Curriculum Vitae of Noah D. Goodman

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Research Interests

Computational models of cognition.
Probabilistic programming languages.
Natural language semantics and pragmatics.
Concepts and intuitive theories.

Professional Positions

Associate Professor of Psychology and Computer Science, Stanford University, 2017 -.
(By courtesy, Associate Professor of Linguistics.)

Associate Professor of Psychology, Stanford University, 2016 - 2017.
(By courtesy, Associate Professor of Computer Science and of Linguistics.)

Assistant Professor of Psychology, Stanford University, 2010 - 2016.
(By courtesy, Assistant Professor of Computer Science and of Linguistics.)

Research Scientist, Massachusetts Institute of Technology, 2008-2010.

Post-Doctoral Associate, Massachusetts Institute of Technology, 2005-2008.

Lecturer, St. Edwards University, 2004-2005.

Education

Ph.D., Mathematics, University of Texas at Austin, 2003.

B.S. Physics, Cum Laude, University of Arizona, 1997.

B.A. Mathematics, Cum Laude, University of Arizona, 1997.

Honors

Best of IEEE Transactions on Affective Computing 2021 Paper Collection.

Best paper award, NeurIPS Workshop on Cooperative AI (2021).

Best paper award International Conference on Educational Data Mining, 2020 (EDM 2020).

2020 Cognitive Science Society paper prize for computational modeling of language.

AAAI best student paper award, 2019.

2019 Cognitive Science Society paper prize for computational modeling of language.

Best paper award winner, ICML Workshop on Adaptive & Multitask Learning: Algorithms & Systems, 2019.

2016 Alfred P. Sloan Research Fellow in Neuroscience.

2015 Cognitive Science Society paper prize for applied computational modeling.

2014 Cognitive Science Society paper prize for computational modeling of language.

Roger N. Shepard Distinguished Visiting Scholar, 2013-14, University of Arizona.

John Philip Coghlan Fellow, 2013-14 and 2014-15.

2012 Cognitive Science Society paper prize for computational modeling of language.

2011 International Joint Conference on Artificial Intelligence best poster prize.

2011 Cognitive Science Society paper prize for computational modeling of language.

2010 J. S. McDonnell Foundation Scholar Award.

2007 Cognitive Science Society paper prize for computational modeling of higher-level cognition.

2007 Cognitive Science Society paper prize for computational modeling of perception and action.

NSF VIGRE Fellowship, 2001-2002.

University of Texas Continuing Graduate Study Fellowship, 2001-2002.

Bruton Graduate Fellowship, 2000.

National Merit Scholarship, 1994-1997.

Grants

Modeling Human Geometric Reasoning with Neuro-Symbolic Systems, Stanford HAI Seed Grant, 2023.

AI Tutors to Help Prepare Students for the 21st Century Workforce, Stanford HAI Hoffman-Yee Grant, 2020-2023.

Toward Grounded, Adaptive Communication Agents, Stanford HAI Hoffman-Yee Grant, 2020.

Expeditions: Collaborative Research: Understanding the World Through Code, NSF, 2020 - 2025.

MURI: Visual Commonsense, 2019-2021 (Sub-award from UCLA).

Homo SocioNeticus: Scaling the cognitive foundations of online social behavior, 2018 - 2021 (Sub-award from Virginia Tech).

Alfred P. Sloan Research Fellow in Neuroscience, 2016 - 2019.

Amortized Inference for Probabilistic Programs, DARPA, Oct 2013 - Jul 2017.

Grounding Lexical Meaning in Core Cognition, ONR, Sep 2013 - Mar 2017.

Development of probmods.org web-book, Stanford VPOL, 2013.

Grounded language understanding as social cognition, ONR, Jan 2013 - Jan 2016 (PI: Potts).

Embedded Humans: Provably Correct Decision Making for Networks of Humans and Unmanned Systems, ONR, Feb 2013 - Dec 2017 (Sub-award from Berkeley, PI: Sastry; Stanford PI: Guibas).

J. S. McDonnell Foundation Scholar Award, Oct 2010 - Oct 2016.

A Framework for Core Cognition, ONR, Jul 2009 - Dec 2012 (PI: Tenenbaum).

Publications

Peer-reviewed Journal Articles and Conference Proceedings

Tessler, M. H., Tenenbaum, J., & Goodman, N. D. (2022). Logic, Probability, and Pragmatics in Syllogistic Reasoning. *Topics in Cognitive Science*.

Wang, R. E., Durmus, E., Goodman, N., & Hashimoto, T. (2022). Language modeling via stochastic processes. *International Conference on Learning Representations*.

Zelikman, E., Wu, Y., Mu, J., & Goodman, N. (2022). STaR: Bootstrapping Reasoning With Reasoning. *Advances in Neural Information Processing Systems*.

Srivastava, M., Biyik, E., Mirchandani, S., Goodman, N., & Sadigh, D. (2022). Assistive Teaching of Motor Control Tasks to Humans. *Advances in Neural Information Processing Systems*.

Mu, J., Zhong, V., Raileanu, R., Jiang, M., Goodman, N., Rocktäschel, T., & Grefenstette, E. (2022). Improving intrinsic exploration with language abstractions. *Advances in Neural Information Processing Systems*.

Bass, I., Bonawitz, E., Hawthorne-Madell, D., Vong, W., Goodman, N., & Gweon, H. (2022). The effects of information utility and teachers' knowledge on evaluations of under-informative pedagogy across development. *Cognition*, *222*, 104999.

Tamkin, A., Banerjee, G., Owda, M., Liu, V., Rammoorthy, S., & Goodman, N. (2022). DABS 2.0: Improved Datasets and Algorithms for Universal Self-Supervision. *Thirty-Sixth Conference on Neural Information Processing Systems Datasets and Benchmarks Track*.

Mao, J., Yang, X., Zhang, X., Goodman, N., & Wu, J. (2022). CLEVRER-Humans: Describing Physical and Causal Events the Human Way. *Thirty-Sixth Conference on Neural Information Processing Systems Datasets and Benchmarks Track*.

Hsu, J., Wu, J., & Goodman, N. (2022). Geoclidean: Few-Shot Generalization in Euclidean Geometry. *Thirty-Sixth Conference on Neural Information Processing Systems Datasets and Benchmarks Track*.

Wu, M., & Goodman, N. (2022). Foundation Posteriors for Approximate Probabilistic Inference. *Advances in Neural Information Processing Systems*.

Tamkin, A., Nguyen, D., Deshpande, S., Mu, J., & Goodman, N. (2022). Active Learning Helps Pretrained Models Learn the Intended Task. In A. H. Oh, A. Agarwal, D. Belgrave, & K. Cho (Eds.), *Advances in Neural Information Processing Systems*.

