

1. DAVID BADRE
Associate Professor
Department of Cognitive, Linguistic, and Psychological Sciences
Brown University

2. HOME ADDRESS
229 Fifth St.
Providence, RI 02906

3. EDUCATION
1996 – 2000 University of Michigan, Ann Arbor, MI
BS in Biopsychology and Cognitive Science (High Distinction & Highest Honors)

2000 – 2005 Massachusetts Institute of Technology, Cambridge, MA
Ph.D. Cognitive Science, Concentration in Cognitive Neuroscience
Dissertation: Controlling memory and resolving interference:
Prefrontal contributions to flexible behavior.
Advisor: Anthony D. Wagner

4. PROFESSIONAL APPOINTMENTS
2014 – present Associate Professor
Brown University Providence, RI
Department of Cognitive, Linguistic, and Psychological Sciences

2012 Visiting Scholar
Harvard University Cambridge, MA
Department of Psychology

2008 – 2014 Assistant Professor
Brown University Providence, RI
Department of Cognitive, Linguistic, and Psychological Sciences

2005 – 2007 Postdoctoral Fellow
University of California, Berkeley Berkeley, CA
Helen Wills Neuroscience Institute

2004 – 2005 Visiting Scholar
Stanford University Stanford, CA
Department of Psychology

5. PUBLICATIONS

Work in Review

Heindel, W. C., Festa, E. K., Santos, C. Y., Venkatesan, U. M., Badre, D., and Snyder P. J. Controlled semantic retrieval is associated with β -amyloid accumulation. Submitted.

Bhandari, A., Gagne, C., and Badre, D. Just above chance: Is it harder to decode information from prefrontal cortex BOLD signals? Revise and Resubmit

Amso, D., Salhi, C., and Badre, D. Cognitive enrichment shapes cognitive control: A systematic resolution to competing influences on development through socioeconomic status. Under Review.

Sayalı, C. and Badre, D. Neural systems of cognitive demand avoidance. *Neuropsychologia*. Revision Under Review.

Refereed Journal Articles

Choi, E. Y., Drayna, G. K., and Badre, D. Evidence for a functional hierarchy of association networks. *Journal of Cognitive Neuroscience*. In Press.

Bhandari, A., and Badre, D. Learning and transfer of working memory gating policies. *Cognition*, In Press.

Badre, D., and Nee, D. E. (2018). Frontal cortex and the hierarchical control of behavior. *Trends in Cognitive Science*, 22(2), 170-188.

Collins, A.G.E., Ciullo, B., Frank, M.J., and Badre, D. (2017). Working memory load strengthens reward prediction errors. *Journal of Neuroscience*, 37(16), 4332-4342.

Scimeca, J. M., Katzman, P. L., and Badre, D. (2016). Striatal prediction errors support dynamic control of declarative memory decisions. *Nature Communications*, 7:13061

Bhandari, A., and Badre, D. (2016). A nimble working memory. *Neuron*, 91(3), 503-5.

Barredo, J., Verstynen, T. D., and Badre, D. (2016). Organization of cortico-cortical pathways supporting memory retrieval across subregions of the left ventrolateral prefrontal cortex. *Journal of Neurophysiology*, 116(3), 920-37.

Unger, K., Ackerman, L., Chatham, C. H., Amso*, D., and Badre*, D. (2016). Working memory gating mechanisms explain developmental change in rule-guided behavior. *Cognition*, 155, 8-22.

Desrochers, T. M., Burk, D. C., Badre, D., and Sheinberg, D. L. (2016). The monitoring and control of task sequences in human and non-human primates. *Frontiers in Systems Neuroscience*, *Jan 21*, 9:185.

Yeh, F-C, Badre, D., and Verstynen, T. (2016). Connectometry: A statistical approach harnessing the analytical potential of the local connectome. *NeuroImage*, *125*, 162-171.

Badre, D., Frank, M. J., and Moore, C. I. (2015). Interactionist Neuroscience. *Neuron*, *88*, 855-860.

Desrochers, T. M., Chatham, C. H. and Badre, D. (2015). The necessity of rostrolateral prefrontal cortex for higher-level sequential behavior. *Neuron*, *87*, 1357-1368.

Voytek, B. Kayser, A. S., Badre, D., Fegen, D, Chang, E. F., Crone, N. E., Parvizi, J., Knight, R. T., and D'Esposito, M. (2015). Oscillatory dynamics coordinating human frontal networks in support of goal maintenance. *Nature Neuroscience*, *18(9)*, 1318-24.

Kang, H., Blume, J., Ombao, H., and Badre, D. (2015). Simultaneous control of error rates in fMRI data analysis. *NeuroImage*, *123*, 102-13.

Aron, A. R., Cai, W., Badre, D., and Robbins, T. W. (2015). Evidence supports specific breaking function for inferior PFC. *Trends in Cognitive Science*. In Press.

Frank, M. J., Gagne, C., Nyhus, E., Masters, S. Wiecki, T.V., Cavanagh, J. F., and Badre, D. (2015). fMRI and EEG predictors of dynamic decision parameters during human reinforcement learning. *Journal of Neuroscience*, *35(2)*, 485-94.

Ranti, C., Chatham, C. H., and Badre, D. (2015). Parallel temporal dynamics in hierarchical cognitive control. *Cognition*, *142*, 205-229.

Chatham, C. H., and Badre, D. (2015). Multiple gates on working memory. *Current Opinion in Behavioral Sciences*, *1*, 23-31.

Frank, M. J., and Badre, D. (2015). How cognitive theory guides neuroscience. *Cognition*, *135*, 14-20.

Barredo, J., Öztekin, I., and Badre, D. (2015). Ventral fronto-temporal pathway supporting cognitive control of episodic memory retrieval. *Cerebral Cortex*, *25(4)*, 1004-19.

Amso, D., Haas, S., McShane, L., and Badre, D. (2014). Working memory updating and the development of rule-guided behavior. *Cognition*, *133(1)*, 201-10.

Badre, D., Lebrecht, S., Pagliaccio, D., Long, N. M., and Scimeca, J. M. (2014). Ventral striatum and the evaluation of memory retrieval strategies. *Journal of Cognitive Neuroscience*, 26(9), 1928-48.

Chatham, C. H., Frank, M. J., and Badre, D. (2014). Cortico-striatal systems supporting output gating of working memory. *Neuron*, 81, 930-942.

Satpute, A. B., Badre, D., and Ochsner, K. N. (2014). Controlled retrieval and selection of social information. *Cerebral Cortex*, 24(5), 1269-77.

Chatham, C. H. and Badre, D. (2013). Working memory management and predicted utility. *Frontiers in Behavioral Neuroscience*, 7(83), 1-12.

Schwarze, U., Bingel, U., Badre, D., and Sommer, T. (2013). Ventral striatal activity correlates with memory confidence for old- and new-responses in a difficult recognition task. *PLoS ONE*, 8(3), 1-7.

Scimeca, J. M. and Badre, D. (2012). Striatal contributions to declarative memory retrieval. *Neuron*, 73, 380-392.

Badre, D. Opening the gate to working memory. (2012). *Proceedings of the National Academy of Sciences, USA*, 109(49), 19878-79.

Öztekin, I., Gungor, Z., and Badre, D. (2012). Impact of aging on the dynamics of memory retrieval: A time-course analysis. *Journal of Memory & Language*, 67, 285-294.

