BRADLEY ROBINSON POSTLE

Departments of Psychology and Psychiatry University of Wisconsin–Madison 1202 W. Johnson St.

Madison, WI 53706-1696
tel. 608 - 262 - 4330
fax 608 - 262 - 4029

email: postle@wisc.edu http://postlab.psych.wisc.edu

Department of Psychiatry

("\$0 appt.", full Exec. Comm. privileges)

Neuroscience Training Program

EDUCATION

Institution <i>Department</i> , Mentor	Degree/Position Specialization	Date
University of Pennsylvania School of Medicine Neurology, Mark D'Esposito	Postdoctoral Fellow	July 1997 to August 2000
Massachusetts Institute of Technology Brain and Cognitive Sciences, Suzanne Corkin	Ph.D. Systems Neuroscience	June 1997
Cornell University Government	B.A. Concentration in International Relations	1987
	FACULTY APPOINTMENT	
University of Wisconsin-Madison		
Department of Psychology	Professor	2011 - present
	Associate Professor	2007 - 2011
	Assistant Professor	2000 -2007

AWARDS & FELLOWSHIPS

2011 - present

2000 - present

2009 - 2011

2007 - 2009

Vilas Associate Award; University of Wisconsin–Madison – "recognizes new and ongoing research of the highest quality and significance." Jan. 2016

Professor

Affiliate

Member

Associate Professor

Romnes Award; University of Wisconsin–Madison – "recognizes exceptional research accomplishments and outstanding potential of faculty who received tenure within the past four years." Dec. 2009

Engage Impact Award; University of Wisconsin–Madison Division of Information Technology – a competitive award supporting "the mission of transforming teaching and learning, for projects that … have the potential to have a high impact on teaching and/or learning." Awarded resources to implement Test-Enhanced Learning-based system of Webadministered quizzing in large undergraduate lecture course in Cognitive Psychology. June 2009

"Top-5 most cited article" -- The 2006 review paper "Working memory as an emergent property of the mind and brain" was designated a "Top-5 most cited article" published in the journal Neuroscience during the period 2006-2010. October 2011

James S. McDonnell Foundation Summer Institute in Cognitive Neuroscience Fellowship; University of California, Davis July 1995

National Science Foundation Graduate Fellowship

April 1993 - June 1996

RESEARCH SUPPORT

External -- ongoing

National Institute of Mental Health; NIH R01 MH064498(10-14); 2016-2021.

"Investigating Cognitive & Neural Bases of Working Memory" (\$1,914,193 direct costs)

role: PI

National Institute of Mental Health; NIH R01 MH095984(06-10); 2019-2024.

"Oscillatory Contributions to Working Memory and Attention" (\$2,339,719 direct costs)

role: PI

External – completed

National Institute of Mental Health; NIH R01 MH095984-03S1, 2015-2017. Revision Application (formerly "Supplement") to parent R01 "Oscillatory Contributions to Working Memory and Attention"; supports supplemental Aim to carry out electrocorticography (ECoG) research during sabbatical leave (\$133,581 direct costs)

Dana Foundation; 2005-2007.

"Anatomical and Functional Connectivity in Schizophrenia" (\$100,000 direct costs)

role: Consultant (A. Alexander, PI)

Internal -- ongoing

Vilas Associate Award; University of Wisconsin–Madison, 2016-2018. (Two years of summer salary + \$25,000 unrestricted funds)

role: PI

Internal – completed

Graduate School Research Committee award; University of Wisconsin–Madison, 2016-2017. "Attentional Selection in Working Memory." (\$40,000). *Declined*

role: PI

Romnes Award, University of Wisconsin–Madison; 2010-2015 (\$50,000 unrestricted funds) role: award recipient

Graduate School Research Committee award; University of Wisconsin–Madison, 2012-2013. "Disentangling functions of low-frequency cortical oscillations." (\$43,476)

role: PI

Graduate School Research Committee award; University of Wisconsin–Madison, 2008-2009.

"The role of cortical oscillations in the short-term retention of information."

role: PI

Graduate School Research Committee award; University of Wisconsin–Madison, 2006-2007. "Evaluating methods of group analysis of fMRI data." (\$17,133)

role: PI

Graduate School Research Committee award; University of Wisconsin–Madison, 2005-2006. "Using Simultaneous TMS and fMRI to Characterize the BOLD Hemodynamic Response." (\$15,098)

role: PI

Graduate School Research Committee award; University of Wisconsin–Madison, 2002-2003. "Neurophysiological Bases of Human Working Memory Function" (\$26,157)

role: PI

Graduate School Research Committee award; University of Wisconsin–Madison, 2001-2002. "Cognitive Neuroscience Investigations of Human Working Memory Function." (\$15,379)

role: PI

Vilas Young Investigator Award; University of Wisconsin–Madison; 2000-2005. (\$375,000)

Trainee support

National Institute of Mental Health; F30 MH0795428; 2012-2015

Predoctoral NRSA to Bornali Kundu: "Individual differences and training effects in working memory"

National Institute of Mental Health; F31 MH085444; 2009-2012

Predoctoral NRSA to Jarrod Lewis-Peacock: "The role of activated long-term memory representations in working memory storage"

National Institute of Mental Health; F32 MH088115; 2009-2012

Postdoctoral NRSA to Jeffrey Johnson: "Exploring the effects of TMS on cortical oscillations"

National Institute of Mental Health; F30 MH078705; 2007-2009

Predoctoral NRSA to Massihullah Hamidi: "The Role of Frontal and Posterior Cortices in Working Memory"

Consultancy

NSF Major Research Instrumentation grant to Michigan State University to acquire infrared-guided TMS system; Devin McAuley, PI

role: Advisory Board

Mind Matters Seminars: "Memory: A Seminar for Health Professionals." *Engaged by this Los Altos, California-based educational seminar company to deliver day-long (six-hour) seminars to audiences composed of health professionals and educators. Delivered more than 50 seminars in AL, FL, GA, IA, IL, IN, KY, NC, TX, VA and WI.*

AFFILIATIONS

Cognitive Neuroscience Society

Member

Memory Disorders Research Society

Member

Society for Neuroscience

Member

PROFESSIONAL SERVICE

Editorial Responsibilities

Reviewing Editor, eNeuro – 2016-present

Associate Editor, Journal of Cognitive Neuroscience –2009-present

Associate Editor, *Cortex* – 2011-2013

Handling Editor (Cognitive Neuroscience section), NeuroImage – June 2005-June 2008

Ad hoc reviewing for: Brain; Brain Imaging and Behavior; Brain Research; Brain and Cognition; Cerebral Cortex; Cortex; Cognition; Cognitive, Affective, & Behavioral Neuroscience; Cognitive Brain Research; Current Biology; European Journal of Neuroscience; Experimental Brain Research; Human Brain Mapping; Journal of The Acoustical Society of America; Journal of Cognitive Neuroscience; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Learning, Memory, & Cognition; Journal of the International Neuropsychological Society; Journal of Memory and Language; Journal of Neurophysiology; Journal of Neuroscience; Journal of Psychiatry & Neuroscience; Learning & Memory; Memory & Cognition; Neural Networks; NeuroImage; Neuron; Neuropsychologia; Neuropsychology; Neuroscience; Neuroscience Letters; Proceedings of the National Academy of Science (USA); Psychology and Aging; Psychological Reports; Psychological Science; Psychoneuroendocrinology; Psychophysiology; Public Library of Science (PloS) Biology; Quarterly Journal of Experimental Psychology; Science; Trends in Cognitive Sciences, Vision Research

Professional Societies

Cognitive Neuroscience Society

Program Committee, Past Chair, 2017-2018; Chair, 2015-2017; Vice Chair, 2012-2015 Symposium Committee, 2011-2012

Organization for Human Brain Mapping

Abstract Review Committee for Annual Meeting (2007, 2008)

Program Reviewing

NIMH *Board of Scientific Counselors* Review of Laboratory of Brain and Cognition (NIH intramural research program) *Ad hoc reviewer* (2016)

National Science Foundation Committee of Visitors

Charged with reviewing the Cognitive Neuroscience Program within the NSF's Division of Behavioral and Cognitive Sciences (BCS); August 2015

Grant Reviewing

NIH Cognition and Perception Regular Standing Study Section

Temporary panel member (Oct. 2009, Feb. 2019); Charter Member (2011-2016);

NIH F02B – Sensory, Motor and Cognitive Neuroscience Fellowship Study Section.

