

Curriculum Vitae

Samuel J. Gershman

PERSONAL DETAILS

Samuel J. Gershman
Department of Psychology and Center for Brain Science
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Cambridge, MA 02138
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773-607-9817

EMPLOYMENT HISTORY

| | |
|---|-----------|
| Assistant Professor | 2015- |
| Department of Psychology and Center for Brain Science, Harvard University | |
| Postdoctoral fellow | 2013-2015 |
| Department of Brain and Cognitive Sciences, MIT (advisors: Joshua Tenenbaum & Nancy Kanwisher) | |

EDUCATION

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|-----|---|-----------|
| BA | Neuroscience and Behavior | 2003-2007 |
| | Columbia University | |
| PhD | Psychology and Neuroscience | 2008-2013 |
| | Princeton University (advisors: Kenneth Norman & Yael Niv) | |

FUNDING

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| 2018-2019 | Star Family Foundation Award for Promising Scientific Research (role: co-PI) |
| 2017-2020 | ONR Science of Autonomy – Structured reinforcement learning in the brain (role: PI) |
| 2017-2022 | ONR MURI - A Computational Cognitive Neuroscience Approach to Understanding Event Representation and Episodic Memory (role: co-I) |
| 2015-2018 | NIH R01 - Representational foundations of adaptive behavior in natural and artificial agents (role: co-I with Nathaniel Daw (PI) and George Konidaris) |
| 2017-2018 | Harvard Foundations of Human Behavior Initiative - Computational and Neural Mechanisms of Information Seeking Behavior (role: PI) |
| 2016-2017 | Harvard Foundations of Human Behavior Initiative - Goals, habits and theory of mind: experimental and computational studies (role: co-PI with Fiery Cushman) |

- 2016-2017 Harvard Brain Initiative Collaborative Seed Grant - Neurocomputational mechanisms of structure discovery (role: co-PI with Jan Drugowitsch)
- 2016- Google Research Grant - Research focusing on the use of video games environments to probe human planning, exploration, and inference (role: PI)
- 2015-2016 Harvard Mind/Brain/Behavior Initiative - Representation of hidden state in the dopamine system (role: co-PI with Naoshige Uchida)

FELLOWSHIPS and AWARDS

- 2018 Bjorkman-Strominger-Wiley prize for collaboration from the Harvard Molecular and Cellular Biology Department (joint with Nao Uchida)
- 2018 Alfred P. Sloan Research Fellowship
- 2015 Clever Systems Early Career Investigator Award from the APA
- 2014 Glushko Dissertation Award from the Cognitive Science Society
- 2013 MIT Intelligence Initiative Postdoctoral Fellowship
- 2012 International Conference for Machine Learning travel award
- 2010 NSF graduate research fellowship
- 2009 NIPS travel award
- 2009 NIMH Quantitative and Computational Neuroscience training fellowship
- 2009 Swartz COSYNE travel fellowship
- 2008 Walker McKinney '50 Life Sciences Fellowship
- 2006 Summer University Research Fellowship, Columbia University

INVITED TALKS

- Cognitive lunch seminar, Indiana University (April, 2010)
- Pavlovian Society annual meeting, Baltimore (October, 2010)
- Cognitive science seminar, University of Texas (February 2011)
- Organization for Human Brain Mapping meeting (June 2012)
- Oxford University, Department of Experimental Psychology (July 2012)
- Gatsby Computational Neuroscience Unit (July 2012)
- Pavlovian Society annual meeting, Jersey City (September, 2012)
- Society for computational modeling of associative learning, Jersey City (September, 2012)
- Brown University, Department of Cognitive, Linguistic and Psychological Sciences colloquium (December, 2012)
- Harvard University, Center for Brain Sciences (February 2014)
- University of California, Berkeley, Department of Psychology (February 2014)
- Columbia University, Department of Psychology (February 2014)
- University of Zurich, Neuroeconomics seminar (September 2014)
- Tufts University, Cognitive science seminar (October 2014)
- Boston University, Brain, Behavior and Cognition seminar (March 2015)
- Caltech, Neuroeconomics seminar (April 2015)
- Harvard Center for Brain/Mind seminar series (June 2015)