Badre, D., Doll, B. B., Long, N. M., and Frank, M. J. (2012). Rostrolateral prefrontal cortex and individual differences in uncertainty-driven exploration. *Neuron*, 73, 595-607.

Verstynen, T., Badre, D., Jarbo, K., and Schneider, W. (2012). Microstructural organizational patterns in the human corticostriatal system. *Journal of Neurophysiology*, 107, 2984-2995.

Chatham, C. H. and Badre, D. (2012). Parts to principles: Anatomical origins of prefrontal organization. *Cortex*, 48, 1373-1375.

Desrochers, T.M., and Badre, D. (2012). Finding parallels in fronto-striatal organization. *Trends in Cognitive Science*, 16(8), 407-408.

Kang, H., Ombao, H., Linkletter, C., Long, N., and Badre, D. (2012). Spatio-spectral mixed effects model for fMRI data. *Journal of the American Statistical Association*, 107(498), 568-577.

Badre, D. and Frank, M. J. (2012). Mechanisms of hierarchical reinforcement learning in cortico-striatal circuits 2: Evidence from fMRI. *Cerebral Cortex*, 22(3), 527-536.

Frank, M. J., and Badre, D. (2012). Mechanisms of hierarchical reinforcement learning in corticostriatal circuits 1: Computational analysis. *Cerebral Cortex*, 22(3), 509-526.

Öztekin, I. and Badre, D. (2011). Distributed patterns of brain activity that lead to forgetting. *Frontiers in Human Neuroscience*, 5, 1-8.

Badre, D. (2011). Defining an ontology of cognitive control requires attention to component interactions. *Topics in Cognitive Science*, 3(2), 217-221.

Long, N. M., Öztekin, I., and Badre, D. (2010). Separable prefrontal contributions to free recall. *Journal of Neuroscience*, 30(33), 10967-10976.

Badre*, D., Kayser*, A. S., and D'Esposito, M. (2010). Frontal cortex and the discovery of abstract action rules. *Neuron*, 66, 315-326.

Badre, D. (2010). Is prefrontal cortex necessary for the storage and acquisition of relational concepts? *Cognitive Neuroscience*, 1(2), 140-141.

Öztekin, I., Long, N. M., and Badre, D. (2010). Optimizing design efficiency of free recall events for fMRI. *Journal of Cognitive Neuroscience*, 22(10), 2238-50.

Race, L. Badre, D., and Wagner, A. D. (2010). Multiple forms of learning yield temporally distinct electrophysiological repetition effects. *Cerebral Cortex*, 20(7), 1726-38.

Badre, D. and D'Esposito, M. Is the rostro-caudal axis of the frontal lobe hierarchical? (2009). *Nature Reviews Neuroscience*, 10, 659-669.

Badre, D., Hoffman, J., Cooney, J.W., and D'Esposito, M. (2009). Hierarchical cognitive control deficits following damage to the human frontal lobe. *Nature Neuroscience*, 12(4), 515-522.

Badre, D. (2008). Cognitive control, hierarchy, and the rostro-caudal axis of the prefrontal cortex. *Trends in Cognitive Science*, 12(5), 193-200.

Lebrecht, S. and Badre, D. (2008). Emotional regulation, or: How I learned to stop worrying and love the nucleus accumbens. *Neuron*, 59, 841-843.

Badre, D. and D'Esposito, M. (2007). FMRI evidence for a hierarchical organization of the prefrontal cortex. *Journal of Cognitive Neuroscience*, 19(12), 2082-2099.

Badre D., and Wagner, A. D. (2007). Left ventrolateral prefrontal cortex contributions to the control of memory. *Neuropsychologia*, 45, 2883-2901.

Badre, D. and Wagner, A. D. (2006). Cognitive and neurobiological mechanisms underlying cognitive flexibility. *Proceedings of the National Academy of Sciences, USA*, 103(18), 7186-7191.

Badre, D., Poldrack, R. A., Paré-Blagoev, E. J., Insler, R., and Wagner, A. D. (2005). Dissociable controlled retrieval and generalized selection mechanisms in ventrolateral prefrontal cortex. *Neuron*, 47, 907-918.

Badre, D. and Wagner, A. D. (2005). Frontal lobe mechanisms that resolve proactive interference. *Cerebral Cortex*, 15(12), 2003-2012.

Bunge, S. A., Wendelken, C., Badre, D., and Wagner, A. D. (2005). Analogical reasoning and prefrontal cortex: Evidence for separable retrieval and integration mechanisms. *Cerebral Cortex*, 15(3), 239-249.

Badre, D., and Wagner, A. D. (2004). Selection, integration, and conflict monitoring: Assessing the nature and generality of prefrontal cognitive control mechanisms. *Neuron*, 41, 473-487.

Gehring, W.J., Bryck, R.L., Jonides, J., Albin, R.L., and Badre, D. (2003). The mind's eye, looking inward? In search of executive control in internal attention shifting. *Psychophysiology*, 40(4), 572-585.

Badre, D. and Wagner, A. D. (2002). Semantic retrieval, mnemonic control, and prefrontal cortex. *Behavioral and Cognitive Neuroscience Reviews*, 1(3), 206-218.

Hernandez, L., Badre, D., Noll, D. C., and Jonides, J. (2002). Temporal sensitivity of event related fMRI. *Neuroimage*, 17(2), 1018-1026.

Chapters in Books

Bhandari, A., Badre, D., & Frank, M.J. (forthcoming). Learning Cognitive Control. In T. Egner (Ed.), *The Wiley Handbook of Cognitive Control*. Oxford: John Wiley & Sons.

Chatham, C. H., and Badre, D. How to test cognitive theory with fMRI. In D. Spieler and E. Schumacher (Eds), *New Methods in Cognitive Psychology*. New York, NY: Routledge. In Press.

Unger, K. and Badre, D. Hierarchical Reinforcement Learning. In A. Toga and R. Poldrack (Eds), *Brain Mapping: An Encyclopedic Reference*. Philadelphia, PA: Elsevier. In Press.

Nyhus, E. and Badre, D. Memory retrieval and the functional organization of frontal cortex. In D. R. Addis, M. D. Barense, and A. Duarte (Eds.), *The Wiley Handbook on the Cognitive Neuroscience of Human Memory*. New York: Wiley-Blackwell. In Press.

Badre, D. (2014). Hierarchical cognitive control and the functional organization of the frontal cortex. In K. Ochsner and S.M. Kosslyn (Eds.), *The Oxford Handbook of Cognitive Neuroscience*. New York, NY: Oxford University Press. 300-317

D'Esposito, M. and Badre, D. (2011). Combining the insights derived from lesion and fMRI studies to understand the function of prefrontal cortex. In B. Levine and F.I.M. Craik (Eds.), *Mind and the Frontal Lobes: Cognition, Behavior, and Brain Imaging*. New York, NY: Oxford University Press. 93-108.

Satpute, A. B., Badre, D., and Ochsner, K. N. (2011). The neuroscience of goal directed behavior. In H. Aarts and A. Elliot (Eds.), *Goal Directed Behavior (Frontiers of Social Psychology)*. London, UK: Psychology Press.

Race, E.A., Kuhl, B.A., Badre, D., and Wagner, A.D. (2009). Cognitive control and memory: Contributions from prefrontal cortex. In M. S. Gazzaniga (Ed.), *The Cognitive Neurosciences (4th Edition)*. Cambridge, MA: MIT Press.