Panel member for 2007/05; 2010/10; and 2011/02 meetings

NIH Special Emphasis Panel/Scientific Review Group 2007/05 ZRG1 F02B-G (20) (L) Panel member

Ad-hoc reviewing: Albert Einstein Society (Philadelphia, PA); Medical Research Council (United Kingdom); The Netherlands Organization for Scientific Research (NOW); NIH Biostatistical Methods and Research Design Study Section (BMRD) (formerly SNEM-5); NSF Cognitive Neuroscience program; NSF Major Research Instrumentation competition; Wellcome Trust (United Kingdom)

University of Wisconsin-Madison

Dept. of Psychology: Associate Chair for Undergraduate Studies (2014-2017); Climate & Diversity Committee (founder; Chair 2006-2014; member, 2014-2015); New Personnel Committee (elected; 2006-08; 2009-2011; 2011-14); Budgetary SubCommittee (elected; 2007-2008).

PI of NSF grant "REU Site: Psychology Research Experience Program" (2010-2012, NCE 2013- \$271,663 direct costs; 2014-2016- \$243,990 direct costs; 2019-2021- \$114,703 Year 1 direct costs), and Director of Psychology Research Experience Program (PREP), which provides intensive mentored research experience for 9 weeks of the summer to \geq 8 undergraduates from populations that are underrepresented in academic psychology. Responsibilities include facilitating weekly "Research Mentor Training Practicum" for graduate-student/postdoctoral-fellow research mentors of undergraduate participants.

Neuroscience Training Program: Minority Affairs Committee (2001-2010), Steering Committee (2007-2010; 2015-2017), Awards Committee (2010-2016)

Neurobiology Major: Member of Program Committee that was responsible for the creation, and now the oversight, of this undergraduate major (2014-present)

University-wide: Office of the Vice Chancellor for Research and Graduate Education review committee for Wisconsin National Primate Research Center (Chair 2019); Graduate School Social Studies Research Committee (2010-2013); Health Care Advisory Committee (2009-2012; Chair 2010-2012); Wisconsin Program for Scientific Teaching, committee to adapt Research Mentor Training Seminar to STEM disciplines outside biology (2007-2010).

MENTORING

Graduate students (degree awarded)

Jason Samaha, PhD in Psychology (2018)

Andrew Sheldon, PhD in Neuroscience (2017)

Joshua LaRocque, PhD in Neuroscience (2014)

Adam Riggall, PhD in Psychology (2014)

Bornali Kundu, PhD in Neuroscience (2013)

Yelena Guller, PhD in Neuroscience (2012)

Jarrod Lewis-Peacock, PhD in Psychology (2010)

Daniel Acheson, PhD in Psychology (2009)

Massihullah Hamidi, PhD in Neuroscience (2009)

Richard Holden, PhD in Industrial Engineering and Psychology (2009)

Postdoctoral fellows (training completed)

Elyana Saad, PhD (2014-2016)

Olivia Gosseries, PhD (2013-2016)

Nathan Rose, PhD (2013-2015)

Stephen Emrich, PhD (2011-2012)

Jeffrey Johnson, PhD (2009-2012)

Alexander Shackman, PhD (2010-2011)

Daniel Acheson, PhD (2009-2010)

Eva Feredoes, PhD (2005-2007)

PUBLICATIONS

Refereed papers

- 95. Lee, M., Baird, B., Gosseries, O., Nieminen, J., Boly, M., Postle, B.R., Tononi, G., and Lee, S-W. (in press). Connectivity differences between consciousness and unconsciousness in non-rapid eye movement sleep: a TMS–EEG study. *Scientific Reports*.
- 94. Samaha, J., Switsky, M., and Postle, B.R. (in press). Confidence boosts serial dependence in orientation estimation. *Journal of Vision*.
- 93. Cai, Y., Yu, Q., and Postle, B.R. (2019). Overlapping and Distinct Contributions of Stimulus Location and of Spatial Context to Nonspatial Visual Short-Term Memory. *Journal of Neurophysiology*, **121**, 1222–1231.
- 92. Samaha, J., Boutonnet, B., Postle, B.R., and Lupyan, G. (2018). Effects of meaningfulness on perception: Alpha-band oscillations carry perceptual expectations and influence early visual responses. *Scientific Reports*, **8**, 6606. PMID29700428
- 91. *Gosseries, O., *Yu, Q., LaRocque, J.J., Starrett, M.J., Rose, N., Cowan, N., and Postle, B.R. (2018). Parieto-occipital interactions underlying control- and representation-related processes in working memory for nonspatial visual features. *The Journal of Neuroscience*, **38**, 4357-4366. PMID29636395

- 90. Lapate, R.C., Samaha, J., Rokers, B., Hamzah, H., Postle, B.R., and Davidson, R.J. (2017). Inhibition of lateral prefrontal cortex produces emotionally biased first impressions: A TMS/EEG study. *Psychological Science*, **28**, 942-953. PMC5725229
- 89. Boly, M., Massimini, M., Tsuchiya, N., Postle, B.R., Koch, C., and Tononi, G. (2017). Are the neural correlates of consciousness in the front or in the back of the cerebral cortex? Clinical and neuroimaging evidence. *The Journal of Neuroscience*, **37**, 9603-9613. PMC5628406
- 88. Samaha, J., Postle, B.R. (2017). Correlated individual differences suggest a common mechanism underlying metacognition in visual perception and visual short-term memory. *Proceedings of the Royal Society B*, **284**:20172085. PMC5719179
- 87. Siclari, F., Baird, B., Perogamvros, L., Bernardi, G., LaRocque, J.J., Riedner, B., Boly, M., Postle, B.R., and Tononi, G. (2017). The neural correlates of dreaming. *Nature Neuroscience*, **20**, 872–878. PMC5462120
- 86. Samaha, J. Iemi, L., Postle, B.R. (2017). Prestimulus alpha-band power biases visual discrimination confidence, but not accuracy. *Consciousness and Cognition*, **54**, 47-55. PMC5561529
- 85. Emrich, S.M., Johnson, J.S., Sutterer, D.W., and Postle, B.R. (2017). Comparing the effects of 10-Hz rTMS on tasks of visual short-term memory and attention. *Journal of Cognitive Neuroscience*, **29**, 286-297. PMC5199610
- 84. LaRocque, J.J., Riggall, A.C., Emrich, S.M., and Postle, B.R. (2017). Within-category decoding of information in different attentional states in short-term memory. *Cerebral Cortex*, **17**, 4881-4890. PMID27702811
- 83. Samaha, J., Gosseries, O., and Postle, B.R. (2017). Distinct oscillatory frequencies underlie excitability of human occipital and parietal cortex. *The Journal of Neuroscience*, **37**, 2824-2833. PMC5221753
- 82. Rose, N.S., LaRocque, J.J., Riggall, A.C., Gosseries, O., Starrett, M.J., Meyering, E.M., and Postle, B.R. (2016). Reactivation of latent working memories with transcranial magnetic stimulation. *Science*, **354**, 1136-1139. PMC5221753
- 81. Samaha, J., Sprague, T.C., and Postle, B.R. (2016). Decoding and reconstructing the focus of spatial attention from the topography of alpha-band oscillations. *Journal of Cognitive Neuroscience*, **28**, 1090-1097. PMC5074376
- 80. Nieminen, J., Gosseries, O. Massimini, M., Saad, E., Sheldon, A.D., Boly, M., Siclari, F., Postle, B.R., and Tononi, G. (2016). Consciousness and cortical responsiveness: a within-state study during non-rapid eye movement sleep. *Scientific Reports*. 6:30932 | DOI: 10.1038/srep30932. PMC4974655
- 79. Postle, B.R. (2016). How does the brain keep information "in mind"? *Current Directions in Psychological Science*, **25**, 151-156. PMC5115785
- 78. Samaha, J., Barrett, J.J., Sheldon, A.D., LaRocque, J.J., and Postle, B.R. (2016). Dissociating perceptual confidence from discrimination accuracy reveals no influence of metacognitive awareness on working memory. *Frontiers in Psychology*, 7:851. doi: 10.3389/fpsyg.2016.00851. PMC4893488
- 77. Samaha, J. and Postle, B.R. (2015). The speed of alpha-band oscillations predicts the temporal resolution of visual perception. *Current Biology*, **25**, 2985-2990. PMC4654641
- 76. Lewis-Peacock, J.A., Drysdale, A.D., and Postle, B.R. (2015). Neural evidence for the flexible control of mental representations. *Cerebral Cortex*, **25**, 3303-3313. PMC4598817
- 75. Samaha, J., Bauer, P., Cimaroli, S., & Postle, B.R. (2015). Top-down control of the phase of alpha-band oscillations as a mechanism for temporal prediction. *Proceedings of the National Academy of Science (USA)*, **112**, 8439–8444. PMC4500260
- 74. Kundu, B., Chang, J-Y; Postle, B.R., and Van Veen, B.D. (2015). Context-specific differences in fronto-parieto-occipital effective connectivity during short-term memory maintenance. *NeuroImage*, **114**, 320-327. PMC4446161

