

Russell Alan Epstein

CONTACT

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ACADEMIC HISTORY

2014- Professor, Department of Psychology, University of Pennsylvania
2008-2014 Associate Professor, Department of Psychology, University of Pennsylvania
2002-2008 Assistant Professor, Department of Psychology, University of Pennsylvania
1999-2001 Postdoctoral Research Scientist, Medical Research Council Cognition & Brain Science Unit, Cambridge, UK.
1996-1999 Postdoctoral Fellow, Department of Psychology, Harvard University and Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology
1996 Ph.D., Applied Mathematics, Harvard University
Specialization in computer vision
Dissertation: *Learning object representations from grayscale images.*
1991 B.A., Physics, University of Chicago

HONORS AND FELLOWSHIPS

Elected Member, Memory Disorders Research Society (2018)
Keynote speaker, Spatial Cognition Conference (2016)
Presidential symposium speaker, Association for Psychological Science (2016)
Elected Fellow, Association for Psychological Science (2014)
NRSA Postdoctoral Fellowship (1996)
National Science and Engineering Graduate Fellowship (1991)
National Science Foundation Graduate Fellowship (declined)
Phi Beta Kappa (1991)

CURRENT GRANT FUNDING

NIH/NEI, R01 EY031286. "Spatial and nonspatial knowledge." 2021-2026. Principal Investigator.
(\$1,639,147 total direct costs)

NIH/NEI, 2R01 EY022350. "Neural mechanisms of landmark-based navigation" (second renewal). 2020-2024. Principal Investigator. (\$1,472,964 total direct costs)

COMPLETED GRANT FUNDING

NIH/NEI, R21 EY027047. "Neuroimaging of dynamic navigational codes." 2016-2019. Principal Investigator. (\$250,000 total direct costs)

NIH/NEI, 2R01 EY022350. "Neural mechanisms of landmark-based navigation" (renewal). 2016-2020. Principal Investigator. (\$970,452 total direct costs)

NIH/NIMH, 2R01 MH091113. "The neural basis of social knowledge." 2015-2020. Co-Investigator. (\$1,250,000 total direct costs; PI: Ingrid Olson).

NSF, SBE-0541957. "Spatial intelligence and learning center." 2006-2017. Co-Investigator. (\$19,500,000 total direct costs; \$602,452 total U Penn direct costs; PI: Nora Newcombe)

NIH/NEI, R01 EY022350. "Neural mechanisms of landmark-based navigation." 2013-2016. Principal Investigator. (\$750,000 total direct costs)

NIH/NEI, R21 EY022751. "Adaptation and multivoxel codes in high-level visual cortex." 2013-2016. Principal Investigator. (\$250,000 total direct costs)

University of Pennsylvania Research Foundation. "Neural Mechanisms Underlying the Cognitive Benefits of Restorative Scenes." 2012-13. Principal Investigator. (\$28,000 total direct costs)

NIH/NEI, R01 EY016464. "Place representations in the human visual system." 2006-2012. Principal Investigator. (\$1,091,282 total direct costs)

Whitehall Foundation, 2004-05-99-APL. "Place Learning in the Human Cortex." 2004-2007. Principal Investigator. (\$190,875 total direct costs)

University of Pennsylvania Research Foundation. "Location and Orientation Codes in the Human Brain." 2004. Principal Investigator. (\$15,000 total direct costs)

Alzheimers Research Trust (UK). "The functional contribution of medial temporal lobe memory regions to profiles of memory impairments in dementia: An interdisciplinary project using neuropsychological and neuroimaging methodologies." Collaborative Investigator. (PI: Kim S. Graham)

NIH, National Research Service Award F32 MH011459. "Repetition Blindness and Location Codes." 1997-1999. (\$74,900 total direct costs).

PUBLICATIONS

(* = RE trainee)

Peer-Reviewed Journal Articles

62. *Peer, M. & Epstein, R.A. (2021). The human brain uses spatial schemas to represent segmented environments. *Current Biology*, in press.
61. *Bonner, M.F. & Epstein, R.A. (2021). Object representations in the human brain reflect the co-occurrence statistics of vision and language. *Nature Communications*, 12, 4081.
60. Sun, L., Frank, S.M., Epstein, R.A. & Tse, P.U. (2021). The parahippocampal place area and hippocampus encode the spatial significance of landmark objects. *NeuroImage*, 236: 118081.

59. *Peer, M., *Brunec, I.K., Newcombe, N.S. & **Epstein, R.A.** (2021). Structuring knowledge with cognitive maps and cognitive graphs. *Trends in Cognitive Sciences*, 25 (1): 37-54.
58. *Keinath, A.T., Rechnitz, O., Balasubramanian, V. & **Epstein, R.A.** (2021). Environmental deformations dynamically shift human memory. *Hippocampus*, 31 (1): 89-101.
57. **Epstein, R.A.** & Baker, C.I. (2019). Scene perception in the human brain. *Annual Review of Vision Science*, 5: 373-397.
56. *Keinath, A.T., **Epstein, R.A.** & Balasubramanian, V. (2018). Environmental deformations dynamically shift the grid cell spatial metric. *eLife*, 7: e38169.
55. Mattar, M., *Olkonen, K.M., **Epstein, R.A.** & Aguirre, G.K. (2018). Adaptation decorrelates shape representations. *Nature Communications*, 9: 3812.
54. *Julian, J.B., Kamps, F.S., **Epstein, R.A.** & Dilks, D.D. (2018). Dissociable spatial memory systems revealed by typical and atypical human development. *Developmental Science*, 22: e12737.
53. *Julian, J.B., *Keinath, A.T., *Marchette, S.A. & **Epstein, R.A.** (2018). The neurocognitive basis of spatial reorientation. *Current Biology*, 28 (17): R1059-R1073.
52. *Bonner, M.F. & **Epstein, R.A.** (2018). Computational mechanisms underlying cortical responses to the affordance properties of visual scenes. *PLOS Computational Biology*, 14 (4): e1006111.
51. *Julian, J.B., *Keinath, A.T., Frazzetta, G. & **Epstein, R.A.** (2018). Human entorhinal cortex represents visual space using a boundary-anchored grid. *Nature Neuroscience*, 21 (2), 191-194.
50. **Epstein, R.A.**, Patai, E.Z., *Julian, J.B. & Spiers, H.J. (2017). The cognitive map in humans: Spatial navigation and beyond. *Nature Neuroscience*, 20 (11): 1504-1513.
49. *Olkonen, M., Aguirre, G.K. & **Epstein, R.A.** (2017). Expectation modulates repetition priming under high stimulus variability. *Journal of Vision*, 17 (6): 10, 1-16.
48. *Bonner, M.F. & **Epstein, R.A.** (2017). Coding of navigational affordances in the human visual system. *Proceedings of the National Academy of Sciences*, 114 (18): 4793-4798.
47. *Hafri, A., Trueswell, J.C. & **Epstein, R.A.** (2017). Neural representations of observed actions generalize across static and dynamic visual input. *Journal of Neuroscience*, 37 (11): 3057-3071.
46. *Keinath, A.T., *Julian, J.B., **Epstein, R.A.** & Muzzio, I.A. (2017). Environmental geometry aligns the hippocampal map during spatial reorientation. *Current Biology*, 27 (3): 309-317.
45. *Marchette, S.A., *Ryan, J. & **Epstein, R.A.** (2017). Schematic representations of local environmental space guide goal-directed navigation. *Cognition*, 158, 68-80.
44. *Julian, J.B., *Ryan, J. & **Epstein, R.A.** (2017). Coding of object size and object category in human visual cortex. *Cerebral Cortex*, 27 (6): 3095-3109.
43. *Vass, L.K. & **Epstein, R.A.** (2017). Common neural representations for visually-guided reorientation and spatial imagery. *Cerebral Cortex*, 27 (2): 1457-1471.
42. Kraemer, D. J. M., *Schinazi, V. R., Cawkwell, P. B., Tekriwal, A., **Epstein, R. A.**, & Thompson-Schill, S.L. (2017). Verbalizing, visualizing, and navigation: The effect of strategies on encoding a large-scale environment. *Journal of Experimental Psychology: Learning & Cognition*, 43(4), 611-621.