Badre D. (2007). Ventrolateral prefrontal cortex and controlling memory to inform action. In S. A. Bunge and J. D. Wallis (Eds.), *Neuroscience of Rule-Guided Behavior*. New York: Oxford University Press. 365-389.

Wagner, A. D., Bunge, S. A., and Badre, D. (2004). Cognitive control, semantic memory, and priming: Contributions from prefrontal cortex. In M. S. Gazzaniga (Ed.), *The New Cognitive Neurosciences (3rd Edition)*. Cambridge, MA: MIT Press.

Jonides, J. Badre, D., Curtis, C., Thompson-Schill, S. L., and Smith, E. E. (2002). Mechanisms of conflict resolution in prefrontal cortex. In D. T. Stuss and R.T Knight (Eds), *Principles of Frontal Lobe Function*. New York: Oxford Univ Press, 233-245.

Jonides, J., Wager, T. D., and Badre, D. (2002). Neuroimaging of memory. In V. S. Ramachandran (Ed.), *The Encyclopedia of the Human Brain*. San Diego: Academic Press.

* Authors contributed equally to work.

Refereed Abstracts

Bhandari, A., Rigotti, M., Gagne, C., Fusi, S., and Badre, D. (November 2017). Characterizing human prefrontal cortex representations with fMRI. Poster presented at the Society for Neuroscience meeting.

Frick, B. J., Hoy, C. W., Lin, J., Knight, R. T., D'Esposito, M., and Badre, D. (November 2017). Neurodynamic mechanisms of working memory gating. Poster presented at the Society for Neuroscience meeting.

Sayai, C. Z., Spiro, A., and Badre, D. (November 2017). Investigating the cost of cognitive effort. Poster presented at the Society for Neuroscience meeting.

Salhi, C., Badre, D., and Amso, D. (April 2017). The unique role of cognitive enrichment in the development of rule-guided behavior. Paper presented at the Society for Research in Child Development meeting.

Freier, L., Gunther, K., Gupta, P., Silver, B., Badre, D., and Amso, D. (April 2017). 3- to 7-year-olds' use of working memory gating strategies in a naturalistic task. Poster presented at the Society for Research in Child Development meeting.

Sayali, C. Z., Hamzah, N., Ciullo, B., and Badre, D. (November 2016). Neural systems supporting demand avoidance. Poster presented at the Society for Neuroscience meeting.

Bhandari, A., Badre, D. (November 2016). Learning working memory gating thresholds via reinforcement learning. Poster presentation at the Annual Society for Neuroscience Meeting, San Diego, CA, USA.

Desrochers, T.M. and Badre, D. (November 2016). Sequence monitoring in the frontal cortex. Poster presented at the annual Society for Neuroscience meeting.

Badre, D. (May 2016). Cortico-striatal interactions and representation of hierarchical task structure. Talk presented at the International Meeting of the Psychonomic Society.

Bhandari, A., Badre, D. (April 2016) Discovering gating policies in the absence of reinforcement. Poster presentation at the 23rd Annual Cognitive Neuroscience Society Meeting, New York, NY, USA.

Bhandari, A., Fugate, R. K., and Badre, D. (November 2015). Sampling improves short-term, but not long-term, memory of exceptions to rules during the learning of abstract rule structures. Poster presented at the Annual Meeting of the Psychonomic Society.

Desrochers, T.M., Collins, A. GE., and Badre, D. (October 2015). Feature-based attention during sequential tasks. Poster to be presented at the Society for Neuroscience meeting.

Collins, A., Ciullo, B., Frank, M.J., and Badre, D. (October 2015). Working memory contributions to reinforcement learning: an fMRI study. Poster to be presented at the Annual Meeting of the Society for Neuroscience.

Sayali, C., Ciullo, B., and Badre, D. (October 2015). Neural mechanisms of demand avoidance. Poster to be presented at the Annual Meeting of the Society for Neuroscience.

Shih, P. and Badre, D. (March 2015). The representational capacity of the human prefrontal cortex: A high-resolution fMRI study. Data Blitz talk and Poster presented at the 22nd Cognitive Neuroscience Society meeting.

Badre, D. (March 2015). Separable ventral and dorsal frontal pathways supporting cognitive control during retrieval. Minisymposium talk given at the 22nd Cognitive Neuroscience Society meeting.

Bhandari, A., Fugate, R., and Badre, D. (March 2015). Early practice effects in instructed tasks reflect learning of the dynamic structure of a task. Poster presented at the 22nd Cognitive Neuroscience Society meeting.

Desrochers, T. M., Collins, A. G. E., and Badre, D. (March 2015). Prefrontal cortex and uncertainty during sequential tasks. Poster presented at the 22nd Cognitive Neuroscience Society meeting.

Unger, K., Amso, D., Ackerman, L., Chatham, C., Delgado Luna, J. C., & Badre, D. (March, 2015). Working memory gating mechanisms provide a key to understanding developmental change in rule-guided behavior. Poster presented at the Biennial Meeting of the Society for Research in Child Development.

Chatham, C., and Badre, D. (November 2014). Dissociable effects of frontal cortex stimulation during selection from working memory. Nanosymposium presentation at the annual meeting of the Society for Neuroscience.

Nyhus, E., and Badre, D. (November 2014). Comparison of cardioballistic artifact removal methods for simultaneously recorded EEG and fMRI. Poster presented at the annual meeting of the Society for Neuroscience.

Unger, K., Amso, D., Ackerman, L., and Badre, D. (November 2014). The development of hierarchical cognitive control and rule guided behavior. Poster presented at the annual meeting of the Society for Neuroscience.

Nyhus, E., Gagne, C., and Badre, D. (June 2014). Brain Networks Related to Beta Oscillatory Activity During Episodic Memory Retrieval. Poster presented at the Organization for Human Brain Mapping meeting.

Desrochers, T. M., Chatham, C. H., and Badre, D. (April 2014). Stimulation of frontal polar cortex disrupts hierarchical control of task sequences. Poster presented at the 21st Cognitive Neuroscience Society meeting.

Gagne, C., and Badre, D. (April 2014). The magic number 57 plus or minus 3%: Why is multi-voxel pattern classification success so low in the lateral prefrontal cortex? Poster presented at the 20th Cognitive Neuroscience Society meeting.

Shih, P., Nyhus, E., Masters, S., Duan, L. H., & Badre, D. (April 2014). EEG evidence of sequential dynamics during hierarchical cognitive control. Poster presented at the 21th Cognitive Neuroscience Society meeting.

Chatham, C. and Badre, D. (November 2013). Frontostriatal correlates of predicted utility in working memory. Poster to be presented at the annual meeting of the Society for Neuroscience.

Scimeca, J. M., Katzman, P. L., and Badre, D. (November 2013). Evaluating and updating control processes in recognition memory. Poster to be presented at the annual meeting of the Society for Neuroscience.

Desrochers, T. M., and Badre, D. (November 2013). Differential control of task switching at the local and sequence level in the frontal cortex. Poster to be presented at the annual meeting of the Society for Neuroscience.

Ranti, C., Chatham, C. H., and Badre, D. (November 2013). Characterizing the temporal dynamics of hierarchical cognitive control. Poster to be presented at the annual meeting of the Society for Neuroscience.

Frank, M. J., Gagne, C. Cavanagh, J., Masters, S., Nyhus, E., and Badre, D. (November 2013) EEG and fMRI correlates of dynamic decision parameters during reinforcement learning. Nanosymposium presentation at the annual meeting of the Society for Neuroscience.

