

Education

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

Positions and Employment

- July 2014 – Professor, Psychology & Helen Wills Neuroscience Institute, UC Berkeley
2011-2016 Head Graduate Advisor, Dept. of Psychology, UC Berkeley
2011-2013 Vice Chair (one of two), Dept. of Psychology, UC Berkeley
2007-2014 Assistant Prof (2007-2009); Associate Prof (2009-2014), UC 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

- 2017 Elected as Secretary of International Mind, Brain, and Education Society
2016 Elected to Society of Experimental Psychologists
2015 Jacobs Foundation Advanced Career Research Fellowship
2015 Alexander von Humboldt Research Award (100 scholars in any field)
2014 Elected to Steering Committee for Latin American School of Education, Cognitive and Neural Sciences
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 cognitive scientists worldwide)
2011 – Elected to National Scientific Council on the Developing Child
2010 – Elected to 1st Innovation By Design team in Frontiers of Innovation: Building Caregiver Capacities, developing interventions in Washington State.
2010 Finalist, Aspen Brain Forum Award in NeuroEducation
2007 – 10 Elected to MacArthur Law and Neuroscience Consortium
2007 Young Investigator Award, Cognitive Neuroscience Society
2006 Elected to Memory Disorders Research Society
2004 - 09 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 (>12,000 citations; h-index = 49; i10-index = 76 (Google Scholar, as of 08/2017))

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

87. Guerra-Carrillo, B., Katovich, K., & **Bunge, S.A.** (in press). Does higher education hone cognitive functioning and learning efficacy? Findings from a large, representative sample. *PLoS One*.

86. Wendelken, C., Ferrer, E., Ghetti, S., Bailey, S., Cutting, L., & **Bunge, S.A.** (in press). Fronto-parietal structural connectivity in childhood predicts development of functional connectivity and reasoning ability: a large-scale longitudinal investigation. *Journal of Neuroscience*. Selected for *Society for Neuroscience* press promotion.

85. Fandakova, Y., Selmecky, D., Leckey, S., Grimm, K.J., Wendelken, C., **Bunge, S.A.**, & Ghetti, S. (2017). Changes in ventromedial prefrontal and insular cortex support the development of metamemory from childhood into adolescence. *Proceedings of the National Academy of Sciences*. Jul 3. pii: 201703079. doi: 10.1073/pnas.1703079114. [Epub ahead of print]

84. Vendetti, M.*, Starr, A.*, Johnson, E.L., Modavi, K., & **Bunge, S.A.** (2017) Eyegaze patterns reveal optimal strategies during analogical reasoning. *Frontiers in Psychology – Cognition*. <https://doi.org/10.3389/fpsyg.2017.00932> (*shared first authorship)

83. Brod, G., **Bunge, S.A.**, & Shing, Y. (2017) Does one year of schooling improve children's cognitive control and alter associated brain activation? *Psychological Science* May 1:956797617699838. doi: 10.1177/0956797617699838. [Epub ahead of print]

82. Green, C.T., Chiongban, V.B., Barrow, M., Ferrer, E., & **Bunge, S.A.** (2017). Fluid reasoning predicts future mathematical performance among children and adolescents. *Journal of Experimental Child Psychology*. Jan 30;157:125-143.

81. Whitaker, K.J.*, Vendetti, M.S.*, Wendelken, C., & **Bunge, S.A.** (2017) Neuroscientific insights into the development of analogical reasoning. *Developmental Science*. (*shared first authorship) Mar 12. doi: 10.1111/desc.12531. [Epub ahead of print]

80. Eckstein, M., Guerra-Carrillo, B., Miller Singley, A.T., & **Bunge, S.A.** (2017) Beyond eye gaze: What else can eyetracking reveal about cognition and cognitive development? *Developmental Cognitive Neuroscience*. Jun;25:69-91. doi: 10.1016/j.dcn.2016.11.001. Epub 2016 Nov 11.

79. Fandakova, Y., Wendelken, C., Lee, J.K., **Bunge, S.A.**, & Ghetti, S. (2016) The Importance of Knowing When You Don't Remember: Neural Signaling of Retrieval Failure

Predicts Memory Improvement Over Time. *Cerebral Cortex*. Nov 23:1-13. doi: 10.1093/cercor/bhw352. [Epub ahead of print]

78. Op de Macks Z.A., **Bunge**, S.A. Bell, O.N., Kriegsfeld, L.J., Kayser, A.S., & Dahl, R.E. (2016) Risky decision-making in adolescent girls: The role of testosterone and reward circuitry. *Psychoneuroendocrinology*.

