

CURRICULUM VITAE**THOMAS L. GRIFFITHS****PERSONAL DETAILS**

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 Department of Psychology
 3210 Tolman Hall, # 1650
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 Citizenship: Citizen of Australia and the United Kingdom
 United States permanent resident

PROFESSIONAL POSITIONS

July, 2006 - Assistant Professor
 Department of Psychology and Cognitive Science Program
 University of California, Berkeley
 January, 2005 - June, 2006 Assistant Professor
 Department of Cognitive and Linguistic Sciences
 Brown University

I am also a member of the Institute for Brain and Cognitive Sciences (2006-), the Helen Wills Neuroscience Institute (2007-), and the Department of Computer Science (by courtesy) (2007-).

EDUCATION

Ph.D. in Psychology, Stanford University, 2005
 Dissertation title: *Causes, coincidences, and theories*
 Exchange scholar, Brain and Cognitive Sciences Department and Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology, 2002-2004
 M.S. in Statistics, Stanford University, 2002
 M.A. in Psychology, Stanford University, 2002
 B.A. (Honours) in Psychology, University of Western Australia, 1998

AWARDS

2007 Co-author on paper “Markov chain Monte Carlo with people” (with student A. Sanborn) which received the Outstanding Student Paper prize at the Neural Information Processing Systems conference.
 2006 “AI Ten to Watch” award from *IEEE Intelligent Systems* magazine, awarded to the ten most promising young scientists performing artificial intelligence research as part of the 50th anniversary of the first artificial intelligence conference.
 Co-author on paper “Modeling cross-domain causal learning in preschoolers as Bayesian inference” (with student E. Bonawitz) which received the Marr prize for best student paper at the Cognitive Science Society conference.

- 2004 Honorable mention for Marr prize for best student paper for “Using physical theories to infer hidden causes” at the Cognitive Science Society conference.
- 2003 Best student paper prize, natural systems (cognitive science) for “From algorithmic complexity to subjective randomness” at the Neural Information Processing Systems conference.
Best student paper prize, synthetic systems (machine learning) for “Hierarchical topic models and the nested Chinese restaurant process” at the Neural Information Processing Systems conference.
- 2002 Stanford University Centennial Teaching Assistant Award.
Department of Psychology Distinguished Teaching Award.
- 1999 Stanford Graduate Fellowship (3 years of graduate funding).
- 1998 Hackett Studentship (2 years of graduate funding).
J.A. Wood Prize (best student in the Faculties of Arts, Law, and Economics at the University of Western Australia).

GRANTS AND FUNDING

External

- 2008 “Nonparametric Bayesian models for relational data” (with Michael Jordan, University of California, Berkeley), Lawrence Livermore National Laboratory (\$70,000).
- 2006-2008 “Topic modeling and identification” DARPA/SRI CALO project (\$150,000).
- 2006-2009 “Collaborative research: Knowledge transmission through iterated learning” (with Michael Kalish, University of Louisiana at Lafayette), National Science Foundation, BCS-0704034 (\$314,234 total, with \$114,234 to Berkeley).
- 2006-2009 “Collaborative research: Bayesian methods for learning and analyzing natural language” (with Mark Johnson, Brown University), National Science Foundation, SES-0631518 (\$320,000 total, with \$160,000 to Berkeley).
- 2007-2009 “Theory-based Bayesian models of inductive inference”, Air Force Office of Scientific Research, FA9550-07-1-0351 (\$239,998).

Internal

- 2006-2007 “Computational and statistical foundations of human inductive inference” (with Stuart Russell and Michael Jordan), Chancellor’s Faculty Partnership Fund (\$78,985).
- 2006-2008 Berkeley Committee on Research Junior Faculty Research Grants (\$14,000 total).

PUBLICATION LIST

Journal articles

1. Lewandowsky, S., Kalish, M., & **Griffiths, T.L.** (2000). Competing strategies in categorization: Expediency and resistance to knowledge restructuring. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 26, 1666-1684.

