

Rachit Dubey

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Academic Appointments

- July 2025– Assistant Professor, Department of Communication, UCLA
2024–25 Postdoctoral Research Fellow, Department of Computer Science, Princeton University
2023–24 Postdoctoral Research Fellow, MIT Sloan School of Management

Education

- 2018–23 Ph.D. in Computer Science, Princeton University
2015–18 M.S. in Education, University of California, Berkeley
2008–12 B.Eng. in Computer Science, Nanyang Technological University, Singapore

Awards

- 2025 Grand Prize Winner, NOMIS & Science Young Explorer Award
2024 The 2024 Society for the Neuroscience of Creativity Dissertation Award
2021 Princeton Energy and Climate Scholars fellowship
2020 Best reviewer award for the 37th International Conference on Machine Learning, ICML, 2020 [ranked top 10%]
2020 Best reviewer award for the 34th conference on Neural Information Processing Systems, 2020 [ranked top 8.5%]
2017 Graduate School of Education Fellowship Award, Block Grant Award
2016 Outstanding Graduate Student Instructor Award, University of California, Berkeley
2016 Marascuilo Fellowship Award
2016 Graduate School of Education Fellowship Award, Block Grant Award

Research Interests

General Areas: Computational Communication, Cognitive Psychology, Machine Learning

Application Areas: Climate Psychology, Climate Policy

Representative Publications

4. Liu, G., Snell, J., Griffiths, T.L., & **Dubey, R.** (2025). Binary climate data visuals amplify perceived impact of climate change. *Nature Human Behavior*, 1–10. [\[paper\]](#)
- Featured in *Guardian*: ‘Boiling frog’ effect makes people oblivious to threat of climate crisis
 - Featured in *Grist*: Scientists just found a way to break through climate apathy
 - Featured in *Gizmodo*: Study uncovers one thing that cuts through climate apathy: loss
 - Featured in *British Psychological Society*: Binary climate data makes people take notice
 - Featured in *UCLA Newsroom*: How to break through climate apathy
 - Invited Op-ed in *New Scientist*: Why climate change fades into the background

- Invited Op-ed in *Bulletin of the Atomic Scientists*: [Clear visuals make climate change hit home](#)
 - International coverage: [France](#), [Germany](#), [Greece](#), [Portugal](#)
3. **Dubey, R.**, Hardy, M., Griffiths, T.L., & Bhui R. (2024). AI-generated visuals of car-free US cities help improve support for sustainable policies. *Nature Sustainability*, 7(4), 399 – 403. [[paper](#)]
- Featured in *Bloomberg*: [The images that boost support for sustainable transportation](#)
 - Featured in *Washington Post*: [How to transform city streets](#)
 - Featured in *Sloan Ideas Made to Matter*: [Sustainable policies get a boost from gen-AI visuals](#)
2. Dulberg, Z., **Dubey, R.**, Berwian, I., & Cohen, J. (2023). Having “multiple selves” helps learning agents explore and adapt in complex changing worlds. *Proceedings of the National Academy of Sciences*, 120(28), e2221180120. [[paper](#)]
1. **Dubey, R.**, Griffiths, T.L., & Dayan, P. (2022). The pursuit of happiness: A reinforcement learning perspective on habituation and comparisons. *PLOS Computational Biology*, 18(8), e1010316. [[paper](#)]
- Featured in *Vox*: [How to deal with feelings of not being “good enough”](#)
 - Featured in *Neurologica*: [The Psychology of FOMO](#)
 - Featured in *DailyMail (UK)*: [Our brains are programmed to keep wanting more](#)
 - Featured in *Phys.Org*: [RL simulations show desire to want more may speed up learning](#)
 - Radio interview: [Deutschlandfunk \(German\)](#)

