

1. DAVID BADRE
Assistant 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. in Cognitive Neuroscience
Dissertation: Controlling memory and resolving interference:
Prefrontal contributions to flexible behavior. Advisor: Anthony D.
Wagner

4. PROFESSIONAL APPOINTMENTS

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

2012 Visiting Scholar
Harvard University Cambridge, MA
Department of Psychology

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

Badre, D., Lebrecht, S., Pagliaccio, D., Long, N. M., and Scimeca, J. M. Ventral striatum and the evaluation of memory retrieval strategies. Revise & Resubmit.

Chatham, C. H., Frank, M. J., and Badre, D. Cortico-striatal systems supporting output gating of working memory. Revise & Resubmit.

Amso, D., Haas, S., McShane, L., and Badre, D. Effects of family socioeconomic status on the development of rule-guided behavior. Under Review.

Refereed Journal Articles

Barredo, J., Öztekin, I., and Badre, D. (2013). Ventral fronto-temporal pathway supporting cognitive control of episodic memory retrieval. *Cerebral Cortex*. In Press.

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

Satpute, A. B., Badre, D., and Ochsner, K. N. (2013). Controlled retrieval and selection of social information. *Cerebral Cortex*. In Press.

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

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

Badre, D. 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. In Press.

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.

Refereed Abstracts

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. 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

February 2014	Invited Lecture. Cognitive Neuroscience Talk Series. Center for Cognitive Neuroscience. Duke University
August 2013	National Academies of Science and Kavli Foundation Frontiers of Science Symposium. Beckman Center, Irvine, CA.
June 2013	McDonnell Foundation Scholars meeting. Cambridge, UK.
April 2013	Invited speaker. “How can we apply learning and cognitive control theories to neurorehabilitation?” Contributing to the Science of Neurorehabilitation meeting, Washington University
January 2013	Invited speaker. “Executive function or executive functions? Theoretical insights from the empirical landscape” Symposium at the 2013 European Workshop in Cognitive Neuroscience, Bressanone, Italy.
December 2012	Keynote speaker, 2012 Neuroscience and Cognition Conference (Neurocog), Brussels, Belgium.
June 2012	Invited Lectures. Zhejiang University, Hangzhou, China
April 2012	Invited Lecture. Brain Aging Neuroimaging Group Talk Series. Martinos Center for Biomedical Imaging, MGH, Charlestown, MA.

March 2012	Invited Lecture. Department of Psychology, Koç University, Istanbul, Turkey.
March 2012	Invited Lecture. Department of Psychology, Bogazici University, Istanbul, Turkey
March 2012	Psychological and Brain Sciences Department Colloquium Series, Johns Hopkins University.
Feb. 2012	Cognitive Lunch Talk series, Yale University
June 2011	“Integrating fMRI with computational models of cognition” Advanced fMRI Educational Course, Organization for Human Brain Mapping Annual Meeting, Quebec City, Canada.
May 2010	Cognitive Neuroscience Lecture Series, NINDS, NIH
May 2010	Rotman Rounds, Rotman Research Institute, Toronto, Canada
December 2009	Keynote lecture, Annual meeting of the Charles River Association for Memory.
March 2009	“Prefrontal cortex and learning of abstract action rules” GPP-NIH retreat. Woods Hole, MA
February 2009	“Prefrontal cortex and hierarchical control of behavior” Cognitive Brown Bag Series, Harvard University
February 2009	“Prefrontal cortex and hierarchical control of behavior” Brain and Language Series, University of Pennsylvania
January 2009	“Prefrontal cortex and hierarchical control of behavior” Cognition & Perception seminar series, New York University
January 2009	“Prefrontal cortex and hierarchical control of behavior” Invited lecture. Ecole Normale Superieur, Paris, France
October 2008	“Cognitive control and the functional organization of lateral frontal cortex.” Brown Institute for Brain Sciences Lunch.
December 2007	“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

David Badre, PI
5R01NS065046

Cognitive control and the functional organization of frontal cortex
National Institute of Neurological Disorders and Stroke (NINDS), National Institutes of Health
2/15/2010 – 1/31/2015

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

David Badre, PI (Co-PI Dima Amso, Brown University)
1R01MH099078
Role of experience in development of cognitive control and frontal cortex
National Institute of Mental Health, National Institutes of Health
9/12/2012-6/30/2017
\$2,030,000 (Direct: \$1,250,000)

David Badre, PI
James S. McDonnell Scholar Award in Understanding Human Cognition
James S. McDonnell Foundation
10/1/12-9/30/18
\$600,000

David Badre, PI
Alfred P. Sloan Research Fellowship in Neuroscience
Alfred P. Sloan Foundation
9/15/2011 – 9/15/2013
\$50,000

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

David Badre, Co-I (PI, Fulvio Domini)
Distinguishing models of depth processing with psychophysical and fMRI techniques
Center for Vision Research Pilot Grant
Center for Vision Research, Brown University
\$10,000

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

7. SERVICE

Extramural Service

2011-present Cognitive Neuroscience Society Mini-Symposium Committee (Chair)