Badre, D. (October 2013). Frontostriatal correlates of working memory management. Open paper presented at the Memory Disorders Research Society meeting.

Chatham, C. H., and Badre, D. (April 2013). Generalization of learned categories is supported by top-down control and working memory capacity. Poster presented at the 20th Cognitive Neuroscience Society meeting.

Desrochers, T. and Badre, D. (April 2013). Frontal systems supporting the hierarchical control of task sequences. Poster presented at the 20th Cognitive Neuroscience Society meeting.

Scimeca, J. M., Katzman, P. L., and Badre, D. (April 2013). The role of prediction errors in control of recognition memory decisions. Poster presented at the 20th Cognitive Neuroscience Society meeting.

Barredo, J.L. and Badre, D. (April 2013). Diffusion spectrum imaging evidence of distinct white matter pathways in ventrolateral prefrontal cortex. Poster presented at the 20th Cognitive Neuroscience Society meeting.

Nyhus, E. and Badre, D. (April 2013). Brain networks related to theta oscillatory activity during episodic memory retrieval. Poster presented at the 20th Cognitive Neuroscience Society meeting.

Kayser, A. S., Mitchell, J., Badre, D., and Frank, M. J. (April 2013). Corticostriatal connectivity, dopamine, and individual differences in exploration and exploitation. Poster presented at the 20th Cognitive Neuroscience Society meeting.

Chatham, C. H. and Badre, D. (October 2012). Multiple gates on working memory: An fMRI study of input gating and output gating. Talk presented in the “Working Memory: Representations and Mechanisms” Nanosymposium at the annual meeting of the Society for Neuroscience.

Choi, E.-Y., and Badre, D. (October 2012). Resting-state functional connectivity evidence for asymmetric rostro-to-caudal prefronto-striatal connectivity. Poster presented at the annual meeting of the Society for Neuroscience.

Voytek, B., Badre, D., Kayser, A. S., Fegen, D., Change, E. F., Crone, N. E., Parvisi, J., Knight, R.T., and D’Esposito, M. (October 2012). Phase/Amplitude coupling supports network organization in human frontal cortex. Poster presented at the annual meeting of the Society for Neuroscience.

Kang, H., Badre, D., Blume, J., and Ombao, H. (June 2012). Controlling Global Error Rates in fMRI Data Analysis. Poster presented at the Organization for Human Brain Mapping meeting.

Badre, D., Doll, B., Long, N., and Frank, M. (June 2012). Rostrolateral prefrontal cortex and uncertainty-driven exploration. Poster presented at the Organization for Human Brain Mapping meeting.

Brew, J., Frank, M. J., and Badre, D. (April 2012). Transfer of abstract action rules during reinforcement learning. Poster presented at the 19th Cognitive Neuroscience Society meeting.

Nyhus, E., Worden, M. S., and Badre, D. (April 2012). Simultaneously recorded EEG and fMRI identifies brain networks related to visually-evoked gamma oscillatory activity. Poster presented at the 19th Cognitive Neuroscience Society meeting.

Scimeca, J. M., McShane, L. M., Brew, J. A., and Badre, D. (November 2011). Acquisition and adaptation of rule-guided retrieval strategies in memory. Poster presented at the 41th meeting of the Society for Neuroscience.

McShane, L. M., Ranti, C. V., and Badre, D. (November 2011). Divide and conquer: Reducing response competition through hierarchical cognitive control. Poster presented at the 41th meeting of the Society for Neuroscience.

Barredo, J.L., Averill, W.R., Oztekin, I., and Badre, D. (November 2011). Network dynamics supporting the cognitive control of memory retrieval. Poster presented at the 41th meeting of the Society for Neuroscience.

Öztekin, I., Gungor, Z., and Badre, D. (November 2011). Impact of aging on the dynamics of short-term memory retrieval: A time-course analysis. Poster presented at the 52nd annual meeting of the Psychonomics Society.

Haas, S., McShane, L. M., Badre, D., and Amso, D. (October 2011). The development of cognitive control: Evidence from responses to simple relative to embedded rule structures. Poster presented at the meeting of the Cognitive Development Society.

McShane, L. M., Haas, S., Amso, D. and Badre, D. (April 2011). Developmental differences in hierarchical cognitive control. Poster presented at the 18th Cognitive Neuroscience Society Meeting.

Öztekin, I., McShane, L. M., and Badre, D. (April 2011). Evaluation and adjustment of control strategies during proactive interference resolution. Poster presented at the 18th Cognitive Neuroscience Society Meeting.

Badre, D. and Pagliaccio, D. (Nov 2010) Distributed representations of task-relevant contextual information in lateral prefrontal cortex. Poster presented at the 40th meeting of the Society for Neuroscience.

Barredo, J., Öztekin, I., and Badre, D. (Nov 2010) Prefrontal-medial temporal lobe interactions supporting the cognitive control of episodic retrieval. Poster presented at the 40th meeting of the Society for Neuroscience.

Hersman, S., Figueroa, C., Badre, D., and Frank, M. J. (Nov 2010). Dopaminergic modulation of working memory pathways: Influence of contextual cues on the discovery of hierarchical relationships. Poster presented at the 40th meeting of the Society for Neuroscience.

Kayser, A., Badre, D., and D'Esposito, M. (Nov 2010). Effects of prefrontal lesions on the acquisition of abstract action rules. Poster presented at the 40th meeting of the Society for Neuroscience.

Badre, D. (October 2010). The role of the striatum in evaluating memory retrieval strategies. Talk at the Memory Disorders Research Society meeting.

Solomon, M., Frank, M. J., Smith, A., Badre, D., Kayser, A., and Carter, C. S. (May 2010). Cognitive control mechanisms underlying impaired learning in adults with autism spectrum disorders. Poster presented at the International Society for Autism Research meeting.

Pagliaccio, D., Lebrecht, S., and Badre, D. (April 2010). Distributed patterns of activation in the prefrontal cortex reflect task-relevant visual dimensions of a stimulus. Poster presented at the 17th Cognitive Neuroscience Society meeting.

Öztekin, I. and Badre, D. (April 2010). Changes in distributed patterns of activation associated with proactive interference resolution in working memory. Talk presented at the 17th Cognitive Neuroscience Society meeting.

Long, N. M., Doll, B. D., Badre, D., and Frank, M. J. (April 2010). The neural mechanisms of exploratory and exploitive behavior. Poster presented at the 17th Cognitive Neuroscience Society meeting.

Lebrecht, S., Long, N. M., and Badre, D. (October 2009). Ventrolateral prefrontal cortex contributions to rule-guided memory retrieval. Poster presented at the 39th meeting of the Society for Neuroscience.

Öztekin, I., and Badre, D. (October 2009). Distinct contributions of the medial temporal lobe and the left ventrolateral prefrontal cortex to memory retrieval. Poster presented at the 39th meeting of the Society for Neuroscience.

Frank, M. J., and Badre, D. (October 2009). Hierarchical reinforcement learning in prefrontal-basal ganglia circuits: neurocomputational and imaging studies. Poster presented at the 39th meeting of the Society for Neuroscience.

Long, N. M., Öztekin, I., and Badre, D. (October 2009). An fMRI study of the neural mechanisms supporting free recall. Poster presented at the 39th meeting of the Society for Neuroscience.

Öztekin, I., Long, N. M., and Badre, D. (March 2009). Distinguishing events during free recall with fMRI. Poster presented at the 16th Cognitive Neuroscience Society meeting.

