MAX KLEIMAN-WEINER

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EDUCATION

Ph.D.	Massachusetts Institute of Technology Brain and Cognitive Sciences Computational Cognitive Science Group Advisor: Josh Tenenbaum Committee: Drazen Prelec, Rebecca Saxe, Fiery Cushman GPA: 5.0/5.0	2012–2018
2x MSc	University of Oxford, Merton College Applied Statistics & Experimental Psychology Advisors: Tim Behrens & Matthew Rushworth	2010, 2012
BS	Stanford University Biological Sciences and honors in Neuroscience The Deans' Award (1 of 8, highest academic award) Firestone Medal (1 of 34, highest research award) GPA: 3.9/4.0, Phi Beta Kappa and departmental distinction	2009

EMPLOYMENT

2018-	Harvard, Data Science Initiative, CRCS, & MBB Postdoctoral Fellow
2018-	MIT, Research Scientist
2012-	Diffeo, Co-Founder & Chief Scientist
2011-2014	Knowledge Base Acceleration (KBA), Organizer
2011-2012	Chinese Academy of Sciences & REAP, Fulbright Fellow
2010	McKinsey & Company, Summer Associate

AWARDS

2017	Best Paper (1st of 200+) – Reinforcement Learning and Decision Making
2017	William James Prize (best paper) – Society for Philosophy and Psychology
2016	MIT Pokerbots 1st of 22 ($10,000 prize)
2016	Angus MacDonald Award for Excellence in Undergraduate Teaching
2015	MIT Pokerbots 1st of 38 ($10,000 prize)
2015,16,18	Cognitive Science Society Glushko Student Travel Award (merit based)
2015	Psychonomics Poster Finalist
2013	Newman Entrepreneurial Initiative ($25,000 award)

FELLOWSHIPS

2011-2017	Hertz Foundation Graduate Fellowship
2011-2012	Fulbright Research Fellowship (China)
2009-2014	NSF Graduate Research Fellowship
2009-2011	Marshall Scholar
2008	Barry M. Goldwater Scholar
2008	Irene and Eric Simon Brain Research Foundation Student Fellow

Research Grants (Co-PI)	2018-20	DARPA, Ground Truth, Social MIND: Social Machine Intelligence for Novel Discovery (w/ Josh Tenenbaum & James Allen Evans, UChicago), $355,000
	2018-20	Future of Life Institute, Reverse-engineering fair cooperation (w/ Josh Tenenbaum), $150,000
	2018-21	Templeton World Charity Foundation, Diverse Intelligences Initiative, Reverse-engineering the moral mind (w/ Josh Tenenbaum), $228,250
	2014-17	DARPA, Memex, Maximizing Coreference Resolution with Efficient Human Input, $2,600,000
Short Courses	2014	Machine Learning Summer School (MLSS)
	2013	Santa Fe Institute (SFI) - Complex Systems Summer School
	2011	Inter-University Program (IUP) for Chinese Language Studies

Publications

Google Scholar Link: scholar.google.com/citations?hl=en&user=SACXQKYAAAAJ

*Shum, M., ***Kleiman-Weiner, M.**, Littman, M. L., & Tenenbaum, J. B. (2019) Theory of Minds: Understanding Behavior in Groups Through Inverse Planning. *(AAAI)* (* indicates equal contribution) [oral]

Strouse, D., **Kleiman-Weiner, M.**, Tenenbaum, J.B., Botvinick, M., Schwab, D. (2018) Learning to share and hide intentions using information regularization. *(NeurIPS).*

Cao, J., **Kleiman-Weiner, M.**, & Banaji, M.R. (2018). People make the Bayesian judgment they criticize in others. *Psychological Science.*

Kleiman-Weiner, M., Tenenbaum, J. B., & Zhou, P. (2018). Non-parametric Bayesian inference of strategies in infinitely repeated games. *Econometrics Journal.*

Gerstenberg, T., Ullman, T. D., Nagel, J., **Kleiman-Weiner, M.**, Lagnado, D. A. & Tenenbaum, J. B. (2018). Lucky or clever? From changed expectations to attributions of responsibility. *Cognition.*

Kim R., **Kleiman-Weiner M.**, Abeliuk A., Awad E., Dsouza S., Tenenbaum J.B.. & Rahwan I. (2018). A Computational Model of Commonsense Moral Decision Making. *AAAI/ACM: AI, Ethics, and Society.*

Halpern, J.Y., **Kleiman-Weiner, M.** (2018). Towards Formal Definitions of Blameworthiness, Intention, and Moral Responsibility. *AAAI.* [oral]

Cao, J., **Kleiman-Weiner, M.**, & Banaji, M.R. (2017). Statistically inaccurate and morally unfair judgments via base rate intrusion. *Nature Human Behavior,* 1(10), 738.