2. Tenenbaum, J.B., & **Griffiths, T.L.** (2001). Generalization, similarity, and Bayesian inference. *Behavioral and Brain Sciences*, *24*, 629-641. (target article)
3. Tenenbaum, J.B., & **Griffiths, T.L.** (2001). Some specifics about generalization. *Behavioral and Brain Sciences*, *24*, 772-778. (response to commentaries)
4. **Griffiths, T.L.**, & Kalish, M.L. (2002). A multidimensional scaling approach to mental multiplication. *Memory and Cognition*, *30*, 97-106.
5. **Griffiths, T.L.**, & Steyvers, M. (2004). Finding scientific topics. *Proceedings of the National Academy of Sciences*, *101*, 5228-5235.
6. **Griffiths, T.L.**, & Tenenbaum, J. B. (2005). Structure and strength in causal induction. *Cognitive Psychology*, *51*, 354-384.
7. Navarro, D.J., **Griffiths, T.L.**, Steyvers, M., & Lee, M.I. (2006). Modeling individual differences with Dirichlet processes. *Journal of Mathematical Psychology*, *50*, 101-122.
8. Steyvers, M., **Griffiths, T.L.**, & Dennis, S. (2006). Probabilistic inference in human semantic memory. *Trends in Cognitive Sciences*, *10*, 327-334.
9. Tenenbaum, J.B., **Griffiths, T.L.**, & Kemp, C. (2006). Theory-based Bayesian models of inductive learning and reasoning. *Trends in Cognitive Sciences*, *10*, 309-318.
10. **Griffiths, T.L.**, & Tenenbaum, J. B. (2006). Optimal predictions in everyday cognition. *Psychological Science*, *17*, 767-773.
11. **Griffiths, T.L.**, & Tenenbaum, J. B. (2007). From mere coincidences to meaningful discoveries. *Cognition*, *103*, 180-226.
12. Kirby, S., Dowman, M., & **Griffiths, T.L.** (2007). Innateness and culture in the evolution of language. *Proceedings of the National Academy of Sciences*, *104*, 5241-5245.
13. **Griffiths, T.L.**, & Kalish, M. L. (2007). Language evolution by iterated learning with Bayesian agents. *Cognitive Science*, *31*, 441-480.
14. **Griffiths, T.L.**, Steyvers, M., & Tenenbaum, J. B. (2007). Topics in semantic representation. *Psychological Review*, *114*, 211-244.
15. Iwata, T., Saito, K., Ueda, N., Stromsten, S., **Griffiths, T.L.**, and Tenenbaum, J. B. (2007). Parametric embedding for class visualization. *Neural Computation*, *19*, 2536-2556.
16. Kalish, M.L., **Griffiths, T.L.**, & Lewandowsky, S. (2007). Iterated learning: Intergenerational knowledge transmission reveals inductive biases. *Psychonomic Bulletin and Review*, *14*, 288-294.
17. Schulz, L., Bonawitz, E. B., & **Griffiths, T.L.** (2007). Can being scared make your tummy ache? Naive theories ambiguous evidence and preschoolers' causal inferences. *Developmental Psychology*, *43*, 1124-1139.
18. **Griffiths, T.L.**, Steyvers, M., & Firl, A. (2007). Google and the mind: Predicting fluency with PageRank. *Psychological Science*, *18*, 1069-1076.
19. **Griffiths, T.L.**, Christian, B.R., & Kalish, M.L. (2008). Using category structures to test iterated learning as a method for revealing inductive biases. *Cognitive Science*, *32*, 68-107.
20. Goodman, N.D., Tenenbaum, J.B., Feldman, J., & **Griffiths, T.L.** (2008). A rational analysis of rule-based concept learning. *Cognitive Science*, *32*, 108-154.
21. Navarro, D.J. & **Griffiths, T.L.** (in press). Latent features in similarity judgment: A nonpara-

metric Bayesian approach. *Neural Computation*.