41. *Julian, J.B., *Ryan, J., Hamilton, R.H. & **Epstein, R.A.** (2016). The Occipital Place Area is causally involved in representing environmental boundaries during navigation. *Current Biology*, 26 (8): 1104-1109.
40. *Bryan, P.B., *Julian, J.B. & **Epstein, R.A.** (2016). Rectilinear edge selectivity is insufficient to explain the category selectivity of the parahippocampal place area. *Frontiers in Human Neuroscience*, 10, 137.
39. *Marchette, S.A., *Vass, L.K., *Ryan, J. & **Epstein, R.A.** (2015). Outside looking in: Landmark generalization in the human navigational system. *Journal of Neuroscience*, 35 (44): 14896-14908.
38. *Julian, J.B., *Keinath, A.T., Muzzio, I.A. & **Epstein, R.A.** (2015). Place recognition and heading retrieval are mediated by dissociable cognitive systems in mice. *Proceedings of the National Academy of Sciences*, 112 (20): 6503-6508.
37. *Pegors, T.K., *Mattar, M.G., *Bryan, P.B. & **Epstein, R.A.** (2015). Simultaneous perceptual and response biases on sequential face attractiveness judgments. *Journal of Experimental Psychology: General*, 144 (3): 664-673.
36. *Pegors, T.K., Kable, J.W., Chatterjee, A. & **Epstein, R.A.** (2015). Common and unique representations in prefrontal cortex for face and place attractiveness. *Journal of Cognitive Neuroscience*, 27 (5): 959-973.
35. *Marchette, S.A., *Vass, L.K., *Ryan, J. & **Epstein, R.A.** (2014). Anchoring the neural compass: Coding of local spatial reference frames in human medial parietal cortex. *Nature Neuroscience*, 17 (11): 1598-1606.
34. **Epstein, R.A.** & *Vass, L.K. (2014). Neural systems for landmark-based wayfinding in humans. *Philosophical Transactions of the Royal Society London B*, 369 (1635).
33. *Troiani, V., *Stigliani, A., *Smith, M.E & **Epstein, R.A.** (2014). Multiple object properties drive scene-selective regions. *Cerebral Cortex*, 24 (4): 883-897.
32. Weisberg, S.M., *Schinazi, V.R., Newcombe, N.S., Shipley, T.S. & **Epstein, R.A.** (2014). Variations in cognitive maps: Understanding individual differences in navigation. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 40 (3): 669-682.
31. Bastin, J., Vidal, J.R., *Bouvier, S., Perrone-Bertolotti, M., Bemis, D., Kahane, P., David, O., Lacheaux, J.-P. & **Epstein, R.A.** (2013). Temporal components in the parahippocampal place area revealed by human intracerebral recordings. *Journal of Neuroscience*, 33 (24): 10123-10131.
30. *Vass, L.K. & **Epstein, R.A.** (2013). Abstract representations of location and facing direction in the human brain. *Journal of Neuroscience*, 33 (14): 6133-6142.
29. *Schinazi, V.R., Nardi, D., Newcombe, N.S., Shipley, T.F. & **Epstein, R.A.** (2013). Hippocampal size predicts rapid learning of a cognitive map in humans. *Hippocampus*, 23 (6): 515-528.
28. **Epstein, R.A.** & *Morgan, L.K. (2012). Neural response to visual scenes reveals inconsistencies between fMRI adaptation and multivoxel pattern analysis. *Neuropsychologia*, 50 (4): 530-543.
27. *MacEvoy, S.P. & **Epstein, R.A.** (2011). Constructing scenes from objects in human occipitotemporal cortex. *Nature Neuroscience*, 14 (10): 1323-1329.
26. *Morgan, L.K., *MacEvoy, S.P., Aguirre, G.K. & **Epstein, R.A.** (2011). Distances between real-world locations are represented in the human hippocampus. *Journal of Neuroscience*, 31: 1238-1245.

25. *Ward, E.J., *MacEvoy, S.P. & **Epstein, R.A.** (2010). Eye-centered encoding of visual space in scene-selective regions. *Journal of Vision*, 10 (14): 6.
24. *Schinazi, V.R. & **Epstein, R.A.** (2010). Neural correlates of real-world route learning. *NeuroImage*, 53: 725-735.
23. **Epstein, R.A.** & *Ward, E.J. (2010). How reliable are visual context effects in parahippocampal cortex? *Cerebral Cortex*, 20: 943-7.
22. *MacEvoy, S.P. & **Epstein, R.A.** (2009). Decoding the representation of multiple simultaneous objects in human occipitotemporal cortex. *Current Biology*, 19, 943-947.
21. **Epstein, R. A.** (2008). Parahippocampal and retrosplenial contributions to human spatial navigation. *Trends in Cognitive Science*, 12, 388-396.
20. **Epstein, R.A.**, *Parker, W.E. & *Feiler, A.M. (2008). Two kinds of fMRI repetition suppression? Evidence for dissociable neural mechanisms. *Journal of Neurophysiology*, 99: 2877-2886.
19. Dove, A., Manly, T., **Epstein, R.** & Owen, A.M. (2008). The engagement of mid-ventrolateral prefrontal cortex and posterior brain regions in intentional cognitive activity. *Human Brain Mapping*, 29: 107-119.
18. *MacEvoy, S.P. & **Epstein, R.A.** (2007). Position selectivity in scene- and object-responsive occipitotemporal regions. *Journal of Neurophysiology*, 98: 2089-2098.
17. **Epstein, R.A.**, *Parker, W.E. & *Feiler, A.M. (2007). Where am I now? Distinct roles for parahippocampal and retrosplenial cortices in place recognition. *Journal of Neuroscience*, 27: 6141-6149.
16. **Epstein, R.A.**, *Higgins, J.S., *Jablonski, K., & *Feiler, A. (2007). Visual scene processing in familiar and unfamiliar environments. *Journal of Neurophysiology*, 97: 3670-3683.
15. **Epstein, R.A.** & *Higgins, J.S. (2007). Differential parahippocampal and retrosplenial involvement in three types of visual scene recognition. *Cerebral Cortex*, 17: 1680-1693.
14. Hon, N., **Epstein, R.A.**, Owen, A.M. & Duncan, J. (2006). Frontoparietal activity with minimal decision and control. *Journal of Neuroscience*, 26: 9805-9809.
13. **Epstein, R.A.**, *Higgins, J.S., *Parker, W., Aguirre, G.K. & *Cooperman, S. (2006). Cortical correlates of face and scene inversion: A comparison. *Neuropsychologia*, 44: 1145-1158.
12. Gauthier, I., Curby, K.M., Skludlarski, P. & **Epstein, R.A.** (2005). Individual differences in FFA activity suggest independent processing at different spatial scales. *Cognitive, Affective & Behavioral Neuroscience*, 5: 222-234.
11. **Epstein, R.A.** (2005). The cortical basis of visual scene processing. *Visual Cognition*, 12: 954-978.
10. Lee, A.C.H., Bussey, T.J., Murray, E.A., Saksida, L.M., **Epstein, R.A.**, Kapur, N., Hodges, J.R. & Graham, K.S. (2005). Perceptual deficits in amnesia: challenging the medial temporal lobe 'mnemonic' view. *Neuropsychologia*, 43: 1-11.
9. **Epstein, R.A.**, *Higgins, J.S. & Thompson-Schill, S.L. (2005). Learning places from views: Variation in scene processing as a function of experience and navigational ability. *Journal of Cognitive Neuroscience*, 17: 73-83.
8. **Epstein, R.** (2004). Art, consciousness, and the brain: Lessons from Marcel Proust. *Consciousness & Cognition*, 13: 213-240.