Fang, F., Sinha, K., Goodman, N. D., Potts, C., & Kreiss, E. (2022). Color Overmodification Emerges from Data-Driven Learning and Pragmatic Reasoning. *Proceedings of the Annual Meeting of the Cognitive Science Society*, *44*(44).

Poesia, G., & Goodman, N. (2022). Left to the Reader: Abstracting Solutions in Mathematical Reasoning. *Proceedings of the Annual Meeting of the Cognitive Science Society*, *44*(44).

White, J., Burkhardt, A., Yeatman, J., & Goodman, N. (2022). Automated generation of sentence reading fluency test items. *Proceedings of the Annual Meeting of the Cognitive Science Society*, *44*(44).

Boyce, V., Hawkins, R., Goodman, N., & Frank, M. C. (2022). Two's company but six is a crowd: emergence of conventions in multiparty communication games. *Proceedings of the Annual Meeting of the Cognitive Science Society*, *44*(44).

Geiger, A., Wu, Z., Lu, H., Rozner, J., Kreiss, E., Icard, T., Goodman, N., & Potts, C. (2022). Inducing causal structure for interpretable neural networks. *International Conference on Machine Learning*, 7324–7338.

Tessler, M. H., & Goodman, N. D. (2022). Warm (for Winter): Inferring comparison classes in communication. *Cognitive Science*.

Hawkins, R. D., Franke, M., Frank, M. C., Goldberg, A. E., Smith, K., Griffiths, T. L., & Goodman, N. D. (2022). From partners to populations: A hierarchical Bayesian account of coordination and convention. *Psychological Review*.

Kreiss, E., Fang, F., Goodman, N. D., & Potts, C. (2022). Concadia: Towards image-based text generation with a purpose. *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP). Association for Computational Linguistics*.

White, J., Goodman, N., & Hawkins, R. (2022). Mixed-effects transformers for hierarchical adaptation. *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP). Association for Computational Linguistics*.

Poesia, G., & Goodman, N. (2021). Pragmatic Code Autocomplete. *Proceedings of the AAAI Conference on Artificial Intelligence*, *35*.

Zhang, O., Wu, M., Bayrooti, J., & Goodman, N. (2021). Temperature as Uncertainty in Contrastive Learning. *NeurIPS Workshop on Self-Supervised Learning*.

Hawkins, R. D., Gweon, H., & Goodman, N. D. (2021). The division of labor in communication: Speakers help listeners account for asymmetries in visual perspective. *Cognitive Science*, *45*(3), e12926.

Wu, Z., Geiger, A., Rozner, J., Kreiss, E., Lu, H., Icard, T., Potts, C., & Goodman, N. D. (2021). Causal Distillation for Language Models. *NAACL-HLT*.

Tamkin, A., Wu, M., & Goodman, N. (2021). Viewmaker Networks: Learning Views for Unsupervised Representation Learning. *International Conference on Learning Representations*.

Ong, D., Soh, H., Zaki, J., & Goodman, N. (2021). Applying Probabilistic Programming to Affective Computing. *IEEE Transactions on Affective Computing*. [**Best of IEEE Transactions on Affective Computing 2021 Paper Collection.**]

Wu, M., Mosse, M., Zhuang, C., Yamins, D., & Goodman, N. (2021). Conditional Negative Sampling for Contrastive Learning of Visual Representations. *International Conference on Learning Representations*.

Gerstenberg, T., Goodman, N., Lagnado, D., & Tenenbaum, J. (2021). A counterfactual simulation model of causal judgments for physical events. *Psychological Review*.

Tessler, M. H., Madeano, J., Tsividis, P. A., Harper, B., Goodman, N. D., & Tenenbaum, J. B. (2021). Learning to solve complex tasks by growing knowledge culturally across generations. *NeurIPS Workshop on Cooperative AI*. [**Best paper award winner.**]

Wang, R., White, J., Mu, J., & Goodman, N. (2021). Calibrate your listeners! Robust communication-based training for pragmatic speakers. *Findings of the 2021 Conference on Empirical Methods on Natural Language Processing (Findings of EMNLP)*.

White, J., Poesia, G., Hawkins, R., Sadigh, D., & Goodman, N. (2021). Open-domain clarification question generation without question examples. *Proceedings of the 2021 Conference on Empirical Methods on Natural Language Processing (EMNLP)*.

Wu, M., Goodman, N., & Ermon, S. (2021). Improving Compositionality of Neural Networks by Decoding Representations to Inputs. *Advances in Neural Information Processing Systems (NeurIPS)*.

Buch, S., Fei-Fei, L., & Goodman, N. (2021). Neural Event Semantics for Grounded Language Understanding. *Transactions of the Association for Computational Linguistics (TACL)*.

Malik, A., Wu, M., Vasavada, V., Song, J., Coots, M., Mitchell, J., Goodman, N., & Piech, C. (2021). Generative Grading: Near Human-level Accuracy for Automated Feedback on Richly Structured Problems. *Proceedings of The 14th International Conference on Educational Data Mining (EDM).*

Tamkin, A., Liu, V., Lu, R., Fein, D., Schultz, C., & Goodman, N. (2021). DABS: A Domain-Agnostic Benchmark for Self-Supervised Learning. *Advances in Neural Information Processing Systems (NeurIPS) Datasets and Benchmarks Track.*

Poesia, G., Dong, W. X., & Goodman, N. (2021). Contrastive Reinforcement Learning of Symbolic Reasoning Domains. *Advances in Neural Information Processing Systems (NeurIPS).*

Mu, J., & Goodman, N. (2021). Emergent Communication of Generalizations. *Advances in Neural Information Processing Systems (NeurIPS).*

Srivastava, M., & Goodman, N. (2021). Question Generation for Adaptive Education. *Association for Computational Linguistics (ACL).*

Mankewitz, J., Boyce, V., Waldon, B., Loukatou, G., Yu, D., Mu, J., Goodman, N. D., & Frank, M. C. (2021). Multi-party referential communication in complex strategic games. *NeurIPS Workshop on Meaning in Context.*

Tamkin, A., Singh, T., Giovanardi, D., & Goodman, N. (2020). Investigating Transferability in Pretrained Language Models. *Findings of the 2020 Conference on Empirical Methods on Natural Language Processing.*

Dasgupta, I., Guo, D., Gershman, S., & Goodman, N. (2020). Analyzing Machine-Learned Representations: A Natural Language Case Study. *Cognitive Science*, e12925.

Yoon, E. J., Tessler, M. H., Goodman, N. D., & Frank, M. C. (2020). Polite speech emerges from competing social goals. *Open Mind*, *4*, 71–87.