Kleiman-Weiner, M., Saxe, R., & Tenenbaum, J. B. (2017). Learning a commonsense moral theory. *Cognition.*

Kleiman-Weiner, M., Shaw, A., & Tenenbaum, J. B. (2017). Constructing Social Preferences From Anticipated Judgments: When Impartial Inequity is Fair and Why? *Proceedings of the 39th Annual Conference of the Cognitive Science Society.* [oral]

Kleiman-Weiner, M., Ho, M., Austerweil, J. L., Littman, M. L., & Tenenbaum, J. B. (2016). Coordinate to cooperate or compete: abstract goals and joint intentions in social interaction. *Proceedings of the 38th Annual Conference of the Cognitive Science Society.* [oral]

Ho, M., MacGlashan, J., Greenwald, A., Littman, M. L., Hilliard, E. M., Trimbach, C., Stephen, B., Tenenbaum, J. B., **Kleiman-Weiner, M.**, & Austerweil, J. L. (2016). Feature-based joint planning and norm learning in collaborative games. *Proceedings of the 38th Annual Conference of the Cognitive Science Society.*

Kleiman-Weiner, M., Gerstenberg, T., Levine, S., & Tenenbaum, J. B. (2015). Inference of intention and permissibility in moral decision making. *Proceedings of the 37th Annual Conference of the Cognitive Science Society.* [oral]

Allen, K., Jara-Ettinger, J., Gerstenberg, T., **Kleiman-Weiner, M.**, & Tenenbaum, J. B. (2015). Go fishing! responsibility judgments when cooperation breaks down. *Proceedings of the 37th Annual Conference of the Cognitive Science Society.*

Gerstenberg, T., Ullman, T. D., **Kleiman-Weiner, M.**, Lagnado, D. A., & Tenenbaum, J. B. (2014). Wins above replacement: Responsibility attributions as counterfactual replacements *Proceedings of the 36th Annual Conference of the Cognitive Science Society.*

Frank, J.R., **Kleiman-Weiner**, M., Roberts, D.A., Voorhees, E., & Soboroff, I. (2014). Evaluating stream filtering for entity profile updates in TREC 2012, 2013, and 2014 *(KBA Track Overview, Notebook Paper)*

Frank, J. R., Bauer, S. J., **Kleiman-Weiner, M.**, Roberts, D. A., Tripuraneni, N., Zhang, C., Ré, C., Voorhees, E., & Soboroff, I. (2013). *Evaluating Stream Filtering for Entity Profile Updates for TREC 2013 (KBA Track Overview).*

Kleiman-Weiner, M., Luo, R., Zhang, L., Shi, Y., Medina, A., & Rozelle, S. (2013). Eggs versus chewable vitamins: which intervention can increase nutrition and test scores in rural china? *China Economic Review*, 24, 165176.

Zhang, L., Kleiman-Weiner, M., Luo, R., Shi, Y., Martorell, R., Medina, A., & Rozelle, S. (2013). Multiple micronutrient supplementation reduces anemia and anxiety in rural Chinas elementary school children. *The Journal of Nutrition*, 143(5), 640 647.

Frank, J. R., **Kleiman-Weiner, M.**, Roberts, D. A., Niu, F., Zhang, C., Ré, C., & Soboroff, I. (2012). Building an entity-centric stream filtering test collection for TREC 2012. *Proceedings of the Text Retrieval Conference (TREC).*

Cepeda, C., Cummings, D. M., Hickey, M. A., **Kleiman-Weiner, M.**, Chen, J. Y., Watson, J. B., & Levine, M. S. (2010). Rescuing the corticostriatal synaptic disconnection in the R6/2 mouse model of Huntingtons disease: exercise, adenosine receptors and ampakines. *PLoS Currents*, 2.

Luo, R., **Kleiman-Weiner, M.**, Rozelle, S., Zhang, L., Liu, C., Sharbono, B., Shi, Y., & Lee, M. (2010). Anemia in rural Chinas elementary schools: prevalence and correlates in Shaanxi provinces poor counties. *Ecology of Food and Nutrition*, 49(5), 357372.

Kleiman-Weiner, M., Beenhakker, M. P., Segal, W. A., & Huguenard, J. R. (2009). Synergistic roles of GABAA receptors and SK channels in regulating thalamocortical oscillations. *Journal of Neurophysiology*, 102(1), 203213.