- 73. Postle, B.R. (2015). Neural bases of the short-term retention of visual information. In: *Mechanisms of Sensory Working Memory: Attention & Performance XXV*. P. Jolicoeur, C. Lefebvre, and J. Martinez-Trujillo (Eds.), Academic Press, London, U.K., pp. 43-58.
- 72. D'Esposito, M. and Postle, B.R. (2015). The cognitive neuroscience of working memory. *Annual Review of Psychology*, **66**, 115-42. PMC4374359
- 71. Postle, B.R. (2015). The cognitive neuroscience of visual short-term memory. *Current Opinion in Behavioral Sciences*, **1**, 40-46. PMC4621097
- 70. LaRocque, J.J., Eichenbaum, A.*, Starrett, M.J.*, Rose, N., Emrich, S., and Postle, B.R. (2015). The short-and long-term fate of memory items retained outside the focus of attention. *Memory & Cognition*, **43**, 453-468. DOI 10.3758/s13421-014-0486-y. PMC4447501
- 69. Kundu, B., Johnson, J.S., and Postle, B.R. (2014). Pre-stimulation phase predicts the TMS-evoked response. *Journal of Neurophysiology*, **112**, 1885-1893. PMC4200008
- 68. Kundu, B., Johnson, J.S., and Postle, B.R. (2014). Trait-like differences in underlying oscillatory state predict individual differences in the TMS-evoked response. *Brain Stimulation*, 7, 234-242. PMC3959568
- 67. LaRocque, J.J., Lewis-Peacock, J.A., and Postle, B.R. (2014). Multiple neural states of representation in short-term memory? It's a matter of attention. *Frontiers in Human Neuroscience*, **8:**5. doi: 10.3389/fnhum.2014.00005. PMC4447501
- 66. Postle, B.R., Awh, E., Serences, J.T., Sutterer, D.W., and D'Esposito, M. (2013). The positional-specificity effect reveals a passive-trace contribution to visual short-term memory. *PLoS ONE*. 8(12): e83483. doi:10.1371/journal.pone.0083483. PMC3873305
- 65. *Siclari,F., *LaRocque, J.J., Postle, B.R., and Tononi, G. (2013). Assessing sleep consciousness within subjects using a serial awakening paradigm. *Frontiers in Psychology: Consciousness Research.* **4**:542. doi: 10.3389/fpsyg.2013.00542. PMC3747360
- 64. Kundu, B., Sutterer, D.W., Emrich, S.M., and Postle, B.R. (2013). Strengthened effective connectivity underlies transfer of working memory training to tests of short-term memory and attention. *The Journal of Neuroscience*, **33**, 8705-8715. PMC3758887
- 63. *Emrich, S.M., *Riggall, A.C., LaRocque, J.J., and Postle, B.R. (2013). Distributed patterns of activity in sensory cortex reflect the precision of multiple items maintained in visual short-term memory. *The Journal of Neuroscience*, **33**, 6516-6523. PMC3664518
- 62. LaRocque, J.J., Lewis-Peacock, J., Drysdale, A., Oberauer, K., and Postle, B.R. (2013). Decoding attended information in short-term memory: An EEG study. *Journal of Cognitive Neuroscience*, **25**, 127-142. PMC3775605
- 61. Guller, Y., Tononi, G., and Postle, B.R. (2012). Conserved functional connectivity but impaired effective connectivity of thalamocortical circuitry in schizophrenia. *Brain Connectivity*, **2**, 311-319. PMC3621336
- 60. Guller, Y., Ferrarelli, F., Shackman, A.J., Sarasso, S., Peterson, M.J., Langheim, F.J., Meyerand, M.E., Tononi, G., and Postle, B.R. (2012). Probing thalamic integrity in schizophrenia using concurrent transcranial magnetic stimulation and functional magnetic resonance imaging. *Archives of General Psychiatry*, **69**, 662-671. PMC3411883
- 59. Ferrarelli, F., Sarasso, S., Guller, Y., Riedner, B. Peterson, M., Bellesi, M., Massimini, M., Postle, B.R., and Tononi, G. (2012). Reduced oscillatory frequency of thalamo-cortical circuits in schizophrenia. *Archives of General Psychiatry*, **69**, 766-774. PMC3394893
- 58. Riggall, A.C. and Postle, B.R. (2012). The relationship between working memory storage and elevated activity, as measured with fMRI. *The Journal of Neuroscience*, **32**, 12990-12998. PMC3470886

- 57. Johnson, J.S., Kundu, B., Casali, A.G., and Postle, B.R. (2012). Task dependent changes in cortical excitability and effective connectivity: A combined TMS-EEG study. *Journal of Neurophysiology*, **107**, 2383-2392. PMC3362246
- 56. Lewis-Peacock, J. and Postle, B.R. (2012). Decoding the internal focus of attention. *Neuropsychologia*, **50**, 470-478. PMC3288445
- 55. Tsujimoto, S. and Postle, B.R. (2012). The prefrontal cortex and oculomotor delayed response: a reconsideration of the "mnemonic scotoma". *Journal of Cognitive Neuroscience*, **12**, 627-635. PMC3269537
- 54. Lewis-Peacock, J., Drysdale, A., Oberauer, K., and Postle, B.R. (2012). Neural evidence for a distinction between short-term memory and the focus of attention. *Journal of Cognitive Neuroscience*, **24**, 61-79. PMC3222712
- 53. Hattikudur, S. and Postle, B.R. (2011). Effects of test-enhanced learning in a cognitive psychology course. *Journal of Behavioral and Neuroscience Research*, **9**, 151-157.
- 52. Koenigs, M., Acheson, D., Barbey, A., Solomon, J., Postle, B.R., and Grafman, J. (2011). Areas of left perisylvian cortex mediate auditory-verbal short-term memory. *Neuropsychologia*. **49**, 3612-36129. PMC3209761
- 51. Johnson, J.S., Sutterer, D.W., Acheson, D.J., Lewis-Peacock, J.L., and Postle, B.R. (2011). Increased alphaband power during the retention of shapes and shape-location associations in visual short-term memory. *Frontiers in Psychology*, **2:**128. doi: 10.3389/fpsyg.2011.00128. PMC3114253
- 50. Acheson, D.J., MacDonald, M.C., and Postle, B.R. (2011). The effect of concurrent semantic categorization on delayed serial recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, **37**, 44-59. PMC3081404
- 49. Acheson, D.J., Hamidi, M., Binder, J., and Postle, B.R. (2011). A common neural substrate for language production and verbal working memory. *Journal of Cognitive Neuroscience*, **23**, 1358-1367. PMC3053417
- 48. *Hamidi, M., *Johnson, J.S., Feredoes, E., and Postle, B.R. (2011). Does high-frequency repetitive transcranial magnetic stimulation produce residual and/or cumulative effects within an experimental session? *Brain Topography*, **23**, 355-367. PMC2978750
- 47. Johnson, J.S., Hamidi, M., and Postle, B.R. (2010). Using EEG to explore how rTMS produces its effects on behavior. *Brain Topography*, **22**, 281-293. PMC2907910
- 46. Feredoes, E. and Postle, B.R. (2010). Prefrontal control of familiarity and recollection in working memory. *Journal of Cognitive Neuroscience*, **22**, 323-330. PMC2807902
- 45. Acheson, D.J., Postle, B.R., MacDonald, M.C. (2010). The interaction of concreteness and phonological similarity in verbal working memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. **36**, 17-36. PMC3000525
- 44. Hamidi, M., Slagter, H.A., Tononi, G., and Postle, B.R. (2010). Brain responses evoked by high-frequency repetitive TMS: An ERP study. *Brain Stimulation*, **3**, 2-14. PMC2707056
- 43. Postle, B.R. and Feredoes, E. (2010). Stronger inference with direct manipulation of brain function. *Cortex*, **26**, 121-123. PMC2787675
- 42. Koenigs, M.R., Barbey, A., Postle, B.R., and Grafman, J. (2009). Superior parietal cortex is critical for the manipulation of information in working memory. *The Journal of Neuroscience*, 29, 14980-14986. PMC2799248
- 41. Hamidi, M., Slagter, H.A., Tononi, G., and Postle, B.R. (2009). Repetitive transcranial magnetic stimulation affects behavior by biasing endogenous cortical oscillations. *Frontiers in Integrative Neuroscience*, **3**:14. doi:10.3389/neuro.07.014.2009. PMC2707056
- 40. Hamidi, M., Tononi, G., and Postle, B.R. (2009). Evaluating the role of prefrontal and parietal cortices in memory-guided response with repetitive transcranial magnetic stimulation. *Neuropsychologia*, **47**, 295-302. PMC2704005