Tamkin, A., Jurafsky, D., & Goodman, N. (2020). Language Through a Prism: A Spectral Approach for Multiscale Language Representations. *Advances in Neural Information Processing Systems.*

White, J., Mu, J., & Goodman, N. (2020). Learning to Refer Informatively by Amortizing Pragmatic Reasoning. *Proceedings of the 42nd Annual Meeting of the Cognitive Science Society.*

Hawkins, R. D., Frank, M. C., & Goodman, N. D. (2020). Characterizing the dynamics of learning in repeated reference games. *Cognitive Science*, *44*(6), e12845.

Hawkins, R. D., Goodman, N. D., Goldberg, A. E., & Griffiths, T. L. (2020). Generalizing meanings from partners to populations: Hierarchical inference supports convention formation on networks. *Proceedings of the 41st Annual Conference of the Cognitive Science Society.* **[Winner of the 2020 Cognitive Science Society computational modeling prize for Language.]**

Degen, J., Hawkins, R. D., Graf, C., Kreiss, E., & Goodman, N. D. (2020). When redundancy is useful: A Bayesian approach to "overinformative" referring expressions. *Psychological Review.*

Wu, M., Davis, R. L., Domingue, B. W., Piech, C., & Goodman, N. (2020). Variational Item Response Theory: Fast, Accurate, and Expressive. *Proceedings of The 13th International Conference on Educational Data Mining (EDM 2020)*, 257–268. **[Best paper award winner.]**

Wu, M., Choi, K., Goodman, N. D., & Ermon, S. (2020). Meta-Amortized Variational Inference and Learning. *AAAI*, 6404–6412.

Peloquin, B. N., Goodman, N. D., & Frank, M. C. (2020). The interactions of rational, pragmatic agents lead to efficient language structure and use. *Topics in Cognitive Science*, *12*(1), 433–445.

Mu, J., Liang, P., & Goodman, N. (2020). Shaping Visual Representations with Language for Few-shot Classification. *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics.*

Hawkins, R. X. D., Kwon, M., Sadigh, D., & Goodman, N. D. (2020). Continual Adaptation for Efficient Machine Communication. *Proceedings of the 24th Conference on Computational Natural Language Learning*.

Peloquin, B. N., Goodman, N. D., & Frank, M. C. (2019). The interactions of rational, pragmatic agents lead to efficient language structure and use. *Proceedings of the 41st Annual Conference of the Cognitive Science Society*, 912–917. **[Winner of the 2019 Cognitive Science Society computational modeling prize for Language.]**

Hawkins, R. X. D., Kwon, M., Sadigh, D., & Goodman, N. D. (2019). Continual Adaptation for Efficient Machine Communication. *ICML Workshop on Adaptive & Multitask Learning: Algorithms & Systems*. **[Best paper award winner.]**

Hawkins, R. X. D., Sano, M., Goodman, N. D., & Fan, J. E. (2019). Disentangling contributions of visual information and interaction history in the formation of graphical conventions. *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

Ong, D. C., Zaki, J., & Goodman, N. D. (2019). Computational models of emotion inference in Theory of Mind: A review and roadmap. *Topics in Cognitive Science*.

Achlioptas, P., Fan, J., Hawkins, R. X. D., Goodman, N. D., & Guibas, L. J. (2019). ShapeGlot: Learning Language for Shape Differentiation. *IEEE International Conference on Computer Vision (ICCV)*.

McDowell, B., & Goodman, N. (2019). Learning from Omission. *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, 619–628.

Mu, J., Liang, P., & Goodman, N. (2019). Shaping Visual Representations with Language for Few-shot Classification. *NeurIPS Workshop on Visually Grounded Interaction and Language*.

Cohn-Gordon, R., & Goodman, N. D. (2019). Lost in Machine Translation: A Method to Reduce Meaning Loss. *NAACL-HLT*.

Sumner, E., DeAngelis, E., Hyatt, M., Goodman, N., & Kidd, C. (2019). Cake or broccoli? Recency biases children's verbal responses. *PloS One*, *14*(6), e0217207.

Nie, A., Bennett, E., & Goodman, N. (2019). Learning to Explain: Answering Why-Questions via Rephrasing. *Proceedings of the First Workshop on NLP for Conversational AI*, 113–120. https://doi.org/10.18653/v1/W19-4113

Foster, A., Jankowiak, M., Bingham, E., Horsfall, P., Teh, Y. W., Rainforth, T., & Goodman, N. (2019). Variational Bayesian optimal experimental design. *Advances in Neural Information Processing Systems*, 14036–14047.

Tessler, M. H., & Goodman, N. D. (2019). The Language of Generalization. *Psychological Review*, *126*(3), 395–436.

Hawthorne-Madell, D., & Goodman, N. D. (2019). Reasoning about Social Sources to Learn from Actions and Outcomes. *Decision*, *6*(1), 17—60.

Nie, A., Bennett, E., & Goodman, N. (2019). DisSent: Learning Sentence Representations from Explicit Discourse Relations. *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, 4497–4510. https://doi.org/10.18653/v1/P19-1442

El Dehaibi, N., Goodman, N. D., & MacDonald, E. F. (2019). Extracting customer perceptions of product sustainability from online reviews. *Journal of Mechanical Design*, *141*(12). **[Best paper award winner.]**

Bingham, E., Chen, J. P., Jankowiak, M., Obermeyer, F., Pradhan, N., Karaletsos, T., Singh, R., Szerlip, P., Horsfall, P., & Goodman, N. D. (2019). Pyro: Deep Universal Probabilistic Programming. *Journal of Machine Learning Research*, *20*(28), 1–6.

Hawkins, R. X. D., Goodman, N. D., & Goldstone, R. L. (2019). The Emergence of Social Norms and Conventions. *Trends in Cognitive Sciences*, *23*(2), 158–169.

Scontras, G., Degen, J., & Goodman, N. D. (2019). On the grammatical source of adjective ordering preferences. *Semantics and Pragmatics*, *12*(7).

Degen, J., Trotzke, A., Scontras, G., Wittenberg, E., & Goodman, N. D. (2019). Definitely, maybe: A new experimental paradigm for investigating the pragmatics of evidential devices across languages. *Journal of Pragmatics*, *140*, 33–48.

Obermeyer, F., Bingham, E., Jankowiak, M., Pradhan, N., Chiu, J., Rush, A. M., & Goodman, N. D. (2019). Tensor Variable Elimination for Plated Factor Graphs. *ICML*.

Wu, M., Goodman, N., & Ermon, S. (2019). Differentiable Antithetic Sampling for Variance Reduction in Stochastic Variational Inference. *AISTATS*.

