recipient)
2024 Brian Pennisi (master's capstone and independent study, Center for Data Science)
2022 Albert Lin (Princeton, junior paper; now Ph.D. student, USC)
Daniel Ritter (Brown, undergraduate thesis)

Service

University and department

2026– Postdoc Liaison, NYU Psychology

2025 Faculty search committee member (social psychology), NYU Psychology

Reviewer, GSAS Dissertation Fellowship applications, New York University

2024 Faculty search committee member, Stevens Computer Science

Grant and award review

2024 Review panelist, NSF Collaborative Research in Computational Neuroscience (CRCNS)

Program committees

2020 Bridging AI And Cognitive Science (BAICS) workshop, ICLR
2017 Adaptive Learning Agents workshop, AAMAS

Ad hoc reviewer

Annual Meeting of Cognitive Science Society
Biology Letters
Cognition
Cognitive Science
Computational Brain & Behavior
Current Directions in Psychological Science
Journal of Experimental Psychology: General
Nature Human Behaviour
NeurIPS
PLOS Computational Biology
Proceedings of the National Academy of Sciences (PNAS)
Psychological Review
Social Cognition
Topics in Cognitive Science
Trends in Cognitive Sciences