- 39. Lewis-Peacock, J., and Postle, B.R. (2008). Temporary activation of long-term memory supports working memory. *The Journal of Neuroscience*, **28**, 8765-8771. PMC2699183
- 38. Hamidi, M., Tononi, G., and Postle, B.R. (2008). Evaluating frontal and parietal contributions to spatial working memory with repetitive transcranial magnetic stimulation. *Brain Research*, **1230**, 202-210. PMC2612637
- 37. Feredoes, E., Tononi, G., and Postle, B.R. (2007). The neural bases of the short-term storage of verbal information are anatomically variable across individuals. *The Journal of Neuroscience*, **27**, 11003-11008. PMID: 17928441
- 36. Postle, B.R. and Hamidi, M. (2007). Nonvisual codes and nonvisual brain areas support visual working memory. *Cerebral Cortex*, **17**, 2134-2142. PMID: 17150984
- 35. Gennari, S.P., MacDonald, M.C., Postle, B.R., and Seidenberg, M.S. (2007). Context-dependent interpretation of words: evidence for interactive neural processes. *NeuroImage* **35**, 1278-1286. PMC2577612
- 34. Feredoes, E. and Postle, B.R. (2007). Localization of load sensitivity of working memory storage: Quantitatively and qualitatively discrepant results yielded by single-subject and group-averaged approaches to fMRI group analysis. *NeuroImage*, **35**, 881-903. PMC1994574
- 33. Feredoes, E., Tononi, G., and Postle, B.R. (2006). Direct evidence for a prefrontal contribution to the control of proactive interference in verbal working memory. *Proceedings of the National Academy of Science (USA)*, **103**, 19530-19534. PMC1748259
- 32. Postle, B.R., Ferrarelli, F., Hamidi, M., Feredoes, E., Massimini, Peterson, M., Alexander, A., and Tononi, G. (2006). Repetitive transcranial magnetic stimulation dissociates working memory manipulation from retention functions in prefrontal, but not posterior parietal, cortex. *Journal of Cognitive Neuroscience*, **18**, 1712-1722. PMID: 17014375
- 31. Postle, B.R. (2006). Distraction-spanning sustained activity during delayed recognition of locations. *NeuroImage*, **30**, 950-962.
- 30. D'Esposito, M., Cooney, J., Gazzaley, A., Gibbs, S.E.B., & Postle, B.R. (2006). Is the prefrontal cortex necessary for delay task performance? Evidence from lesion and fMRI data. *Journal of the International Neuropsychological Society*, **12**, 248-260.
- 29. Postle, B.R. (2006). Working memory as an emergent property of the mind and brain. *Neuroscience*, **139**, 23-38. PMC1428794
- 28. Postle, B.R., Idzikowski, C., Della Sala, S., Logie, R.H., and Baddeley, A.D. (2006). The selective disruption of spatial working memory by eye movements. *The Quarterly Journal of Experimental Psychology*, **59**, 100-120. PMC1414070
- 27. Postle, B.R. (2005). Delay-period activity in prefrontal cortex: one function is sensory gating. *Journal of Cognitive Neuroscience*, **17**, 1679-1690. PMC1343532
- 26. Postle, B.R., D'Esposito, M., and Corkin, S. (2005). Effects of verbal and nonverbal interference on spatial and object visual working memory. *Memory & Cognition*, **33**, 203-212. PMC1262675
- 25. Postle, B.R., Brush, L.N., and Nick, A.M. (2004). Prefrontal cortex and the mediation of proactive interference in working memory. *Cognitive, Affective, & Behavioral Neuroscience*, **4**, 600-608. PMC1201535
- 24. Postle, B.R. and Brush, L.N. (2004). The neural bases of the effects of item-nonspecific proactive interference in working memory. *Cognitive, Affective, & Behavioral Neuroscience*, **4**, 379-392. PMC1200452
- 23. Postle, B.R., Awh, E., Jonides, J., Smith, E.E., D'Esposito, M. (2004). The where and how of attention-based rehearsal in spatial working memory. *Cognitive Brain Research*, **20**, 194-205.
- 22. Postle, B.R. (2003). Context in verbal short-term memory. *Memory & Cognition*, **31**, 1198-1207.
- 21. Postle, B.R., Druzgal, T.J., D'Esposito, M. (2003). Seeking the Neural Substrates of Visual Working Memory Storage. *Cortex*, **39**, 927-946.

