

Education

- 1996 – 2001 Ph.D. in Neuroscience, Stanford University
1992 – 1996 B.S. Intensive in Biology (Psychobiology), Yale College
1990 – 1992 Diploma of Collegiate Studies: Health Sciences & Pure and Applied Sciences, Collège Jean-de-Brébeuf, Montreal

Positions and Employment

- Aug 2011 – Head Graduate Advisor, Dept. of Psychology
Aug 2011-2013 Vice Chair (one of two), Dept. of Psychology
July 2009 – Associate Professor, Psychology & Helen Wills Neuroscience Institute
Jan, 2007-2009 Assistant Professor, Dept. of Psychology & Helen Wills Neuroscience Institute, University of California at Berkeley
2003-Dec, 2006 Assistant Professor, Dept. of Psychology & Center for Mind and Brain University of California at Davis
2001 – 2003 Postdoctoral Associate, Department of Brain and Cognitive Sciences Massachusetts Institute of Technology

Awards and Honors

- 2013 Elected to International Mind, Brain, and Education Society Board of Directors
2012 Presidential Chair Fellow, Center for Teaching and Learning, UC Berkeley
2011 James S. McDonnell Foundation 21st Century Science Initiative, Scholar Award in Understanding Human Cognition (*15 recipients internationally*)
2011 – Elected to National Scientific Council on the Developing Child
2010 – Elected to Frontiers of Innovation (dedicated to reducing early barriers to learning). Member of 1st Innovation By Design team: Building Caregiver Capacities, developing an intervention in Washington State.
Finalist, Aspen Brain Forum Award in NeuroEducation for Senior Investigator
2007 – 2010 MacArthur Law and Neuroscience Consortium (Elected)
2007 Young Investigator Award, Cognitive Neuroscience Society
2006 – Memory Disorders Research Society (Elected)
2004 - 2009 John Merck Scholarship in the Biology of Developmental Disabilities
2001 Finalist for MIT Science Fellowship
1996 Distinction in Biology, Graduation with honors, Yale College

- 1999 McDonnell Summer Institute in Cognitive Neuroscience Fellowship
- 1996 – 2001 Baxter Foundation Graduate Fellowship, Stanford Medical School
- 1996 Distinction in Biology; Graduation with honors from Yale College

Publications

Edited books

Bunge, S.A. & O'Hare E.D. (Eds.) The Developing Human Brain. A Frontiers Research Topic. 2012.

Bunge, S.A. & Wallis, J. (Eds.) The Neuroscience of Rule-Guided Behavior, Oxford University Press, 2007.

Peer-reviewed journal articles

h-index = 31; *cited 600-1200 times; **cited 200-400 times; *cited 50-200 times**

Ferrer, E. *, Whitaker, K.J. *, Steele, J., Green, C.T., & **Bunge, S.A.** (2013) White matter maturation supports the development of reasoning ability through its influence on processing speed. * = joint first authors. *Developmental Science*. 16(6):941-51

Paz-Alonso, P.M. *, **Bunge S.A.** *, Anderson, M.C., & Ghetti, S. (2013) Strength of coupling within a mnemonic control network differentiates those who can and cannot suppress memory retrieval. *Journal of Neuroscience* 33(11): 5017-5026. * = **joint first authors**

Mackey, A.P., Miller Singley, A.T., & **Bunge, S.A.** (2013) Intensive reasoning training alters patterns of brain connectivity at rest. *Journal of Neuroscience* 33(11): 4796-4803.

Mackey, A.P., Whitaker, K.J., & **Bunge, S.A.** (2012) Experience-dependent plasticity in white matter microstructure: Reasoning training alters structural connectivity. *Frontiers in Neuroanatomy*, Special Issue on "Mapping Connectivity of the Human Cerebral Cortex ", hosted by Michael Petrides and Daniel S. Margulies.

Wendelken, C. *, Munakata, Y. *, Baym, C., Souza, M., & **Bunge, S.A.** (2012) Flexible Rule Use: Common Neural Substrates in Children and Adults. *Developmental Cognitive Neuroscience* 2(3):329-39 * = joint first authors.

Wendelken, C., O'Hare, E.D., Whitaker, K.J., Ferrer, E., & **Bunge, S.A.** (2011) Increased Functional Selectivity over Development in Rostrolateral Prefrontal Cortex. *Journal of Neuroscience*. 31(47):17260-8.

Wendelken, C., Chung, D., & **Bunge, S.A.** (2011) Rostrolateral Prefrontal Cortex: Domain-General or Domain-Sensitive? *Human Brain Mapping*. doi: 10.1002/hbm.21336. [Epub ahead of print]

- Wendelken, C., Baym, C. L., Rubens, M., Gazzaley, A., & **Bunge**, S.A. (2011) Neural indices of improved attentional modulation over middle childhood. *Developmental Cognitive Neuroscience*. Apr 1;1(2):175-186.
- Mackey, A.P., Hill, S.S., Stone, S.I., & **Bunge**, S.A. (2011) Dissociable effects of reasoning and speed training in children. *Developmental Science*, May;14(3):582-90
- Liao IH, Corbett BA, Gilbert DL, **Bunge** SA, Sharp FR. (2010) Blood gene expression correlated with tic severity in medicated and unmedicated patients with Tourette Syndrome. *Pharmacogenomics*. 11(12):1733-41.
- Ghetti S, DeMaster DM, Yonelinas AP, **Bunge** SA. (2010) Developmental differences in medial temporal lobe function during memory encoding. *Journal of Neuroscience* 30(28):9548-56.
- Blais C, Harris MB, Guerrero JV, **Bunge** SA. (2010) Rethinking the role of automaticity in cognitive control. *Quarterly Journal of Experimental Psychology* 29:1-9.
- Baldo JV, **Bunge** SA, Wilson SM, Dronkers NF. (2010) Is relational reasoning dependent on language? A voxel-based lesion symptom mapping study. *Brain Lang*. May;113(2):59-64. Epub 2010 Mar 5.
- Blais, C., Risko, I., & **Bunge**, S.A. (2009) Item-specific cognitive control. *Journal of Cognitive Neuroscience* Nov 19. Epub ahead of print.
- Paz-Alonso, P.M., Ghetti, S., Matlen, B.J., Anderson, M.C., & **Bunge**, S.A. (2009) Memory Suppression is an Active Process that Improves over Middle Childhood. *Frontiers in Human Neuroscience* 3:24.
- Wendelken, C., Ditterich, J., **Bunge**, S.A., & Carter, C.S. (2009) Stimulus and Response Conflict Processing During Perceptual Decision-Making. *Cognitive, Affective, and Behavioral Neuroscience*. Dec;9(4):434-47.
- Bhanji, J.P., Beer, J.S., & **Bunge**, S.A. (2009) Taking a Gamble or Playing by the Rules: Dissociable Prefrontal Systems for Probabilistic versus Deterministic Rule-based Decision Making. *NeuroImage* 49(2):1810-9.
- Wendelken, C. & **Bunge**, S.A. (2009) Transitive Inference: Distinct Contributions of Rostrolateral Prefrontal Cortex and the Hippocampus. *Journal of Cognitive Neuroscience*, Mar 25.
- * **Bunge**, S.A. & Wright, S.B. (2007) Neurodevelopmental changes in working memory and cognitive control. *Current Opinion in Neurobiology*, 17(2), 243-50.
- * Crone, E.A., Donohue, S., Honomichl, R., Wendelken, C., & **Bunge**, S.A. (2006) Brain regions mediating flexible rule use during development. *Journal of Neuroscience*, 26(43): 11239-47.