Peer-reviewed conference papers

22. **Griffiths, T.L.**, & Tenenbaum, J.B. (2000). Teacakes, trains, toxins, and taxicabs: A Bayesian account of predicting the future. *Proceedings of the 22nd Annual Conference of the Cognitive Science Society*.
23. **Griffiths, T.L.**, & Tenenbaum, J.B. (2001). Randomness and coincidences: Reconciling intuition and probability theory. *Proceedings of the 23rd Annual Conference of the Cognitive Science Society*.
24. Tenenbaum, J.B., & **Griffiths, T.L.** (2001). Structure learning in human causal induction. *Advances in Neural Information Processing Systems 13*.
25. Tenenbaum, J.B., & **Griffiths, T.L.** (2001). The rational basis of representativeness. *Proceedings of the 23rd Annual Conference of the Cognitive Science Society*.
26. **Griffiths, T.L.**, & Tenenbaum, J.B. (2002). Using vocabulary knowledge in Bayesian multinomial estimation. *Advances in Neural Information Processing Systems 14*.
27. **Griffiths, T.L.**, & Steyvers, M. (2002). A probabilistic approach to semantic representation. *Proceedings of the 24th Annual Conference of the Cognitive Science Society*.
28. **Griffiths, T.L.**, & Tenenbaum, J.B. (2003). Probability, algorithmic complexity, and subjective randomness. *Proceedings of the 25th Annual Conference of the Cognitive Science Society*.
29. Danks, D., **Griffiths, T.L.**, & Tenenbaum, J.B. (2003). Dynamical causal learning. *Advances in Neural Information Processing Systems 15*.
30. **Griffiths, T.L.**, & Steyvers, M. (2003). Prediction and semantic association. *Advances in Neural Information Processing Systems 15*.
31. Tenenbaum, J.B., & **Griffiths, T.L.** (2003). Theory-based causal inference. *Advances in Neural Information Processing Systems 15*.
32. **Griffiths, T.L.**, & Tenenbaum, J.B. (2004). From algorithmic to subjective randomness. *Advances in Neural Information Processing Systems 16*. (winner of best student paper prize – natural systems)
33. Blei, D.M., **Griffiths, T.L.**, Jordan, M.I., & Tenenbaum, J.B. (2004) Hierarchical topic models and the nested Chinese restaurant process. *Advances in Neural Information Processing Systems 16*. (winner of best student paper prize – synthetic systems)
34. Kemp, C. S., **Griffiths, T.L.**, Stromsten, S., & Tenenbaum, J.B. (2004) Semi-supervised learning with trees. *Advances in Neural Information Processing Systems 16*.
35. Steyvers, M., Smyth, P., Rosen-Zvi, M., & **Griffiths, T.** (2004). Probabilistic Author-Topic models for information discovery. *The Tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*.
36. Rosen-Zvi, M., **Griffiths, T.**, Steyvers, M., & Smyth, P. (2004). The Author-Topic model for authors and documents. *Proceedings of the 20th Conference on Uncertainty in Artificial Intelligence*.
37. **Griffiths, T.L.**, Baraff, E.R., & Tenenbaum, J.B. (2004). Using physical theories to infer hidden