7. **Epstein, R.**, Graham, K.S. & Downing, P.E. (2003). Viewpoint-specific scene representations in human parahippocampal cortex. *Neuron*, 37: 865-876.
6. **Epstein, R.**, DeYoe, E.A., Press, D.Z., Rosen, A.C. & Kanwisher, N. (2001). Neuropsychological evidence for a topographical learning mechanism in parahippocampal cortex. *Cognitive Neuropsychology*, 18: 481-508.
5. **Epstein, R.** (2000). The neural-cognitive basis of the Jamesian stream of thought. *Consciousness & Cognition*, 9: 550-575. [Response to commentary on this article: **Epstein, R.** (2000). Substantive thoughts about substantive thoughts: A reply to Galin. *Consciousness & Cognition*, 9: 584-590.]
4. Yuille, A.L., Snow, D., **Epstein, R.** & Belhumeur, P.N. (1999). Determining generative models of objects under varying illumination: Shape and albedo from multiple images using SVD and integrability. *International Journal of Computer Vision*, 35: 203-222.
3. **Epstein, R.** & Kanwisher, N. (1999). Repetition Blindness for locations: Evidence for automatic spatial coding in an RSVP task. *Journal of Experimental Psychology: Human Perception and Performance*, 25: 1855-1866.
2. Epstein, R., Harris, A., Stanley, D. & Kanwisher, N. (1999). The parahippocampal place area: Recognition, navigation, or encoding? *Neuron*, 23: 115-125.
1. Epstein, R. & Kanwisher, N. (1998). A cortical representation of the local visual environment. *Nature*, 392: 598-601.

Peer-Reviewed Conference Proceedings Articles

3. **Epstein, R.**, Yuille, A.L. & Belhumeur, P.N. (1996). Learning object representations from lighting variations. In *Object Representation in Computer Vision II: ECCV 96 International Workshop*, J. Ponce, A. Zisserman & M. Hebert, eds. Springer Lecture Notes in Computer Science, 179-199.
2. **Epstein, R.**, Hallinan, P.W. & Yuille, A.L. (1995). 5 ± 2 eigenimages suffice: An empirical investigation of low-dimensional lighting models. In *Proceedings of the IEEE Workshop on Physics-Based Modeling in Computer Vision*, 108.
1. **Epstein, R.** & Yuille, A.L. (1994). Training a general purpose deformable template. In *Proceedings of the First IEEE Conference on Image Processing, Vol. 1*. Austin, TX: IEEE Society Press, 203-207.

Book Chapters and Non-Peer Reviewed Articles

9. **Epstein, R.A.** (2020). Spatial knowledge and navigation. In M.S. Gazzaniga, Ed., *The Cognitive Neurosciences, 6th Edition*. Cambridge MA: MIT Press.
8. **Epstein, R.A.** (2014). Neural systems for visual scene recognition. In M. Bar & K. Keveraga (Eds.), *Scene Vision*. Cambridge MA: MIT Press, pp. 105-134.
7. **Epstein, R.A.** & *Julian, J.B. (2013). Scene areas in humans and macaques. *Neuron*, 79 (4): 615-617.
6. **Epstein, R.A.** (2011). Cognitive Neuroscience: Scene Layout from Vision and Touch. *Current Biology*, 21 (11): R437-R438.
5. **Epstein, R.A.** & *MacEvoy, S.P. (2011). Making a scene in the brain. In L. Harris & M. Jenkin (Eds.), *Vision in 3d Environments*. Cambridge: Cambridge University Press.

4. Farah, M.J. & **Epstein, R.A.** (2011). Disorders of visual-spatial perception and cognition. In K.M. Heilman & E. Valenstein (Eds.), *Clinical Neuropsychology, 5th Edition*. Oxford: Oxford University Press.
3. Sukel, K. & **Epstein, R.** (2007). Building for the shattered mind: Partnering brain science and architecture. *Cerebrum: The Dana Forum on Brain Sciences*. Published online.
2. Kanwisher, N., Downing, P., **Epstein, R.**, & Kourtzi, Z. (2001). Functional Neuroimaging of Human Visual Recognition. In R. Cabeza and A. Kingstone (Eds.), *The Handbook on Functional Neuroimaging*, pp. 109-152. Cambridge MA: MIT Press.
1. Owen, A.M., **Epstein, R.** & Johnsrude, I.S. (2001). fMRI: Applications to Cognitive Neuroscience. In P. Jefferies, P.M. Matthews and S.M. Smith (Eds.), *Functional Magnetic Resonance Imaging of the Brain: Methods for Neuroscience*, pp. 311-327. Oxford: Oxford University Press.

PROFESSIONAL ACTIVITIES

Member: Society for Neuroscience, Vision Sciences Society, Memory Disorders Research Society

Journal Reviews: Brain & Language, Brain Research, Cerebral Cortex, Consciousness & Cognition, Cortex, Current Biology, Developmental Psychology, European Journal of Neuroscience, Experimental Brain Research, Hippocampus, Journal of Cognitive Neuroscience, Journal of Experimental Psychology General, Journal of Neurology Neurosurgery and Psychiatry, Journal of Neurophysiology, Journal of Neuroscience, Journal of Vision, Nature Communications, Nature Neuroscience, Neuroimage, Neuron, Neuropsychologia, Perception, Perception & Psychophysics, PloS One, Proceedings National Academy of Sciences, Trends in Neuroscience, Vision Research, Visual Cognition

Grant Reviews: National Science Foundation (2004, 2006, 2010), National Institutes of Health (2010, 2015), Wellcome Trust UK (2011), Human Frontiers Science Foundation (2012), Velux Stiftung Foundation (2018), UK Biotechnology and Biological Sciences Research Council (2020), Canada First Research Excellence Fund (2021)

NIH Study Section: Cognition & Perception Section (October 2020; Ad-Hoc member)

Book reviews: W.W. Norton & Co., Oxford University Press, Princeton University Press, Cambridge University Press

Program Committee: Cognitive Science Society (2011), Spatial Cognition (2014), Vision Science Society (2016, 2017, 2018, 2019, 2020, 2021)

INVITED TALKS

4th Interdisciplinary Navigation Symposium, Cortina d'Ampezzo, Italy (June 2022)
Ruhr University of Bochum, International Graduate School of Neuroscience (November 2021)
NYU, Perception and Cognition Colloquium (Nov 2021)
Park City Winter Conference on the Neurobiology of Learning and Memory (January 2021)
Dartmouth College, Psychological and Brain Sciences (November 2020)
Johns Hopkins University, Cognitive Science (March 2019)
Summer Institute in Cognitive Neuroscience, Tahoe, CA. (July 2018)
2nd Interdisciplinary Navigation Symposium, Mont Tremblant, Quebec (June 2018)
Cognition, Computation & the Brain Conference, Rutgers University (May 2018)
University of Connecticut, Cognitive Science Colloquium (April 2018)