* Crone, E.A., Donohue, S.E., van Leijenhorst, L., Wendelken, C. & **Bunge**, S.A. (2006) Neurocognitive development of the ability to manipulate information in working memory. *Proceedings of the National Academy of Sciences*, 103(24):9315-20.

* **Bunge**, S.A. & Zelazo, P.D. (2006) A Brain-Based Account of the Development of Rule Use in Childhood. *Current Directions in Psychological Science*, 15(3): 118-21.

Crone, E.A., **Bunge**, S.A., van der Molen, M.W., & Ridderinkhof, K.R. (2006) Switching between tasks and responses: A developmental study. *Developmental Science*, 9(3): 278-87.

* van Leijenhorst, L., Crone, E.A. & **Bunge**, S.A. (2006) Neural correlates of developmental differences in risk estimation and feedback processing. *Neuropsychologia*, 44(11):2158-70.

* **Bunge**, S.A., Wallis, J.D., Parker, A., Brass, M., Crone, E.A., Hoshi, E., & Sakai, K. (2005) Neural circuitry underlying rule use in humans and non-human primates. *Journal of Neuroscience*, 25(45):10347-50.

Bunge, S.A., Hauk-Helskog, E., & Wendelken, C. (2009) Left, but not right, rostrolateral prefrontal cortex meets a stringent test of the relational integration hypothesis. *NeuroImage*, 46(1), 338-342.

Souza, M.J., Donohue, S.E., & **Bunge**, S.A. (2009) Controlled retrieval and selection of action-relevant knowledge mediated by partially overlapping regions in left ventrolateral prefrontal cortex. *NeuroImage*, 46(1), 299-307.

* Crone, E.A., Wendelken, C., van Leijenhorst, L., Honomichi, R.D., Christoff, K., **Bunge**, S.A. (2009) Neurocognitive Development of Relational Reasoning. *Developmental Science*, 12(1):55-66.

Corbett, B.A., Mendoza, S.P., Baym, C.L., **Bunge**, S.A., & Levine, S. (2009) Examining cortisol rhythmicity and responsivity to stress in children with Tourette Syndrome. *Psychoneuroendocrinology*, 33(6):810-20.

Wright, S.B., Matlen, B.J., Baym, C.L., Ferrer, E., & **Bunge**, S.A. (2008) Neural correlates of fluid reasoning in children and adults. *Frontiers in Human Neuroscience*.

Paz-Alonso, P.M., Ghetti, S., Donohue, S.E., Goodman, G.S., & **Bunge**, S.A. (2008) Neurodevelopmental correlates of true and false recognition. *Cerebral Cortex*, 18(9):2209-16.

Wendelken, C., **Bunge**, S.A., & Carter, C.S. Parietal and prefrontal roles in maintaining structured information. *Neuropsychologia*, 2007; Oct 6; [Epub ahead of print]

* Baym, C.L., Corbett, B.A., Wright, S.B. & **Bunge**, S.A. (2008) Neural correlates of tic severity and cognitive control in children with Tourette Syndrome. *Brain*, 131:165-79.

* Mauss, I.B., **Bunge**, S.A. & Gross, J.J. Automatic Emotion Regulation: Neuroscientific Considerations. *Social and Personality Psychology Compass*, 2007.

* Wendelken, C., Nakhachenko D., Donohue, S.E., Carter, C.S. & **Bunge**, S.A. (2008) 'Brain is to Thought as Stomach is to...?' – Investigating the role of rostral lateral prefrontal cortex in relational reasoning. *Journal of Cognitive Neuroscience*, 20:682-93.

Donohue, S.E., Wendelken, C. & **Bunge**, S.A. (2008) Neural correlates of preparation for action selection as a function of specific task demands. *Journal of Cognitive Neuroscience*, 26:11239-47.

* Crone, E.A., Wendelken, C., Donohue, S.E., & **Bunge**, S.A. (2005) Neural evidence for dissociable components of task-switching. *Cerebral Cortex*, 16(4):475-86.

* Gillath, O., **Bunge**, S.A., Shaver, P.R., Wendelken, C., & Mikulincer, M. (2005) Attachment-style differences in the ability to suppress negative thoughts: Exploring the neural correlates. *NeuroImage*, 28(4):835-47.

* Crone, E.A., **Bunge**, S.A., Latenstein, H. & van der Molen, M.W. (2005) Characterization of children's decision making: Sensitivity to punishment frequency, not task complexity. *Child Neuropsychology* 11(3):245-63.

Donohue, S.E., Wendelken, C., Crone, E.A., & **Bunge**, S.A. (2005) Retrieving rules for behavior from long-term memory. *NeuroImage* 26:1140-49.

* Narayanan, N., Prabhakaran, V., **Bunge**, S.A., Christoff K., Fine E.M., & Gabrieli, J.D. (2005) The role of prefrontal cortex in the maintenance of verbal working memory: An event-related fMRI analysis. *Neuropsychology* 19:223-32.

Crone, E.A., **Bunge**, S.A., de Klerk, P., van der Molen, M.W. (2005) Cardiac concomitants of performance monitoring: Context dependence and individual differences. *Brain Research Cognitive Brain Research* 23(1): 93-106.

* Vaidya, C. J., **Bunge**, S. A., Dudukovic, N. M., Zalecki, C. A., Elliott, G. R., & Gabrieli, J. D. (2005) Altered neural substrates of cognitive control in childhood ADHD: Evidence from functional magnetic resonance imaging. *American Journal of Psychiatry*, 162(9):1605-13.

* **Bunge** SA, Wendelken C, Badre D, Wagner AD. (2005) Analogical reasoning and prefrontal cortex: evidence for separable retrieval and integration mechanisms. *Cereb Cortex*. 2005 Mar;15(3):239-49. Epub 2004 Jul 6.

** **Bunge**, S. A. (2004) How we use rules to select actions: A review of evidence from cognitive neuroscience. *Cognitive, Affective, and Behavioral Neuroscience* 4(4): 564-79.

* **Bunge**, S.A., Burrows, B., & Wagner, A.D. (2004) Prefrontal and hippocampal contributions to visual associative recognition: Interactions between cognitive control and episodic retrieval. *Brain and Cognition* 56:141-52.