Long, N. M., and Badre, D. (March 2009). Testing hierarchical interactions in frontal cortex during cognitive control. Poster presented at the 16th Cognitive Neuroscience Society meeting.

Brozinsky, C., Badre, D., and D'Esposito, M. (March, 2009). The effects of medial temporal lobe damage on proactive interference. Poster presented at the 16th Cognitive Neuroscience Society meeting.

Barredo, J. L., Badre, D., and Burwell, R. D. (November, 2008). A novel task-shifting paradigm for rats to be used for the comparative analysis of executive function in rodents and humans. Poster presented at the 38th meeting of the Society for Neuroscience.

Kayser, A. S., Badre, D., Sakanaka, K., Erickson, D., and D'Esposito, M. (November, 2008). The rostro-caudal axis of the frontal lobe and learning of hierarchical rules. Talk presented at the 38th meeting of the Society for Neuroscience.

Badre, D. (September 2008). Building and breaking hierarchical control: Studies of learning and dysfunction along the rostro-caudal axis of the frontal lobes. Talk at the Memory Disorders Research Society meeting.

Koralek, A., Badre, D., D'Esposito, M. (April, 2008). Benefiting from hierarchy: Interactions between levels of control in the prefrontal cortex. Poster presented at the 15th Cognitive Neuroscience Society meeting.

Badre, D., Krienen, F., and D'Esposito, M. (Nov, 2007). Cognitive control in frontal polar cortex: Abstractness versus the temporal organization of behavior. Talk presented at the 37th meeting of the Society for Neuroscience.

Koralek, A., Badre, D., Miller, B. T., Konkel, A., Cohen, N. J., and D'Esposito, M. (Nov, 2007). Prefrontal and Hippocampal contributions to relational versus item memory: Short-term and long-term effects. Poster presented at the 37th meeting of the Society for Neuroscience.

Bressler, D., Badre, D. and D'Esposito, M. (Nov, 2007). A new technique for analyzing the informational content of activity patterns in the brain. Poster presented at the 37th meeting of the Society for Neuroscience.

Badre, D., and D'Esposito, M. (May, 2007). Temporal dynamics and representational selection in frontal polar cortex. Poster presented at the 14th Cognitive Neuroscience Society meeting.

Hoffman, J., Badre, D., Berg-Kirkpatrick, T., Krienen, F., Cooney, J.W., and D'Esposito, M. (May, 2007). Dissociating levels of cognitive control in frontal cortex hierarchy: Evidence from patients with focal lesions. Poster presented at the 14th Cognitive Neuroscience Society meeting.

Krienen, F., Badre, D., and D'Esposito, M. (May, 2007). Hold your horses! Testing the race model of response inhibition. Poster presented at the 14th Cognitive Neuroscience Society meeting.

Miller, B.T., Badre, D., Konkel, A., Cohen, N. J., and D'Esposito, M. (May, 2007). Prefrontal and hippocampal contributions to the active maintenance of item and relational representations in working memory. Poster presented at the 14th Cognitive Neuroscience Society meeting.

Badre, D., and D'Esposito, M. (October 16, 2006). fMRI evidence for a hierarchical organization of control in prefrontal cortex. Talk presented at the 36th meeting of the Society for Neuroscience.

Race, E., Badre, D., Jones, C., and Wagner, A. D. (October 16, 2006). Electrophysiological correlates of stimulus-response learning: Effects of response repetition and response conflict. Poster presented at the 36th meeting of the Society for Neuroscience.

Badre, D. (August 26, 2006). fMRI evidence for a hierarchical organization of control in prefrontal cortex. Talk presented at the third annual Bay Area Memory Meeting.

Krienen, F., Badre, D., and D'Esposito, M. (August 26, 2006). Hold your horses! Manual stopping does not predict verbal stopping. Talk presented at the third annual Bay Area Memory Meeting.

Race, E. A., Badre, D., Jones, C., Bruich, S., Wagner, A. D. (April 9, 2005). Event-related potentials associated with perceptual, conceptual, and response priming. Poster presented at the 13th annual meeting of the Cognitive Neuroscience Society.

Badre, D. and Wagner, AD. (November 12, 2005). Computational modeling and fMRI support for interference in task switching. Talk presented at the 35th meeting of the Society for Neuroscience.

Badre, D. (August 27, 2005). Computational modeling and fMRI support for interference in task switching. Talk presented at the second annual Bay Area Memory Meeting.

Badre, D. (August 21, 2004). Frontal lobe mechanisms that resolve proactive interference. Talk presented at the first annual Bay Area Memory Meeting.

Sala, J. B., Badre, D., and Wagner, A. D. (August 21, 2004). Investigating effective connectivity of prefrontal cortex and cognitive control using dynamic causal modeling. Poster presented at the first annual Bay Area Memory Meeting.

Badre, D., and Wagner, A. D. (November 11, 2003). Prefrontal mechanisms in task switching: Distinguishing interference and task-set retrieval. Talk presented at the 33rd meeting of the Society for Neuroscience.

Insler, R. Z., Badre, D., Wagner, A. D. (November 9, 2003). Retrieving and selecting semantic knowledge: evidence for a common left prefrontal control mechanism. Poster presented at the 33rd meeting of the Society for Neuroscience.

Wraga, M., Shephard, J., Badre, D., Church, J., and Kosslyn, S. M. (March 31, 2003). An fMRI study of individual differences in visuo-spatial imagery. Poster presented at the 10th annual meeting of the Cognitive Neuroscience Society.

Badre, D. and Wagner, A. D. (March 30, 2003). Prefrontal cortex and domain-dependent resolution of proactive interference in working memory. Poster presented at the 10th annual meeting of the Cognitive Neuroscience Society.

Jonides, J., Sylvester, C. C., Christensen, J. C., Thomas, A. A., Wager, T. D., Kroger, J. K., Salthouse, T. A., Badre, D., and Smith, E. E. (November 4, 2002). Brain activations in the trail making test measured by fMRI. Talk presented at the 32nd meeting of the Society for Neuroscience.

Wagner, A.D. and Badre D. (November 4, 2002). Age-related decline in the control of memory: Evidence for dysfunctional medial temporal and frontal lobe interactions. Talk presented at the 32nd meeting of the Society for Neuroscience.

Badre, D. and Wagner A. D. (November 4, 2002). Selection within working memory and resolution of expectancy violations: Contributions from prefrontal cortex. Poster presented at the 32nd meeting of the Society for Neuroscience.

Wraga, M., Church, J., and Badre D. (April 16, 2002). Event-related fMRI study of imaginal self and object rotations. Poster presented at the Cognitive Neuroscience Society Annual Meeting.

Badre, D., and Wagner, A. D. (April 14, 2002). Prefrontal and medial temporal contributions to controlled semantic retrieval in cognitive aging. Poster presented at the Cognitive Neuroscience Society Annual Meeting.

Badre, D., and Wagner, A. D. (April 11, 2002). Prefrontal and medial temporal contributions to controlled semantic retrieval in cognitive aging. Poster presented at Fifteenth Annual American Federation for Aging Research Grantee Conference.

O’Kane, G. C., Badre*, D, Paré-Blagoev, R. A., Poldrack, R. A., and Wagner, A. D. (November 11, 2001). Left prefrontal processes subserving mnemonic control during semantic retrieval. Talk presented at the 31st annual meeting of the Society for Neuroscience. * Presenting author.

