

Anna C. Schapiro

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Psychology Department
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Education

2014 Princeton University – Ph.D. in Psychology and Neuroscience.
2011 Princeton University – M.A. in Psychology and Neuroscience.
2009 Stanford University – B.S. in Symbolic Systems, departmental honors, with distinction.
Concentration in neuroscience.

Awards and honors

2012 Rumelhart Memorial Travel Award, Neural Computation and Psychology Workshop,
San Sebastian, Spain
2012 Summer Institute in Cognitive Neuroscience Fellow, Santa Barbara, CA
2010 National Science Foundation Graduate Research Fellowship
2009 Firestone Medal for Excellence in Undergraduate Research, Stanford University
2009 K. Jon Barwise Award for Distinguished Contributions to the Symbolic Systems
Program, Stanford University
2009 Phi Beta Kappa, elected to Stanford chapter

Publications

Peer-reviewed

Schapiro, A.C., Gregory, E., Landau, B., McCloskey, M., Turk-Browne, N.B. (2014). The necessity of the medial temporal lobe for statistical learning. *Journal of Cognitive Neuroscience*.

Schapiro, A.C., McClelland, J.L., Welbourne, S.R., Rogers, T.T., & Lambon Ralph, M.A. (2013). Why bilateral damage is worse than unilateral damage to the brain. *Journal of Cognitive Neuroscience*.

Gershman, S.J., **Schapiro, A.C.**, Hupbach, A., Norman, K.A. (2013). Neural context reinstatement predicts memory misattribution. *Journal of Neuroscience*.

Schapiro, A.C., Rogers, T.T., Cordova, N.I., Turk-Browne, N.B., & Botvinick, M.M. (2013). Neural representations of events arise from temporal community structure. *Nature Neuroscience*.

Schapiro, A.C., Kustner, L.V., & Turk-Browne, N.B. (2012). Shaping of object representations in the human medial temporal lobe based on temporal regularities. *Current Biology*.

Schapiro, A.C. & McClelland, J.L. (2009). A connectionist model of a continuous developmental transition in the balance scale task. *Cognition*.

Chapters

Schapiro A.C., & Turk-Browne N.B. Statistical Learning. (2015). In: Arthur W. Toga, editor. *Brain Mapping: An Encyclopedic Reference*. Academic Press: Elsevier. pp. 501-506.

Diuk, C., **Schapiro, A.C.**, Cordova, N.I., Ribas-Fernandes, J., Niv, Y., & Botvinick, M.M. (2013). Divide and conquer: Task decompositions and hierarchical reinforcement learning in humans. In *Computational and Robotic Models of the Hierarchical Organization of Behavior* (pp. 271-291). Springer Berlin Heidelberg.

Thomas, M.S.C., McClelland, J.L., Richardson, F.M., **Schapiro, A.C.**, & Baughman, F. (2009). Dynamical and Connectionist Approaches to Development: Toward a Future of Mutually Beneficial Co-evolution. In J.P. Spencer, M. S. C. Thomas, & J. L. McClelland, (Eds). *Toward a unified theory of development: Connectionism and dynamic systems theory re-considered*. New York: Oxford.

Talks

Schapiro, A.C., Rogers, T.T., McDevitt, E.A., Mednick, S.C., & Norman, K.A. (2015, May). Human hippocampal replay prioritizes weakly-learned information and predicts memory performance. *Data blitz delivered at the Manhattan Area Memory Meeting, Princeton, NJ*.

Schlichting, M.L., Guarino, K.F., **Schapiro, A.C.**, Turk-Browne, N.B., & Preston, A.R. (2015, April). Structural development of hippocampal subfields is related to statistical learning and inference. *Talk delivered at the Austin Conference on Learning and Memory biannual meeting, Austin, TX*.

Schapiro, A.C., Norman, K.A., Turk-Browne, N.B., & Botvinick, M.M. (2014, November). Rapid learning of complex temporal regularities in the hippocampus: Evidence from fMRI and a neural network model. *Talk delivered at the Society for Neuroscience Meeting, Washington, D.C*.

Schapiro, A.C., Norman, K.A., Turk-Browne, N.B., & Botvinick, M.M. (2014, June). Rapid learning of complex events in the hippocampus: Evidence from fMRI and neural network modeling. *Talk delivered at the Manhattan Area Memory Meeting, New York City*.

Schapiro, A.C., Gregory, E., Landau, B., McCloskey, M., Turk-Browne, N.B. (2013, May). The necessity of the medial temporal lobe for statistical learning. *Data blitz delivered at the Context and Episodic Memory Symposium, Philadelphia*.

Schapiro, A.C., Rogers, T.T, Cordova, N.I., Turk-Browne, N.B., & Botvinick, M.M. (2012, July). Neural representations of events arise from temporal ‘community’ structure. *Talk delivered at the Neural Computation and Psychology Workshop, San Sebastian, Spain*.

Botvinick, M.M, **Schapiro, A.C.**, Cordova, N.I., Turk-Browne, N.B., & Rogers, T.T. (2012, April). Events as categories. *Talk delivered at the Cognitive Neuroscience Society Meeting, Chicago*.