** **Bunge**, S.A., Kahn, I., Wallis, J.D., Miller, E.K., & Wagner, A.D. (2003) Neural circuits subserving the retrieval and maintenance of abstract rules. *Journal of Neurophysiology*, 90(5):3419-28

* Hazeltine, E., **Bunge**, S.A. & Gabrieli, J.D. (2003) Material-dependent and material-independent selection processes in the frontal and parietal lobes: An event-related fMRI investigation of response competition. *Neuropsychologia* 41:1208-17.

** **Bunge**, S.A., Hazeltine, E., Scanlon, M., Rosen, A. & Gabrieli, J.D. (2002) Dissociable contributions of prefrontal and parietal cortices to response selection. *NeuroImage* 17:1562-1571.

*** Ochsner, K.N., **Bunge**, S.A., Gross, J.J. & Gabrieli, J.D. (2002) Rethinking feelings: An fMRI study of the cognitive regulation of emotion. *Journal of Cognitive Neuroscience* 14(8):1215-29.

[Manuscript reproduced in “*Key Readings in Social Psychology: Social Neuroscience*”, edited by Cacioppo and Berntson; Psychology Press, 2005]

*** **Bunge**, S.A., Dudukovic, N.M., Thomason, M.E., Vaidya, C.J. & Gabrieli, J.D. (2002) Immature frontal lobe contributions to cognitive control in children: Evidence from fMRI. *Neuron*, 33:301-311.

** **Bunge**, S.A., Ochsner, K.N., Desmond, J.E., Glover, G.H. & Gabrieli, J.D. (2001) Prefrontal regions involved in keeping information in and out of mind. *Brain*, 124:2074-86.

* **Bunge**, S.A., Klingberg, T., Jacobsen, R.B. & Gabrieli, J.D. (2000) A Resource Model of the Neural Basis of Executive Working Memory. *Proceedings of the National Academy of Sciences*, 97:3573-78.

Bunge, S.A., Mauelshagen, J. & Carew, T.J. Reversal of relative thresholds for synaptic facilitation and increased excitability induced by serotonin and tail nerve stimulation in *Aplysia* sensory neurons. *Neurobiology of Learning and Memory*, 67:259-263, 1997.

Peer-reviewed articles under review or in revision

Miller Singley, A. & **Bunge**, S.A. (revise-and-resubmit). Neurodevelopment of Relational Reasoning: Implications for Mathematical Pedagogy.

Johnson, E.L., Miller Singley, A., Peckham, A., Johnson, S., & **Bunge**, S.A. (revise-and-resubmit). Task-evoked pupillometry provides a window into the development of short-term memory capacity.

Wendelken, C., Lee, J., Pospisil, J., Sastre III, M., **Bunge**, S.A., & Ghetti, S. (revise-and-resubmit). Increasing white matter coherence between hippocampus and prefrontal cortex supports improving mnemonic control in children.

Wendelken, C., Ferrer, E., & **Bunge**, S.A. (in revision). Brain network reconfiguration supports the refinement of reasoning skills over development.

Barrow, M., Jaques, R., Ponischil, K., Lengua, L., & **Bunge**, S.A. (in revision). Who's ready to learn? Predictors of improved cognitive flexibility after a 10-week preschool intervention

Whitaker, K.J., Green, C.T., Ferrer, E.* & **Bunge**, S.A.* (in revision) Longitudinal changes in white matter microstructure predict developmental gains in reasoning ability. * = corresponding authors.

Chen, S.H., Main, A., Zhou, Q., **Bunge**, S.A., Lau, N., & Chu, K. (revise-and-resubmit) Self-Regulation and Academic Achievement in Chinese American Children in Immigrant Families.

Luerssen, A., Gyurak, A., **Bunge**, S.A., & Ayduk, O. (in revision) Delay of Gratification and Attention to Emotionality.

Chen, S.H., Liu, H., Zhou, Q., & **Bunge**, S.A. (in revision) Exceptions to the Rule? Poverty, Self-Regulation, and Academic Achievement in Chinese American Immigrant Children.

Reviews, chapters, commentaries, and encyclopedia entries

Niebaum, J.C. & **Bunge**, S.A. (under review). Your Brain is Like a Muscle: Use it and Make it Strong. Prepared for *Frontiers for Young Minds*.

Guerra-Carrillo, B., Mackey, A.P., & **Bunge**, S.A. (in press) Resting-state fMRI: A window into human brain plasticity. *The Neuroscientist*.

Johnson, E.L., Munro, S.E., & **Bunge**, S.A. (2013). Development of neural networks supporting goal-directed behavior. In: Minnesota Symposia on Child Psychology: Developing Cognitive Control Processes: Mechanisms, Implications, and Interventions, Volume 37. Edited by Phil Zelazo and Maria Sera. Wiley Publishers.

Paz-Alonso, P., **Bunge**, S.A., & Ghetti, S. (2013) Emergence of higher cognitive functions: Reorganization of large-scale brain networks during childhood and adolescence. In: Oxford Handbook on Higher Cognitive Functions. Edited by Steven Kosslyn and Kevin Ochsner. Oxford University Press. *Appeared online only due to editorial error*.

Bunge, S.A. (2013) Ain't No Mountain High Enough: A Review of "How Children Succeed: Grit, Curiosity, and the Hidden Power of Character" by Paul Tough. *Cerebrum*, The Dana Foundation. <http://www.dana.org/news/cerebrum/detail.aspx?id=40904>

Bunge, S.A. & Whitaker, K.J. (2012) Brain Imaging: Your MRI scan doesn't lie about your age. *Current Biology* 22(18):R800-1.

Ghetti, S. & **Bunge**, S.A. (2012) Neural changes underlying the development of episodic memory during middle childhood. *Developmental Cognitive Neuroscience*. 2, 381-395.

Blakemore, S.J. & **Bunge**, S.A. (2012). At the nexus of neuroscience and education. Supplement on Neuroscience and Education, *Developmental Cognitive Neuroscience*.

Mackey, A., Raizada, R., & **Bunge**, S.A. (2012). Environmental influences on prefrontal development. In: Principles of Frontal Lobe Functions, 2nd Edition. Edited by Donald Stuss & Robert Knight. Oxford University Press, 2012.

Bunge, S.A. & Toga, A. (2012). Introduction to Frontal Lobe Development. In: Principles of Frontal Lobe Functions, edited by Donald Stuss & Robert Knight. Oxford University Press, 2012.

Bunge, S.A. & Preuss, T.M. (2010) Evolutionary and developmental issues in cognitive neuroscience. Encyclopedia of Behavioral Neuroscience, edited by George Koob, Richard F Thompson & Michel Le Moal.