Hartshorne, J. K., de Leeuw, J. R., Goodman, N. D., Jennings, M., & O'Donnell, T. J. (2019). A thousand studies for the price of one: Accelerating psychological science with Pushkin. *Behavior Research Methods*, 1–22.

Chopra, S., Tessler, M. H., & Goodman, N. D. (2019). The first crank of the cultural ratchet: Learning and transmitting concepts through language. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*, 226–232.

Fan, J. E., Hawkins, R. D., Wu, M., & Goodman, N. D. (2019). Pragmatic Inference and Visual Abstraction Enable Contextual Flexibility During Visual Communication. *Computational Brain & Behavior*. https://doi.org/10.1007/s42113-019-00058-7

Wu, M., Mosse, M., Goodman, N., & Piech, C. (2019). Zero Shot Learning for Code Education: Rubric Sampling with Deep Learning Inference. *Association for the Advancement of Artificial Intelligence (AAAI)*. **[Winner best student paper award.]**

Ong, D. C., Goodman, N. D., & Zaki, J. (2018). Happier than thou? A self-enhancement bias in emotion attribution. *Emotion*, *18*(1), 116.

Cohn-Gordon, R., Goodman, N. D., & Potts, C. (2018). Pragmatically Informative Image Captioning with Character-Level Reference. *NAACL-HLT*.

Wu, M., & Goodman, N. (2018). Multimodal Generative Models for Scalable Weakly-Supervised Learning. In S. Bengio, H. Wallach, H. Larochelle, K. Grauman, N. Cesa-Bianchi, & R. Garnett (Eds.), *Advances in Neural Information Processing Systems 31* (pp. 5576–5586).

Zhao, S., Ren, H., Yuan, A., Song, J., Goodman, N., & Ermon, S. (2018). Bias and Generalization in Deep Generative Models: An Empirical Study. In S. Bengio, H. Wallach, H. Larochelle, K. Grauman, N. Cesa-Bianchi, & R. Garnett (Eds.), *Advances in Neural Information Processing Systems 31* (pp. 10814–10823).

Cohn-Gordon, R., Goodman, N. D., & and Christopher Potts. (2018). An incremental iterated response model of pragmatics. *Proceedings of the Society for Computation in Linguistics (SCiL)*.

Ouyang, L., Tessler, M. H., Ly, D., & Goodman, N. D. (2018). webppl-oed: A practical optimal experiment design system. *Proceedings of the Fortieth Annual Conference of the Cognitive Science Society*.

Khani, F., Goodman, N. D., & Liang, P. (2018). Planning, Inference and Pragmatics in Sequential Language Games. *Transactions of the Association for Computational Linguistics (TACL)*.

Dasgupta, I., Schulz, E., Goodman, N. D., & Gershman, S. J. (2018). Remembrance of inferences past: Amortization in human hypothesis generation. *Cognition*, *178*, 67–81.

Dasgupta, I., Guo, D., Stuhlmüller, A., Gershman, S. J., & Goodman, N. D. (2018). Evaluating Compositionality in Sentence Embeddings. *Proceedings of the Fortieth Annual Conference of the Cognitive Science Society*.

Hahn, M., Degen, J., Goodman, N., Jurafsky, D., & and Richard Futrell. (2018). An information-theoretic explanation of adjective ordering preferences. *Proceedings of the Fortieth Annual Conference of the Cognitive Science Society*.

Ullman, T., Stuhlmüller, A., Goodman, N., & Tenenbaum, J. (2018). Learning Physical Parameters from Dynamic Scenes. *Cognitive Psychology*, *104*, 57–82.

Hawkins, R. X. D., Franke, M., Smith, K., & Goodman, N. D. (2018). Emerging Abstractions: Lexical conventions are shaped by communicative context. *Proceedings of the Fortieth Annual Conference of the Cognitive Science Society*.

Bennett, E. D., & Goodman, N. D. (2018). Extremely costly intensifiers are stronger than quite costly ones. *Cognition*, *178*, 147–161.

Scontras, G., Degen, J., & Goodman, N. D. (2017). Subjectivity predicts adjective ordering preferences. *Open Mind*.

Scontras, G., & Goodman, N. D. (2017). Resolving uncertainty in plural predication. *Cognition*, *168*, 294–311.

Gerstenberg, T., Peterson, M. F., Goodman, N. D., Lagnado, D. A., & Tenenbaum, J. B. (2017). Eye-tracking causality. *Psychological Science*, *28*(12), 1731–1744.

Lieder, F., Griffiths, T. L., Huys, Q. J. M., & Goodman, N. D. (2017). The anchoring bias reflects rational use of cognitive resources. *Psychonomic Bulletin and Review*.

Lieder, F., Griffiths, T. L., Huys, Q. J. M., & Goodman, N. D. (2017). Empirical evidence for resource-rational anchoring and adjustment. *Psychonomic Bulletin and Review*.

Monroe, W., Hawkins, R. X. D., Goodman, N. D., & Potts, C. (2017). Colors in Context: A Pragmatic Neural Model for Grounded Language Understanding. *Transactions of the Association for Computational Linguistics*, *5*(1), 325–338.

Siddharth, N., Paige, B., de Meent, V., Desmaison, A., Wood, F., Goodman, N. D., Kohli, P., & Torr, P. H. S. (2017). Learning Disentangled Representations with Semi-Supervised Deep Generative Models. *Advances in Neural Information Processing Systems 30*.

Tessler, M. H., Goodman, N. D., & Frank, M. C. (2017). Avoiding frostbite: It helps to learn from others. Commentary on B. Lake et al., Building machines that learn and think like people. *Behavioral and Brain Sciences*, *40*, e279. https://doi.org/10.1017/S0140525X17000280

Hawkins, R. X. D., Frank, M. C., & Goodman, N. D. (2017). Convention-formation in iterated reference games. *Proceedings of the Thirty-Ninth Annual Conference of the Cognitive Science Society*.

Dasgupta, I., Schulz, E., Goodman, N., & Gershman, S. (2017). Amortized Hypothesis Generation. *Proceedings of the Thirty-Ninth Annual Conference of the Cognitive Science Society*.

Yoon, E. J., Tessler, M. H., Goodman, N. D., & Frank, M. C. (2017). "I won't lie, it wasn't amazing": Modeling polite indirect speech. *Proceedings of the Thirty-Ninth Annual Conference of the Cognitive Science Society*.

Ballard, I., Miller, E., Piantadosi, S., Goodman, N., & McClure, S. (2017). Beyond Reward Prediction Errors: Human Striatum Updates Rule Values During Learning. *Cerebral Cortex*.