University of California, Berkeley, Dept. of Psychology (Feb. 2017)
Keynote Address, Spatial Cognition 2016 (August 2016)
1st Interdisciplinary Navigation Symposium, Bad Gastein, Austria (June 2016)
Presidential Symposium, Association for Psychological Sciences (May 2016)
MIT, McGovern Institute (April 2016)
Harvard University, Cognition Brain & Behavior Colloquium (April 2016)
Georgetown University, Interdisciplinary Program in Neuroscience (Nov. 2015)
Haverford College, Tri-School Interdisciplinary Group (Oct. 2015)
Vespucci Institute on Brain and Space, Champalimaud Center for the Unknown, Lisbon Portugal
(Sept. 2014)
SUNY Downstate Neural and Behavioral Science Seminar (May 2014)
Pennsylvania Spatial Cognition Symposium, Pennsylvania State University (May 2014)
Royal Society Theo Murphy International Scientific Meeting on Space in the Brain, Chicheley Hall,
UK (May 2013)
Basque Center for Brain and Language, San Sebastian Spain (May 2012)
Concepts, Actions and Objects Workshop, Rovereto Italy (May 2012)
Interdisciplinary Research Symposium on Literature and Neuroscience, Cold Spring Harbor
Laboratory (April 2012)
Department of Cognitive Sciences, Johns Hopkins University (Oct. 2011)
Cognitive Neuroscience Colloquium, CCNY (Oct. 2011)
Cognitive Sciences Society Symposium, Boston MA (July 2011)
University of Indiana Cognitive Science Colloquium (April 2011)
MIT Scene Understanding Symposium (SUNs, January 2011)
The Science of the Arts, Brain Sciences Institute, Johns Hopkins University (Oct. 2010)
Association for Psychological Sciences, Boston MA (May 2010)
NSF Conference on Spatial Learning, Harvard University (May 2010)
Dept. of Psychology, University of Illinois, Urbana-Champaign (April 2010)
Vision Sciences Series, Dept. of Brain & Cognitive Sciences, MIT (March 2010)
Visual Attention Seminar, Brigham & Women's Hospital, Cambridge MA (Feb. 2010)
Cognition Brain & Behavior Colloquium, Dept. of Psychology, Harvard University (Feb. 2010)
Department of Psychological and Brain Sciences, Johns Hopkins University (Nov. 2009)
International Conference on Vision in 3-D Environments, York University (June 2009)
Department of Psychology, Northwestern University (Jan. 2009)
Neuroscience of Social Decision Making, Princeton University (Oct. 2008)
Philoctetes Center for the Multidisciplinary Study of Imagination, New York (May 2008)
Center for Cognitive Science, Rutgers University (March 2008).
Horizons of Vision Research Conference, California State University Long Beach (March 2008).
Dept of Psychology, Rice University (Nov. 2007)
Vision Lab, Dept. of Psychology, Harvard University (Sept. 2007)
Dept. of Neuroscience, Brown University (Sept. 2007)
Dept. of Brain & Cognitive Sciences, MIT (Sept. 2007)
Vision Sciences Society Symposium, Sarasota FL (May 2007)
MIT Scene Understanding Symposium (SuNS; February 2007).
Academy of Neuroscience for Architecture: 5th Annual Workshop, Washington DC (Nov. 2006)
fMRI Users Group, NYU (Nov. 2006)
Dept. of Psychology, University of Delaware (Oct. 2006)
Dept. of Psychology, West Chester University (April 2006)
Dept. of Psychology, Yale University (Sept. 2005)
Academy of Neuroscience for Architecture: 3rd Annual Workshop, Woods Hole MA (August 2005)
Dept. of Psychology, University of Western Ontario (March 2005)
Society for Neuroscience Minisymposium, San Diego CA (Nov. 2004)

Dept. of Psychology, Vanderbilt University (Oct. 2004)
 Dept. of Psychology, Princeton University (March 2004)
 Dept. of Psychology, McGill University (March 2001)
 Center for Neuroscience, UC Davis (Feb. 2001)
 Dept. of Psychology, Stanford University (Feb. 2001)
 Dept. of Psychology, University of Chicago (Feb. 2001)
 Dept. of Psychology, University of Pennsylvania (Jan. 2001)
 Dept. of Psychology, UCLA (Feb. 2000)
 Wellcome Dept. of Cognitive Neurology, University College London (Jan. 2000)
 School of Psychology, University of Wales, Bangor U.K. (Nov. 1999)
 Dept. of Psychology, Dartmouth College (Feb. 1999)
 Smith-Kettlewell Eye Research Institute, San Francisco, CA. (Dec. 1997)

SERVICE TO THE UNIVERSITY

2021-present	Director of Graduate Studies (Psychology)
2021-present	MindCore Executive Committee (School of Arts and Sciences)
2018, 2019, 2020	MindCore Fellowship Committee (School of Arts and Sciences)
2002, 06, 10, 12-15, 17, 19	Graduate Admissions Committee (Psychology)
2016-17	Chair's Advisory Committee (Psychology)
2015, 2016	Lecturer Search Committee (Psychology)
2015-16	Faculty Personnel [Promotions & Tenure] Committee (School of Arts and Sciences)
2015-17	Hearing Officer, Student Disciplinary System
2015-16	Organizing Committee, Interdisciplinary Brain Sciences Colloquium
2013-present	Advisory Board, Social, Cognitive and Affective Neuroscience program, Center for Neuroscience and Society
2011-15	Colloquium Organizer, Center for Cognitive Neuroscience
2013-14	Neuroscience Planning Group (School of Arts and Sciences)
2013	Interim Director, Undergraduate Program in Cognitive Science
2013	Lecturer Search Committee (College of Liberal and Professional Studies)
2011-13	Executive Committee, Behavioral and Cognitive Neuroscience Training Grant
2011-14	University of Pennsylvania Academic Senate, Executive Committee
2011-12	Faculty Search Committee, Basic Psychological Processes (Psychology)
2008, 10	Graduate Admissions Committee (Neuroscience)
2008-09	MRI Physicist Search Committee (Radiology)
2008-09	Faculty Search Committee, Clinical (Psychology)
2008	Honors Thesis Examiner (Swarthmore College)
2008-09	Colloquium Committee (Neuroscience)
2008-09, 10-11	Organizing Committee, Behavioral and Cognitive Neuroscience Retreat
2008	Recruitment Advisory Committee (School of Medicine)
2007	Imaging Symposium Organizing Committee (School of Arts and Sciences)
2003-05	Computing Czar (Center for Cognitive Neuroscience)
2002-03	Colloquium Committee (Psychology)
2002-03	Faculty Search Committee, Perception (Psychology)

2002-03

Penn Reading Project Committee (School of Arts and Sciences)

Note: for confidentiality reasons, ad-hoc tenure and promotion committees are not listed

TEACHING AND MENTORING

Undergraduate Courses

Psych 149: Cognitive Neuroscience (S05, S06, S07, S08, F08, F10, S12, S13, S15, F15, S21)

Psych 349: Research Experience in Cognitive Neuroscience (F03, F04)

Psych 249/459: Visual Cognition (S04, F04, S09)

Psych 449: Cognitive Neuroscience of Consciousness (S11, F12, F13, S17, F17, S19)

Graduate Courses

Psych 600: Cognitive Neuroscience Proseminar (S06, F07, F09, F10, F11, S12, S14, S16, S18, S20, F21)

Psych 630: Cognitive Neuroscience of Memory Proseminar (S04)

Psych 745: fMRI Data Analysis Seminar (F05, S09, F14, F18)

Psych 751: Special Topics in Cognition: Spatial Cognition (S08)