Bunge, S.A. (2009) Conference Report: UC Berkeley Conference on Neurocognitive Development. *Frontiers in Neuroscience*. http://frontiersin.org/UC_Berkeley

Ferrer, E., O'Hare, E.D., & **Bunge, S.A. (2009)** Fluid reasoning and the developing brain. Focused review for *Frontiers in Neuroscience*, 3(1), 1-6.

Bunge, S.A. & Wendelken, C. (2009) Comparing the Bird in the Hand with the Ones in the Bush. *Neuron* 62, June 11.

Bunge, S.A., Mackey, A., & Whitaker, K. (2009) Neurodevelopmental changes in cognitive control and fluid reasoning over childhood. The Cognitive Neurosciences III, edited by Michael Gazzaniga.

Bunge, S.A. (2008) Changing Minds, Changing Brains. *Human Development*, 51(3), Editor's Corner, 51:162–164.

Bunge, S.A. & Crone, E.A. Neural correlates of the development of cognitive control. In: Neuroimaging in Developmental Clinical Neuroscience. J. Rumsey, & M. Ernst, eds. Cambridge University Press, in press.

Mauss, I.B., **Bunge, S.A.**, & Gross, J.J. Culture and Automatic Emotion Regulation. In: Regulating emotions: Social necessity and biological inheritance. S. Ismer, S. Jung, S. Kronast, C. van Scheve, & M. Vanderkerckhove, eds. London: Blackwell Publishing, in press.

Bunge, S.A. & Souza, M.J. Neural representations used to specify actions. In S. Bunge & J. Wallis (Eds.), *The Neuroscience of Rule-Guided Behavior*. Oxford University Press, 2007.

Bunge, S. A. & Kahn, I. "Cognition, neuroimaging", In: The Encyclopedia of Neuroscience, 4th edition. Adelman & Smith, eds. Elsevier, in press.

Bunge, S. A. & Souza, M.J. "Executive functions: Neuroimaging of", In: The Encyclopedia of Neuroscience, 4th edition. Adelman & Smith, eds. Elsevier, in press.

Bunge, S. A. Foreward to Special Issue: Multiple Perspectives on Decision Making. *Cognitive Brain Research* 23(1): 1, 2005.

Wagner, A.D., **Bunge, S.A.** & Badre, D. (2004) Cognitive control, semantic memory, and priming: Contributions from prefrontal cortex. In: The Cognitive Neurosciences, 3rd ed.

Bunge, S.A. & Kahn, I. Cognition, neuroimaging. In: The Encyclopedia of Neuroscience, 3rd edition, 2004. Adelman & Smith, eds. Elsevier.

Gabrieli, J.D.E. & **Bunge**, S.A. Mechanisms of memory and amnesic syndromes. In: Diseases of the Nervous System: Clinical Neuroscience and Therapeutic Principles, 3rd Edition, ed. Asbury, McDonald, McArthur, McKhann & Goadsby. Cambridge University Press, 2003.

* Prull, M.W., Gabrieli, J.D.E. & **Bunge**, S.A. Age-related Changes in Memory: A Cognitive Neuroscience Perspective. In: The Handbook of Aging and Cognition II, eds. Craik and Salthouse. Mahwah, NJ: Lawrence Erlbaum Associates 2000.

Technical reports

Jenkins, W., De Ley, L., **Bunge**, S., Mann, V., & Siegler, R. (2012) What Young Children Need to Learn About Numbers: Differences in learning style and response to error correction in pre-kindergarten and kindergarten students using an adaptive iPad based learning game.

Jenkins, W., De Ley, L., **Bunge**, S. (2012) Scientific Bases for the Eddy's Doggy Diner Game. White paper for Scientific Learning Corporation.

Jenkins, W., De Ley, L., Siegler, R., **Bunge**, S., Mann, V. (2011) Scientific Bases for the Eddy's Number Party Game. White paper for Scientific Learning Corporation.

Manuscripts in preparation

Wendelken, C., & **Bunge**, S.A. (in prep) The contribution of posterior parietal cortex to relational reasoning. Planned submission to special issue of *Frontiers in Human Neuroscience* – The Reasoning Brain: The Interplay between Cognitive Neuroscience and Theories of Reasoning.

Johnson, E.L.* , Vendetti, M.* , Lemos, C.J., & **Bunge**, S.A. (in revision). Thinking left versus thinking right: Is there a left hemisphere advantage for relational reasoning? *shared first authorship

Paz-Alonso, P.M., Wu, E., C3mbita-Merch3n, L.M., Blais, C., Rueda, R.R., & **Bunge**, S.A. (in prep). Neural basis of the ability to monitor the temporal context of memories.

Whitaker, K.J., Vendetti, M.S., Wendelken, C., & **Bunge**, S.A. (in prep) A developmental fMRI study of analogical reasoning provides constraints on theories of cognitive development. Planned submission to special issue of *Frontiers in Human Neuroscience* – The Reasoning Brain: The Interplay between Cognitive Neuroscience and Theories of Reasoning.

Grants

Active Grants

Relational reasoning: Neural mechanisms, development, & plasticity

Principal Investigator: *Silvia Bunge, Ph.D.*

Source of Support: James S. McDonnell Foundation Scholar Award

Total Award Amount: \$600,000. Total Award Period Covered: 08/01/11 -08/01/17
Location of Project: University of California, Berkeley
Description: This Scholar Award supports several new lines of inquiry in the area of relational reasoning.

Neural Development of the Fronto-Temporal Episodic-Memory Network in Childhood

Principal Investigators: *Simona Ghetti, Ph.D. and Silvia Bunge, Ph.D.*

Source of Support: Submission to National Institute of Mental Health in July 2010

Total Award Amount: \$2,842,260. UC Berkeley subaward: \$711,765

Total Award Period Covered: 06/07/2011-06/06/2016

Location of Project: UC Davis; sub-award to UC Berkeley

Description: This project aims to examine changes in hippocampal structure, function, and connections that underlie episodic memory development.

Pending Grants

Pediatric Acquired Brain Injury: Cognitive Deficits and Compensatory Mechanisms

Principal Investigators: *Silvia Bunge, Ph.D., Kenneth Martin, M.D., Robert Knight, M.D.*

R01 submitted to NINDS in Feb 2013 (Scored at 39th percentile; will resubmit in 2014)

Grant proposals slated for revision

Neural predictors of reasoning ability across childhood and adolescence

Principal Investigators: *Carter Wendelken, Ph.D., & Silvia Bunge, Ph.D.*

Previously submitted to NICHD

Effects of Fluid Reasoning Training on Neurocognitive Function and Academic Achievement

Principal Investigator: *Silvia Bunge, Ph.D.*

Previously submitted to NSF

Longitudinal interrelations between fluid reasoning and school achievement: Mediators of trajectories of reading and mathematics

Principal Investigators: *Emilio Ferrer, Ph.D.; Co-PI: Silvia Bunge, Ph.D.*

Previously submitted to IES

Completed Grants

Neural Changes Underlying the Development of Fluid Reasoning

Principal Investigators: Silvia Bunge and Emilio Ferrer

Source of Support: National Institute of Neurological Disorders and Stroke NS057146-01

Total Award Amount: \$1,093,750, Total Award Period Covered: 07/01/07-12/31/12

Location of Project: University of California, Berkeley

Description: This grant focuses on longitudinal changes in brain structure and function that lead to developmental improvements in fluid reasoning

Executive Function and Frontal Cortex

Principal Investigator: *Mark D'Esposito*; Role: Co-Investigator

Source of Support: P01 National Institute of Neurological Disorders and Stroke NS040813

Total Award Amount: \$7,559,148, Total Award Period Covered: 12/01/07-11/30/12

Location of Project: University of California, Berkeley

Description: This program project covers research on the organization and functions of lateral prefrontal cortex.