- Yale University, Current Works in Behavior, Genetics, and Neuroscience (February 2016)
- University of Massachusetts, Amherst, Cognitive science seminar (September 2016)
- Google DeepMind (October 2016)
- Boston Veteran's Affairs hospital, Neuroimaging/neuropsychology lecture series (October 2016)
- University of Pennsylvania, Computational Neuroscience seminar (November 2016)
- Champalimaud Center for the Unknown, Quantitative Neuroscience Seminar (January 2017)
- UC Davis, Neuroscience seminar (March 2017)
- New York University, Neuroeconomics colloquium (April 2017)
- Reinforcement learning and decision making conference, keynote speaker (June 2017)
- Sloan-Norris Workshop on Attentional and Perceptual Foundations of Behavior, New York, NY (October, 2017)
- Brown University, Beyond Deep Learning workshop (January 2018)
- Stanford University, Mind, Brain and Computation seminar (January 2018)
- Gatsby Computational Neuroscience Unit, UCL, External Seminar (March 2018)
- Functional Imaging Laboratory, UCL, special seminar (March 2018)
- University of Durham, Probabilistic Brain Workshop, keynote speaker (March 2018)
- University of Oxford, Neurotheory seminar (March 2018)
- Tufts University, Predictive processing symposium (April 2018)
- Princeton University, Princeton Neuroscience Retreat external speaker (May 2018)
- Columbia University, Gatsby meeting (June 2018)
- Cognitive Computational Neuroscience conference, invited tutorial (September 2018)
- McLean Hospital, Center for Depression, Anxiety and Stress Research seminar (November 2018)
- University of Zurich, Neuroeconomics seminar (December 2018)
- Yale University, Biological sciences training program (January 2019)
- New York University, Swartz seminar (January 2019)
- University of Pennsylvania, MindCORE seminar (February 2019)

PUBLICATIONS

1. Dorfman, H.M., Bhui, R., Hughes, B.L., & Gershman, S.J. (in press). Causal inference about good and bad outcomes. *Psychological Science*.
2. Tiganj, Z., Gershman, S.J., Sederberg, P.B., & Howard, M.W. (in press). Estimating scale-invariant future in continuous time. *Neural Computation*.
3. Patzelt, E.H., Kool, W., Millner, A.J., & Gershman, S.J. (in press). The transdiagnostic structure of mental effort avoidance. *Scientific Reports*.