Lectures Given

IRCS Summer Workshop in Cognitive Science (03, 06, 07, 08, 09, 11)

Psych 159: Memory (F20)

Psych 442: Neurobiology of Learning and Memory (F08)

INSC 573: Core III Systems and Integrative Neuroscience (S09, S18, S19, S20, S21)

Postdoctoral Fellows

2020-	Iva Brunec (co-mentored with Nora Newcombe)
2018-	Michael Peer
2017-	Zhengang Lu
2015-2019	Steve Weisberg (co-mentor—primary advisor Anjan Chatterjee)
2013-2018	Michael Bonner
2013-2015	Maria Olkkonen
2011-2017	Steven Marchette
2009-2011	Seth Bouvier
2008-2011	Victor Schinazi
2006-2009	Sean MacEvoy

Graduate Students (*NSF Graduate Fellowship, †NRSA predoctoral fellowship)

2020-	Linfeng (Tony) Han
2013-19	Alon Hafri (Psychology—joint with John Trueswell) *
2015-18	Alex Keinath (Psychology—joint with Isabel Muzzio and Vijay Balasubramanian)
2012-17	Joshua Julian (Psychology) *
2009-14	Teresa Pegors (Psychology) *
2009-14	Lindsay Morgan Vass (Neuroscience) † -Winner of 2014 Flexner Award for best neuroscience Ph.D. dissertation at Penn
2008-12	Vanessa Troiani (Neuroscience—primary advisor Robert Schultz) *
2004-05	Matt McCabe (Psychology)

Graduate Students on rotation

2017	Michael Barnett (Psychology)
2015	Christopher Angeloni (Psychology)
2012	Marieta Pehlivanova (Psychology)
2011	Marcelo Mattar (Psychology)

Graduate student dissertation committee member:

2021-present	Marlie Tandoc (Psychology, Chair)
2021-present	Barnes Jannuzi (Neuroscience)
2019-present	Clara Raithel (Psychology, Chair)
2019-2021	Ariana Familiar (Psychology)
2016-2020	Sangil Lee (Psychology, Chair)
2016-2019	Sarah Solomon (Psychology, Chair)
2014-2018	Alex Keinath (Psychology)
2013-2017	Marieta Pehlivanova (Psychology, Chair)
2012-2015	Marcelo Mattar (Psychology)
2012-2016	Amy Price (Neuroscience, Chair)
2014-2015	Khaing Win (Neuroscience)
2012-2013	Betty Kim (Psychology)
2011-2015	Xuexin Wei (Psychology)
2011-2015	Christine Boland (Psychology)
2010-2015	David Kahn (Neuroscience, Chair)
2010-2012	Vanessa Troiani (Neuroscience)
2009-2013	Marc Coutanche (Psychology, Chair)
2008-2012	Thomas Lee (Psychology)
2008-2012	Michael Bonner (Neuroscience)
2008-2009	Kartik Sreenivasan (Neuroscience)
2007-2008	Elizabeth Smith (Psychology, Chair)
2003-2009	Elaine Wencil (Psychology; Chair)
2003-2007	Prin Amorapanth (Neuroscience)
2003-2007	Robyn Oliver (Psychology)

Graduate student preliminary/candidacy examination committee member:

2021	Catrina Hacker (Neuroscience)
2019	Barnes Januzzi (Neuroscience)
2018	Ursula Tooley (Neuroscience)
2014	Drew Jaegle (Neuroscience)
2014	Sonia Poltoratski (Psychology—Vanderbilt University)
2013	Noam Roth (Neurobiology)
2013	Alexander Keinath (Psychology)
2012	Sarah Metz (Psychology)
2012	Amy Price (Neuroscience)
2011	Marcelo Mattar (Psychology)
2011	Christine Boland (Psychology)
2011	Isaac Schamberg (Psychology)
2010	David Kahn (Neuroscience)
2008	Nina Hsu (Neuroscience)
2008	Michael Bonner (Neuroscience)

2006	Joshua Jacobs (Neuroscience)
2006	Kartik Sreenivasan (Neuroscience)
2005	Daniel Drucker (Psychology)
2004	Athena Atkipis (Psychology)
2003	Bei Xiao (Neuroscience)

Graduate student external thesis committee member

2020	Xuehui Lei (University of Alberta)
2019	Liwei Sun (Dartmouth College)
2019	Jacob Bellmund (Radboud University, Netherlands) [Honors evaluation]
2016	Danielle Douglas (University of Toronto)

Post-baccalaureate research assistants

2019-	Cathy Nadar
2017-2019	Rachel Metzgar
2015-2017	Stamati Liapis
2012-2015	Jack Ryan
2010-2012	Anthony Stigliani
2008-2010	Mary Smith
2007-2010	Emily Ward
2006-2007	Whitney Parker
2005-2007	Alana Feiler
2002-2005	Steve Higgins

Undergraduate Independent Study Students

2019	Hana Flaxman (BBB; Senior Honors Thesis)
2018-19	Anna Dailey (Cognitive Science; Senior Honors Thesis)
2017-18	Helen DuGan (Visual Studies; Senior Thesis)
2016-17	Rachel Freilich (Cognitive Science; independent study, Senior Honors Thesis)
2015-16	Peter Bryan (Cognitive Science; independent study, Senior Honors Thesis) -Alumni society prize for best honors thesis in Cognitive Science
2014-15	Nicole Paul (BBB; independent study, Honors Thesis)
2014-15	Monica Osher (Cognitive Science; independent study, Senior Honors Thesis)
2014	Greyson Abid (Cognitive Science; Senior Honors Thesis) -Alumni society prize for best honors thesis in Cognitive Science
2014	Simin Xi (Psychology; independent study)
2012	Yael Gottlieb (Cognitive Science; independent study)
2008-9	Calypso Montouchet (Visual Studies; Senior Thesis)
2007-8	Ross Avila (Psychology; Senior Thesis)
2007-8	Gisela Garrett (Visual Studies; Senior Thesis)
2004-6	Whitney Parker (Biological Basis of Behavior; Senior Honors Thesis) -Eliot Stellar award for most outstanding honors thesis presentation by a BBB major
2005-6	Santiago Tenorio (Visual Studies; Senior Thesis)
2005-6	Carlos Ferrer (Visual Studies; Senior Thesis)
2004-5	Karen Jablonski (Biological Basis of Behavior; Senior Honors Thesis)
2003	David Pendorff (Cognitive Science; Independent Study)