- 20. Postle, B.R. & D'Esposito, M. (2003). Spatial working memory activity of the caudate nucleus is sensitive to frame of reference. *Cognitive, Affective, & Behavioral Neuroscience*, **3**, 133-144.
- 19. Postle, B.R., Berger, J.S., Goldstein, J.H., Curtis, C.E., and D'Esposito, M. (2001). Behavioral and neurophysiological correlates of episodic coding, proactive interference, and list length effects in a running span verbal working memory task. *Cognitive, Affective, & Behavioral Neuroscience*, **1**, 10-21.
- 18. Postle, B.R., Berger, J.S., Taich, A.M., and D'Esposito, M. (2000). Activity in human frontal cortex associated with spatial working memory and saccadic behavior. *Journal of Cognitive Neuroscience*, **12**, Suppl. 2, 2-14.
- 17. D'Esposito, M. and Postle, B.R. (2000). Neural correlates of component processes of working memory: evidence from neuropsychological and pharmacological studies. In *Control of Cognitive Processes: Attention & Performance XVIII* (S. Monsell and J. Driver, eds.), pp. 579-602.
- 16. Postle, B.R. and D'Esposito, M. (2000). Evaluating models of the topographical organization of working memory function in frontal cortex with event-related fMRI. *Psychobiology*, **28**, 132-145.
- 15. D'Esposito, M., Postle, B.R., and Rypma, B. (2000). Prefrontal cortical contributions to working memory: evidence from event-related fMRI studies. *Experimental Brain Research*, **133**, 3-11.
- 14. Postle, B.R., Stern, C.E., Rosen, B.R., Corkin, S. (2000). An fMRI investigation of cortical contributions to spatial and nonspatial visual working memory. *NeuroImage*, **11**, 409-423.
- 13. Postle, B.R., Zarahn, E., and D'Esposito, M. (2000). Using event-related fMRI to assess delay-period activity during performance of spatial and nonspatial working memory tasks. *Brain Research Protocols*, **5**, 57-66.
- 12. Postle, B.R., Berger, J. S., and D'Esposito, M. (1999). Functional neuroanatomical double dissociation of mnemonic and executive control processes contributing to working memory. *Proceedings of the National Academy of Sciences (USA)*, **96**, 12959-12964. PMC23182
- 11. D'Esposito, M., Postle, B.R., Ballard, D., and Lease, J. (1999). Maintenance versus manipulation of information held in working memory: an fMRI study. *Brain & Cognition*, **41**, 66-86.
- 10. Postle, B.R. and D'Esposito, M. (1999). "What" then "where" in visual working memory: an event-related fMRI study. *Journal of Cognitive Neuroscience*, **11**, 585-597.
- 9. Hood, K. L., Postle, B. R., and Corkin. S. (1999). An evaluation of the concurrent discrimination task as a measure of habit learning: Performance of amnesic subjects. *Neuropsychologia*, **37**, 1375-1386.
- 8. D'Esposito, M. and Postle, B.R. (1999). The dependence of span and delayed-response performance on prefrontal cortex. *Neuropsychologia*, **37**, 1303-1315.
- 7. Postle, B.R. and D'Esposito, M. (1999). Dissociation of human caudate nucleus activity in spatial and nonspatial working memory. *Cognitive Brain Research*, **8**, 107-115.
- 6. D'Esposito, M., Postle, B.R., Jonides, J., and Smith, E.E. (1999). The neural substrate and temporal dynamics of interference effects in working memory as revealed by event-related fMRI. *Proceedings of the National Academy of Sciences (USA)*, **96**, 7514-7519. PMC22117
- 5. Postle, B.R. and Corkin, S. (1999). Manipulation of familiarity reveals a necessary lexical component of the word-stem completion priming effect. *Memory & Cognition*, **27**, 12-25.
- 4. Postle, B.R. and Corkin, S. (1998). Impaired word-stem completion priming with novel words: Evidence from the amnesic patient H.M. *Neuropsychologia*, **36**, 421-440.
- 3. Postle, B.R., Locascio, J.J., Corkin, S. and Growdon, J.H. (1997). The time course of spatial and object learning in Parkinson's disease. *Neuropsychologia*, **35**, 1413-1422.
- 2. Postle, B.R., Jonides, J., Smith, E., Corkin, S., and Growdon, J.H. (1997). Spatial, but not object, delayed response is impaired in early Parkinson's disease. *Neuropsychology*, **11**, 171-179.
- 1. Postle, B.R., Corkin, S., and Growdon, J.H. (1996). Intact implicit memory for novel patterns in Alzheimer's disease. *Learning and Memory*, **3**, 305-312.

Non-refereed chapters, commentaries, and journal articles

- 17. Yu, Q. and Postle, B.R. Working memory: Separating the present and the future. (2018) *eLife*, 7, e43339.
- 16. Postle, B.R. (2017). Working memory functions of the prefrontal cortex. In M. Watanabe (Ed.) *Prefrontal Cortex as an Executive, Emotional and Social Brain.* Springer. pp. 39-48.
- 15. Postle, B.R., Kensinger, E. (2016). The unforgettable career of Suzanne Corkin. *Hippocampus*, **26**, 1233-1237.
- 14. Postle, B.R. (2016). The hippocampus, memory, and consciousness. In S. Laureys, O. Gosseries, and G. Tononi (Eds.) *Neurology of Consciousness*, 2nd Ed. Elsevier (Amsterdam), pp. 349-363.
- 13. Postle, B.R. (2015). Activation and information in working memory research. In A. Duarte, M. Barense, and D.R. Addis (Eds.) *The Wiley-Blackwell Handbook on the Cognitive Neuroscience of Memory*. Wiley-Blackwell (Oxford, U.K.), pp. 21-43.
- 12. Postle, B.R. (2011). What underlies the ability to guide action with spatial information that is no longer present in the environment? In A. Vandierendonck and A. Szmalec (Eds.) *Spatial Working Memory*. Psychology Press (Hove, U.K.) pp. 897-101.
- 11. Postle, B.R. (2009). Mechanisms underlying the short-term retention of information. In F. Rösler, C. Ranganath, B. Röder, and R.H.Kluwe (Eds.). *Neuroimaging of Human Memory: Linking Cognitive Processes to Neural Systems*. Oxford University Press (New York), pp. 213-226.
- 10. Postle, B.R. and Pasternak, T. (2009). Short term and working memory. In L.R. Squire (Ed.) *Encyclopedia of Neuroscience*. Academic Press (Oxford, U.K.). Vol. **8**, pp. 793-799.
- 9. Postle, B.R. (2009). The hippocampus, memory, and consciousness. In S. Laureys and G. Tononi (Eds). *Neurology of Consciousness*. Elsevier (Amsterdam), pp. 326-338.
- 8. Postle, B.R. (2007). "Activated long-term memory"? The bases of representation in working memory. In N. Osaka, R.H. Logie, and M. D'Esposito (Eds.) *The Cognitive Neuroscience of Working Memory*. Oxford University Press (Oxford, U.K.), pp. 333-349.
- 7. Postle, B.R. (2005). Analysis of fMRI data from tasks containing temporal dependencies: An evaluation of Slotnick (2005). *Cognitive Neuropsychology*, **22**, 921-924.
- 6. D'Esposito, M., Postle, B.R., and Rypma, B. (2002). The role of lateral prefrontal cortex in working memory: evidence from event-related fMRI studies. In K. Hirata, Y. Koga, K. Nagata, and Y. Yamazaki (Eds.), *Recent advances in Human Brain Mapping: Proceedings of the 12th World Congress of the International Society for Brain Electromagnetic Topography*. Elsevier Science.
- 5. Postle, B.R., Shapiro, L.A., and Biesanz, J.C. (2002). On having one's data shared. *Journal of Cognitive Neuroscience*, **14**, 838-840.
- 4. D'Esposito, M., and Postle, B.R. (2002). The organization of working memory function in lateral prefrontal cortex: Evidence from event-related functional MRI. In (D.T. Stuss & R. Knight, eds.) *Principles of Frontal Lobe Function*. Oxford University Press, pp. 168-187.
- 3. D'Esposito, M. and Postle, B.R. (2002). The neural basis of working memory storage, rehearsal and control processes: Evidence from patient and functional MRI studies. In: (L.R. Squire and D.L. Schacter, eds.) *The Neuropsychology of Memory*. Guilford Press, pp. 215-224.
- 2. Nitsch, R.M., Postle, B., Marinescu, V., and Wurtman, R.J. (1995). Biological mechanisms in the pathogenesis and cure of AD. *Drug News and Perspectives*, **8**, 181-188.
- 1. Nitsch, R.M., Marinescu, V., Postle, B.R., Corkin, S., and Wurtman, R.J. (1995). Eighth Meeting of the International Study Group on the Pharmacology of Memory Disorders Associated with Aging, Zurich, Switzerland. February 17-19, 1995: The Neurobiology of Alzheimer's Disease. *Amyloid*, **2**, 204-212.

Textbook

Postle, B.R. (2015). Essentials of Cognitive Neuroscience. John Wiley & Sons, Chichester, U.K.