4. Millner, A.J., den Ouden, H.E.M., Gershman, S.J., Glenn, C.R., Kearns, J., Bornstein, A.M., Marx, B.P., Keane, T.M., & Nock, M.K. (in press). Suicidal thoughts and behaviors are associated with an increased decision-making bias for active responses to escape aversive states. *Journal of Abnormal Psychology*.
5. Lau, T., Pouncy, H.T., Gershman, S.J., & Cikara, M. (in press). Discovering social groups via latent structure learning. *Journal of Experimental Psychology: General*.
6. Gershman, S.J. (in press). Uncertainty and exploration. *Decision*.
7. Patzelt, E., Kool, W., Millner, A.J., & Gershman, S.J. (in press). Incentives boost model-based control across a range of severity on several psychiatric constructs. *Biological Psychiatry*.
8. Gershman, S.J. (in press). How to never be wrong. *Psychonomic Bulletin & Review*.
9. Patzelt, E., Hartley, C.A., & Gershman, S.J. (2018). Computational phenotyping: using models to understand personality, development, and mental illness. *Personality Neuroscience, 1*, e18.
10. Bhui, R., & Gershman, S.J. (2018). Decision by sampling implements efficient coding of psychoeconomic functions. *Psychological Review, 125*, 985-1001.
11. Schulz, E., & Gershman, S.J. (2018). The algorithmic architecture of exploration in the human brain. *Current Opinion in Neurobiology, 55*, 7-14.
12. Gardner, M.P.H., Schoenbaum, G., & Gershman, S.J. (2018). Rethinking dopamine as generalized prediction error. *Proceedings of the Royal Society B, 285*, 20181645.
13. Gershman, S.J., & Tzovaras, B.G. (2018). Dopaminergic genes are associated with both directed and random exploration. *Neuropsychologia, 120*, 97-104.
14. Petter, E.A., Gershman, S.J., & Meck, W.H. (2018). Integrating models of interval timing and reinforcement learning. *Trends in Cognitive Sciences, 22*, 911-922.
15. Millner, A.J., Gershman, S.J., Nock, M.K., & Ouden, H.D. (2018). Pavlovian control of escape and avoidance. *Journal of Cognitive Neuroscience, 30*, 1379-1390.
16. Lage, I., Ross, A.S., Kim, B., Gershman, S.J., & Doshi-Velez, F. (2018). Human-in-the-loop interpretability prior. *Advances in Neural Information Processing Systems 32*.
17. Kool, W., Gershman, S.J., & Cushman, F.A. (2018). Planning complexity registers as a cost in metacontrol. *Journal of Cognitive Neuroscience, 30*, 1391-1404.
18. Tomov, M.S., Dorfman, H.M., & Gershman, S.J. (2018). Neural computations underlying causal structure learning. *Journal of Neuroscience, 38*, 7143-7157.
19. Gershman, S.J. (2018). The successor representation: its computational logic and neural substrates. *Journal of Neuroscience, 38*, 7193-7200.
20. Babayan, B.M., Uchida, N., & Gershman, S.J. (2018). Belief state representation in the dopamine system. *Nature Communications, 9*, 1891.
21. Dasgupta, I., Smith, K.A., Schulz, E., Tenenbaum, J.B., & Gershman, S.J. (2018). Learning to act by integrating mental simulations and physical experiments. *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

22. Dasgupta, I., Guo, D., Stuhlmuller, A., Gershman, S.J., & Goodman, N.D. (2018). Evaluating compositionality in sentence embeddings. *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.
23. Baumann, C., Singmann, H., Gershman, S.J., & von Helversen, B. (2018). Explaining human decision making in optimal stopping tasks. *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.
24. Gershman, S.J. (2018). Deconstructing the human algorithms for exploration. *Cognition*, 173, 34-42.
25. Starkweather, C.K., Gershman, S.J., & Uchida, N. (2018). Medial prefrontal cortex shapes dopamine reward prediction errors under state uncertainty. *Neuron*, 98, 616-629.
26. Pereira, F., Lou, B., Pritchett, B., Ritter, S., Gershman, S.J., Kanwisher, N., Botvinick, M., & Fedorenko, E. (2018). Toward a universal decoder of linguistic meaning from brain activation. *Nature Communications*, 9, 963.
27. Kool, W., & Cushman, F.A., & Gershman, S.J. (2018). Competition and cooperation between multiple reinforcement learning systems. In R.W. Morris & A. Bornstein (Eds.) *Goal-Directed Decision Making: Computations and Neural Circuits*. Elsevier.
28. Blanchard, T.C., & Gershman, S.J. (2018). Pure correlates of exploration and exploitation in the human brain. *Cognitive, Affective, and Behavioral Neuroscience*, 18, 117-126.
29. Stachenfeld, K.L., Botvinick, M.M., & Gershman, S.J. (2017). The hippocampus as a predictive map. *Nature Neuroscience*, 20, 1643-1653.
30. Lake, B.M., Ullman, T.D., Tenenbaum, J.B., & Gershman, S.J. (2017). Building machines that learn and think like people. *Behavioral and Brain Sciences*, 40, e253.
31. Schulz, E., Tenenbaum, J.B., Duvenaud, D., Speekenbrink, M., & Gershman, S.J. (2017). Compositional inductive biases in function learning. *Cognitive Psychology*, 99, 44-79.
32. Gershman, S.J. (2017). Dopamine, inference and uncertainty. *Neural Computation*.
33. Gershman, S.J., Zhou, J., & Kommer, C. (2017). Imaginative reinforcement learning: computational principles and neural mechanisms. *Journal of Cognitive Neuroscience*, 29, 2103-2113.
34. Gershman, S.J. & Beck, J.M. (2017). Complex probabilistic inference: from cognition to neural computation. In A. Moustafa (Ed.) *Computational Models of Brain and Behavior*. Wiley-Blackwell.
35. Momennejad, I., Russek, E., Cheong, J.H., Botvinick, M.M., Daw, N.D., & Gershman, S.J. (2017). The successor representation in human reinforcement learning. *Nature Human Behaviour*, 1, 680-692.
36. Linderman, S.W., & Gershman, S.J. (2017). Using computational theory to constrain statistical models of neural data. *Current Opinion in Neurobiology*, 46, 14-24.
37. Saeedi, A., Kulkarni, T., Mansinghka, V.K., & Gershman, S.J. (2017). Variational particle approximations. *Journal of Machine Learning Research*, 18, 1-29.