- causes. *Proceedings of the 26th Annual Conference of the Cognitive Science Society*. (honorable mention for Marr prize for best student paper)
38. **Griffiths, T.L.**, Steyvers, M., Blei, D.M., & Tenenbaum, J.B. (2005). Integrating topics and syntax. *Advances in Neural Information Processing Systems 17*.
 39. Iwata, T., Saito, K., Ueda, N., Stromsten, S., **Griffiths, T.**, & Tenenbaum, J. (2005). Parametric embedding for class visualization. *Advances in Neural Information Processing Systems 17*.
 40. **Griffiths, T.L.** & Kalish, M.L. (2005). A Bayesian view of language evolution by iterated learning. *Proceedings of the 27th Annual Conference of the Cognitive Science Society*.
 41. Navarro, D.J., **Griffiths, T.L.**, Steyvers, M., & Lee, M.I. (2005). Modeling individual differences with Dirichlet processes. *Proceedings of the 27th Annual Conference of the Cognitive Science Society*.
 42. Goldwater, S., **Griffiths, T.L.**, & Johnson, M. (2006). Interpolating between types and tokens by estimating power law generators. *Advances in Neural Information Processing Systems 18*.
 43. **Griffiths, T.L.**, & Ghahramani, Z. (2006). Infinite latent feature models and the Indian buffet process. *Advances in Neural Information Processing Systems 18*.
 44. Dowman, M., Kirby, S., & **Griffiths, T.L.** (2006). Innateness and culture in the evolution of language. In A. Cangelosi, A. D. M. Smith, & K. Smith (Eds.) *The evolution of language: Proceedings of the 6th international conference on language evolution (EVOLANG6)* (pp. 83-90). Hackensack, NJ: World Scientific.
 45. Purver, M., Kording, K.P., **Griffiths, T.L.**, & Tenenbaum, J. B. (2006). Unsupervised topic modelling for multi-party spoken discourse. *Proceedings of COLING/ACL 2006*.
 46. Goldwater, S., **Griffiths, T.L.**, & Johnson, M. (2006). Contextual dependencies in unsupervised word segmentation. *Proceedings of COLING/ACL 2006*.
 47. Mansinghka, V.K., Kemp, C., Tenenbaum, J.B., & **Griffiths, T.L.** (2006). Structured priors for structure learning. *Proceedings of the Twenty-Second Conference on Uncertainty in Artificial Intelligence (UAI 2006)*.
 48. Wood, F., **Griffiths, T.L.**, & Ghahramani, Z. (2006). A non-parametric Bayesian method for inferring hidden causes. *Proceedings of the Twenty-Second Conference on Uncertainty in Artificial Intelligence (UAI 2006)*.
 49. Kemp, C., Tenenbaum, J. B., **Griffiths, T. L.**, Yamada, T., & Ueda, N. (2006). Learning systems of concepts with an infinite relational model. *Proceedings of the Twenty-First National Conference on Artificial Intelligence (AAAI '06)*.
 50. **Griffiths, T.L.**, Christian, B.R., & Kalish, M.L. (2006). Revealing priors on category structures through iterated learning. *Proceedings of the 28th Annual Conference of the Cognitive Science Society*.
 51. Bonawitz, E.B., **Griffiths, T.L.**, & Schulz, L. (2006). Modeling cross-domain causal learning in preschoolers as Bayesian inference. *Proceedings of the 28th Annual Conference of the Cognitive Science Society*. (winner of Marr prize for best student paper)
 52. Sanborn, A.N., **Griffiths, T.L.**, & Navarro, D.J. (2006). A more rational model of categorization. *Proceedings of the 28th Annual Conference of the Cognitive Science Society*.
 53. Goldwater, S., **Griffiths, T.L.**, & Johnson, M. (2007). Distributional cues to word segmen-

- tation: Context is important. *Proceedings of the 31st Boston University Conference on Language Development*.
54. Johnson, M., **Griffiths, T.L.**, & Goldwater, S. (2007). Bayesian inference for PCFGs via Markov chain Monte Carlo. *Proceedings of the North American Conference on Computational Linguistics (NAACL'07)*.
 55. Goldwater, S., & **Griffiths, T.L.** (2007). A fully Bayesian approach to unsupervised part-of-speech tagging. *Proceedings of the 45th Annual Meeting of the Association for Computational Linguistics*.
 56. Bouchard-Côté, A., Liang, P., **Griffiths, T.L.**, & Klein, D. (2007). A probabilistic approach to diachronic phonology. *Proceedings of the 2007 Joint Conference on Empirical Methods in Natural Language Processing and Computational Natural Language Learning (EMNLP-CoNLL)*.
 57. Wood, F., & **Griffiths, T.L.** (2007). Particle filtering for nonparametric Bayesian matrix factorization. *Advances in Neural Information Processing Systems 19*.
 58. Johnson, M., **Griffiths, T.L.**, & Goldwater, S. (2007). Adaptor grammars: A framework for specifying compositional nonparametric Bayesian models. *Advances in Neural Information Processing Systems 19*.
 59. Navarro, D. J., & **Griffiths, T.L.** (2007). A nonparametric Bayesian method for inferring features from similarity judgments. *Advances in Neural Information Processing Systems 19*.
 60. Schreiber, E., & **Griffiths, T.L.** (2007). Subjective randomness and natural scene statistics. *Proceedings of the 29th Annual Conference of the Cognitive Science Society*.
 61. Feldman, N., & **Griffiths, T.L.** (2007). A rational account of the perceptual magnet effect. *Proceedings of the 29th Annual Conference of the Cognitive Science Society*.
 62. **Griffiths, T.L.**, Canini, K. R., Sanborn A. N., & Navarro, D. J. (2007). Unifying rational models of categorization via the hierarchical Dirichlet process. *Proceedings of the 29th Annual Conference of the Cognitive Science Society*.
 63. Frank, M., Goldwater, G., **Griffiths, T.L.**, & Tenenbaum, J. B. (2007). Modeling human performance in statistical word segmentation. *Proceedings of the 29th Annual Conference of the Cognitive Science Society*.
 64. Goodman, N., **Griffiths, T.L.**, Feldman, J., & Tenenbaum, J. B. (2007). A rational analysis of rule-based concept learning. *Proceedings of the 29th Annual Conference of the Cognitive Science Society*.
 65. Sanborn, A. N., & **Griffiths, T.L.** (in press). Markov chain Monte Carlo with people. *Advances in Neural Information Processing Systems 20*. (winner of the Outstanding Student Paper prize)
 66. Bouchard-Côté, A., Liang, P., **Griffiths, T.L.**, & Klein, D. (in press). A probabilistic approach to language change. *Advances in Neural Information Processing Systems 20*.
 67. Reali, F., & **Griffiths, T. L.** (in press). The evolution of frequency distributions: Relating regularization to inductive biases through iterated learning. *Proceedings of the 30th Annual Conference of the Cognitive Science Society*.
 68. Xu, J., Reali, F., & **Griffiths, T. L.** (in press). A formal analysis of cultural evolution by replacement. *Proceedings of the 30th Annual Conference of the Cognitive Science Society*.
 69. Austerweil, J., & **Griffiths, T. L.** (in press). A rational analysis of confirmation with deter-