Schapiro, A.C., Kustner, L.V., & Turk-Browne, N.B. (2011, November). Multi-voxel object representations in the human medial temporal lobe are shaped by incidental learning of temporal regularities. *Talk delivered at the Society for Neuroscience meeting, Washington, D.C.*

Schapiro, A.C., McClelland, J.L., Welbourne, S.R., Rogers, T.T., & Lambon Ralph, M.A. (2009, November). A computational account of the differences between unilateral and bilateral damage. *Talk delivered and poster presented at the Computational Cognitive Neuroscience Conference, Boston.*

Posters

Schlichting, M.L., Guarino, K.F., **Schapiro, A.C.**, Turk-Browne, N.B., & Preston, A.R. (2014, November). Structural development of hippocampal subfields is related to statistical learning and inference. *Poster presented at the Society for Neuroscience Meeting, Washington, D.C.*

Schapiro, A.C., Norman, K.A., Turk-Browne, N.B., & Botvinick, M.M. (2014, May). Learning of complex event structure in the hippocampus. *Poster presented at the Context and Episodic Memory Symposium, Philadelphia.*

Schapiro, A.C., Gregory, E., Landau, B., McCloskey, M., Turk-Browne, N.B. (2013, November). The necessity of the medial temporal lobe for statistical learning. *Poster presented at Society for Neuroscience meeting, San Diego.*

Schapiro, A.C., Rogers, T.T., Norman, K.A., Chen, L., McDevitt, E.A., Mednick, S.C. (2013, June). The role of sleep in consolidating semantic knowledge. *Poster presented at SLEEP, Baltimore.*

Schapiro, A.C., Rogers, T.T., Norman, K.A., Chen, L., McDevitt, E.A., Mednick, S.C. (2013, May). The role of sleep in consolidating semantic knowledge. *Poster presented at the Vision Sciences Society Meeting, Naples, FL.*

Schapiro, A.C., Norman, K.A., & Rogers, T.T. (2012, October). The role of sleep in consolidating semantic knowledge. *Poster presented at the Society for Neuroscience meeting, New Orleans.*

Gershman, S.J., **Schapiro, A.C.**, Hupbach, A., & Norman, K.A. (2012, October). Neural context reinstatement predicts memory misattribution. *Poster presented at the Society for Neuroscience meeting, New Orleans.*

Diuk, C., Yee, D., Ribas-Fernandes, J., Cordova, N.I., **Schapiro, A.C.**, Niv, Y., & Botvinick, M.M. (2012, October). Divide and conquer: Task decomposition in humans. *Poster presented at the Society for Neuroscience meeting, New Orleans.*

Schapiro A., Herd, S., Trippe, A., O'Reilly, R., Rogers, T., & Norman, K. (2012, July). The computational mechanisms underlying learning during sleep. *Poster presented at the Neural Computation and Psychology Workshop, San Sebastian, Spain.*

Schapiro, A.C., Kustner, L.V., & Turk-Browne, N.B. (2011, May). Contributions of visual and temporal similarity to statistical learning. *Poster presented at the Vision Sciences Society Meeting, Naples, FL.*

Schapiro, A.C., Kustner, L.V., & Turk-Browne, N.B. (2011, May). Visual similarity affects statistical learning of temporal regularities: Evidence from familiarity, implicit biases, and MTL pattern correlations. *Poster presented at the Context and Episodic Memory Symposium, Philadelphia.*

Schapiro, A.C., Rogers, T.T., & Botvinick, M. (2010, August). The structure of event representations: behavioral, imaging, and computational investigations. *Poster presented at the Cognitive Science Society Conference, Portland.*

Schapiro, A.C., McClelland, J.L., Welbourne, S.R., & Lambon Ralph, M.A. (2009, March). Modeling lateralization of semantic knowledge in the anterior temporal lobes. *Poster presented at the Cognitive Neuroscience Society Meeting, San Francisco.*

Teaching

- 2012 Teaching Assistant for ‘Introduction to Connectionist Models: Bridging Between Brain and Mind’ (PSY/NEU 330) at Princeton.
- 2007 Taught Student Initiated Course on philosophy of mind at Stanford.

Research experience

- 2009 – Computational Memory Lab, Princeton University, P.I. Ken Norman
Botvinick Lab, Princeton University, P.I. Matt Botvinick
Turk-Browne Lab, Princeton University, P.I. Nick Turk-Browne
- 2006 – 2009 PDP Lab, Stanford University, P.I. Jay McClelland
- 2008 Neuroscience and Aphasia Research Unit, University of Manchester,
P.I. Matt Lambon Ralph
- 2006 Computational Cognitive Science Group, Massachusetts Institute of Technology,
P.I. Josh Tenenbaum
- 2006 TedLab, Massachusetts Institute of Technology, P.I. Ted Gibson
- 2005 Mass General Institute for Neurodegenerative Disease, P.I. Steven Reeves

Academic advising and service

- 2013 Co-organizer of the first annual Manhattan Area Memory Meeting.
- 2013 Graduate student committee member for the neuroscience Ph.D. track at Princeton.
Acted as liaison between the faculty and graduate student body.
- 2011 Served on organizing committee for Department of Psychology graduate student visiting day at Princeton.
- 2010 Served on organizing committee for Department of Psychology graduate student orientation at Princeton.
- 2007 – 2009 Invited and introduced speakers for the Symbolic Systems weekly forum, organized events to expose undergraduates to research and career opportunities, and advised undergraduates on course selection and degree requirements as an Advising Fellow for the Symbolic Systems Program at Stanford.
- 2008 Chaired sessions at the PsyPAG annual conference, University of Manchester.
- 2006 – 2008 Organized debates, discussions, and dinners with faculty and social gatherings for Stanford Symbolic Systems majors as Focus Assistant and Resident Assistant for the Symbolic Systems theme house.