Neural Mechanisms of Cognitive Control and Reward-based Learning in Children with Tourette Syndrome

Principal Investigator: *Silvia Bunge, Ph.D.*

Source of Support: Tourette Syndrome Association

Total Award Amount: \$75,000 Total Award Period Covered: 6/18/10-7/18/11

Location of Project: University of California, Berkeley

Description: This grant focused on the neural basis of Tourette syndrome.

Effects of Early Damage to Prefrontal Cortex

Principal Investigators: *Jacob Neufeld, M.D. and Silvia Bunge, Ph.D.*

Total Award Amount: \$50,000

Source of Support: Children's Hospital Oakland Research Institute

Location of Project: Children's Hospital Oakland & University of California, Berkeley

Description: This award provided seed funds for a new project tracking the cognitive outcomes of children with early focal brain injury

Effects of early damage to prefrontal cortex: Implications for criminal responsibility

Principal Investigators: *Silvia Bunge (P.I.) & Robert Knight (co-P.I.)*

MacArthur Law and Neuroscience Project

Total Award Amount: \$80,500

Brain maturation subserving cognitive control development

Principal Investigator: Silvia Bunge

National Science Foundation (0448844) 04/01/2005 – 04/01/2008

Total Award Amount: \$450,000

Neural Underpinnings of Deficient Cognitive Control in Developmental Disorders Affecting Frontostriatal Circuitry

Principal Investigator: Silvia Bunge 06/04 – 06/09

John Merck Scholarship in Developmental Disabilities

Total Award Amount: \$300,000

Neural substrates of the development of recognition memory

Principal Investigator: Simona Ghetti, UC Davis 2007 – 2009

R03 funded by NICHD (R03HD054636-01).

Role: Co-PI

Co-Investigator or Consultant

Analogical Reasoning in High Functioning Autism Spectrum Disorders

Principal Investigators: *Adam Green, Ph.D. and Chandan Vaidya, Ph.D.*

R03 slated for resubmission in Spring 2013

Mesure de l'impact d'un programme d'intervention sur la réorganisation cérébrale post-TCC pédiatrique à l'aide de la connectivité fonctionnelle

Principal Investigator: Miriam Beauchamp, Ph.D.

Quebec Bioimaging Network submission slated for submission in Spring 2013

A Network Approach to Study Brain Plasticity in Children with Cognitive Training

Applicant: Olga Tymofiyeva

K99 Application to NICHD submitted in February 2013

Role: Collaborator

Translation of Cognitive Neuroscience to Rehabilitation for Patients with Traumatic Brain Injury

Principal Investigators: *Anthony Chen, M.D. and Mark D'Esposito, M.D.*

Department of Defense FY07 Intramural TBI Investigator-Initiated Research Award. Award Number W81XWH-08-2-0088. 08/01/2008 – 30/08/2012.

Longitudinal effects of treatment on brain function in Tourette Syndrome

Principal Investigator: Bradley Schlaggar

R21 funded by NIMH (R21MH091512)

The impact of reappraisal ability in the adjustment to stressful life events in a community sample

Principal Investigator: Iris Mauss

R21 funded by NIA 04/2008 – 04/2010

Invited Talks (Last Five Years)

- 2014
- Instructor in 1st Summer School, Swiss Graduate School for Cognition, Learning, and Memory. This year's theme: Neuroanatomy and Neurophysiology of Cognition, Learning, and Memory (June)
 - UC Berkeley Campus Shared Services Brown Bag (April)
 - 4th Latin American School for Education, Cognition, and Neural Sciences, Uruguay (March)
 - Public lecture, Universidad de la República, Montevideo Uruguay (March)
 - UC Office of the President Family Group (March)
 - Learning and the Brain Conference, San Francisco (February)
 - U.S. Department of Health and Human Services meeting (February)
 - Lecture for Psychology Graduate Student Instructors, UCB
 - University of Texas at Austin, Imaging Research Center
 - University of California Emeritus Association Luncheon
- 2013
- Flux Congress: The International Congress for Integrative Developmental Cognitive Neuroscience, Pittsburgh, PA
 - Max Planck Institute in Human Development
 - ZiF Center for Interdisciplinary Research workshop, Bielefeld, Germany: "Task-driven control of thought and action by working memory"
 - Expert Consensus on Brain Health, sponsored by the Stanford Center on Longevity & Max Planck Institute for Human Development
 - Symposium presentation, Society for Research on Child Development
 - U Illinois at Urbana-Champaign, Psychology & Beckman Institute

Temple Institute for Learning and Education Sciences & Neuroscience
 Program, Temple University
 3rd Latin American School for Education, Cognitive, & Neural Sciences
 Learning and the Brain Conference, San Francisco
 Distinguished Speaker, Children's Learning Institute, University of Texas
 Health Science Center, Houston
 2012 Stanford University School of Education Colloquium
 NIMH Early Experience, Stress & Neurobehavioral Development Center
 Distinguished Scientist Lecture, U Pittsburgh Dept of Psychiatry (Sept)
 Princeton University Department of Psychology (Sept)
 Workshop on "Micro- and Macro-perspectives of Cognitive Control",
 Humboldt University, Berlin
 Leadership Summit, Association of California School Administrators
 Region 6: Cultivating Educational Leaders for Today and Tomorrow
 University of Oregon, Department of Psychology Colloquium
 Children's Home Society and ChildHaven, Seattle
 2nd Latin American School for Education, Cognition, and Neural Sciences
 Sociedad Científica de Argentina, Buenos Aires
 2011 Building Caregiver Capacities meeting with healthcare providers and
 policymakers from the State of Washington, Seattle
 37th Minnesota Symposium on Child Psychology: Developing Cognitive
 Control Processes: Mechanisms, Implications, and Interventions
 Aspen Brain Forum/New York Academy of Sciences meeting
 Margaret and Paul Baltes Memorial Conference on Life-Span Brain
 Plasticity and Cognition, Wayne State University
 Seminar, Lifespan Psychology Group, Max Planck Institute, Berlin
 Nobel Forum symposium, "Boosting the Brain", Stockholm
 Basque Center on Cognition, Brain, and Language, San Sebastian
 International Scientific Meeting on Attention (RECA VIII), Sevilla
 UCSD Cognitive Science Colloquium
 Contra Costa Office of Education
 Vanderbilt Kennedy Center Lecture Series on Human Development and
 Developmental Disabilities
 Pennsylvania State University Neuroscience Seminar Series
 Learning and the Brain Conference, San Francisco
 Duke Institute for Brain Sciences' Cognitive and Affective
 Control, Seminar series
 Cambridge University Neuroscience seminar
 Experimental Psychological Society, London
 2010 National Scientific Council on Child Development
 Seminar at the University of Frankfurt Department of Psychology
 International Max Planck Research School LIFE, Berlin
 Symposium speaker, "Functional Neuroimaging Insights into Cognitive
 Development and Pediatric Neuropsychiatric Disorders", Society for
 Neuroscience
 Symposium speaker, "Developmental Systems and Cognitive
 Neuroscience
 Approach to Tourette Syndrome", Child Neurology Society
 2009 Invited talk at National Institute on Mental Health