ministic hypotheses. *Proceedings of the 30th Annual Conference of the Cognitive Science Society*.

70. Williams, J. J., & **Griffiths, T. L.** (in press). Why are people bad at detecting randomness? Because it is hard. *Proceedings of the 30th Annual Conference of the Cognitive Science Society*.
71. Shi, L., Feldman, N. H., & **Griffiths, T. L.** (in press). Performing Bayesian inference with exemplar models. *Proceedings of the 30th Annual Conference of the Cognitive Science Society*.
72. Miller, K. T., **Griffiths, T. L.**, & Jordan, M. I. (in press). The phylogenetic Indian buffet process: A non-exchangeable nonparametric prior for latent features. *Proceedings of the Twenty-Fourth Conference on Uncertainty in Artificial Intelligence (UAI 2008)*.

Book chapters

73. Steyvers, M., & **Griffiths, T.L.** (2007). Probabilistic topic models. In T. Landauer, D. Mc-Namara, S. Dennis, & W. Kintsch (Eds.), *Handbook of Latent Semantic Analysis*. Hillsdale, NJ: Erlbaum.
74. Tenenbaum, J.B., **Griffiths, T.L.**, & Niyogi, S. (2007). Intuitive theories as grammars for causal inference. In Gopnik, A., & Schulz, L. (Eds.), *Causal learning: Psychology, philosophy, and computation*. Oxford: Oxford University Press.
75. **Griffiths, T.L.**, & Tenenbaum, J.B. (2007). Two proposals for causal grammars. In Gopnik, A., & Schulz, L. (Eds.), *Causal learning: Psychology, philosophy, and computation*. Oxford: Oxford University Press
76. Ghahramani, Z., **Griffiths, T.L.**, & Sollich, P. (2007). Bayesian nonparametric latent feature models (with discussion and rejoinder). In Bernardo, J. M., Bayarri, M. J, Berger, J. O., Dawid, A. P., Heckerman, D., Smith, A. F. M., and West, M. (Eds.) *Bayesian statistics 8*. Oxford: Oxford University Press.
77. **Griffiths, T.L.**, Sanborn, A. N., Canini, K. R., & Navarro, D. J. (2008). Categorization as nonparametric Bayesian density estimation. To appear in M. Oaksford and N. Chater (Eds.). *The probabilistic mind: Prospects for rational models of cognition*. Oxford: Oxford University Press.
78. Goodman, N. D., Tenenbaum, J. B., **Griffiths, T.L.**, & Feldman, J. (2008). Compositionality in rational analysis: Grammar-based induction for concept learning. To appear in M. Oaksford and N. Chater (Eds.). *The probabilistic mind: Prospects for rational models of cognition*. Oxford: Oxford University Press.
79. Steyvers, M., & **Griffiths, T.L.** (2008). Rational analysis as a link between human memory and information retrieval. To appear in M. Oaksford and N. Chater (Eds.). *The probabilistic mind: Prospects for rational models of cognition*. Oxford: Oxford University Press.
80. **Griffiths, T.L.**, & Yuille, A. (2008). A primer on probabilistic inference. To appear in M. Oaksford and N. Chater (Eds.). *The probabilistic mind: Prospects for rational models of cognition*. Oxford: Oxford University Press.
81. **Griffiths, T.L.**, Kemp, C., & Tenenbaum, J. B. (in press). Bayesian models of cognition. In R. Sun (ed.), *Cambridge handbook of computational psychology*. Cambridge, UK: Cambridge University Press.