Schofield, C. M., **Kleiman-Weiner, M.**, Rudolph, U., & Huguenard, J. R. (2009). A gain in GABAa receptor synaptic strength in thalamus reduces oscillatory activity and absence seizures. *Proceedings of the National Academy of Sciences*, 106 (18), 7630 7635.

Cepeda, C., André, V. M., Yamazaki, I., Wu, N., **Kleiman-Weiner, M.**, & Levine, M. S. (2008). Differential electrophysiological properties of dopamine D1 and D2 receptor-containing striatal medium-sized spiny neurons. *European Journal of Neuroscience*, 27(3), 671682.

Kleiman-Weiner, M., & Berger, J. (2006). The sound of one arm swinging: a model for multidimensional auditory display of physical motion. *Proceedings of the 12th International Conference on Auditory Display.*

In Progress

Awad E., Levine S., **Kleiman-Weiner, M.**, Dsouza S., Tenenbaum J.B., Shariff A., Bonnefon J., & Rahwan I. (R & R) Blaming humans in autonomous vehicle accidents: Shared responsibility across levels of automation. *Nature Human Behavior.*

Invited Presentations (Selected)

2018 Leading Integrity, Warwick Business School, London
2018 O'Reilly Artificial Intelligence Conference, NYC
2018 Distinguished Speaker, Accelerated Discovery Forum, IBM Research (Almaden)
2018 Lee Lab (Prof. Daeyeol Lee), Yale
2017 Cooperative Social Intelligence Workshop (Organizer), CogSci
2017 Facebook AI (FAIR), New York
2017 Human Cooperation Lab (Prof. David Rand), Yale
2017 Morality, Language and Thought Workshop, Institut Jean Nicod
2017 Social Cognitive Neuroscience Lab (Prof. Rebecca Saxe), MIT BCS
2017 MIT Cognitive Lunch
2016 Workshop on Physical & Social Scene Understanding, CogSci
2016 Workshop on Learning, Inference and Control of Multi-Agent Systems, NIPS
2016 Organizational Economics Lunch, MIT Sloan
2016 Cooperation and Self-Control Workshop, London
2016 London Judgement and Decision Making Seminar, UCL
2016 DeepMind, London
2016 Morality Lab (Prof. Liane Young), Boston College
2016 Computational Cognitive Neuroscience Lab (Prof. Sam Gershman), Harvard
2015 Brown University, Department of Cognitive, Linguistic & Psychological Sciences, Cognition Seminar Series
2015 Shaw Lab (Prof. Alex Shaw), University of Chicago
2015 Boston Area Moral Cognition Group
2015 Affective Brain Lab (Prof. Tali Sharot), UCL/MIT
2015 Scalable Cooperation Group (Prof. Iyad Rahwan), MIT Media Lab
2015 MIT Cognitive Lunch
2015 Moral Psychology Research Lab (Prof. Fiery Cushman & Josh Greene), Harvard
2015 Computation & Cognition Lab (Prof. Noah Goodman), Stanford
2015 Northeastern Undergraduate Researchers of Neuroscience
2009 Achauer Honors Symposium (Stanford)

Patents

Kleiman-Weiner, Max, *et al.* "Knowledge operating system," 2018. US Patent Application US20180349517A1.

Roberts, D.A., **Kleiman-Weiner, M.**, Frank, J.R., *et al.*, "Entity-centric knowledge discovery," Mar. 1, 2016. US Patent 9,275,132.

Teaching

2016 TA: Statistical Learning Theory and Applications (MIT 9.520/6.860)
2013, 14, 15 TA: Computational Cognitive Science (MIT 9.66/9.660/6.804)
2009 TA: Economic Development of Greater China (Stanford EASTASN 285C)
2008 Lecturer: Current Debates in Neuroscience (Stanford)

Supervised Students

PhD: Essie (Suhyoun) Yu (2018-)
Masters of Engineering: Luana Lopes Lara (2018-), Jack Serrino (2018-), Michael Shum (2017-2018), Lily Zhang (2017-2018)
Undergraduate: Alyssa Dayan (2018), Penghui Zhou (2015-2016), Daniel Lerner (2015-2016), Suzanne A Mueller (2015-2016), Erwin Hilton (Summer 2015), Max Maybury (Spring 2015), Paul Masterson (Spring 2015), Alejandro Vientos (Summer 2014, 2016-), Max Stein-Golenbock (Spring 2014), Drew Drechsler (Fall 2013)

Misc	Citizenship:	USA
	Languages:	English, Mandarin Chinese