Expert meeting, “Methods and Challenges in Developmental Neuroimaging”,
 Amsterdam (*unable to attend*)
 Neuroscience Institute seminar, Princeton University
 Neuroscience and Cognitive Sciences seminar, U Maryland, College Park
 Learning and the Brain Conference, “The Social Brain and Learning”
 Colloquium, Max Planck Institute for Human Development, Berlin
 Pediatric Neuropsychology Seminar, UCSF
 2008 Cognitive Science Colloquium, University of Arizona, Tucson
 Symposium, Memory Disorders Research Society, St. Louis
 Tamagawa Research Institute, Tokyo
 Speaker, Summer Institute in Cognitive Neuroscience (for contributors to
 “The Cognitive Neurosciences III”, edited by Michael Gazzaniga), Tahoe
 RAMBLE Cognitive Neuroscience meeting, UC Berkeley
 Discussant, Peter Thiel’s Cartesian Club, San Francisco
 Days of Molecular Medicine symposium, Stockholm (*declined*)
 International Summer Campus, Korea University (*declined*)
 Washington University, Neuroscience seminar series
 University of Michigan, fMRI Seminar Series
 San Lorenzo School District meeting for elementary school principals
 Parent-Teacher Association, Rosa Parks Elementary School, Berkeley
 Learning and the Brain Conference, San Francisco
 Neuropsychology Brown Bag Lunch, Martinez VA
 Learning Brain Expo, San Francisco

Conference and Workshop Leadership/Involvement

2014 International Mind, Brain, & Education Conference organization team
 2013 – Funding Committee Member, Flux Congress: The International Congress
 for Integrative Developmental Cognitive Neuroscience
 2008 – 2014 Co-Sponsor, Learning and the Brain Conference, San Francisco
 2013 Panel host, Science Communication and Science Policy, Beyond
 Academia conference for UCB graduate students
 2012 – Organizer, CHILD Research Center Public Lecture series
 2011 Course Director for Week 2 of Summer Institute in Cognitive
 Neuroscience, with 70+ fellows from the U.S. and abroad, and multiple
 invited faculty. Topic: “Numerical and relational processing.”
 Frontiers of Innovation Workshop, Harvard
 2010 Frontal Lobes Conference 2010, Rotman Institute, Toronto; Speaker &
 Co-organizer of symposium on Prefrontal Development
 Gordon Research Conference on Neurobiology of Cognition
 “Reprogramming the Human Brain” Conference, Dallas
 Robert Wood Johnson Foundation Forum on the Future Impact of
 Neuroscience and Behavior Change
 2009 Organizer, UCB Conference on Neurocognitive Development (over 200
 participants and 60 presentations)
 2008-2011 Young Investigator Awards Committee, Cognitive Neuroscience Society
 Talk Session Committee, Cognitive Neuroscience Society
 2009 Reviewer for submissions to Society for Research on Child Development
 Panel 3: Childhood: Biological and Cognitive Processes

2006 Judge, travel fellowships, SF Bay Area Chapter, Society for Neuroscience
Chair, Slide Session, Society for Neuroscience

2005 Chair, Minisymposium at Society for Neuroscience
Chair, Invited Symposium at American Psychological Society

2004 – 2005 Travel fellowship committee for UCD Chapter of Society for Neuroscience

2003 – 2004 Co-organizer, “Multiple perspectives on Decision making” conference
Co-organizer, Annual Psychology Department Conference
Representative, Local Chapter of the Society for Neuroscience (UCD)

Teaching Experience

2008 – 2013 Professional Development for graduate students (PSYCH 293, UCB)

2012 Undergraduate lecture course: The Developing Brain (PSYCH 125)
Graduate seminar: The Developing Human Brain (PSYCH 290P)

2009 Developmental Proseminar (PSYCH 240, co-instructor, UCB)
Neurological Disorders in Famous Artists (PSYCH 128, UCB)

2008 The Developing Brain (PSYCH 125, UCB), Fall 2008

2007 Developmental Cognitive Neuroscience (PSYCH 192, UCB)
Developmental Proseminar (PSYCH 240, co-instructor, UCB)
Faculty Sponsor, Brain and Medicine DeCal course

2003 – 2006 Cognitive Neuroscience (PSC 135, Bunge, UCD; 4 times)

2004 – 2006 Cognitive Neuroscience (PSC 261/NSC 223; co-instructor, UCD; 3 times)

Guest lectures

2012 T32 Training Grant, ‘Mental Illness: Core Principles, Mechanisms and Treatment Development’, UCB (Harvey)

2011 DeCal course for UC Berkeley Undergraduate Journal in Psychology

2010 Max Planck Institute in Human Development, seminar for LIFE fellows

2009 Instructor (20 hours total), Master Program in Cognitive Neuroscience, Psychology Department, University of Granada, Spain

2008 Riken Brain Science Institute Summer Lecture Course, “Developmental Foundations of Brain Function and Dysfunction”, Tokyo

2008 Pierce College, a community college in Los Angeles
Social/Personality Proseminar (Chen, UCB; October)
2 lectures, Graduate course in Cognitive Neuroscience, UCSF (Gazzaley)

2007 Developmental Psychology (Markson, UCB)
Developmental Psychopathology (Zhao, UCB)

2006 Cognitive Neuroscience (Wojciulik, UCD)

2005 Medical school Neurobiology course (Kumari, UCD)

2003 Proseminar in Psychology (PSC 200; Goodman, UCD)

2002 Foundations of Human Memory and Learning (Wagner, MIT)
Cognitive Neuroscience (Corkin, MIT)

2001 Developmental Cognitive Neuroscience (Shelton and Turner, Stanford)

1996-2001 Presentations on neuroscience in local public schools

Teaching assistantships (Stanford University)