38. Kool, W., Gershman, S.J., & Cushman, F.A. (2017). Cost-benefit arbitration between multiple reinforcement learning systems. *Psychological Science*, *28*, 1321-1333.
39. Dasgupta, I., Schulz, E., & Gershman, S.J. (2017). Where do hypotheses come from? *Cognitive Psychology*, *96*, 1-25.
40. Dasgupta, I., Schulz, E., Goodman, N.D., & Gershman, S.J. (2017). Amortized hypothesis generation. *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.
41. Russek, E., Momennejad, I., Botvinick, M.M., Gershman, S.J., & Daw, N.D. (2017). Predictive representations can link model-based reinforcement learning to model-free mechanisms. *PLOS Computational Biology*, *13*, e1005768.
42. Starkweather, C.K., Babayan, B.M., Uchida, N., & Gershman, S.J. (2017). Dopamine reward prediction errors reflect hidden state inference across time. *Nature Neuroscience*, *20*, 581-589.
43. Gershman, S.J. (2017). Predicting the past, remembering the future. *Current Opinion in Behavioral Sciences*, *17*, 7-13.
44. Thaker, P., Tenenbaum, J.B., & Gershman, S.J. (2017). Online learning of symbolic concepts. *Journal of Mathematical Psychology*, *77*, 10-20.
45. Gershman, S.J., Pouncy, H.T., & Gweon, H. (2017). Learning the structure of social influence. *Cognitive Science*, *41*, 545-575.
46. Gershman, S.J. (2017). Context-dependent learning and causal structure. *Psychonomic Bulletin & Review*, *24*, 557-565.
47. Gershman, S.J., Malmaud, J., & Tenenbaum, J.B. (2017). Structured representations of utility in combinatorial domains. *Decision*, *4*, 67-86.
48. Gershman, S.J. (2017). Reinforcement learning and causal models. In M. Waldmann, Ed, *Oxford Handbook of Causal Reasoning*. Oxford University Press.
49. Gershman, S.J. & Daw, N.D. (2017). Reinforcement learning and episodic memory in humans and animals: an integrative framework. *Annual Review of Psychology*, *68*, 101-128.
50. Gershman, S.J., Monfils, M.-H., Norman, K.A., & Niv, Y. (2017). The computational nature of memory modification. *eLife*.
51. Gershman, S.J. (2017). On the blessing of abstraction. *The Quarterly Journal of Experimental Psychology*, *70*, 361-365.
52. Gershman, S.J., Tenenbaum, J.B., & Jäkel, F.J. (2016). Discovering hierarchical motion structure. *Vision Research*, *126*, 232-241.
53. Pereira, F., Gershman, S.J., Ritter, S., & Botvinick, M.M. (2016). A comparative evaluation of off-the-shelf distributed semantic representations for modelling behavioural data. *Cognitive Neuropsychology*, *33*, 175-190.
54. Schulz, E., Tenenbaum, J.B., Duvenaud, D., Speekenbrink, M., & Gershman, S.J. (2016). Probing the compositionality of intuitive functions. *Advances in Neural Information Processing Systems*, *29*.
55. Gershman, S.J., Gerstenberg, T., Baker, C.L., & Cushman, F.A. (2016). Plans, habits, and theory of mind. *PLOS One*, *11*, e0162246.
56. Kool, W., Cushman, F.A., & Gershman, S.J. (2016). When does model-based control pay off? *PLOS Computational Biology*, *12*, e1005090.