Technical reports and other publications

82. Kemp, C., **Griffiths, T.L.**, & Tenenbaum, J.B. (2004). *Discovering latent classes in relational data*. AI Memo 2004-019, Massachusetts Institute of Technology.
83. **Griffiths, T.L.**, & Ghahramani, Z. (2005). *Infinite latent feature models and the Indian buffet process*. Gatsby Technical Report 2005-001, Gatsby Computational Neuroscience Unit, University College London.
84. **Griffiths, T.L.**, & Yuille, A. (2006). A primer on probabilistic inference. *Trends in Cognitive Sciences*. Supplement to special issue on Probabilistic Models of Cognition (volume 10, issue 7).
85. **Griffiths, T.L.**, & Tenenbaum, J.B. (2006). Statistics and the Bayesian mind. *Significance*, 3, 130-133.

INVITED TALKS

- 2008 Quantitative talk series, Psychology Department, University of California, Davis, Davis, CA.
 Symposium on “Bayesian models of perception,” Annual Meeting of the Vision Sciences Society.
 Workshop on “Language and Cognition,” University of Chicago, Chicago, IL.
 Cognitive Science Department, University of Arizona, Tucson, AZ.
 Workshop on “Core cognitive developmental mechanisms of understanding social causation and the establishment of conceptual representations of causal and intentional agency and action,” Center for Advanced Study in the Behavioral Sciences, Stanford University, Palo Alto, CA.
 Computer Science Department, University of Utah, Salt Lake City, UT.
 Computer Science Department, Brigham Young University, Provo, UT.
 Cognitive Science Department, University of California, Merced, Merced, CA.
 Workshop on “Evolution of psychological categories,” Institute for Mathematical Behavioral Sciences, University of California, Irvine, CA.
 Workshop on “Spanning the Socio-Cognitive Modeling Gap: From Development to Social Simulation,” Massachusetts Institute of Technology, Cambridge, MA.
- 2007 Distinguished Speaker Series, Center for Machine Learning and Intelligent Systems, University of California, Irvine, Irvine, CA.
 Cowles symposium, Cowles Foundation for Research in Economics, Yale University, New Haven, CN.
 Natural language processing group, Microsoft Research, Redmond, WA.
 Psychology Department, University of California, San Diego, La Jolla, CA.
 Center for the Study of Language and Information, Stanford, CA.
 Psychology Department, Stanford University, Stanford CA.
 Workshop on “Normative models in neuroscience” Computational and Systems Neuroscience conference, Park City, UT.
- 2006 Department of Psychology, University of California, Los Angeles, Los Angeles, CA.
 Department of Statistics, University of California, Los Angeles, Los Angeles, CA.