Wagner, A. D., Paré-Blagoev, J., Badre*, D., Clark, J., and Poldrack, R. A. (March 25, 2001). Functional contributions of left inferior prefrontal cortex: fMRI support for the controlled semantic retrieval hypothesis. Poster presented at the Cognitive Neuroscience Society Annual Meeting. * Presenting author

Badre, D. Jonides, J., Hernandez, L., Noll, D. C., Smith, E. E., Chenevert, T. L. (April 11, 2000). Behavioral and neuroimaging evidence of dissociable switching mechanisms in executive functioning. Poster presented at the Cognitive Neuroscience Society Annual Meeting.

Invited Lectures

- October 2019 (*planned*) Colloquium. Cognitive Science Program. Indiana University. Bloomington, Indiana.
- May 2018 (*planned*) Invited speaker. Seventh Symposium on Biology of Decision-Making. Paris, France.
- March 2018 (*planned*) Invited speaker. Dresden Spring School on Cognitive-Affective Neuroscience. Dresden, Germany
- February 2018 Colloquium. Department of Psychology. University of California, San Diego.
- November, 2017 Invited talk. Cognition, Brain, and Behavior Series. Psychology Department. Harvard University. Cambridge, MA.
- October 2017 Debate speaker. "Control with or without controllers: Is control a module or an emergent property?" Control Processes Conference. Amsterdam, Netherlands.
- October 2017 Colloquium. Department of Psychological and Brain Science. Dartmouth University. Hanover, NH.
- September 2017 Invited talk. Center for Vital Longevity. University of Texas, Dallas
- September 2017 Swartz Seminar for Computational and Theoretical Neuroscience, New York University. New York, NY.
- September 2016 Invited talk. Boston University Center for Systems Neurosciences. Boston, MA.
- May 2016 Invited talk. Rounds in Neuropsychology. Butler Hospital. Providence, RI.
- May 2016 Speaker. "The role of task representation in response selection." Symposium at the International Meeting of the Psychonomic Society. Granada, Spain.
- Feb 2016 Invited talk. fMRI Speaker Series. Yale Magnetic Resonance Research Center. Yale University.
- Feb 2016 Invited talk. George Washington Institute for Neuroscience/ Children's National-Center for Neuroscience Research. George Washington University, Washington, DC.
- Jan 2016 Invited lecture. Brown NSGP Neuropracticum. Woods Hole, MA.
- Nov 2015 Invited talk. School of Psychology. Georgia Tech University. Atlanta, GA.
- Sept 2015 Invited talk. MRC Cognition and Brain Sciences Unit. Cambridge, UK
- Sept 2015 Speaker. "Attention and memory: A two-way street." Symposium at MDRS. Cambridge, UK
- April 2015 Colloquium in "Distinguished Speakers in Behavioral and Brain Sciences" series. Department of Psychology. Cornell University.
- March 2015 Speaker. "Interactions Between the Prefrontal Cortex and the Medial-Temporal Lobes Supporting the Control of Memory Retrieval". Mini-Symposium at the Cognitive Neuroscience Society meeting. San Francisco, CA.

February 2015
January 2015
September 2014
March 2014
February 2014
August 2013
June 2013
April 2013
January 2013
December 2012
June 2012
April 2012
March 2012
March 2012
March 2012
Feb. 2012
June 2011
May 2010
May 2010
December 2009
March 2009
February 2009
February 2009
January 2009
January 2009
October 2008
December 2007

Neurology Grand Rounds. Rhode Island Hospital. Brown University.
Invited speaker. "Progress towards a systems analysis of the cognitive control of memory" Symposium at Neurobiology of Learning and Memory. Park City, Utah.
Speaker. "Fronto-MTL Interactions Supporting the Control of Memory Retrieval" Symposium at MDRS. Austin, TX.
Colloquium in Cognitive Neuroscience Talk Series. Center for Cognitive Neuroscience. Duke University
Invited Lecture. Department of Psychology. UC Berkeley.
National Academies of Science and Kavli Foundation Frontiers of Science Symposium. Beckman Center, Irvine, CA.
McDonnell Foundation Scholars meeting. Cambridge, UK.
Invited speaker. "How can we apply learning and cognitive control theories to neurorehabilitation?" Contributing to the Science of Neurorehabilitation meeting, Washington University
Invited speaker. "Executive function or executive functions? Theoretical insights from the empirical landscape" Symposium at the 2013 European Workshop in Cognitive Neuroscience, Bressanone, Italy.
Keynote speaker, 2012 Neuroscience and Cognition Conference (Neurocog), Brussels, Belgium.
Invited Lectures. Zhejiang University, Hangzhou, China
Brain Aging Neuroimaging Group Talk Series. Martinos Center for Biomedical Imaging, MGH, Charlestown, MA.
Invited Lecture. Department of Psychology, Koç University, Istanbul, Turkey.
Invited Lecture. Department of Psychology, Bogazici University, Istanbul, Turkey
Psychological and Brain Sciences Department Colloquium Series, Johns Hopkins University.
Cognitive Lunch Talk series, Yale University
"Integrating fMRI with computational models of cognition" Advanced fMRI Educational Course, Organization for Human Brain Mapping Annual Meeting, Quebec City, Canada.
Cognitive Neuroscience Lecture Series, NINDS, NIH
Rotman Rounds, Rotman Research Institute, Toronto, Canada
Keynote lecture, Annual meeting of the Charles River Association for Memory.
"Prefrontal cortex and learning of abstract action rules" GPP-NIH retreat. Woods Hole, MA
"Prefrontal cortex and hierarchical control of behavior" Cognitive Brown Bag Series, Harvard University
"Prefrontal cortex and hierarchical control of behavior" Brain and Language Series, University of Pennsylvania
"Prefrontal cortex and hierarchical control of behavior" Cognition & Perception seminar series, New York University
"Prefrontal cortex and hierarchical control of behavior" Invited lecture. Ecole Normale Superieur, Paris, France
"Cognitive control and the functional organization of lateral frontal cortex." Brown Institute for Brain Sciences Lunch.
"Cognitive control, hierarchy, and the rostro-caudal axis of the prefrontal cortex." Invited lecture at "Hierarchical organization of behavior:

Computational, psychological, and neural perspectives” NIPS satellite workshop, Vancouver, Canada
April, 2007 “Cognitive control of memory and action: Contributions of the prefrontal cortex.” Special symposium, McGovern Institute, MIT
February, 2007 “Cognitive control of memory and action: Contributions of the prefrontal cortex” Invited lecture, Brown University
February, 2007 “Cognitive control of memory and action: Contributions of the prefrontal cortex” Invited lecture, Duke University
January, 2007 “Cognitive control of memory and action: Contributions of the prefrontal cortex” Invited lecture, Columbia University
November, 2006 “Placing behavior in context: Cognitive control of memory and action” Cognition, Brain, and Behavior Colloquium, UC Berkeley

6. RESEARCH GRANTS

Current Support

Extramural

David Badre, Subcontract PI (PI Hasselmo)

MURI N00014-16-1-2832

Neural Circuits Underlying Symbolic Processing In Primate Cortex And Basal Ganglia

Office of Naval Research

7/1/16-5/31/21

\$900,000

David Badre, Subcontract PI (PI D’Esposito)

R01 MH111737

Neural dynamics of human working memory networks

National Institute of Mental Health, National Institutes of Health

9/26/2016-7/31/2021

\$2,609,329

David Badre, PI

James S. McDonnell Scholar Award in Understanding Human Cognition

James S. McDonnell Foundation

10/1/12-9/30/18

\$600,000

Intramural

David Badre PI (Co-PI David Sheinberg)