All Published Articles

24. **Dubey, R.** (2025). The normalization of (almost) everything. *Science*. [[link](#)]
23. Sukhov, N.*, **Dubey, R.***, Duke, A., & Griffiths, T.L (2025). When to keep trying and when to let go: Benchmarking optimal quitting. *Journal of Experimental Psychology: General*, 154(9), 2599-2618. [[link](#)]
22. Dulberg, Z., **Dubey, R.**, & Cohen, J. (2025). Adapting to loss: A computational model of grief. *Psychological Review*. [[link](#)]
21. Yu, D., Thompson, B. D., & **Dubey, R.** (2025). Leveraging AI to advance psychological research for climate policy. *Current Opinion in Behavioral Sciences*, 65, 101547. [[link](#)]
20. Liu, G., Snell, J., Griffiths, T.L., & **Dubey, R.** (2025). Binary climate data visuals amplify perceived impact of climate change. *Nature Human Behavior*, 1-10. [[link](#)]
19. Orchinik, R., **Dubey, R.**, Gershman, S., Powell, D., & Bhui, R. (2024). Learning from and about scientists: Consensus messaging shapes perceptions of climate change and climate scientists. *PNAS Nexus*, 3(11), page485 [[link](#)]
18. Bhui R. & **Dubey, R.** (2024). Why context should matter. *Decision*, 11(4), 557–567. [[link](#)]

17. **Dubey, R.**, Hardy, M., Griffiths, T.L., & Bhui R. (2024). AI-generated visuals of car-free US cities help improve support for sustainable policies. *Nature Sustainability*, 7(4), 399-403. [[link](#)]
16. Dulberg, Z., **Dubey, R.**, Berwian, I., & Cohen, J. (2023). Having “multiple selves” helps learning agents explore and adapt in complex changing worlds. *Proceedings of the National Academy of Sciences*, 120(28), e2221180120. [[link](#)]
15. Orchinik, R., **Dubey, R.**, Powell, D., Gershman, S., & Bhui, R. (2023). Learning About Scientists from Climate Consensus Messaging. In *Proceedings of the 45th Annual Conference of the Cognitive Science Society*. [[link](#)]
14. **Dubey, R.**, Griffiths, T.L., & Dayan, P. (2022). The pursuit of happiness: A reinforcement learning perspective on habituation and comparisons. *PLOS Computational Biology*, 18(8), e1010316. [[link](#)]
13. Dulberg, Z., **Dubey, R.**, Berwian, I.M., & Cohen, J.D. (2022). Modularity benefits reinforcement learning agents with competing homeostatic drives. In *Proceedings of the 5th Multidisciplinary Conference on Reinforcement Learning and Decision Making*. [[link](#)]
12. **Dubey, R.**, Griffiths, T.L., & Lombrozo, T. (2022). If it’s important, then I’m curious: Increasing perceived usefulness stimulates curiosity. *Cognition*, 226, 105193. [[link](#)]
11. **Dubey, R.***, Mehta, H.*, & Lombrozo, T. (2021). Curiosity is contagious: A social influence intervention to induce curiosity. *Cognitive Science*, 45(2), e12937. [[link](#)]
10. **Dubey, R.** & Griffiths, T.L. (2020). Understanding exploration in humans and machines by formalizing the function of curiosity. *Current Opinion in Behavioral Sciences*, 35, 118-124. [[link](#)]
9. **Dubey, R.** & Griffiths, T.L. (2020). Reconciling novelty and complexity via a rational analysis of curiosity. *Psychological Review*, 127(3), 455. [[link](#)]
8. **Dubey, R.**, Griffiths, T.L., & Lombrozo, T. (2019). If it’s important, then I am curious: A value-based intervention method to induce curiosity. In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. [[link](#)]
7. **Dubey, R.**, Agrawal, P., Pathak, D., Griffiths, T.L., & Efros, A. A. (2018). Investigating human priors for playing video games. In *35th International Conference on Machine Learning (ICML)*. [[link](#)] **[Long oral presentation: 8% acceptance rate]**
6. Mehta, H.*, **Dubey, R.***, & Lombrozo, T. (2018). Your liking is my curiosity: a social popularity intervention to induce curiosity. In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. [[link](#)]
5. **Dubey, R.**, & Griffiths, T. L. (2017). A rational analysis of curiosity. In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*. [[link](#)]
4. **Dubey, R.***, Peterson, J.*., Khosla, A., Yang, M. H., & Ghanem, B. (2015). What makes an object memorable?. In *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*. [[link](#)]
3. **Dubey, R.**, Dave, A., & Ghanem, B. (2014). Improving saliency models by predicting human fixation patches. In *Asian Conference on Computer Vision*. [[link](#)]