Tessler, M. H., Lopez-Brau, M., & Goodman, N. D. (2017). Warm (for winter): Comparison class understanding in vague language. *Proceedings of the Thirty-Ninth Annual Conference of the Cognitive Science Society.*

Hawthorne-Madell, D., & Goodman, N. D. (2017). So Good It Has to Be True: Wishful Thinking in Theory of Mind. *Open Mind*, *1*(2), 101–110.

Tessler, M. H., & Goodman, N. D. (2016). Communicating generalizations about events. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society.* (2016)

Evans, O., Stuhlmüller, A., & Goodman, N. D. (2016). Learning the Preferences of Ignorant, Inconsistent Agents. *Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI-2016).*

Qing, C., Goodman, N. D., & Lassiter, D. (2016). A rational speech-act model of projective content. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society.* (2016)

Ullman, T. D., Xu, Y., & Goodman, N. D. (2016). The Pragmatics of Spatial Language. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society.* (2016)

Franke, M., Dablander, F., Schöller, A., Bennett, E., Degen, J., Tessler, M. H., Kao, J., & Goodman, N. D. (2016). What does the crowd believe? A hierarchical approach to estimating subjective beliefs from empirical data. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society.* (2016)

Ong, D. C., Zaki, J., & Goodman, N. D. (2016). Emotions in lay explanations of behavior. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society.* (2016)

Graf, C., Degen, J., Hawkins, R. X. D., & Goodman, N. D. (2016). Animal, dog, or dalmatian? Level of abstraction in nominal referring expressions. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society.* (2016)

Yoon, E. J., Tessler, M. H., Goodman, N. D., & Frank, M. C. (2016). Talking with tact: Polite language as a balance between kindness and informativity. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society.* (2016)

Hawkins, R. X. D., & Goodman, N. D. (2016). Conversational expectations account for apparent limits on theory of mind use. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society.* (2016)

Ritchie, D., Thomas, A., Hanrahan, P., & Goodman, N. D. (2016). Neurally-Guided Procedural Models: Amortized Inference for Procedural Graphics Programs using Neural Networks. *Advances in Neural Information Processing Systems (NIPS 2016).*

Monroe, W., Goodman, N. D., & Potts, C. (2016). Learning to Generate Compositional Color Descriptions. *Proceedings of the 2016 Conference on Empirical Methods on Natural Language Processing (EMNLP 2016).*

Goodman, N. D., & Frank, M. C. (2016). Pragmatic language interpretation as probabilistic inference. *Trends in Cognitive Sciences*, *20*(11), 818–829.

Bergen, L., Levy, R., & Goodman, N. D. (2016). Pragmatic Reasoning through Semantic Inference. *Semantics and Pragmatics*, *9*.

Piantadosi, S. T., Tenenbaum, J. B., & Goodman, N. D. (2016). The logical primitives of thought: Empirical foundations for compositional cognitive models. *Psychological Review*, *123*(4), 392–424.

Ritchie, D., Stuhlmüller, A., & Goodman, N. D. (2016). C3: Lightweight Incrementalized MCMC for Probabilistic Programs using Continuations and Callsite Caching. *AISTATS 2016.*

Ong, D. C., Goodman, N. D., & Zaki, J. (2015). Near-misses sting even when they are uncontrollable. *Proceedings of the Thirty-Seventh Annual Conference of the Cognitive Science Society.*

Stiller, A. J., Goodman, N. D., & Frank, M. C. (2015). Ad-hoc scalar implicature in preschool children. *Language Learning and Development*, *11*(2), 176–190.

Kao, J. T., & Goodman, N. D. (2015). Let's talk (ironically) about the weather: Modeling verbal irony. *Proceedings of the Thirty-Seventh Annual Conference of the Cognitive Science Society.*

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Technical Reports

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O'Donnell, T. J., Tenenbaum, J. B., & Goodman, N. D. (2009). Fragment grammars: Exploring computation and reuse in language. In *Technical Report MIT-CSAIL-TR-2009-013*. Massachusetts Institute of Technology.

McAllester, D., Milch, B., & Goodman, N. D. (2008). *Random-World Semantics and Syntactic Independence for Expressive Languages* (MIT-CSAIL-TR-2008-025; Number MIT-CSAIL-TR-2008-025). Massachusetts Institute of Technology.

Other

Goodman, N. D. (2013). *Grounding Lexical Meaning in Core Cognition*. (Unpublished manuscript.)

Goodman, N. D. (2013). The principles and practice of probabilistic programming. In *POPL 2013*. (Extended abstract of keynote talk.)

Roy, D. M., Mansinghka, V. K., Goodman, N. D., & Tenenbaum, J. B. (2008). A stochastic programming perspective on nonparametric Bayes. In *Nonparametric Bayesian Workshop, Int. Conf. on Machine Learning* (Vol. 22, p. 26).

Software

Webchurch, MIT-Church, Bher, Cosh. Implementations of the Church probabilistic programming language.

WebPPL. A javascript-based probabilistic programming language.

Pyro. A deep probabilistic programming language based on Python and PyTorch.

Popular Press (selected articles)

"A grand unified theory of AI," MIT News, March 30, 2010.

"I, algorithm." New Scientist, January 29, 2011.

"More Than Child's Play: Ability to Think Scientifically Declines as Kids Grow Up." Scientific American, September 21, 2011.

"Artificial Intelligence Could Be on Brink of Passing Turing Test." WIRED, April 12, 2012.

"Context is key to making computers better conversationalists." WIRED.uk, June 20, 2012.

"Forget the Turing Test: Here's How We Could Actually Measure AI." WIRED, June 12, 2014.

"Solve For Standing Ovation: Should AI Researchers Bother Building A TED-Bot?" Popular Science, March 28, 2014.

"This Computer Knows When 'Literally' Isn't Literal." Discover, August 5, 2014.

"Why Can't Robots Understand Sarcasm?" The Atlantic, January 22, 2015.

"Think you're punny? Computer that can tell how good a joke is." New Scientist, August 12, 2015.

"Call it Clement Droid: a machine that has a droll sense of humour." The Times, August 15, 2015.

"What people can learn from algorithms — and algorithms can learn from people." Boston Globe, May 27, 2016.

"AI's Langauge Problem." MIT Technology Review, August 9, 2016.

Invited Presentations

AAAI Symposium "Conceptual Abstraction and Analogy in Natural and Artificial Intelligence", November 2020.

MPI Tübingen, November 2020.

Brown CLIPS "Social Cognitive Seminar", October 2020.

"Optimal experiment design" workshop, Mathematical Psychology, July 2020.

University of Saarbrucken, Germany, February 2020.

ICLR, New Orleans, LA, May 2019.

Open Source Leadership Summit, Half Moon Bay, CA, March 2019.

College de France, Paris, France, February 2019.

"Robots Seminar", Oxford, UK, February 2019.