Abstracts (past three years)

- 158. Fulvio, J.M. and Postle, B.R. (2018). Are unattended memory items under cognitive control? Electrophysiological evidence. <u>Society for Neuroscience</u>, November 2018, San Diego, CA.
- 157. Samaha, J., Wutz, A., Melcher, D., and Postle, B.R. (2018). Quantifying oscillatory frequency and its role in visual perception and top-down control. Society for Neuroscience, November 2018, San Diego, CA.
- 156. Yu, Q., Gosseries, O., and Postle, B.R. (2018). Continuous theta-burst stimulation of parietal cortex alters representational structure of occipital stimulus representations in visual working memory. <u>Society for Neuroscience</u>, November 2018, San Diego, CA.
- 155. Cai, Y., Samaha, J., and Postle, B.R. (2018). Reconstructing stimulus identity and context binding from the CDA. <u>Society for Neuroscience</u>, November 2018, San Diego, CA.
- 154. Wan, Q., Cai, Y., and Postle, B.R. (2018). Tracking stimulus representation across a 2-back visual working memory task. Society for Neuroscience, November 2018, San Diego, CA.
- 153. Fulvio, J., and Postle, B.R. (2018). Are unattended memory items under cognitive control?. <u>Cognitive Neuroscience Society</u>, March 2018, Boston, MA.
- 152. Samaha, J., Wutz, A., Postle, B.R., and Melcher, D. (2018). Frequency modulation of neural oscillations according to visual task demands. <u>Cognitive Neuroscience Society</u>, March 2018, Boston, MA.
- 151. Cai, Y., Sheldon, A.D., and Postle, B.R. (2018). The influence of storage capacity versus control in visual working memory capacity. <u>Cognitive Neuroscience Society</u>, March 2018, Boston, MA.
- 150. Yu, Q. and Postle, B.R. (2018). Different dimensions of attended and unattended items are maintained in different states in visual working memory. <u>Cognitive Neuroscience Society</u>, March 2018, Boston, MA.
- 149. Yu, Q. and Postle, B.R. (2017). Maintenance of location information for the unattended memory item during visual working memory. <u>Society for Neuroscience</u>, November 2017, Washington, DC.
- 148. Samaha, J., Switzky, M., and Postle, B.R. (2017). Confidence amplifies serial dependence in perceptual decisions. <u>Society for Neuroscience</u>, November 2017, Washington, DC.
- 147. Cai, Y., Sheldon, A.D., and Postle, B.R. (2017). The neural representation of stimulus information, of the stimulus location, and of the location-dependence of stimulus information in visual working memory. <u>Society for Neuroscience</u>, November 2017, Washington, DC.
- 146. Sahan, M.I., Sheldon, A.D., and Postle, B.R. (2017). What are the implications of attentional prioritization on multifeature objects in visual working memory? <u>20th Conference of the European Society for Cognitive Neuroscience</u>, September 2017. Potsdam, Germany.
- 145. Sahan, M.I., Sheldon, A.D., and Postle, B.R. (2017). What are the effects of attentional prioritization on multifeature objects in WM? 12th National Conference of the Belgian Society for Neuroscience, May 2017. Ghent, Belgium.
- 144. Samaha, J., LaRocque, J.J., Gosseries, O., Tononi, G., and Postle, B.R. (2017). Dissociating neural activity related to subjective visibility and objective performance with simultaneous EEG/fMRI. <u>Annual meeting of the Cognitive Neuroscience Society</u>, March, 2017. San Francisco, CA.
- 143. Yu, Q., Gosseries, O., & Postle, B.R. (2017). Delay-period functional connectivity between IPS and occipital cortex relates to the precision of visual working memory. <u>Annual meeting of the Cognitive Neuroscience Society</u>, March, 2017. San Francisco, CA.
- 142. Sheldon, A.D., Saad, E., Sahan, M., Meyering, E., & Postle, B.R. (2017). Regional heterogeneity of the effects of attentional prioritization. <u>Annual meeting of the Cognitive Neuroscience Society</u>, March, 2017. San Francisco, CA.
- 141. Samaha, J., Sprague, T.C., Voytek, B., Gazzaley, A., & Postle, B.R. (2016). Preparatory encoding of the location and scope of human spatial attention. <u>Annual Meeting of the Society for Neuroscience</u>, November 2016, San Diego, CA.
- 140. Sheldon, A.D., Saad, E., Meyering, E.E., & Postle, B.R. (2016). Informational connectivity reveals representation-specific gating of information in object-based attention. <u>Annual Meeting of the Society for Neuroscience</u>, November 2016, San Diego, CA.

- 139. Nieminen, J.O., Gosseries, O., Massimini, M., Saad, E., Sheldon, A.D, Boly, M., Siclari, F., Postle, B.R., and Tononi, G. (2016). Differentiated consciousness from unconsciousness in non-radid eye movement sleep: a combined transcranial magnetic stimulation and high-density EEG study. <u>Association for the Scientific Study of Consciousness: ASSC 20</u>, June, 2016. Buenos Aires, Argentina.
- 138. Samaha, J., Barrett, J.J., Sheldon, A.D., LaRocque, J.J., and Postle, B.R. (2016). Dissociating perceptual confidence from discrimination accuracy reveals no influence of metacognitive awareness on working memory. Association for the Scientific Study of Consciousness: ASSC 20, June, 2016. Buenos Aires, Argentina.
- 137. Gosseries, O., Nieminen, J.O., Samaha, J., Boly, M, Massimini, M., Postle, B.R., and Tononi, G. (2016). Transcranial magnetic stimulation in sleep consciousness. <u>Association for the Scientific Study of Consciousness:</u> ASSC 20, June, 2016. Buenos Aires, Argentina.
- 136. Samaha, J., and Postle, B.R. (2016). The role of alpha-band oscillations in temporal prediction and perception. Annual meeting of the Cognitive Neuroscience Society, April, 2016. New York, NY.
- 135. Rose, N., LaRocque, J.J., Riggall, A., Gosseries, O., Starrett, M.J., Postle, B.R. (2016). Can transcranial magnetic stimulation bring passively retained items in short-term memory back into focal attention? <u>Annual meeting of the Cognitive Neuroscience Society</u>, April, 2016. New York, NY.
- 134. Gosavi, R., Meyering, E., Rose, N., Postle, B.R., and Hubbard, E. (2016). Decoding grapheme-color synesthesia using multivariate pattern analysis. <u>Annual meeting of the Cognitive Neuroscience Society</u>, April, 2016. New York, NY.

INVITED LECTURES AND SYMPOSIA

- Society for Neuroscience 2018 Annual Meeting (San Diego, CA), organizer and chair of nanosymposium "Human Cognition and Behavior: Working Memory I." November 2018
- Memory Disorders Research Society, Annual Meeting. *Organizer of membership-elected symposium* "Memory and Consciousness" *featuring* Simona Ghetti (UC Davis), Elisa Ciaramelli (U. di Bologna), Adrian Owen (Western U.), *and* Earl Miller (MIT) *September 2018*
- 11th Federation of European Neuroscience Societies (FENS) Forum of Neuroscience (Berlin, Germany), *invited* speaker for symposium "Prefrontal mechanisms underlying working memory." July 2018
- Neuroscience School of Advanced Studies (Venice, Italy), *guest faculty for* Advanced Course *on* "Consciousness: From Theory to Practice". *June-July 2018*
- Cognitive Neuroscience Society, 2018 Annual Meeting (Boston, MA). *Organizer of Symposium* "The Next 25 Years of Cognitive Neuroscience: Opportunities and Challenges" *featuring* Timothy Bussey (Western U.), Dean Buonomano (UCLA), Dora Hermes (Stanford U.), Steven Chang (Yale U.), *and* Nina Dronkers (UC Davis). *March* 2018
 - University of Iowa, Iowa Neuroscience Institute. January 2018
 - University of Maryland, Program in Neuroscience. *November 2017*
 - Baylor College of Medicine (presentation via skype). *November 2017*
- 13th International Conference for Cognitive Neuroscience (ICON). *Invited speaker for symposium* "Is visual cortex relevant for visual working memory?" *August 2017*
- Neuroscience School of Advanced Studies (Siena, Italy). *Guest faculty for* Advanced Course *on* "Sleep and Cognition." *July 2017*
 - NIH Multimodal TMS Meeting Series, NIH campus, Bethesda, MD. June 2017
- "Advances in Memory Systems," sponsored by the Center for Learning, Memory and Emotion, New York University. *May 2017*
 - University of Wisconsin–Madison, Dept. of Neuroscience. April 2017
 - Vanderbilt University, Dept. of Psychology. *March* 2017
 - "Visual Working Memory Symposium," invited presentation, NYU Abu Dhabi. February 2017
 - Control Processes conference, La Jolla, CA. November 2016
- Memory Disorders Research Society, Annual Meeting. *Organizer of membership-elected symposium* "How do we keep information 'in mind'?" *featuring* Earl Miller (MIT), Emrah Duzel (Univ. Coll. London), *and* myself. *September* 2016
 - University of Rochester, Dept. of Neuroscience. September 2016
 - European Working Memory Symposium, Liège, Belgium. Keynote address. September 2016