Editorial Boards:

2012-present *Psychological Science*
2009-present *Cognitive Neuroscience*

Ad Hoc Referee:

Grants

Cognitive Neuroscience, NSF
Perception, Action, and Cognitive Sciences, NSF
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)

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; Developmental Neuropsychology; Experimental Brain Research; European Journal of Neuroscience; Hippocampus; Human Brain Mapping; JAMA Psychiatry; Journal of Cognitive Neuroscience; 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 Neuroscience; Neurobiology of Aging; NeuroImage; Neuron; Neuropsychologia; Neuroscience; Neuroscience Letters; Neuroscience & Biobehavioral Reviews; 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

Session Chairperson/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)

University Service

2013-present Randall Advisor
2012-present MRF Scientific Advisory Council
2008-present CLPS Website & Publicity Committee (Chair)
2009-present CLPS Colloquium Committee
2011-present NSGP Steering Committee
2013 BIBS/NPNI New Frontiers Review Panel

2009-2012	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

2012-2018	James S. McDonnell Scholar Award in Understanding Human Cognition
2011-2013	Alfred P. Sloan Research Fellowship in Neuroscience
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, but 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
2001 – present	Society for Neuroscience
1999 – present	Cognitive Neuroscience Society

9. TEACHING

Courses

Spring 2011	CLPS 1490	Functional Magnetic Resonance Imaging: Theory and Practice (20 enrolled)
Fall 2010	CLPS 0040	Mind & Brain: Introduction to Cognitive Neuroscience (91 enrolled)
Spring 2010	COGS 0720	Mind & Brain: Introduction to Cognitive Neuroscience (76 enrolled)
Spring 2010	COGS 1861A	Cognitive control functions of the prefrontal cortex (17 enrolled)
Fall 2009	PSYC 1870	Functional Magnetic Resonance Imaging: Theory and Practice (20 enrolled)
Spring 2009	COGS 0720	Mind & Brain: Introduction to Cognitive Neuroscience (28 enrolled)
Fall 2008	PSYC 1870	Functional Magnetic Resonance Imaging: Theory and Practice (20 enrolled)

Mentoring

Postdoctoral Fellows

Apoorva Bhandari, PhD (2013-)
Kerstin Unger, PhD (2013-)
Christopher Chatham, PhD (2011-)
Theresa Desrochers, PhD (2012-)
Erika Nyhus, PhD (2010-2013)
Ilke Öztekin, PhD (2008-2010)

Graduate Students

Ceyda Sayali (2013-)
Patti Shih (2011-)
Jason Scimeca (2010-)
Jennifer Barredo (2009-2013)

Research Assistants

Chris Gagne (2012-)
Lauren McShane (2010-2012)
Nicole Long (2008-2010)

Honors Thesis Advisees

Perri Katzman (2011-)
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)
Priscilla Mok (2008-09)
Karina Sakanaka (2007-08)
Fenna Krienen (2005-07)

UROP Undergraduates

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

Leadership Alliance Program

Ariel Meilich (2011)

Pierce College Internship Program

Nahrin Ebrahimi (Summer 2006)

Minority Access to Research Careers (MARC) Program

Jacinta Tibbs (Summer 2002)

Latest Achievements

Awarded NRSA (Fall 2012)
Assistant Prof., Bowdoin College
Assistant Prof., University of Koc

Presidential Graduate Teaching Award
Awarded NRSA (Fall 2010)

Graduate student (U Penn)

Latest Achievements

Awarded summer UTRA
Awarded summer UTRA

Writer at The Onion

Finalist Rhodes/Marshall
Graduate student (Wash U.)
Research Assistant, MGH
Finalist Rhodes/Marshall
Graduate student (UCLA)
Graduate student (CMU)
Glushko Prize for best honors thesis
Glushko Prize for best honors thesis;
Graduate student (Harvard)

Assistant Prof. Binghamton University

First Year Advisees

Estelle Berger

*Sophomore Advisees**

Jamie Brew, Rohan Ramesh, Rachel Bloom, Vannida Lorn, Amanda Ruggieri, Alexa Cohen, Pu-Ning Chiang, Pu-Ning Chiang, Jenna Chuck, Alexa Cohen, Juan Nicole Enriquez, Melissa Fineman, Vannida Lorn, Jacqueline Phillips, Amanda Ruggieri, Corinne Sejourne, Yun Seo, Dillon Travers, *Randall Advisor 2013-present

Past First Year Project Committees

Christopher Erb, Fang-Chi Yang

Current Prelim and Thesis Committees

Jeff Cockburn, Megan Reilly, Brendon Kent, Jessica Feldman (Neuro), Kaivon Paroo (Neuro)

Past Prelim and Thesis Committees

Giulia Righi, Adrian Nestor, Bradley Doll, Elizabeth Chrastil, Adam Darlow, Sophie Lebrecht, Arjun Bansal (Neuro), Hakmook Kang (Biostats), Heida Sigurdardottir (Neuro)

10. UPDATED – 9/20/2013