2000 Cellular Neuroscience (Wine)

1999 Behavioral Neuroscience (Wandell and Wine)

1998 Cellular Neuroscience (Wine)

The Nervous System (Barres): Co-taught weekly laboratory section

Supervision of Students and Postdoctoral Fellows

Graduate students

Doctoral alumni

Michael Souza, Psychology, 2009: Assistant Professor in Psychology, U British Columbia
Allyson Mackey, Neuroscience, 2012: Postdoc at MIT (NRSA proposal at 7th percentile)
Kirstie Whitaker, Neuroscience, 2012: Postdoc at Cambridge University
Anna Luerssen, Psychology (co-Advisor with Ozlem Ayduk): Assistant Professor at Lehman College, CUNY as of Summer 2013

NSF Predoctoral Fellows

Belén Guerra (Psychology): NSF Graduate Fellowship, started 07/2012
Allyson Mackey (Neuroscience): NSF Graduate Fellowship, 07/2009-07/2012
Sarah Munro (Neuroscience): NSF Graduate Fellowship, 07/2009-07/2012

Other Doctoral Fellowship Awardees:

Alison Miller Singley: Research in Cognition and Mathematics Education Fellowship
Chloe Green: Research in Cognition and Mathematics Education Fellowship
Kirstie Whitaker: Fulbright Foundation Graduate Fellowship

Postgraduate research assistants

Jesse Niebaum: current
Heather Anderson: current
Maia Barrow: Master's student in UC Berkeley School of Public Health
Sarah Donohue: NSF predoc fellow at Duke University; Postdoc in Magdeburg, Germany
Carol Baym: Currently a DOD predoctoral fellowship awardee at U Illinois
Susanna Hill: Currently a research assistant in pediatric neurology research at UCSF
Chloe Green: Now a Ph.D. student in School Psychology at UC Berkeley

Postdoctoral fellows

Current

Michael Vendetti, graduate student with Keith Holyoak and Barbara Knowlton at UCLA: Joined the lab in July 2013; NRSA submission: "Measuring the extent and efficacy of cortical reorganization after early-onset focal prefrontal cortex injury".

(As of February 2014) Yana Fandakova, graduate student at the Max Planck Institute on Human Development: Received German Foundation Grant, "The Developmental Trajectories of Prefrontal and Parietal Regions: Contributions to Episodic Memory Development during Childhood". Co-mentors: Bunge and Ghetti.

Alumni

Eveline Crone: Postdoctoral fellowship from the Netherlands Organization for Scientific Research. VENI grant from the Netherlands Organization for Scientific Research, 2005.
Current position: Full Professor at Leiden University in the Netherlands

Pedro Paz-Alonso: Juan de la Cierva Grant, Spanish Ministry of Education. 01/01/2008-12/31/2011(Collaborator/host laboratory). *Current position: Tenure-track Research Faculty member at the Basque Center on Brain, Cognition, and Language in Spain.*

Jessica Church-Lang (with Bradley Schlaggar): Tourette Syndrome Association Postdoctoral fellowship. "Medication-induced changes in brain function in children with Tourette Syndrome" (Co-mentor, with Bradley Schlaggar) 4/1/08 -3/31/09. Postdoctoral NRSA fellowship. "Medication-induced changes in brain function in children with Tourette Syndrome" 2010-2012. *Current position: Assistant Professor at the University of Texas at Austin.*

Chris Blais: "The Cognitive Control of Response Competition" (Mentor) NSERC Postdoctoral Fellowship from Canadian government. 06/01/2008-05/31/2010. *Current position: Research Scientist at the University of Buffalo.*

Elizabeth O'Hare: Received a AAAS Science and Technology Policy Fellowship after postdoc. *Current position: Program Officer, Board on Higher Education and Workforce, National Academies of Science.*

Graduate Student Qualifying Exam & Thesis Committee Membership

Qualifying Exam Committee Membership

Wren Thomas, Neuroscience, UCB
Kimberly Long, Neuroscience, UCB
Shawn Marks, Neuroscience, UCB
Kimberly Russo, Psychology, UCB
Joshua Sussman, School Psychology, School of Education, UCB
Amanda McKerracher, School Psychology, School of Education, UCB
Anna Luerksen, Psychology, UCB (Chair)
Jenny Chai, Psychology, UCB (Chair)
Linh Dang, Neuroscience, UCB (Chair)
Drew Fagen, Neuroscience, UCB
Isaac Liao, Neuroscience, UCD
Chung-Hay Luk, Neuroscience, UCB
Ben Mullin, Psychology, UCB
Zdena Op de Macks, Psychology, UCB (Co-Chair)

Preliminary Written & Oral Exams

Examiner for all 2nd-year graduate students in Neuroscience Program at UCD for 2004 and 2005. Approximately 30 students total, each participating in a 2-hour exam.

Thesis Committee Membership

Jamil Bhanji, Psychology, UCD
Rob Blumenfeld, Psychology, UCD
Maya Cano, Neuroscience, UCB
Jenny Chai, Psychology, UCB

Lina Haldar-Chopra, Education, UCB
Kate Frankel, Education, UCB
Anett Gyruak, Psychology, UCB
Heesoo Kim, Neuroscience, UCD
Isaac Liao, Neuroscience, UCD
Chung-Hay Luk, Neuroscience, UCB
Allyson Mackey, Neuroscience, UCB (Chair)
Amanda McKerracher, School Psychology, School of Education, UCB
Meghan Miller, Psychology, UCB (Master's thesis)
Sarah Munro, Neuroscience, UCB (Chair)
Zdena Op de Macks, Psychology, UCB (Co-Chair)
Anne Richards, Neuroscience, UCD
Michael Souza, Psychology, UCB (Chair)
Bong Walsh, Neuroscience, UCD
Kirstie Whitaker, Neuroscience, UCB (Chair)

Reader for Master's Degree

Brian Waismeyer, Psychology, UCB
Paul Meinz, Psychology, UCB
Benjamin Mullin, Psychology, UCB

Undergraduate Mentoring

Undergraduate honors students: Sally Bae, Layne Bernstein, Connor Lemos, Natalie De Shetler, Sasha Gupta, Justin Louie, Mehdi Bouhaddou, Sandeep Sahblock, Bryan Matlen, Michael Souza

Undergraduates in summer research programs: Andrea Larco, Jessica Rivera, Faith Hill, Michael Harris, Jessica Guerrero, Desirae Martinez

Summer Research Opportunities Program (Yearly at UCB)
Berkeley Edge Program (2007)
Pierce Summer Internship (2007, 2008)
Honors Challenge Course (individual instruction for student in PSC 135) (2005)
High school student in NSF-funded Authentic Science Research course (2002)
Undergraduate Research Opportunities Program, MIT (2001-2003)