ABSTRACTS/CONFERENCE PRESENTATIONS

- Peer, M. & **Epstein, R.A.** (2021). A river runs through it: Brain representations of segmented environments. May 2021: Vision Sciences Society.
- Peer, M. & **Epstein, R.A.** (2021). A river runs through it: Brain representations of segmented environments. March 2021: Cognitive Neuroscience Society.
- Peer, M. & **Epstein, R.A.** (2021). A river runs through it: Brain representations of segmented environments. Feb. 2021: Israeli Conference on Cognition Research.
- Peer, M. & **Epstein, R.A.** (2021). A river runs through it: Brain representations of segmented environments. Feb. 2021: Israeli Society for Neuroscience.
- Peer, M. & **Epstein, R.A.** (2020). A river runs through it: Brain representations of segmented environments. October 2020: 3rd Interdisciplinary Navigation Symposium (iNAV).
- Lu, Z., Julian, J.B. & **Epstein, R.A.** (2019). fMRI encoding model of virtual navigation. May 2019: Vision Sciences Society, St. Petersburg Beach, FL.
- Metzgar, R.C., Bonner, M.F. & **Epstein, R.A.** (2019). What lies beyond: Representing the connectivity structure of the local environment. May 2019: Vision Sciences Society, St. Petersburg Beach, FL.
- Bonner, M.F. & **Epstein, R.A.** (2019). Parahippocampal cortex represents the natural statistics of object context. May 2019: Vision Sciences Society, St. Petersburg Beach, FL.
- Bonner, M.F. & **Epstein, R.A.** (2018). How are the statistics of object co-occurrence represented in cortex? November 2018: Society for Neuroscience, San Diego CA.
- Hafri, A., Bonner, M.F., Trueswell, J.C. & **Epstein, R.A.** (2018). Brains on books: Event-structure semantics predict cortical responses to naturalistic language. November 2018: Society for Neuroscience, San Diego CA.
- Bonner, M.F. & **Epstein, R.A.** (2018). How are the statistics of object co-occurrence represented in human visual cortex? September 2018: Cognitive Computational Neuroscience, Philadelphia PA.
- Bonner, M.F. & **Epstein, R.A.** (2018). Cortical representations of the natural statistics of objects in context. June 2018: 2nd Interdisciplinary Navigation Symposium (iNAV). Mont Trembant, Quebec.
- Keinath, A.T., **Epstein, R.A.** & Balasubramanian, V. (2018). Environmental deformations dynamically shift the cognitive map. 2nd Interdisciplinary Navigation Symposium (iNAV). June 2018: Mont Trembant, Quebec.
- Harel, A., Nador, J.D., Bonner, M.F. & **Epstein, R.A.** (2018). Early electrophysiological markers of navigational affordances in scenes. May 2018: Vision Sciences Society, St. Petersburg Beach, FL.
- Bonner, M.F. & **Epstein, R.A.** (2017). Computational mechanisms underlying cortical analysis of affordance properties in visual scenes. November 2017: Society for Neuroscience, Washington DC.
- Keinath, A.T., **Epstein, R.A.** & Balasubramanian, V. (2017). Environmental deformations dynamically shift the cognitive map. November 2017: Society for Neuroscience, Washington DC.
- Bonner, M.F.** & Epstein, R.A. (2017). Computational mechanisms underlying fMRI responses to affordance properties in visual scenes. September 2017: Cognitive Computational Neuroscience, New York, NY.

- Bonner, M.F. & **Epstein, R.A.** (2017). Computational mechanisms for identifying the navigational affordances of scenes in a deep convolutional neural network. May 2017: Vision Sciences Society, St. Petersburg Beach, FL.
- Julian, J.B., Keinath, A.T., Frazzetta, G. & **Epstein, R.A.** (2017). Evidence for a grid-like representation of visual space in humans. May 2017: Vision Sciences Society, St. Petersburg Beach, FL.
- Hafri, A., Trueswell, J.C. & **Epstein, R.A.** (2017). Neural representations of observed actions generalize across static and dynamic visual input. May 2017: Concepts, Actions, and Objects Workshop: Rovereto, Italy.
- Keinath, A.T., **Epstein, R.A.** & Balasubramanian, V. (2017). Boundary-tethered grid shifts reproduce effects of environment deformations on grid and place cells. Feb. 2017: COSYNE, Salt Lake City, UT.
- Marchette, S.A., Ryan, J., Vass, L.K. & **Epstein, R.A.** (2016). Schematic representations of environmental space guide goal-directed navigation. Nov. 2016: Psychonomics Society, Boston MA.
- Keinath, A.T., **Epstein, R.A.** & Balasubramanian, V. (2016). Entorhinal border cells can convey environmental deformations to grid and place fields. October 2016: Society for Neuroscience, San Diego, CA.
- Bonner, M.F. & **Epstein, R.A.** (2016). Neural coding of navigational affordances in visual scenes. October 2016: Society for Neuroscience, San Diego, CA.
- Julian, J.B., Ryan, J., Hamilton, R.H. & **Epstein, R.A.** (2016). Perceptual inputs to the cortical network for boundary-based navigation. October 2016: Society for Neuroscience, San Diego, CA.
- Marchette, S.A., Ryan, J. & **Epstein, R.A.** (2016). Schematic representations of local environmental space guide goal-directed navigation. 1st Interdisciplinary Navigation Symposium (iNAV). June 2016: Bad Gastein, Austria.
- Julian, J.B., Keinath, A.T., **Epstein, R.A.** & Muzzio, I.A. (2016) Context recognition and heading retrieval have dissociable effects on hippocampal spatial representations. 1st Interdisciplinary Navigation Symposium (iNAV). June 2016: Bad Gastein, Austria.
- Keinath, A.T., Julian, J.B., **Epstein, R.A.** & Muzzio, I.A. (2016). Spatial geometry orients hippocampal spatial representations in disoriented mice. 1st Interdisciplinary Navigation Symposium (iNAV). June 2016: Bad Gastein, Austria.
- Bonner, M.F., Ryan, J. & **Epstein, R.** (2016). Neural coding of navigational affordances in visual scenes. May 2016: Vision Sciences Society, St. Petersburg Beach, FL.
- Marchette, S.A., Ryan, J. & **Epstein, R.A.** (2016). Where did I leave my coffee cup? Evidence for independent local and global representations of environmental space. May 2016: Vision Sciences Society, St. Petersburg Beach, FL.
- Kamps, F.S., Julian, J.B., Ryan, J., **Epstein, R.A.** & Dilks, D.D. (2016) Landmark- and boundary-based spatial memory: typical and atypical development. May 2016: Vision Sciences Society, St. Petersburg Beach, FL.
- Hafri, A., Trueswell, J.C. & **Epstein, R.A.** (2016). Format-independent cortical representations of interactive events. May 2016: Vision Sciences Society, St. Petersburg Beach, FL.
- Keinath, A.T., Julian, J.B., **Epstein, R.A.** & Muzzio, I.A. (2015). Spatial geometry orients hippocampal spatial representations in disoriented mice. October 2015: Society for Neuroscience, Chicago, IL.