Advanced comparative functional neuroimaging for cognitive research at Brown

BIBS Innovation Fund

Brown Institute for Brain Science, Brown University

9/1/2015 – 8/31/2016

\$100,000

David Badre PI (Co-PIs Jerome Sanes, Linda Carpenter)

Proposal to form a Brain Stimulation Facility

BIBS Core Facility Fund

Brown Institute for Brain Science, Brown University
\$400,000

Completed Research Support

David Badre (Post-Doctoral Fellowship)

F32 NS053337

Studies of hierarchical organization in prefrontal cortex

National Institute of Neurological Disorders and Stroke (NINDS), National Research Service Award

9/1/2005-12/31/2007

David Badre, PI

Alfred P. Sloan Research Fellowship in Neuroscience

Alfred P. Sloan Foundation

9/15/2011 – 9/15/2015

\$50,000

David Badre, PI

R01 NS065046

Cognitive control and the functional organization of frontal cortex

National Institute of Neurological Disorders and Stroke (NINDS), National Institutes of Health

2/15/2010 – 1/31/2016

\$1,728,019 (Direct: \$1,093,750)

David Badre, PI (Co-PI Dima Amso, Brown University)

R01 MH099078

Role of experience in development of cognitive control and frontal cortex

National Institute of Mental Health, National Institutes of Health

9/12/2012-12/31/2017

\$2,030,000 (Direct: \$1,250,000)

7. SERVICE

Extramural Service

Conference Organization

2011-2012 Cognitive Neuroscience Society Slide Session Committee

2012-2014 Cognitive Neuroscience Society Mini-Symposium Committee

2013-2014 Cognitive Neuroscience Society Mini-Symposium Committee (Chair)

2016- present Co-Organizer & Co-Founder of the Control Processes Conference
November, 2016 – University of California, San Diego, CA
October, 2017 – Amsterdam, Netherlands
May, 2018 – Providence, RI

Session Chairperson/Organizer:

October 2016 “Gating mechanisms for cognitive control”, Symposium at the Control Processes meeting. San Diego, CA (Co-Chair).

March 2015 “Interactions Between the Prefrontal Cortex and the Medial-Temporal Lobes Supporting the Control of Memory Retrieval”, Mini-Symposium

- at the Cognitive Neuroscience Society meeting, San Francisco, CA (Co-Chair)
- September 2014 “Fronto-MTL Interactions Supporting the Control of Memory Retrieval”, Symposium at the Memory Disorders Research Society, Austin, TX (Co-Chair/Organizer)
- April 2014 “A New Look at Neural Representation in the Prefrontal Cortex” Mini-symposium, Cognitive Neuroscience Society, Boston MA. (Co-Organizer).
- April 2012 “Attention, Working memory, and Executive Processes” slide session. Cognitive Neuroscience Society Meeting, Chicago, IL (Organizer)
- March 2012 “Tractography on high angular resolution diffusion imaging data” Brown Institute for Brain Sciences workshop, Providence, RI. (Organizer)
- October 2010 “When Stroop and Ebbinghaus meet: The dynamic interaction of cognitive control and memory retrieval” Symposium at the Memory Disorders Research Society, Evanston, IL (Chair/Organizer)
- September 2008 “Hierarchical models of cognitive control and frontal lobe function” Symposium at the Memory Disorders Research Society, St. Louis, MO (Chair/Organizer)
- November 2007 “Working Memory” slide session. Annual Meeting of the Society for Neuroscience, San Diego, CA (Chair)

Editorial:

Board of Reviewing Editors, *eLife*, 2017-present
 Section Editor, *Neuropsychologia* (Exec Func & Cog Control), 2015-2017

Editorial Board, *Psychological Science*, 2012-present
 Editorial Board, *Behavioral Neuroscience*, 2014-present
 Board of Reviewers, *Cognitive Science*, 2015-present
 Editorial Board, *Cognitive Neuroscience*, 2009-2014

Ad Hoc/Guest Editor

Proceedings of the National Academy of Sciences, USA

Grant Panels:

Standing Member, Cognition and Perception (CP) Study Section, NIH, 2016-2022

Ad Hoc Referee:

Grants

US Federal

Cognition and Perception (CP) Study Section, NIH
 Special Emphasis Panel, LCOM/BBBP, NIH
 Cognitive Neuroscience, NSF
 Perception, Action, and Cognitive Sciences, NSF
 Natick Soldier Research, Development, and Engineering Center, US Army

International

Neurosciences and Mental Health Board, MRC (UK)
 Neuroscience and Mental Health, Wellcome Trust (UK)
 Biotechnology and Biological Sciences Research Council (UK)
 Leaders Opportunity Fund, CFI (Canada)
 Natural Sciences and Engineering Research Council (Canada)

Swiss National Science Foundation (Switzerland)
Netherlands Organisation for Scientific Research (Netherlands)

Private
Alzheimer's Association

Journals

Archives of General Psychiatry; Biology Letters; Biological Psychiatry; Brain and Language; Brain Research; Brain Sciences; Cerebral Cortex; Cognition; Cognitive, Affective, and Behavioral Neuroscience; Cognitive Neuropsychology; Cognitive Neuroscience; Cognitive Psychology; Cognitive Science; Current Biology; Developmental Neuropsychology; Experimental Brain Research; European Journal of Neuroscience; Hippocampus; Human Brain Mapping; JAMA Psychiatry; Journal of Cognitive Neuroscience; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Human Perception and Performance; Journal of Experimental Psychology: Learning, Memory, and Cognition; Journal of the International Neuropsychological Society; Journal of Neurophysiology; Journal of Neuropsychology; Journal of Neuroscience; Nature Communications; Nature Human Behavior; Nature Neuroscience; Neurobiology of Aging; NeuroImage; Neuron; Neuropsychologia; Neuroscience; Neuroscience Letters; Neuroscience & Biobehavioral Reviews; Perspectives on Psychological Science; PLoS ONE; Proceedings of the National Academy of Sciences, USA; Psychological Science; Psychological Bulletin; Psychonomic Bulletin & Review; Quarterly Journal of Experimental Psychology; Social, Cognitive, and Affective Neuroscience; Scandinavian Journal of Psychology; Science; Scientific Reports; Topics in Cognitive Science; Trends in Cognitive Sciences, Trends in Neurosciences

University Service

2017-2018	CLPS Psycholinguistics Faculty Search
2014-present	Brown BIBS Brain Stimulation Facility (Co-Director)
2014-present	Cognitive Science Graduate Program Advisor
2014-present	MRF Executive Committee
2013-present	Randall Sophomore Advisor
2011-2016	NSGP Steering Committee
2014-2015	BIBS/CLPS Cognitive Neuroscience Faculty Search (Chair)
2009-2014	CLPS Colloquium Committee
2008-2014	CLPS Website & Publicity Committee (Chair)
2013, 2014	BIBS/NPNI New Frontiers Review Panel
2012-2014	MRF Scientific Advisory Council
2009-present	NSGP Seminar Series Committee
2010-2011	Human Cognition Faculty Search Committee
2011	UTRA program selection committee
2008-2009	Memory and Attention Faculty Search Committee
2008-2009	Neuroscience Graduate Admissions Committee
2008, 2009, 2011	Psychology Department Honors Awards Committee
2008	Whalen Award Committee
2008	Neuro Postdoctoral Training Grant Award Committee