Deepmind, London, UK, February 2019.

Probabilistic Programming, Cambridge, MA, October 2018.

KogWis (Germany Cognitive Science Society Biannual Conference), Darmstadt, Germany, September 2018.

"Program Induction" workshop, CogSci, Madison, WI, July 2018.

A-Star, Singapore, June 2018.

Dubrovnik Cognitive Science Conference, Dubrovnik, Croatia, May 2018.

Cognitive Science Colloquium, Johns Hopkins University, Baltimore, MD, March 2018.

"Emergent Language" workshop, NIPS, Long Beach, CA, November 2017.

"Combining Academia and Industry Workshop", CogSci, London, UK, July 2017.

Gatsby Unit, London, UK, July 2017.

PLEMM workshop, Facebook, Menlo Park, CA, May 2017.

EmTech Digital, San Francisco, CA, March 2017.

Uber Technology Conference, Uber, Palo Alto, CA, February 2017.

Machine Learning Seminar, University of Washington, Seattle, WA, January 2017.

Tokyo, Japan, December 2016.

Society for Philosophy and Psychology, Austin, TX, May 2016.

Adobe Machine Learning Seminar, San Jose, CA, April 2016.

DGfS workshop on Computational Pragmatics, Konstanz, Germany, February 2016.

SPLAP Workshop, UCSC, Santa Cruz, CA, February 2016.

Linguistic Universals Colloquium, Harvard University, Cambridge, MA, October 2015.

CS, Brown University, Providence, RI, October 2015.

CLPS Colloquium, Brown University, Providence, RI, October 2015.

ILLC Colloquium, University of Edinburgh, Edinburgh, UK, September 2015.

XPRAG 7, Plenary Speaker, Chicago, IL, July 2015.

Microsoft Faculty Summit, Seattle, WA, July 2015.

AAAI symposium on Knowledge Representation and Reasoning, Stanford, CA, March 2015.

UCSD seminar on Computational and Experimental Pragmatics, San Diego, CA, February 2015.

Princeton Cognitive Science Colloquium, Princeton, NJ, January 2015.

University of Maryland Cognitive Science Colloquium, College Park, MD, January 2015.

University of Maryland NLP Seminar, College Park, MD, January 2015.

Northwestern University Linguistics Colloquium, Evanston, IL, January 2015.

Cognitive Science Society invited symposium "Foundations of Social Cognition", Quebec City, Canada, July 2014.

NYU Psychology, New York, April 2014.

DE Shaw Tech Talk, New York, April 2014.

University of Arizona Cognitive Science Colloquium, Tucson, AZ, February 2014.

AI Colloquium, Groningen, Netherlands, February 2014.

Amsterdam Colloquium, Amsterdam, Netherlands, December 2013.

NeuroSpin, Paris, France, December 2013.

IIIS Machine Learning Seminar, Tsinghua University, Beijing, China, October 2013.

"Logic across the university" workshop, Tsinghua University, Beijing, China, October 2013.

Intelligence Initiative Seminar, MIT, Cambridge, MA, September 2013.

Laboratory for Developmental Science Seminar, Harvard, Cambridge, MA, September 2013.

CogSci workshop "Producing Referring Expressions", Berlin, Germany, August 2013.

CogSci workshop "Motivations and Goals in Developing Integrative Models of Human Cognition", Berlin, Germany, August 2013.

"Rational Choice Workshop", Dept. of Economics, University of Chicago, Chicago, IL, May 2013.

UT-Austin Linguistics Colloquium, Austin, TX, April 2013.

UT-Austin Cognitive Systems Forum, Austin, TX, April, 2013.

Google, Mountain View, CA, April 2013.

Intel, Sunnyvale, CA, April 2013.

IMBS workshop "Quantum thinking", Irvine, CA, February 2013.

Keynote, Principles of Programming Languages (POPL 13), Rome, Italy, January 2013.

Linguistics Colloquium, Tubingen, Germany, January 2013.

Invited Symposium, Budapest CEU Conference on Cognitive Development, Budapest, Hungary, January 2013.

Indiana Cognitive Science Colloquium, Bloomington, IN, November 2012.

Statistical Relational Artificial Intelligence workshop, UAI, Avalon, CA, August 2012.

Early Career Keynote Speaker, International Conference on Thinking, symposium on Causal Learning & Reasoning, London 2012.

Early Career Keynote Speaker, International Conference on Thinking, symposium on Inductive Reasoning, London 2012.

Reasoning and Interaction workshop, UT-Austin, Austin, TX, June 2012.

Workshop "Interdisciplinary approaches to implicature." MIT, Cambridge, MA, May 2012.

California Cognitive Science Conference, Berkeley, CA, April 2012.

International Congress on Computer Vision, Vision Grammars Workshop, Barcelona, Spain, November 2011.

UC Berkeley Institute for Human Development seminar, Berkeley, CA, October 2011.

UC Berkeley Institute for Cognitive and Brain Sciences seminar, Berkeley, CA, September 2011.

Gatsby Unit special seminar, University College, London, UK, September 2011.

London Judgment and Decision Making seminar, London, UK, September 2011.

AAAI workshop on Plan and Intent Recognition, San Francisco, CA, August 2011.

UC Merced Cognitive and Information Sciences Colloquium, Merced, CA, March 2011.

UCSC Psychology Colloquium, Santa Cruz, CA, February 2011.

Neural Information Processing Systems workshop "Modeling human communication dynamics". Whistler, BC, December 2010.

SRI, Menlo Park, CA, November 2010.

UCSD Psychology Colloquium, San Diego, CA, November 2010.

CSLI Symposium, Stanford University, Stanford, CA, October 2010.

Humanity+ Summit, Harvard University, Cambridge, MA, June 2010.

Cornell Workshop on Grammar Induction, Ithaca, NY, May 2010.

Massachusetts General Hospital, Biostatistics Seminar. Boston, MA, March 2010.

Johns Hopkins University, Psychology Department special seminar. Baltimore, MD, January 2010.

Stanford University, Psychology Department special seminar. Stanford, CA, January 2010.

University of Rochester, Brain and Cognitive Sciences colloquium. Rochester, NY, October 2009.

University of Michigan, Developmental Psychology Brown Bag seminar. Ann Arbor, MI, October 2009.

Brown University, Pattern Theory seminar. Providence, RI, October 2009.

University of Edinburgh, Informatics Division colloquium. Edinburgh, UK, July 2009.

Banff International Research Station workshop "Probabilistic models of cognitive development". Banff, BC, May 2009.

Invited commentary, Interdisciplinary Graduate Conference on Consciousness. Boston, MA, April 2009.

MIT, Brain and Cognitive Sciences special seminar. Boston, MA, March 2009.