- Bonner M.F., Ryan, J. **Epstein R.A.** (2015) Neural coding of navigational affordances in visual scenes. October 2015: Society for Neuroscience, Chicago, IL.
- Marchette., S.A., Vass, L.K., Ryan, J., & **Epstein, R.A.** (2015). Multiple landmark codes in the human brain. October 2015: Society for Neuroscience, Chicago, IL.
- Julian J.B., Keinath A.T., **Epstein R.A.**, Muzzio I. (2015). Place recognition and heading retrieval have dissociable influences on hippocampal spatial representations. October 2015: Society for Neuroscience, Chicago, IL.
- Bonner, M.F., Ryan, J. & **Epstein, R.A.** (2015). Neural coding of navigational affordances in the local visual environment. May 2015: Vision Sciences Society, St. Petersburg Beach, FL.
- Paul, N.C., Marchette, S.A. & **Epstein, R.A.** (2015). Anchoring the internal compass: The role of geometry and egocentric experience. May 2015: Vision Sciences Society, St. Petersburg Beach, FL.
- Ryan, J., Julian, J.B. & **Epstein, R.A.** (2015). Coding of object size and object category in scene regions. May 2015: Vision Sciences Society, St. Petersburg Beach, FL.
- Hafri, A., Trueswell, J.C. & **Epstein, R.A.** (2015). Neural representations of human interactions. May 2015: Vision Sciences Society, St. Petersburg Beach, FL.
- Olkonnen, M., Mattar, M.G., Aguirre, G.K. & **Epstein, R.A.** (2015). Adaptation sharpens object representations: Evidence from shape discrimination thresholds. May 2015: Vision Sciences Society, St. Petersburg Beach, FL.
- Mattar, M.G., Olkonnen, M., Aguirre, G.K. & **Epstein, R.A.** (2015). Adaptation decorrelates object representations: Evidence from Multivoxel Pattern Analysis. May 2015: Vision Sciences Society, St. Petersburg Beach, FL.
- Julian, J.B., Ryan, J., Hamilton, R.H. & **Epstein, R.A.** (2015). The Occipital Place Area is causally involved in representing environmental boundaries during navigation. May 2015: Vision Sciences Society, St. Petersburg Beach, FL.
- Bryan, P.B., Julian, J.B. & **Epstein, R.A.** (2015). Rectilinearity is insufficient to explain category selectivity of the parahippocampal place area. May 2015: Vision Sciences Society, St. Petersburg Beach, FL.
- Julian, J.B., Keinath, A., Muzzio, I. & **Epstein, R.A.** (2015). Place recognition and heading retrieval are dissociable in mice (and possibly men). March 2015: Society for Research in Child Development, Philadelphia PA.
- Ryan, J., Julian, J.B., Hamilton, R.H. & **Epstein, R.A.** (2014). The occipital place area is causally involved in representing environmental boundaries during navigation. Nov. 2014: Society for Neuroscience, Washington DC.
- Olkonnen, M., Aguirre, G.K. & **Epstein, R.A.** (2014). Expectation does not affect fMRI adaptation in metric face space. Nov. 2014: Society for Neuroscience, Washington DC.
- Hafri, A.A., Trueswell, J.C. & **Epstein, R.A.** (2014). Neural representations of human interactions. Nov. 2014: Society for Neuroscience, Washington DC.
- Marchette, S.A., Vass, L.K., Ryan, J. & **Epstein, R.A.** (2014). Anchoring the neural compass: Coding of local spatial reference frames in human medial parietal cortex. Nov. 2014: Society for Neuroscience, Washington DC.

- Julian, J.B., Keinath, A., Muzzio, I. & **Epstein, R.A.** (2014). Place recognition and heading retrieval are dissociable in mice (and possibly men). Nov. 2014: Society for Neuroscience, Washington DC.
- Marchette, S.A., Morgan, L.K., Ryan, J.A. & **Epstein, R.A.** (2014). For familiar landmarks, parahippocampal cortex represents place identity, not just perceptual features. May 2014: Vision Sciences Society, St. Petersburg Beach, FL.
- Pegors, T., Bryan, P., Mattar, M. & **Epstein, R.A.** (2014). Decoupling perceptual and response biases in a sequential face judgment task. May 2014: Vision Sciences Society, St. Petersburg Beach, FL.
- Julian, J.B., Keinath, A. Muzzio, I. & **Epstein, R.A.** (2014). Place recognition and heading retrieval are dissociable in mice (and possibly men). May 2014: Vision Sciences Society, St. Petersburg Beach, FL.
- Vass, L.K. & Epstein, R.A. (2014). Neural representations underlying real-world spatial memory retrieval. April 2014: Cognitive Neuroscience Society, Boston MA.
- Marchette, S.A., Ryan, J., & **Epstein, R.A.** (2013). Navigation ability predicts the spatial organization of free recall. November 2013: Psychonomics Society, Toronto ON.
- Julian, J.B. & **Epstein, R.A.** (2013). The Landmark Expansion Effect: The Landmark Expansion Effect: Navigational Relevance Influence Memory of Object Size. November 2013: Psychonomics Society, Toronto ON.
- Morgan, L.K. & **Epstein, R.A.** (2013). Neural coding of location, facing direction, and views during spatial imagery. May 2013: Vision Sciences Society, Naples FL.
- Julian, J.B. & **Epstein, R.A.** (2013). The Landmark Expansion Effect: Navigational relevance influences memory of object size. May 2013: Vision Sciences Society, Naples FL.
- Marchette, S.A., Morgan, L.K., Ryan, J.A. & **Epstein, R.A.** (2013). Outside looking in: Searching for conceptual abstract representations of “place” in scene-selective cortex. May 2013: Vision Sciences Society, Naples FL.
- Marchette, S.A., Morgan, L.K., Stigliani, A. & **Epstein, R.A.** (2012). Local coding of direction after navigational experience. November 2012: Psychonomics Society, Minneapolis MN.
- Pegors, T., Chatterjee, A., Kable, J. & **Epstein, R.A.** (2012). Neural activity during the subjective evaluation of face and place attractiveness. October 2012: Society for Neuroscience, New Orleans LA.
- Weisberg, S.M., **Epstein, R.A.**, Newcombe, N.S., Schinazi, V.R. & Shipley, T.F. (2012). Developing a virtual environment assessment of navigation ability. May 2012: Association for Psychological Sciences, Chicago, IL.
- Morgan, L.K., Aguirre, G.K. & **Epstein, R.A.** (2011). Neural coding of location on a familiar college campus. Nov. 2011: Society for Neuroscience, Washington DC.
- Bouvier, S.E. & **Epstein, R.A.** (2011). Early vs. late components of category selectivity in the parahippocampal place area: A rapid acquisition fMRI study. May 2011: Vision Sciences Society, Naples, FL.
- Morgan, L.K., Aguirre, G.K. & **Epstein, R.A.** (2011). Neural coding of location and facing direction on a familiar college campus. May 2011: Vision Sciences Society, Naples, FL.
- Stigliani, A., MacEvoy, S.P. & **Epstein, R.A.** (2011). Diagnostic Objects Facilitate Scene Categorization. May 2011: Vision Sciences Society, Naples, FL.

- Pegors, T. & **Epstein, R.A.** (2011). Sensitivity to the aesthetic value of scenes in the parahippocampal place area. May 2011: Vision Sciences Society, Naples, FL.
- Kraemer, D.J., Schinazi, V.R., Cankwell, P.B., **Epstein, R.A.** & Thompson-Schill, S.L. (2011). Individual Differences in Spatial Navigation: The Influence of Cognitive Styles. April 2011: Cognitive Neuroscience Society, San Francisco, CA.
- Kraemer, D.J., Schinazi, V.R., Cankwell, P.B., **Epstein, R.A.** & Thompson-Schill, S.L. (2010). Individual Differences in Spatial Navigation: The Influence of Cognitive Styles. Nov 2010: Psychonomics Society, St. Louis MO.
- Bouvier, S. & **Epstein, R.** (2010). Early vs. late components of category selectivity in the parahippocampal place area: A rapid acquisition fMRI study. Nov 2010: Society for Neuroscience, San Diego CA.
- MacEvoy, S.P. & **Epstein, R.A.** (2010). Neural construction of scenes from objects in human occipitotemporal cortex. Nov 2010: Society for Neuroscience, San Diego CA.
- Pegors, T. & **Epstein, R.A.** (2010). Neural coding of scene affordance. May 2010: Vision Sciences Society, Naples, FL.
- Morgan, L.K., MacEvoy, S.P., Aguirre, G.K. & **Epstein, R.A.** (2010). Adaptation for landmark identity and landmark location on a familiar college campus. May 2010, Vision Sciences Society, Naples, FL.
- Schinazi, V.R., **Epstein, R.A.**, Nardi, D., Newcombe, N. & Shipley, T. (2009). The acquisition of spatial knowledge in an unfamiliar campus environment. Nov. 2009, Psychonomics Society, Boston MA.
- Morgan, L.K., MacEvoy, S.P., Aguirre, G.K. & **Epstein, R.A.** (2009). Decoding scene categories and individual landmarks from cortical response patterns. Oct 2009, Society for Neuroscience, Chicago IL.
- MacEvoy, S.P. & **Epstein, R.A.** (2009). Building scenes from objects: A distributed pattern perspective. Oct 2009, Society for Neuroscience, Chicago IL.
- Smith, M.E. & **Epstein, R.A.** (2009). Posterior parahippocampal cortex responds to placeness but not context. Oct 2009, Society for Neuroscience, Chicago IL.
- Troiani, V. & **Epstein, R.A.** (2009). One parahippocampal mechanism or two? Overlap between place and context effects assessed with multi-voxel pattern analysis. Oct 2009, Society for Neuroscience, Chicago IL.
- MacEvoy, S.P. & **Epstein, R.A.** (2009). The sum of its parts? Decoding the representation of multiple simultaneous stimuli in human object-selective cortex. May 2009, Vision Sciences Society, Naples FL.
- Epstein, R.A.**, Smith, M.E. & Ward, E.J. (2009). What is the function of the parahippocampal place area? Testing the context hypothesis. May 2009, Vision Sciences Society, Naples FL.
- Schinazi, V.R. & **Epstein, R.A.** (2009). Learning a real-world route: A functional magnetic resonance imaging (fMRI) study. March 2009, Association of American Geographers, Las Vegas NV.
- Macevoy, S.P. & **Epstein, R.A.** (2008). The sum of its parts? Decoding the representation of multiple simultaneous stimuli in human object-selective cortex. Nov 2008, Society for Neuroscience, Washington DC.