- Bayes focus week, Statistics and Mathematical Sciences Institute, Research Triangle Park, NC.
- Foundation Lecture (keynote), NeuroCritical Care Conference, Baltimore, MD.
- Center for Mind, Brain, and Computation, Stanford University, Stanford, CA.
- AI group, SRI, Palo Alto, CA.
- NSF Science of Learning Center conference on “Generalization of knowledge,” University of Colorado, Boulder, CO.
- Department of Brain and Cognitive Sciences, University of Rochester, Rochester, NY.
- Department of Psychology, Yale University, New Haven, CN.
- 2005 Workshop on “Bayesian natural language processing” at the Neural Information Processing Systems conference, Whistler, BC.
- Institute for Research in Cognitive Science, University of Pennsylvania, Philadelphia, PA.
- “Empirical inference” symposium, Max Planck Institute for Biological Cybernetics, Tübingen, Germany.
- Language Evolution and Computation Research Unit, Edinburgh University, Edinburgh, Scotland.
- Brain Sciences Program, Brown University, Providence, RI.
- 2004 Institute of Cognitive and Brain Sciences seminar, UC Berkeley, Berkeley, CA.
- “Hot topics” workshop on Visualization and Analysis of High Dimensional Data, Mathematical Sciences Research Institute, Berkeley, CA.
- Department of Psychology, Harvard University, Cambridge, MA.
- Gatsby Computational Neuroscience Unit, University College London.
- Department of Cognitive and Linguistic Sciences, Brown University, Providence, RI.
- 2003 Computer Science Department, University of California, Berkeley, CA.
- Psychology Department, University of California, Irvine, CA.
- Sackler Colloquium on “Mapping knowledge domains,” National Academy of Sciences, Irvine, CA.
- NTT Communication Sciences Laboratory, Osaka, Japan.
- 2002 Psychology Department, University of Colorado, Boulder, CO.
- Psychology Department, Indiana University, Bloomington, IN.
- Applied statistics workshop, Center for Behavioral Research in the Social Sciences, Harvard University, Cambridge, MA.
- 2001 Psychology Department, University of California, San Diego, CA.

OTHER TALKS AND CONFERENCE PRESENTATIONS

- 2007 Neural Information Processing Systems conference, Vancouver, BC.
 Annual meeting of the Society for Mathematical Psychology, Irvine, CA.
 29th Annual Conference of the Cognitive Science Society, Nashville, TN.
 Cognitive Development Society, Santa Fe, NM.
 Society for Research in Child Development, Boston, MA.
- 2006 Neural Information Processings Systems Conference, Vancouver, BC.
 Annual meeting of the Psychonomic Society, Houston, TX.
 Annual meeting of the Society for Mathematical Psychology, Vancouver, BC.
 28th Annual Conference of the Cognitive Science Society, Vancouver, BC.
 Eastern Psychological Association, Baltimore, MD.
- 2005 Neural Information Processing Systems conference, Vancouver, BC.
 Annual meeting of the Society for Judgment and Decision-Making, Toronto, ON.
 Annual meeting of the Psychonomic Society, Toronto, ON.
 27th Annual Conference of the Cognitive Science Society, Stresa, Italy.
- 2004 Workshop on “Probabilistic models of categorization,” Neural Information Processing Systems conference, Whistler, BC.
 Neural Information Processing Systems conference, Vancouver, BC.
 Annual meeting of the Psychonomic Society, Minneapolis, MN.
 Annual Cape Cod conference on Monte Carlo Methods, Cambridge, MA.
 Society for Philosophy and Psychology conference, Barcelona, Spain.
 Annual Summer Interdisciplinary Conference, Cavalese, Italy.
 26th Annual Conference of the Cognitive Science Society, Chicago, IL.
- 2003 Workshop on “Syntax, Semantics, and Statistics,” Neural Information Processing Systems conference, Whistler, BC.
 Neural Information Processing Systems conference, Vancouver, BC.
 25th Annual Conference of the Cognitive Science Society, Boston, MA.
 DIMACS workshop on “Complexity and inference,” Rutgers University, Piscataway, NJ.
- 2002 Neural Information Processing Systems conference, Vancouver, BC.
 24th Annual Conference of the Cognitive Science Society, Fairfax, VA.
- 2001 23rd Annual Conference of the Cognitive Science Society, Edinburgh, Scotland.
 Neural Information Processing Systems conference, Denver, CO.
 Workshop on “Causal learning and inference in humans and machines,” Neural Information Processing Systems conference, Denver, CO.
- 2000 22nd Annual Conference of the Cognitive Science Society, Philadelphia, PA.
 Neural Information Processing Systems conference, Denver, CO.