Neural Information Processing Systems workshop "Probabilistic programming", Whistler, BC, December 2008.

Neural Information Processing Systems workshop "Human learning meets machine learning". Whistler, BC, December 2008.

New York University, Developmental Psychology seminar. New York, NY, October 2008.

Keynote speaker, International Conference on Inductive Logic Programming. Prague, September 2008.

University of Texas, Cognitive Psychology seminar. Austin, TX, August 2008.

Center for Advanced Study in the Behavioral Sciences workshop "Early mechanisms of understanding social causation" (Festschrift for John S. Watson). Stanford, CA, April 2008.

International Conference on Infant Studies invited symposium "From statistical regularities to conceptual inference". Vancouver, BC, March 2008.

ONR Workshop on Computational Social Cognition. MIT, Cambridge, MA, March 2008.

Harvard university, Psychology colloquium. Cambridge, MA, February 2008.

University of California, Berkeley, Computational Cognitive Science seminar. Berkeley, CA, November 2007.

AAAI Fall Symposia workshop "Representation Change". Washington, DC, November 2007.

Society for Philosophy and Psychology. Toronto, ON, June 2007. (Invited commentary on D. Lyons, "Covert Rationality: Overimitation and the Structure of Children's Causal Learning".)

McDonnell Foundation Workshop on Moral Cognition. Pasadena, CA, May 2007.

University of Salzburg, Institute fur Psychologie colloquium. Salzburg, AU, April 2007.

University of Gottingen, Cognitive and Decision Sciences seminar. Gottingen, GM, April 2007.

Rutgers University, Center for Cognitive Science seminar. Piscataway, NJ, March 2007.

Society for Philosophy and Psychology, Invited symposium on Causality. St. Louis, MO, June 2006.

University of California, Berkeley, Cognitive Development seminar. Berkeley, CA, 2006.

University of Michigan, Developmental Psychology seminar. Ann Arbor, MI, 2006.

Brown University, Cognitive Science seminar. Providence, RI, 2005.

M.I.T., Computational Cognitive Science seminar. Cambridge, MA, December 2004.

Bryn Mawr College, Contact Topology seminar. Bryn Mawr, PA, April 2003.

University of Pennsylvania, Department of Mathematics Geometry-Topology seminar. Philadelphia, PA, January 2003.

University of Texas at Austin, Department of Mathematics Topology seminar. Austin, TX, March 2002.

Columbia University, Department of Mathematics Topology seminar. New York, NY, March 2001.

State University of New York, Department of Mathematics Geometry seminar. Stony Brook, NY, March 2001.

Professional Services

Journal Reviewer: Science. Nature. PNAS. Cognition. Trends in Cognitive Science. Cognitive Science. Cognitive Psychology. Child Development. Memory and Cognition. Journal of Mathematical Psychology. Cognitive Processing. Journal of Experimental Psychology: Learning, Memory, & Cognition. Journal of Experimental Psychology: General. Philosophical Transactions A. American Journal of Psychology. Cerebral Cortex. Decision. Natural Language Semantics.

Conference Proceedings Reviewer (selected): Cognitive Science. Neural Information Processing Systems. Society for Philosophy and Psychology. Uncertainty in Artificial Intelligence.

Grant reviewer: NSF (ad-hoc and panelist), ONR.

Program committee / Senior PC: Cognitive Science Society, 2014, 2015, 2016. AAAI 2016. AIStats 2017.

Co-organizer: Cognitive Science Society, symposium "Empirical and Computational Approaches to Metaphor and Figurative Meaning", Pennsylvania, August 2016.

Co-organizer: Cognitive Science Society, symposium "The Emergence of Conventions", Pennsylvania, August 2016.

Co-Organizer: European Summer School of Logic Language and Information, workshop "Formal and Experimental Pragmatics". Tubingen, August 2014.

Organizer: Stanford Pragmatics and Social Cognition Workshop, March 2013.

Co-Organizer: NIPS workshop on Probabilistic Programming, December 2012.

Area chair: NIPS 2011. Granada, Spain, December 2011.

Co-Organizer: IPAM summer school "Probabilistic Models of Cognition". Los Angeles, CA, July 2011.

Organizer: workshop "Probabilistic Programming in AI". Los Altos, CA, January 2010.

Co-Organizer: NIPS workshop "Bounded-rational analyses of human cognition: Bayesian models, approximate inference, and the brain". Whistler, BC, December 2009.

Program committee: International Workshop on Statistical Relational Learning. Leuven, Belgium, July 2009.

Co-Organizer: Cognitive Science Society, workshop "Intuitive pedagogical reasoning: an interdisciplinary workshop". Amsterdam, Netherlands, August 2009.

Co-Organizer: Annual Summer Interdisciplinary Conference, symposium "Bayesian models in psychology". Valle 'Aosta, Italy, July 2009.

Co-Organizer: Eastern Psychology Association, workshop "Social routes to causal knowledge: action, imitation, and pedagogy". Boston, MA, March 2008.

Co-Organizer: McDonnell Foundation workshop "Explanation and prior knowledge". Cambridge, MA, November 2006.

Mentor (1999-2001), Canada/USA Mathcamp.

Co-Organizer and Coordinator of Hiring, Canada/USA Mathcamp 2000, 2001.

Outreach

Guest lecture, Summer School in Cognitive Science, Montreal, Canada, June 2016.

Guest lecturer, SAILORS program, Stanford, 2015, 2016, 2017.

Studium Generale, Groningen, Netherlands, February 2014.

Visiting Lecturer (2006, 2008, 2010, 2011, 2014), Canada/USA Mathcamp.

Teaching

University Courses

"Langauge and Thought" (OSPMADRD 19). Stanford (BOSP Madrid). Winter 2020.

"Independent Study in Machine Translation" (OSPMADRD 20). Stanford (BOSP Madrid). Winter 2020.

"Psychometrics and automated experiment design" (PSYCH 241). Stanford. Autumn 2019.

"Langauge and Thought" (Psych 132). Stanford. Spring 2019.

"Computation and Cognition: the Probabilistic Approach" (Psych 204 / CS 428). Stanford. Winter 2011, Winter 2012, Autumn 2012, Autumn 2013, Spring 2015, Autumn 2016, Autumn 2017, Autumn 2018.

"Topics in Natural and Artificial Intelligence". Stanford. Autumn 2018.

"Seminar on the Science of Meditation" (Psych 295). Stanford. Spring 2018.

"Seminar in Semantics: Formal semantics and the psychology of reasoning" (LINGUIST 236/PSYCH 236). Stanford. Spring 2017.

"Foundations of Cognition" (Psych 205). Stanford. Spring 2015.