- Schinazi, V. & **Epstein, R.A.** (2008). Memory for route direction in real-world navigation. Nov 2008, Society for Neuroscience, Washington DC.
- Epstein, R.A.** & Ward, E.J. (2008). How reliable are "context" effects in the parahippocampal place area? Nov 2008, Society for Neuroscience, Washington DC.
- Ward, E.J., Parker, W.E., Feiler, A.M. & **Epstein, R.A.** (2008). Adaptation for individual places but not for place categories in scene-selective cortical regions. May 2008, Vision Sciences Society, Naples FL.
- Macevoy, S.P. & **Epstein, R.A.** (2007). Position selectivity in human scene- and object-responsive occipitotemporal regions. Oct. 2007, Society for Neuroscience, San Diego CA.
- Feiler, A., **Epstein, R.A.** & Aguirre, G.K. (2007). The map in the brain: Distributed cortical representations of large-scale space. May 2007, Vision Sciences Society, Sarasota FL.
- Parker, W., Higgins, J.S., Feiler, A. & **Epstein, R.A.** (2007). Two kinds of fMRI repetition suppression? May 2007, Vision Sciences Society, Sarasota FL.
- Macevoy, S. & **Epstein, R.A.** (2007). Position-invariant fMRI adaptation effects in scene-selective regions. May 2007, Vision Sciences Society, Sarasota FL.
- Epstein, R.A.**, Parker, W. & Feiler, A. (2006). Where is this place? Distinct roles for parahippocampal and retrosplenial cortices in topographical memory retrieval. Oct. 2006, Society for Neuroscience, Atlanta GA.
- Epstein, R.A.** & Higgins, J.S. (2006). Parahippocampal and retrosplenial involvement in two kinds of scene recognition. May 2006, Vision Sciences Society, Sarasota FL.
- Epstein, R.A.** & Higgins, J.S. (2005). Where is it? What is it? What's going on? Neural correlates of three different scene recognition tasks. Nov. 2005, Society for Neuroscience, Washington DC.
- Epstein, R.A.**, Higgins, J.S. & Jablonski, K. (2005). Scene processing in familiar and unfamiliar environments. April 2005, Cognitive Neuroscience Society, New York.
- Hon, N., Duncan, J., **Epstein, R.** & Owen, A. (2004). On the role of the frontoparietal network: Attention, task, or awareness? June 2004, Organization of Human Brain Mapping, Budapest.
- Epstein, R.** & Higgins, J.S. (2004). Moving forward, moving left, and spinning in place: An fMRI study of spatial transformations of the body. May 2004, Vision Sciences Society, Sarasota FL.
- Higgins, J.S. & **Epstein, R.** (2004). Moving forward, moving left, and spinning in place: An fMRI study of spatial transformations of the body. April 2004, Cognitive Neuroscience Society, San Francisco CA.
- Lee, A.C.H., Buckley, M.J., **Epstein, R.**, Gaffan, D., Hodges, J.R., & Graham, K.S. (2003). The role of human perirhinal cortex in visual perception. *Society for Neuroscience Abstracts*, 29.
- Thompson-Schill, S. L., Higgins, J. S., & **Epstein, R.** (2003). Individual differences in navigational ability predict viewpoint-specific priming in parahippocampal cortex. *Society for Neuroscience Abstracts*, 29.
- Epstein, R.**, Thompson-Schill, & S. L., Higgins, J. S. (2003). Viewpoint-specific and viewpoint-invariant scene priming in parahippocampal cortex. *Society for Neuroscience Abstracts*, 29.
- Epstein, R.**, Hon, N. & Duncan, J. (2003). Neural signature of consciously-perceived visual events. May 2003, Vision Sciences Society, Sarasota FL.
- Gauthier, I. & **Epstein, R.** (2002). Spatial frequency channels in the human FFA. June 2002, Organization for Human Brain Mapping, Sendai, Japan.

- Epstein, R.,** Graham, K.S., Kanwisher, N. & Downing, P.E. (2002). Scene representations in the parahippocampal place area are viewpoint-specific. May 2002, Vision Sciences Society, Sarasota FL.
- Epstein, R.** (2002). Topography of visual scene representation in human occipitotemporal cortex: An event-related fMRI study. April 2002, Cognitive Neuroscience Society, San Francisco, CA.
- Gauthier, I. & **Epstein, R.** (2001). The role of spatial frequencies in face-selective areas: Task-dependent effects. *NeuroImage*, 13 (6): S883.
- Epstein, R.** & Kanwisher, N. (2001). Mnemonic functions of parahippocampal cortex: An event-related fMRI study. *NeuroImage*, 13 (6): S663.
- Epstein, R.,** DeYoe, E.A., Press, D.Z., & Kanwisher, N. (2000). Parahippocampal cortex lesions impair the ability to learn new scenes. April 2000, Cognitive Neuroscience Society, San Francisco, CA.
- Gauthier, I. **Epstein, R.** & Gore, J.C. (1999). The contribution of high and low spatial frequencies to the processing of objects, faces and scenes. April 1999, Cognitive Neuroscience Society, Washington D.C.
- Epstein, R.,** Kanwisher, N., Stanley, D. & Harris, A. (1998). The parahippocampal place area: Perception, memory, or route-planning? *Society for Neuroscience Abstracts*, 24: 594.9.
- Epstein, R.** & Kanwisher, N. (1998). The parahippocampal place area: A cortical representation of the local visual environment. *NeuroImage*, 7 (4): S341.
- Epstein, R.** & Kanwisher, N. (1998). The parahippocampal place area: A cortical region specialized for the perception of spatial layout. *Investigative Ophthalmology and Visual Science*, 39 (4), 4169.
- Epstein, R.** & Kanwisher, N. (1998). The parahippocampal place area: A cortical representation of the local visual environment. April 1998, Cognitive Neuroscience Society, San Francisco CA.
- Epstein R.** & Kanwisher, N. (1998). A cortical region specialized for the perception of scenes but not objects. February 1998. Eastern Psychological Association, Boston MA.
- Epstein R.** & Kanwisher, N. (1997). fMRI reveals a double dissociation between object and scene perception. November 1997. Object Perception and Memory Workshop, Philadelphia PA.
- Epstein, R.** & Kanwisher, N. (1996). Repetition blindness for locations. November 1996. Psychonomics Society, Chicago IL.