Service to Profession

Reviews

Journals

Acta Psychologica; Archives of General Psychiatry; Behavioral Neuroscience; Biological Psychiatry; Biological Psychology; Brain; Brain and Cognition; Cerebral Cortex; Cognition; Cognitive, Affective & Behavioral Neuroscience; Child Development Perspectives; Cognitive Brain Research; Cortex; Current Biology; Current Directions in Psychological Science; Developmental Cognitive Neuroscience; Developmental Science; Experimental Brain Research; Emotion; European Journal of Neuroscience; Frontiers in Human Neuroscience; Frontiers in Neuroscience; Journal of Child Psychology and Psychiatry;

Journal of Cognitive Neuroscience; Journal of Experimental Psychology: General; Journal of Neurophysiology; Journal of Neuroscience; Mind, Brain, & Education, Monographs of the Society for Research on Child Development; Nature Neuroscience; Nature Reviews Neuroscience; NeuroImage; Neuron; Neuropsychologia; Neuropsychology; Quarterly Journal of Experimental Psychology; Personality and Individual Differences; Proceedings of the National Academy of Sciences; Psychophysiology; Psychological Research; Psychological Science; Trends in Cognitive Sciences; Trends in Neuroscience and Education

NIH Study Sections

Ad-hoc committee member for Child Psychopathology & Developmental Disabilities (2x); NIMH Child Interventions Review; Physiology and Modeling Review; Pediatric Functional Neuroimaging Research Network; NIMH Pathway to Independence (K99); Biobehavioral and Behavioral Processes Special Emphasis Panel; Sensory and Motor Neuroscience, Cognition and Perception Fellowship Study Section (F02B); NIH New Innovator Awards

NSF grant programs

Cognitive Neuroscience Initiative; Research on Learning and Education; Perception, Action & Cognition; Behavioral Systems Cluster; CAREER award; Research and Evaluation on Science Education; Developmental and Learning Sciences

Other funding agencies

France-Berkeley Fund; Israel Science Foundation; AXA Research Fund (European funding agency); Medical Research Council (U.K.); Netherlands Organisation for Scientific Research (NWO); Natural Sciences and Engineering Research Council of Canada (NSERC)

Review of book proposals

Guilford Press; Cambridge University Press; Oxford University Press

Summaries for book jackets

The Agile Mind”, by Wilma Koutsdaal

“Origins and Development of Recollection: Perspectives from Psychology and Neuroscience”, by Simona Ghetti & Patricia Bauer

Editorial Service

2011 – 2012 Co-Editor with Sarah-Jayne Blakemore, Special Issue of *Developmental Cognitive Neuroscience: Supplement on Neuroscience and Education*

2010 – 2011 Co-Editor with Arthur Toga, Book section (6 chapters) on Frontal Lobe Development for Principles of Frontal Lobe Functions, 2nd Edition, Edited by Donald Stuss & Robert Knight, Oxford University Press, 2012.

2012 – 2013 Editorial Board member, *Psychological Science*

2011 – Advisory Board member, *Developmental Cognitive Neuroscience*

2009 – Editorial Board member, *NeuroImage*

- 2009 – 2010 Guest Editor, Special Issue of *Frontiers in Human Neuroscience: The Developing Human Brain*
- 2008 – 2011 Associate Editor for *Frontiers in Human Neuroscience*
- 2007 – 2008 Consulting Editor for *Cognitive, Affective, and Behavioral Neuroscience*
- 2004 - 2005 Guest Editor for Special Issue of *Cognitive Brain Research: Multiple Perspectives on Decision Making*, 23(1): 1-151, 2005.

External Advisory Roles

- 2013 Advisory Board Member, The Synapse Project, The Aspen Brain Forum (aimed at mentoring aspiring female neuroscientists)
- 2012 External Consultant, DFG (German Science Foundation) Research Group on "Conflict as Processing Signal"

External Dissertation Committee Member, Humboldt University, Berlin
- 2010 – External Advisor, Max Planck Institute in Human Development
- 2010, 2012 External Advisory Committee for NIMH Center on "Executive Function and Dysfunction" at University of Colorado at Boulder
- 2009 – 2012 Consultant on development of Academic Readiness tools, Scientific Learning Corporation
- 2009 Robert Wood Johnson Forum on the Future Impact of Neuroscience and Behavior Change

Expert Testimony

- 2011 Expert witness in the CA Senate on adolescent brain development, CA Senate Bill 9
- 2010 Contribution to American Medical Association Amicus Brief for the Supreme Court on life without parole sentencing for adolescents

Co-author of statement on adolescent brain development signed by multiple leading developmental cognitive neuroscientists

Contribution to Graham v. Florida case by defense attorneys

Departmental and University Service

Service to Graduate Programs

Service related to graduate admissions & recruitment, modifying program requirements, monitoring student progress through the program, advocating on behalf of students, advice

on students' extramural funding applications & job applications, letters of reference, equitable distribution of funds & teaching assignments, etc.

2011 – present Head Graduate Advisor, Department of Psychology, UCB
2009 – 2010 Graduate Advisor, Neuroscience Graduate Program, UCB
2008 – 2011 Neuroscience Program Admissions Committee, UCB
 Neuroscience Graduate Recruitment speaker
2004 – 2006 Graduate Student Advisor, Department of Psychology, UCD

Additional Departmental and University Service

2012 – Founding member, Initiative to create a UC Berkeley/Children's Hospital
 Oakland Center for Research on Child Brain Development (CHILD
 Research Center)
2011 – 2013 Co-Vice Chair, Department of Psychology, UC Berkeley
2011 - 2012 Vice Chair, Committee for the Protection of Human Subjects (CPHS-I)
2011 – Faculty Editor, PsychologiCAL newsletter
2009 – Executive Committee, Helen Wills Neuroscience Institute, UC Berkeley
2008 – Search committee: Director of Institute of Human Development, UCB
 Faculty search committee, Sensation & Perception, Psychology Dept.
2007 – 2009 Committee for the Protection of Human Subjects, UCB
2007 – Faculty Merit Reviews, Psychology Department
2003 – 2004 Faculty search committee, Center for Mind and Brain, UCD
 Faculty search committee, Social-Personality area of Psychology, UCD
2004 – 2005 Faculty search committee, Developmental area of Psychology, UCD
2004 - 2006 Member, Department Chair's Advisory Committee, UCD
2003-2005 Member, Safety committee, UC Davis Imaging Research Center
2008, 2009 CUSH Regents' and Chancellor's Scholarship Subcommittee, UCB

Professional Memberships

Society for Research on Child Development; Association for Psychological Science; Society for Neuroscience; Cognitive Neuroscience Society

1996 Vice-President, Undergraduate Science Symposia, Yale College
1995 – 1996 Co-President, Undergrad Yale Science & Engineering Association
1994 – 1996 Vice-President, Bioethics Society, Yale College