2. Dave, A.*, **Dubey, R.***, & Ghanem, B. (2012). Do humans fixate on interest points?. In *21st IEEE International Conference on Pattern Recognition*. [[link](#)]
1. **Dubey, R.**, Ni, B., & Moulin, P. (2012). A depth camera based fall recognition system for the elderly. In *International Conference on Image Analysis and Recognition*. [[link](#)]

Working Papers

2. Kraft-Todd, G.*, **Dubey, R.***, Yoeli, E., Rand D., & Bhanot, S. (under revision). Public good messaging motivates the wealthy to reduce water consumption. *Nature Communications*. [[preprint](#)]
1. **Dubey, R.**, Ho, M., Mehta, H., & Griffiths, T.L. (under review). Aha! moments correspond to metacognitive prediction errors. [[preprint](#)]

Book Chapters

1. Soon, C. S., **Dubey, R.**, Ananyev, E., & Hsieh, P. J. (2017). Approaches to understanding visual illusions. In *Computational and cognitive neuroscience of vision*, (pp. 221-233). Springer, Singapore.

Invited Talks

2025	Webinar on “AI, Fossil Fuels, and the Big Beautiful Bill”, Pacific Council on International Policy CoCoSys lab seminar, Leiden University London JDM seminar series, UCL Behavioral Decision Making seminar, UCLA Nightangle Workshop, Stanford University Climate politics working group, UCLA Guest Lecturer, Data Science for Social Good, UCLA
2024	Department of Psychology Colloquium, University of Michigan Department of Communication Colloquium, University of California, Los Angeles Summerfield Lab, University of Oxford School of Informatics Colloquium, University of Edinburgh School of Sustainability Colloquium, Arizona State University Department of Psychology Colloquium, Purdue University
2023	Department of Psychology Colloquium, NYU Climate & Sustainability Consortium, MIT Department of Psychology Colloquium, University of California, San Diego Department of Psychology Colloquium, Georgia Institute of Technology Departments of Computer Science and Psychology Colloquium, University of British Columbia Department of Psychology Colloquium, University of California, Berkeley Computational Psychiatry Journal Club, Max Planck Institute for Biological Cybernetics Symposium on Insight, Society for the Neuroscience of Creativity Causality in Cognition Lab, Stanford University
2022	Consciousness and AI seminar, Future of Humanity Institute, University of Oxford Symposium on Intrinsic Rewards, Society for Neuroeconomics Concepts and Categories (ConCats) Seminar, NYU
2021	Climate Psychology and Action Lab, University of California, San Diego PDP seminar, Princeton University

	Schulz lab, Max Planck Institute for Biological Cybernetics, Tübingen, Germany Active Child workshop, University of Göttingen, Germany
2020	Affective Brain Lab seminar, UCL PDP seminar, Princeton University
2019	Princeton Alumni Association Club Kidd Lab, University of California, Berkeley Graduate Cognitive Science Seminar, University of Rutgers, New Brunswick Curiosity, Explanation, & Exploration Workshop, Princeton University
2018	Cognition Colloquium, University of California, Berkeley

Reviewing

Journal: Trends in Cognitive Science (x1), Nature Human Behavior (x2), Nature Communications (x1), Psychological Review (x3), Cognition (x5), Cognitive Science (x5), Open Mind (x3), Memory and Cognition (x1), Cognition and Emotion (x1), Journal of Artificial Intelligence Research (x1), Educational Psychology Review (x1)

Conference proceedings: Neural Information Processing Systems (x3), International Conference on Machine Learning (x3), International Conference on Learning Representations (x3), Cognitive Science Society (x4)

Conference Service

Organizer “Combating the climate crisis with cognitive science” workshop, CogSci 2021.
Panelist “Object Representations for Learning and Control” workshop, NeurIPS 2021.

Service

Editor, Application Statement Feedback Program (2022-)
Volunteer scientist, Skype A Scientist (2021-)
Volunteer software developer, CareGiver Saathi (2021)
[Developed an app with the NGO to locate oxygen, medicines, and beds during India’s worst COVID wave.]
[My app was used by over 10,000 people to find critical life-saving resources during this period.]
Founder and Team lead, Zero Waste Princeton (2019-21)
[Led a group of 30+ students to research and develop strategies to reduce Princeton’s food & plastic waste.]
Research Consultant, Yellowstone Ecological Research Center (2019-21)