PROFESSIONAL ACTIVITIES

Editorial and reviewing

- 2008 Guest editor for special issue of *Philosophical Transactions of the Royal Society* (with Kenny Smith, Mike Kalish, and Steve Lewandowsky, jointly handling a total of 8 papers).
- 2008 Panel member for National Science Foundation.
- 2007-2008 Program committee member, Annual Conference of the Cognitive Science Society (action editor for approximately 15 papers).
- 2006-2008 Consulting editor for *Journal of Experimental Psychology: Learning, Memory, and Cognition* (reviewer for approximately 8 papers per year).
- 2005-2008 Member of tutorial organizing committee, Annual Conference of the Cognitive Science Society.
- 2005-2006 Area chair for cognitive science and graphical models, Neural Information Processing Systems conference (action editor for approximately 50 papers per year).

Ad hoc reviewer for the National Science Foundation (multiple programs), *Cognitive Science*, *Cognitive Psychology*, *Psychonomic Bulletin and Review*, *Psychological Review*, *Journal of Machine Learning Research*, *Memory and Cognition*, *Neurocomputing*, *Psychological Science*, *Cognition*, *Journal of Mathematical Psychology*, *Journal of Experimental Psychology: General*, *Journal of Memory and Language*, *IEEE Transactions on Audio, Speech, and Language Processing*, *Trends in Cognitive Science*, *Proceedings of the National Academy of Sciences*, *Science*, the Annual Conference of the Cognitive Science society, the International Conference on Machine Learning, the Artificial Intelligence and Statistics conference, the International Joint Conference on Artificial Intelligence, the National Conference on Artificial Intelligence, the Uncertainty in Artificial Intelligence conference, the Annual Meeting of the Association for Computational Linguistics, the Empirical Methods in Natural Language Processing conference, and the Neural Information Processing Systems conference.

Workshop and symposium organization

- 2008 Co-organizer, workshop on “Connecting probabilistic models of cognition and neural networks,” University of California, Berkeley, Berkeley, CA.
- 2007 Co-organizer, symposium on “Modern Monte Carlo methods,” Meeting of the Society for Mathematical Psychology.
- 2003 Co-organizer, workshop on “Syntax, semantics, and statistics,” Neural Information Processing Systems conference.
- 2001 Co-organizer, workshop on “Causal learning and inference in humans and machines,” Neural Information Processing Systems conference.

Media coverage

Research mentioned in *The Economist*, *New Scientist*, *The New York Times Magazine*, *Psychology Today*, and *Cosmopolitan*, and on National Public Radio, Canadian Broadcasting Corporation Radio One, and the television program *Criminal Minds*, as well as a variety of science blogs.

Profiled in *IEEE Intelligent Systems Magazine* as one of the “AI Ten to Watch”.

UNIVERSITY AND DEPARTMENT SERVICE

Member of Executive Committee for the Institute for Cognitive and Brain Sciences (2006-).

Member of the Computational Modeling Committee for the Cognitive Science Program (2006-).

Member of the Curriculum Committee for the Department of Psychology (2007-).

TEACHING

University courses

2008 Psychology 210E: Foundations of Cognition (lecturer)

2007 Cognitive Science / Education C1: Introduction to Cognitive Science (lecturer)

2006 Cognitive Science C131/Psychology C123: Computational models of cognition (lecturer)

Psychology 290Q: Human and machine learning (lecturer)

Cognitive Science 168: Human and machine learning (lecturer)

2005 Cognitive Science 128: Computational cognitive science (lecturer)

2002 Psychology 290: Graduate research methods (coordinator, lecturer)

2001 Psychology 290: Graduate research methods (teaching assistant)

Psychology 253: Graduate statistics (teaching assistant)

Psychology 1: Introduction to psychology (teaching assistant)

2000 Psychology 253: Graduate statistics (teaching assistant)

Psychology 40: Cognitive psychology (guest lecturer)

External tutorials

2008 Co-presenter, tutorial on “Bayesian models of inductive learning,” Annual Conference of the Cognitive Science Society.

2007 Tutorials on graphical models, Monte Carlo, categorization, causal induction, and assorted other topics as part of the Graduate Summer School on probabilistic models of cognition at the Institute for Pure and Applied Mathematics, University of California, Los Angeles.

2006 Co-presenter, tutorial on “Bayesian models of inductive learning,” Annual Conference of the Cognitive Science Society.

2004 Co-presenter, tutorial on “Bayesian models of inductive learning,” Annual Conference of the Cognitive Science Society.