8. ACADEMIC HONORS

Awards and Honors

2014	Young Investigator Award, Cognitive Neuroscience Society
2012-2018	James S. McDonnell Scholar Award in Understanding Human Cognition
2011-2013	Alfred P. Sloan Research Fellowship in Neuroscience
2013	National Academic of Sciences Korean-American Kavli Frontiers of Science Symposium Invitee
2012	National Academy of Sciences Keck Futures Initiatives Fellow
2008	Elected to the Memory Disorders Research Society
2005-2007	National Research Service Award, National Institute of Neurological Disorders and Stroke, NIH
2004	Walle Nauta Award for Excellence in Graduate Teaching
2003-2005	NIH Institutional Predoctoral Fellowship in Visual Cognition
2002	McDonnell Summer Institute in Cognitive Neuroscience Fellowship
2001	Glenn Foundation/AFAR Scholarship for Research in the Biology of Aging
2000-2003	National Defense Science and Engineering Fellowship
2000	Recipient of National Science Foundation Graduate Fellowship (Awarded; did not accept in lieu of former)
2000	Tanner Memorial Award for Meritorious Undergraduate Research in Psychology
1999	UROP Biomedical Summer Fellowship

Memberships

2008 – present	Memory Disorders Research Society
2009 – present	American Psychological Society
2015 – present	American Physiological Society
2001 – present	Society for Neuroscience
1999 – present	Cognitive Neuroscience Society

9. TEACHING

Courses (Past 3 years taught are listed.)

Note: Course evaluation scores are 1 to 5, with 1 as “Very Effective”.

2017-2018	
CLPS 0400	Cognitive Neuroscience (97 enrolled)
CLPS 1480C	Cognitive Control Functions of the Prefrontal Cortex (21 enrolled)
CLPS 2001	Core Concepts in Cognitive and Psychological Sciences I (8 enrolled; Course effectiveness: 1.33; Instruction: 1.17)
2016-2017	
CLPS 2001	Core Concepts in Cognitive and Psychological Sciences I (18 enrolled; Course effectiveness: 1.4; Instruction: 1.2)
CLPS 1490	Functional Magnetic Resonance Imaging: Theory and Practice (21 enrolled; Course effectiveness: 1.39; Instruction: 1.22)
2015-2016	<i>Sabbatical Leave</i>
2014-2015	

- CLPS 1490 Functional Magnetic Resonance Imaging: Theory and Practice
(27 enrolled; Course effectiveness: 1.52; Instruction: 1.26)
- CLPS 1480F Cognitive Neuroscience of Memory
(14 enrolled; Course effectiveness: 1.46; Instruction: 1.08)
- CLPS 0040 Mind & Brain: Introduction to Cognitive Neuroscience
(96 enrolled; Course effectiveness: 1.61; Instruction: 1.33)

Mentoring

Postdoctoral Fellows

Olga Lositsky, PhD. (2017-)
 Avi Vaidya, PhD. (2016-)
 Apoorva Bhandari, PhD (2013-)
 Livia Freier, PhD. (2015-2017)
 Theresa Desrochers, PhD (2012-2016)
 Carmel Salhi, PhD (2015)
 Kerstin Unger, PhD (2013-2015)
 Justin Cox, PhD (2014-2015)
 Christopher Chatham, PhD (2011-2014)
 Erika Nyhus, PhD (2010-2013)
 Ilke Öztekin, PhD (2008-2010)

Latest Achievements

Assistant Prof., Brown University
 Assistant Prof., Northeastern U.
 Postdoc in Worden Lab
 Data Scientist with Kemper Corp.
 Senior Scientist, Roche, Ltd.
 Assistant Prof., Bowdoin College
 Associate Prof., Koc University, Turkey

Graduate Students

Ceyda Sayali (2013-)
 Emily Levin (2016-)
 Jason Scimeca (2010-2015)
 Jennifer Barredo (2009-2013)

PhD in Cognitive Science (2015)
 Awarded NRSA (2010);
 PhD in Neuroscience (2013)

Research Assistants

Brendan Frick (2016-)
 Adriane Spiro (2016-)
 Brittany Ciullo (2014-2016)
 Chris Gagne (2012-2014)
 Lauren McShane (2010-2012)
 Nicole Long (2008-2010)

Graduate student (UMass)
 Graduate student (UC Berkeley)
 Data Scientist, Deloitte Digital
 Postdoc (U Oregon)

Honors Thesis Advisees

Celia Ford (2014-2017)
 Sarah Master (2014-2017)
 Amanda Ruggieri (2013-2016)
 Kirsten Colwell (2016)
 Jonathan Nicholas (2014-2015)
 Kathryn Graves (2013-2015)
 Perri Katzman (2011-2014)
 Carolyn Ranti (2010-2013)
 Kieran Alessi (2012-2013)
 Jamie Brew (2010-2012)
 Zack Bornstein (2010-2012)
 David Pagliaccio (2008-2010)
 Matthew Scult (2008-2010)
 Monica Rosenberg (2008-2010)
 Sarah Hersman (2010)

Latest Achievements

Graduate Student (UC Berkeley)
 Lab Manager (UC Berkeley)
 Honors in Cognitive Neuroscience
 Honors in Biology
 CLPS Undergraduate Teaching Award
 Honors in Cognitive Neuroscience
 Cognitive Neuro Concentration Award
 Simons Fellow in Computational Neuro.
 Honors in Neuroscience
 Editor at *The Onion*
 Finalist Rhodes/Marshall
 Graduate student (Wash U.)
 Graduate student (Duke)
 Graduate student (Yale)
 Graduate student (UCLA)

Priscilla Mok (2008-09)
Karina Sakanaka (2007-08)
Fenna Krienen (2005-07)

Graduate student (CMU)
R.J. Glushko Prize for best honors thesis
Ph.D. (Harvard, 2014)

UROP Undergraduates

Sarah Laszlo (2002-03)
Ivana Sturdivant (2002-03)

Assistant Prof. Binghamton University
MD (UNC in 2010)

Leadership Alliance Program

Aja Evans (2015)
Ariel Meilich (2011)

Pierce College Internship Program

Nahrin Ebrahimi (Summer 2006)

Minority Access to Research Careers (MARC) Program

Jacinta Tibbs (Summer 2002)

*Sophomore Advisees**

4 sophomore advisees 2008-2013
12 sophomore advisees 2013-2014
18 sophomore advisees 2014-2015
18 sophomore and transfer 1st year advisees 2016-2017
12 sophomore and transfer 1st year advisees 2017-2018
*Randall Sophomore Advisor 2013-present

Current 1st year project, Prelim and Thesis Committees

Jazlyn Nketia, Daniel Scott, Leslie Lai, Ceyda Sayali (Advisor), Emily Levin (Advisor),
Fumeng Yang (Comp Sci), Adam Nitenson (Neuro)

Past Prelim and Thesis Committees

Giulia Righi, Adrian Nestor, Bradley Doll, Elizabeth Chrastil, Adam Darlow, Sophie
Lebrecht, Brendon Kent, Arjun Bansal (Neuro), Hakmook Kang (Biostats), Heida
Sigurdardottir (Neuro), Jeff Cockburn, Denise Werchan, Christine Gamble, Megan
Reilly, Christopher Erb, Jennifer Barredo (Advisor), Jason Scimeca (Advisor), Nicholas
Franklin

External Dissertation Committees

Savannah Cookson (Georgia Tech), Stefon Jan Ross van Noordt (Brock University)

10. UPDATED – 02/20/2018