- Maastricht University, Cognitive Neuroscience Department. August 2016
- Gordon Research Conference on "Neurobiology of Cognition." July 2016
- University of Texas at Austin, Dept. of Psychology. April 2016
- Florida State University, Dept. of Psychology and Program in Neuroscience. April 2016
- University of Colorado Boulder, Dept. of Psychology and Neuroscience. March 2016
- University of Alberta, 30th Annual Joseph R. Royce Psychology Research Conference. *Keynote Address. March* 2016
 - University of California, Los Angeles, Brain Mapping Center. March 2016
 - University of Rochester, Dept. of Brain and Cognitive Sciences. January 2016
 - University of California, Berkeley, Dept. of Psychology and Helen Wills Neuroscience Institute. January 2016
 - Stanford University, Dept. of Psychology, Friday Cognitive and Neuroscience Seminar. November 2015
 - University of California, Davis, Center for Neuroscience. Perspectives in Neuroscience seminar series. November 2015
- Memory Disorders Research Society, Annual Meeting. *Organizer of membership-elected symposium* "Attention and Memory: A Two-Way Street" *featuring* Kia Nobre (Oxford Univ.), Sharon Thompson-Schill (Univ. of Pennsylvania), Jarrod Lewis-Peacock (Univ. of Texas at Austin), *and* David Badre (Brown Univ.). *September 2015*
 - MRC Cognition & Brain Sciences Unit (Cambridge, England). September 2015
- "Brain Rhythms as Potential Targets for Intervention in Cognitive Dysfunctions." Banbury Conference, Cold Spring Harbor Laboratories. Scientific consultant for this conference organized and sponsored by the NIMH. March 2015
 - University of North Carolina Chapel Hill Biomedical Research Imaging Center. September 2014.
- Center for Cognition, Learning and Memory Summer School, University of Bern, Switzerland. *Invited faculty, giving two talks and consulting with graduate students on their presentations and in 1-on-1 meetings. June 2014*
 - Icahn School of Medicine at Mount Sinai, Dept. of Neuroscience. April 2014
- Cognitive Neuroscience Society, 2014 Annual Meeting (Boston, MA). *Invited participant in minisymposium on* "Contributions of alpha-band oscillations in cognition" *organized by H.A. Slagter. March, 2014.*
 - University of Missouri, Dept. of Psychology. March 2014
- Charles River Association for Memory, hosted by the Boston University Center for Memory and Brain. March 2014
 - George Washington University, Institute for Neuroscience. March 2014
 - Michigan State University, Dept. of Psychology "Cognitive Forum". January 2014
- Society for Neuroscience, 2013 Annual Meeting (San Diego, CA). Co-organizer, together with PhD advisee Joshua LaRocque, of Nanosymposium "Perception, Attention, and Working Memory". November 2013
 - "Cortex, Consciousness and Anesthesia 2013", UW-Madison. Invited presentation. November 2013
- Memory Disorders Research Society, Annual Meeting. *Organizer of membership-elected symposium* "The implications of multivariate analysis for our understanding the neural representation of information" *featuring* Howard Eichenbaum (Boston Univ.), Nick Turk-Browne (Princeton Univ.), Tim Rogers (Univ. of Wisconsin–Madison), *and* Sean Polyn (Vanderbilt Univ.). *October 2013*
 - University of Texas at Dallas, Center for Vital Longevity. September 2013
 - Attention & Performance XXV. Invited presentation. (Montreal, PO) July 2013
- 20th Annual APS-STP Teaching Institute (coinciding with annual meeting of the Association for Psychological Science; Washington DC). *Invited presentation. May 2013*
- "Understanding and Modifying Electrophysiological Patterns in the Developing Brain: Current Trends and Future Directions." *National Institute of Mental Health, Rockville, MD. May 2013*
 - "Enhancing the Teaching of Psychology." UW System-wide conference (Stevens Point, WI) May 2013
- Cognitive Neuroscience Society, 2013 Annual Meeting (San Francisco, CA). Co-organizer, together with PhD advisee Bornali Kundu, of Mini-Symposium "The Effects of Working MemoryTraining on Brain and Behavior" featuring Susanne Jaeggi (U. Maryland-College Park), Christos Constantinides (Wake Forest School of Medicine), Torkel Klingberg (Karolinska Institute), and Bornali Kundu (U. Wisconsin–Madison). April 2013
- Brown University, Departments of Neuroscience and of Cognitive, Linguistic and Psychological Sciences. December 2012

- "Memory and the Brain over the Life Span; A Symposium Honoring the Career and Scientific Contributions of Suzanne Corkin, PhD". *Invited speaker this symposium organized by the MIT Department of Brain and Cognitive Sciences*. *December 2012*
 - MIT, McGovern Institute for Brain Research. December 2012
- Psychonomic Society, 2012 Annual Meeting. *Organizer of slide session* "Multiple states of working memory: A new era of fractionation?" *featuring* myself, Chris Olivers (Vrije Universiteit Amsterdam), Geoff Woodman (Vanderbilt U.), Jarrod Lewis-Peacock (Princeton U.), *and* Ilja Sligte (U. of Amsterdam). *November 2012*
- "Funciones Cognitivas del Lóbulo Frontal (Cognitive Functions of the Frontal Lobe)". *Invited speaker at this conference organized by INECO (Instituto de Neurología Cognitiva (Institute of Cognitive and Behavioural Neurology)*), *Buenos Aires, Argentina. October 2012*
- "Coordinated neural activity supporting cognitive processes." *Invited speaker at this satellite symposium to the* 2012 annual meeting of the Society for Neuroscience, organized by the Division of Neuroscience and Basic Behavioral Science of the National Institute of Mental Health
 - University of Illinois Urbana Champaign, Department of Psychology and Beckman Institute. September 2012.
 - Midwestern Psychological Association. Invited Paper. May 2012
 - University of Wisconsin-Milwaukee, Neuroscience Seminar Series. March 2012
- University College London, Institute of Cognitive Neuroscience. *Invited speaker at workshop on* "Decoding brain activity: from neural mechanisms to applications". *October 2011*
- XI International Conference on Cognitive Neuroscience (ICON). *Organizer of symposium* "Probing Cortical Oscillations with Transcranial Stimulation", *featuring* Marcello Massimini/Mario Rosanova, University of Milan, Peter Brown/Ned Jenkinson, Oxford University, Gregor Thut, University of Glasgow, *and* myself. *September 2011*
- XI International Conference on Cognitive Neuroscience (ICON). *Invited speaker for symposium* "Current Trends in Working Memory Research: Evidence from Functional Neuroimaging". *September 2011*
- 5th International Conference on Memory (ICOM 5). *Invited speaker for symposium* "Models of Working Memory". *August 2011*
 - University of Zurich, Laboratory for Social and Neural Systems. April 2011
 - University of Zurich, Dept. of Psychology. April 2011
- 2011 Reprogramming the Human Brain Symposium—"Cognitve Control: from Bench to Bedside". (U. of California, Berkeley) *Invited speaker. March 2011*
 - University of Rochester, Dept. of Brain and Cognitive Sciences. November 2010
- Memory Disorders Research Society, Annual Meeting. *Organizer of membership-elected symposium* "Neuronal Oscillations and Memory" *featuring* Neil Burgess (Univ. Coll. London), Emrah Duzel (Univ. Coll. London), Charan Ranganath (UC-Davis), and myself. *October 2010*.
 - University of Maryland, Cognitive Science Colloquium. September 2010
- University College London, Wellcome Centre for Neuroimaging and Institute of Cognitive Neuroscience. July 2010
 - Queens University, Centre for Neuroscience Studies. April 2010
 - Université de Montréal, Centre de Recherche en Neuropsychologie et Cognition. April 2010
 - Northwestern University, Cognitive Neurology and Alzheimer's Disease Center. February 2009
 - Cornell University, Dept. of Human Development. October 2008
- International Society for Behavioral Neuroscience, Sixteenth Annual Meeting (Sydney, Australia). *Organizer of membership-elected symposium* "New Directions in TMS Research," *featuring* Jason Mattingly, Univ. of Queensland; Tomas Paus, Univ. of Nottingham; Christian Ruff, Univ. College of London; *and* myself. *June 2008*
- NeuroAct joint program of the University of Marburg and the Justus-Liebig University of Giessen, Germany. *Invited speaker at* Graduate School Memory Workshop. *June 2008*
 - University of Wisconsin-Milwaukee, Dept. of Psychology. September 2007
 - Brown University, Brain Sciences Program. March 2007
 - Brown University, Depts. of Psychology and of Cognitive and Linguistic Sciences. February 2007
 - University of South Carolina, Dept. of Psychology. December 2006
- Society for Neuroscience, 2006 Annual Meeting (Atlanta, GA). *Organizer of symposium* "Cortical contributions to working memory storage" *featuring* Carlos Brody (Cold Spring Harbor Laboratory), Tatiana Pasternak (U. Rochester), myself, *and* Masataka Watanabe (Tokyo Metropolitan Institute for Neuroscience). *October* 2006