"Probabilistic Models of Social Behavior and Affect" (Psych 241). Stanford. Spring 2014. (Co-taught with J. Zaki, M. Frank.)

"Representations of Meaning" (Psych 236 c, Linguist 236). Stanford. Spring 2013.(Co-taught with C. Potts.)

"Introduction to Cognitive Science" (SymSys 100, Psych 34). Stanford. Spring 2012, Winter 2013, Winter 2014.

"Formal and Computational Approaches in Psychology and Cognitive Science" (Psych 239). Stanford. Spring 2011. (Co-taught with J. McClelland.)

Co-taught (with L. Schulz and C. Moore): "Perception, Conception, and Action: Grounding Thoughts in Experience (and Vice Versa)", MIT, Spring 2008.

Experience teaching mathematics at all levels, 1997-2005. (Details by request.)

Summer Schools and Tutorials

Probabilistic Programming for Advanced Machine Learning (summer school for DARPA program of the same name), Portland, August 2016.

"Probabilistic programming languages." European Summer School of Logic Language and Information. Tubingen, August 2014.

"Probability in semantics and pragmatics" (with D. Lassiter). European Summer School of Logic Language and Information. Dusseldorf, August 2013.

"Stochastic lambda calculus and its applications in cognitive science." (Invited course.) North-American Summer School of Logic, Language, and Information. Austin, TX, June 2012.

"Computational Cognitive Science: Probability, Programs, and the Mind." European Summer School of Logic Language and Information. Copenhagen, August 2010.

Tutorial on probabilistic models of cognition (with T. O'Donnell). Cornell University, October 2009.

IPAM Graduate Summer School: "Probabilistic Models of Cognition: The Mathematics of Mind", Los Angeles CA, July 2007. (3 lectures.)

Advising

Post-doctoral students

Judy Fan, 2017-2019 (Now assistant professor of Psychology, UCSD)

Daniel Ritchie, 2016-17 (Now assistant professor of CS, Brown)

Leon Bergen, 2016-2017 (Now assistant professor of Linguistics, UCSD)

Judith Degen, 2013-2017 (Now assistant professor of Linguistics, Stanford)

Andreas Stuhmueller, 2015-2017 (Now CEO Ought, Inc.)

Long Ouyang, 2015-2016

Gregory Scontras, 2014-2016 (Now associate professor of Linguistics, UC Irvine)

Siddarth Narayanaswami 2013-15 (Now lecturer, University of Edinburgh)

Daniel Ly, 2013-15

Daniel Lassiter, 2011-13 (Now assistant professor of Linguistics, Stanford University)

Joseph Austerweil, 2013 (Now associate professor of Cognitive Science, University of Wisconsin)

Ph.D. students

Gabriel Poesia (Stanford, Computer Science)

Julia White (Stanford, Electrical Engineering)

Alex Tamkin (Stanford, Computer Science)

Jesse Mu (Stanford, Computer Science)

Mike Wu (Stanford, Computer Science)

Ben Peloquin (Stanford, Psychology), on leave

Erin Bennett (Stanford, Psychology), completed 2020

Robert X. D. Hawkins (Stanford, Psychology), completed 2019

Michael Henry Tessler (Stanford, Psychology), completed 2018

Desmond Ong (Stanford, Psychology), completed 2017

Daniel Ritchie (Stanford, Computer Science), completed 2016

Justine Kao (Stanford, Psychology), completed 2016

Long Ouyang (Stanford, Psychology), completed 2015

Daniel Hawthorne (Stanford, Psychology), completed 2015

Andreas Stuhmueller (MIT, BCS), completed 2015

Ph.D. Committees

Shao-Fang (Pam) Wang (Stanford, Psychology)

Natalia Velez (Stanford, Psychology), completed 2019

Andrew Lampinen (Stanford, Psychology), completed 2019

Erica Yoon (Stanford, Psychology), completed 2019

Ziang Xie (Stanford, CS), completed 2018

Justin Johnson (Stanford, CS), completed 2018

Will Munroe (Stanford, CS), completed 2018

Steven Hansen (Stanford, Psychology), completed 2018

Sida Wang (Stanford, CS), completed 2017

Ian Ballard (Stanford, Neuroscience), completed 2017

Molly Lewis (Stanford, Psychology), completed 2016

Leon Bergen (MIT, BCS), completed 2015

Lingfeng Yang (Stanford, Computer Science), completed 2015

Rahul Sharma (Stanford, Computer Science), completed 2015

Eric Schkufza (Stanford, Computer Science), completed 2015

Eric Miller (Stanford, Psychology), completed 2015

Tomer Ulman (MIT, BCS), completed 2014

Spence Green (Stanford, Computer Science), completed 2014

Ranjitha Kumar (Stanford, Computer Science), completed 2013

Yi-Ting Yeh (Stanford, Computer Science), completed 2013

Thomas Icard III (Stanford, Philosophy), completed 2013

Jerry Talton III (Stanford, Computer Science), completed 2012

Jeremy Glick (Stanford, Psychology), completed 2011

Daniel Sternberg (Stanford, Psychology), completed 2011

Steve Piantadosi (MIT, BCS), completed 2011

Timothy J. O'Donnell (Harvard, Psychology), completed 2011

University Committees

Psychology Department, Graduate Admissions Committee (*Chair*), 2018-19, 2019-20, 2020-2021.

CS Department, Pre-Hiring Committee, 2020-21.

Human-centered AI Initiative Design Committee, 2018-19.

CS Department, Curriculum Revision Committee, 2018-19.

CS Department, Graduate Admissions Committee, 2018-19.

CS Department, Ad-Hoc Promotion Committee, 2018-19.

Psychology Department, Graduate Admissions Committee, 2016-17, 2017-18.

CS Department, MA Advising Committee, 2017-18.

Psychology Department, Colloquium Committee, 2014-2015.

Psychology Department, Cognitive Search Committee, 2014-2015.

Psychology Department, Curriculum Committee, 2014-2015.

Psychology Department, Colloquium Committee, 2013-2014.

Human Subjects Research IRB, 2013-2014.

Psychology Department, Colloquium Committee, 2012-2013.

Psychology Department, Graduate Admissions Committee, 2012-2013.

Psychology Department, Cognitive Search Committee, 2012-2013.

Psychology Department, Computer Committee, 2012-2013.

Psychology Department, Graduate Program Committee, 2011-2012.

Psychology Department, Graduate Admissions Committee, 2011-2012.

Psychology Department, Cognitive Search Committee, 2011-2012.

Psychology Department, Computer Committee, 2011-2012.

Psychology Department, Cognitive Search Committee, 2010-2011.

Miscellaneous:

Citizen of the USA.
Member Cognitive Science Society.
Member Psychonomic Society.