57. Ullman, T.D., Siegel, M., Tenenbaum, J.B., & Gershman, S.J. (2016). Coalescing the vapors of human experience into a viable and meaningful comprehension. *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.
58. Batmanghelich, K., Saeedi, A., Narasimhan, K., & Gershman, S.J. (2016). Nonparametric spherical topic modeling with word embeddings. *Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics*.
59. Gershman, S.J. (2016). Empirical priors for reinforcement learning models. *Journal of Mathematical Psychology*, *71*, 1-6.
60. Tervo, D.G.R., Tenenbaum, J.B., & Gershman, S.J. (2016). Towards the neural implementation of structure learning. *Current Opinion in Neurobiology*, *37*, 99-105.
61. Gershman, S.J. (2015). A unifying probabilistic view of associative learning. *PLOS Computational Biology*, *11*, e1004567.
62. Gershman, S.J. (2015). Do learning rates adapt to the distribution of rewards? *Psychonomic Bulletin & Review*, *22*, 1320-1327.
63. Gershman, S.J., Norman, K.A., & Niv, Y. (2015). Discovering latent causes in reinforcement learning. *Current Opinion in Behavioral Sciences*, *5*, 43-50.
64. Gershman, S.J. & Tenenbaum, J.B. (2015). Phrase similarity in humans and machines. *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.
65. Schulz, E., Tenenbaum, J.B., Reshef, D.N., Speekenbrink, M., & Gershman, S.J. (2015). Assessing the perceived predictability of functions. *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.
66. Gershman, S.J., Horvitz, E.J., & Tenenbaum, J.B. (2015). Computational rationality: a converging paradigm for intelligence in brains, minds and machines. *Science*, *349*, 273-278.
67. Gershman, S.J. & Hartley, C.A. (2015). Individual differences in learning predict the return of fear. *Learning & Behavior*, *43*, 243-250.
68. Niv, Y., Daniel, R., Geana, A., Gershman, S.J., Leong, Y.C., Radulescu, A., & Wilson, R.C. (2015). Reinforcement learning in multidimensional environments relies on attention mechanisms. *Journal of Neuroscience*, *35*, 8145-8157.
69. Huys, Q.J.M., Lally, N., Faulkner, P., Eshel, N., Seifritz, E., Gershman, S.J., Dayan, P., & Roiser, J.P. (2015). The interplay of approximate planning strategies. *Proceedings of the National Academy of Sciences*, *112*, 3098-3103.
70. Gershman, S.J. & Niv, Y. (2015). Novelty and inductive generalization in human reinforcement learning. *Topics in Cognitive Science*, 1-25.
71. Gershman, S.J., Frazier, P.I., & Blei, D.M. (2015). Distance dependent infinite latent feature models. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *37*, 334-345.
72. Austerweil, J.L., Gershman, S.J., Tenenbaum, J.B., & Griffiths, T.L. (2015). Structure and flexibility in Bayesian models of cognition. In J.R. Busemeyer, J.T. Townsend, Z. Wang, & A. Eidels, Eds, *Oxford Handbook of Computational and Mathematical Psychology*. Oxford University Press.