- Memory Disorders Research Society *Organizer of membership-elected symposium* "Is the concept of the Memory System still valuable?" *featuring* David Gaffan (Oxford U.), Barbara Knowlton (UCLA), myself, Charan Ranganath (UC Davis), Paul Reber (Northwestern U.), *and* Dan Schacter (Harvard U.). *September 2006*
 - Brandeis University, IGERT Neuroscience Seminar. September 2006
- University of California, Davis, Center for Mind and Brain, Center for Neuroscience, and Department of Psychology. *September 2006*
 - University of California, Berkeley, Institute of Cognitive and Brain Sciences. September 2006
- "Neuroimaging and Psychological Theories of Human Memory" (Marburg, Germany). *Invited speaker. August* 2006
 - Brain Development and Learning: Making Sense of the Science (Vancouver, BC). *Invited speaker*. August 2006
 - University of British Columbia, Department of Psychology. August 2006
 - International Society for Behavioral Neuroscience, Fourteenth Annual Meeting (Bath Spa, U.K.).

Organizer of membership-elected symposium "Attention, motor control, and working memory. 3, 2, or 1 constructs?" featuring Tirin Moore (Stanford Medical School), Marin Pare (Queens University), Clayton Curtis (NYU), and Todd Braver (Washington University). July 2006

- MRC Cognition & Brain Sciences Unit (Cambridge, England). June 2006
- Cognitive Neuroscience Society, 2006 Annual Meeting (San Francisco, CA). *Organizer of symposium* "Working Memory: System, or Emergent Property?" *featuring* Mikhail Lebedev (Duke University), Tatiana Pasternak (Univ. of Rochester), Jan Theeuwes (Vrije Universiteit, Amsterdam), *and* myself. *April* 2006
 - Vanderbilt University, Department of Psychology Neuroscience Seminar September 2005
- Second International Conference on Working Memory 2004 Kyoto (ICWM-2, Kyoto, Japan). *Invited speaker*. *August 2004*
 - Memory Disorders Research Society, 2002 meeting (San Francisco, CA). Invited speaker. October 2002
- KAIST (Korean Advanced Institute for Science and Technology; Daejun, Korea). *Invited speaker at* "1st International Workshop on Functional MRI". *July 2001*
- International Society for Behavioral Neuroscience, Ninth Annual Meeting (Marrakech, Morocco). *Co-organizer (with Adrian Owen) of membership-elected symposium* "2001: A Frontal-lobe Odyssey," *featuring* John Duncan (MRC Cognition and Brain Sciences Unit), Apostolos Georgopoulos, (U. Minnesota), Earl Miller (MIT), Yuko Munakata (U. Colorado), Adrian Owen (MRC Cognition and Brain Sciences Unit), Randy O'Reilly (U. Colorado), *and* myself. *May* 2001
 - NSF Spatial Intelligence Conference (Chicago, IL.). Invited speaker. October 1999
- International Society for Behavioral Neuroscience, Seventh Annual Meeting (Santorini, Greece). *Invited speaker at symposium on* "Single Event fMRI". *July 1999*
 - University of Washington, Department of Psychology. August 1997
 - MGH-NMR Center. *Invited lecture at* "Visiting Fellowship Program in Functional MRI." *February 1997*

TEACHING EXPERIENCE

University of Wisconsin–Madison, Psychology 720: "Essentials of Cognitive Neuroscience" (grad. lecture) Fall 2018

University of Wisconsin–Madison, Neuroscience Training Program 900: "Seminar; Fall 2018 Subgroup #2 'Visual Working Memory'" (grad. seminar) Fall 2018

University of Wisconsin-Madison, Psychology 100: "Exploring Psychology" (undergrad. seminar) Spring 2018

University of Wisconsin-Madison, Psychology 711: "Essentials of Cognitive Neuroscience" (grad. lecture) Fall 2016

University of California, San Diego, Cogs 1: "Introduction to Cognitive Science." (Delivered guest lecture on the Cognitive Neuroscience of Consciousness) Fall 2015

University of Wisconsin–Madison, Psychology 711: "Cognitive Neuroscience of Attention and Memory" (grad. seminar) Fall 2014

University of Wisconsin–Madison, Neuroscience Training Program 900: "Seminar; Spring 2012 Subgroup #1 'Transcranial Magnetic Stimulation'" (grad. seminar) Spring 2012

University of Wisconsin–Madison, Psychology 733: "Principles of Cognitive Neuroscience." (grad. seminar) Fall 2011

University of Wisconsin–Madison, Psychology 618: "Research Mentor Training Practicum." (A weekly seminar for supervisors in the Psychology Research Experience Program) Summer 2011.

University of Wisconsin–Madison, Psychology 733: "Cognitive Neuroscience of Memory." (grad. seminar) Spring 2001, Fall 2001, Fall 2003, Fall 2005, Fall 2006, Fall 2010, Fall 2012

University of Wisconsin–Madison, Psychology 414: "Cognitive Psychology." (undergrad. lecture*) Spring 2001, Spring 2002, Spring 2003, Spring 2004, Spring 2006, Spring 2008, Spring 2010, Spring 2012, Spring 2014, Fall 2017 *Beginning Fall 2017, this teaching assignment also includes undergrad. honors seminar

University of Wisconsin–Madison, Psychology 481: "Cognitive Neuroscience." (undergrad. honors seminar) Spring 2003, Spring 2004, Spring 2006, Spring 2010, Spring 2012, Spring 2014

University of Wisconsin–Madison, Psychology 618/697: "Cognitive Neuroscience of Working Memory." (undergrad. mentored research and seminar) Every semester from Fall 2001-present.

University of Wisconsin–Madison, Neuroscience 611: "Systems Neuroscience" Co-taught (with Prof. Tom Yin and others) this graduate-level core course of the Neuroscience Training Program, lecturing on the Visual System and Higher Integrative Functions and Behavior, Spring 2008.

University of Wisconsin–Madison, Psychology 386: "Topics in Psychology for Honors Students." (undergrad. seminar) Fall 2000

MIT 9.50/9.UR: Undergraduate Research Opportunities Program. Over the course of graduate training, supervised research conducted by more than 10 undergraduates in the Behavioral Neuroscience Laboratory as a part of the UROP Program. Also supervised students participating in summer minority research opportunity programs and high school research opportunity programs. One high school student was named semifinalist in the annual Westinghouse Science Talent Search for a project conducted under my supervision.

MIT 9.97: "Introduction to Neuroanatomy." Co-organizer and co-instructor of this January term ("IAP") short-course. At the time, the highest-enrolled IAP course ever offered by the Department of Brain and Cognitive Sciences, with an annual enrollment at capacity of 75 students. Class consisted of lectures, teaching dissection of a human brain, brain atlas exercises on the World Wide Web, and supervised sheep brain dissections. January 1995; January 1996; January 1997

MIT 9.62: "Introduction to Cognitive Science." *Teaching assistant for undergraduate course taught by Professors Mary Potter and Edward Gibson. Presented one lecture. Fall 1996*

MIT 9.10/9.100: "Cognitive Neuroscience." *Teaching assistant for graduate/ advanced undergraduate level course taught by Professor Suzanne Corkin, with an enrollment of 27 students. Presented three lectures, instituted and led two weekly recitation sections. Spring 1995*

MIT 9.00: "Introduction to Psychology." *Teaching assistant for undergraduate course taught by Professor Jeremy Wolfe. Led two weekly recitation sections totaling 28 students. Fall 1993*