73. Stachenfeld, K.L., Botvinick, M.M., & Gershman, S.J. (2014). Design principles of the hippocampal cognitive map. *Advances in Neural Information Processing Systems* 27.
74. Gershman, S.J., Radulescu, A., Norman, K.A., & Niv, Y. (2104). Statistical computations underlying the dynamics of memory updating. *PLOS Computational Biology*, 10, e1003939.
75. Gershman, S.J., Blei, D.M., Norman, K.A., & Sederberg, P.B. (2014). Decomposing spatiotemporal brain images into topographic latent sources. *NeuroImage*, 98, 91-102.
76. Gershman, S.J. (2014). The penumbra of learning: A statistical theory of synaptic tagging and capture. *Network: Computation in Neural Systems*, 25, 97-115.
77. Soto, F.A., Gershman, S.J., & Niv, Y. (2014). Explaining compound generalization in associative and causal learning through rational principles of dimensional generalization. *Psychological Review*, 121, 526-558.
78. Gershman, S.J. & Goodman, N.D. (2014). Amortized inference in probabilistic reasoning. *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.
79. Tsividis, P., Gershman, S.J., Tenenbaum, J.B., & Schulz, L. (2014). Information selection in noisy environments with large action spaces. *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.
80. Feng, S.F., Schwemmer, M., Gershman, S.J., & Cohen, J.D. (2014). Multitasking vs. multiplexing: Toward a normative account of capacity constraints in cognitive control. *Cognitive, Affective, and Behavioral Neuroscience*, 14, 129-146.
81. Gershman, S.J., Moustafa, A.A., & Ludvig, E.A. (2014). Time representation in reinforcement learning models of the basal ganglia. *Frontiers in Computational Neuroscience*.
82. Gershman, S.J., Markman, A.B., & Otto, A.R. (2014). Retrospective reevaluation in sequential decision making: a tale of two systems. *Journal of Experimental Psychology: General*, 143, 182-194.
83. Gershman, S.J. (2014). Dopamine ramps are a consequence of reward prediction errors. *Neural Computation*, 26, 467-471.
84. Gershman, S.J. (2013). Computation with dopaminergic modulation. In Jaeger, D., Jung, R. (Ed.) *Encyclopedia of Computational Neuroscience*. Springer.
85. Gershman, S.J. (2013). Bayesian behavioral data analysis. In Jaeger, D., Jung, R. (Ed.) *Encyclopedia of Computational Neuroscience*. Springer.
86. Gershman, S.J., Jones, C.E., Norman, K.A., Monfils, M.-H., & Niv, Y. (2013). Gradual extinction prevents the return of fear. *Frontiers in Behavioral Neuroscience*. doi: 10.3389/fnbeh.2013.00164.
87. Detre, G.J., Natarajan, A., Gershman, S.J., & Norman, K.A. (2013). Moderate levels of activation lead to forgetting in the think/no-think paradigm. *Neuropsychologia*, 51, 2371-2388.
88. Gershman, S.J., & Niv, Y. (2013). Perceptual estimation obeys Occam's razor. *Frontiers in Psychology*, 23, doi:10.3389/fpsyg.2013.00623.
89. Christakou, A., Gershman, S.J., Niv, Y., Simmons, A., Brammer, M., & Rubia, K. (2013). Neural and psychological maturation of decision-making in adolescence and young adulthood. *Journal of Cognitive Neuroscience*, 25, 1807-1823.

90. Gershman, S.J., Schapiro, A.C., Hupbach, A., & Norman, K.A. (2013). Neural context reinstatement predicts memory misattribution. *Journal of Neuroscience*, *33*, 8590-8595.
91. Otto, A.R., Gershman, S.J., Markman, A.B., & Daw, N.D. (2013). The curse of planning: Dissecting multiple reinforcement learning systems by taxing the central executive. *Psychological Science*, *24*, 751-761.
92. Wingate, D., Diuk, C., O'Donnell, T.J., Tenenbaum, J.B., Gershman, S.J. (2013). Compositional policy priors. *CSAIL Technical Report 2013-007*.
93. Gershman, S.J., Jäkel, F.J., & Tenenbaum, J.B. (2013). Bayesian vector analysis and the perception of hierarchical motion. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.
94. Gershman, S.J. & Niv, Y (2012). Exploring a latent cause model of classical conditioning. *Learning & Behavior*, *40*, 255-268.
95. Gershman, S.J., Hoffman, M.D., & Blei, D.M. (2012). Nonparametric variational inference. *Proceedings of the 29th International Conference on Machine Learning*.
96. Gershman, S.J., Moore, C.D., Todd, M.T., Norman, K.A., & Sederberg, P.B. (2012). The successor representation and temporal context. *Neural Computation*, *5*, 1553-1568.
97. Gershman, S.J. & Blei, D.M. (2012). A tutorial on Bayesian nonparametric models. *Journal of Mathematical Psychology*, *56*, 1-12.
98. Gershman, S.J. & Daw, N.D. (2012). Perception, action and utility: the tangled skein. In M. Rabinovich, K. Friston, P. Varona (Ed.) *Principles of Brain Dynamics: Global State Interactions*. MIT Press.
99. Gershman, S.J., Vul, E., & Tenenbaum, J.B. (2012). Multistability and perceptual inference. *Neural Computation*, *24*, 1-24.
100. Gershman, S.J., Blei, D.M., Pereira, F., & Norman, K.A. (2011). A topographic latent source model for fMRI data. *NeuroImage*, *57*, 89-100.
101. Sederberg, P.B., Gershman, S.J., Polyn, S.M., & Norman, K.A. (2011). Human memory reconsolidation can be explained using the Temporal Context Model. *Psychonomic Bulletin and Review*, *18*, 455-468.
102. Daw, N.D., Gershman, S.J., Seymour, B., Dayan, P., & Dolan, R.J. (2011). Model-based influences on humans' choices and striatal prediction errors. *Neuron*, *69*, 1204-1215.
103. Gershman, S.J. & Wilson, R.C. (2010). The neural costs of optimal control, *Advances in Neural Information Processing Systems* *23*.
104. Gershman, S.J., Cohen, J.D., & Niv, Y. (2010). Learning to selectively attend, *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*.
105. Gershman, S.J. & Niv, Y. (2010). Learning latent structure: Carving nature at its joints, *Current Opinion in Neurobiology*, *20*, 1-6.
106. Gershman, S.J., Blei, D.M., & Niv, Y. (2010). Context, learning, and extinction, *Psychological Review*, *117*, 197-209.
107. Gershman, S.J., Pesaran, B., & Daw, N.D. (2009). Human reinforcement learning subdivides structured action spaces by learning effector-specific values, *Journal of Neuroscience*, *29*, 13524-13531.

108. Gershman, S.J., Vul, E., & Tenenbaum, J.B. (2009). Perceptual multistability as Markov chain Monte Carlo inference, *Advances in Neural Information Processing Systems* 22.
109. Socher, R., Gershman, S.J., Perotte, A., Sederberg, P.B., Blei, D.M., & Norman, K.A. (2009). A Bayesian analysis of dynamics in free recall, *Advances in Neural Information Processing Systems* 22.

AD HOC REVIEWER (alphabetical order)

Biological Cybernetics, Biological Psychiatry, Brain & Cognition, Cognition, Cognitive Science, CABN, Current Biology, Decision, Frontiers in Decision Neuroscience, Journal of Cognitive Neuroscience, Journal of Experimental Psychology: Learning, Memory & Cognition, Journal of Experimental Psychology: General, Journal of Machine Learning Research, Journal of Mathematical Psychology, Journal of Neuroscience, Journal of Neuroscience Methods, Learning & Memory, Neural Computation, Nature Communications, Nature Neuroscience, Neurobiology of Aging, NeuroImage, Neuron, Neuropsychologia, PLOS Computational Biology, PNAS, Psychological Review, Psychonomic Bulletin & Review, Science

DEPUTY EDITOR

PLOS Computational Biology

AD HOC EDITOR

eLife

REVIEWING EDITOR

Psychological Review

TEACHING

Cognition: Mind and Brain (Spring 2007), Columbia University—teaching assistant

Animal learning and decision making: psychological, computational and neural perspectives (Fall 2010), Princeton University—teaching assistant

Computational Cognitive Neuroscience (Fall 2016, yearly thereafter), Harvard University

Computational Social Cognition summer course (Summer, 2017)

Debugging the Brain (Spring 2018), Harvard University

Theories of Learning (Fall 2018), Harvard University