77. Op de Macks Z.A., **Bunge**, S.A. Bell, O.N., Kriegsfeld, L.J., Kayser, A.S., & Dahl, R.E. (2016) The effect of social rank feedback on risk taking and associated reward processes in adolescent girls. *Social, Affective, and Cognitive Neuroscience* Sep 10. pii: nsw125. [Epub ahead of print] Aug 17;74:77-91. doi: 10.1016/j.psyneuen.2016.08.013. [Epub ahead of print]

76. Mota, N.B., Weissheimer, J., Madruga, B., Adamy, N., **Bunge**, S.A., Copelli, M., & Ribeiro, S. (2016) A naturalistic assessment of the organization of children's memories predicts cognitive functioning and reading ability. *Mind, Brain, and Education*. Doi 10.1111/mbe.12122

75. Church-Lang, J., **Bunge**, S.A., Petersen, S., & Schlaggar, B. (2016). Preparatory engagement of cognitive control networks increases late in childhood. *Cerebral Cortex*. Mar 13. pii: bhw046. [Epub ahead of print]

74. Sastre III, M., Wendelken, C., **Bunge**, S.A., Lee, J., Pospisil, J., Ross, J., & Ghetti, S. (2016) Age- and Performance-related Differences in Hippocampal Contributions to Episodic Retrieval. *Developmental Cognitive Neuroscience* 19:42-50.

73. Lee, J.K., Wendelken, C., **Bunge**, S.A., & Ghetti, S. (2015). A Time and a Place for Everything: Building Blocks of Episodic Memory. *Child Development*. Oct 23. [Epub ahead of print]

72. Mackey, A.P., Miller Singley, A.T., Wendelken, C., & **Bunge**, S.A. (2015). Characterizing transfer: How practicing reasoning skills influences brain and behavior. *PLoS One*, Sep 14;10(9):e0137627. doi: 10.1371/journal.pone.0137627

71. Luerksen, A., Gyurak, A., Ayduk, A., Wendelken, C., & **Bunge**, S.A. (2015). Delay of Gratification in Childhood Linked to Cortical Interactions with the Nucleus Accumbens. *Social, Cognitive, and Affective Neuroscience*. Jun 5. pii: nsv068. [Epub ahead of print]

70. Tharp, J., Wendelken, C., Schreier, H., Marco, E., & **Bunge**, S.A. (2015) Explaining individual variability in tic severity among children with Tourette Syndrome: Insights from a novel eyetracking paradigm. *Frontiers in Psychiatry* (section: *Child and Neurodevelopmental Psychiatry*). Published: 29 June 2015 doi: 10.3389/fpsy.2015.00095

69. Wendelken, C., Ferrer, E., & **Bunge**, S.A. (2016) Fronto-parietal network reconfiguration supports the development of reasoning ability. *Cereb Cortex*. 26(5):2178-90

68. Vendetti, M.S.*, Johnson, E.L.*, Lemos, C.J., & **Bunge**, S.A. (2015). Hemispheric Differences in Relational Reasoning: Novel Insights based on an Old Technique. *Frontiers in Human Neuroscience*, Special Issue on "The Reasoning Brain". (*shared first authorship). Feb 9; 9:55

67. Blais, C., Harris, M.B., Sinanian, M.H., & **Bunge**, S.A. (2015). Trial-by-trial adjustments in control triggered by incidentally encoded semantic cues. *Quarterly Journal of Experimental Psychology*. 68(9):1920-30.
66. Chen, S.H., Main, A., Zhou, Q., **Bunge**, S.A., Lau, N., & Chu, K. (2015) Effortful Control and Early Academic Achievement of Chinese American Children in Immigrant Families. *Early Childhood Research Quarterly*. doi:10.1016/j.ecresq.2014.08.004.
65. Vendetti, M.S., Matlen B.J., Richland, L.E., & **Bunge**, S.A. (2015) Analogical Reasoning in the Classroom: Insights from Cognitive Science. *Mind, Brain, and Education*, 9(2):100-106.
64. Vendetti, M.S. & **Bunge**, S.A. (2014). Evolutionary and developmental changes in the lateral frontoparietal network: A little goes a long way for higher-level cognition. *Neuron* 84(5):906-917.
63. Chen, S.H., Zhou, Q., Uchikoshi, Y., & **Bunge**, S.A. (2014) Variations on the bilingual advantage? Links of Chinese and English proficiency to Chinese American children's self-regulation. *Frontiers in Psychology*. Sep 30;5:1069. doi: 10.3389/fpsyg.2014.01069.
62. Miller Singley, A.T. & **Bunge**, S.A. (2014). Neurodevelopment of Relational Reasoning: Implications for Mathematical Pedagogy. *Trends in Neuroscience and Education*, 3(2):33-37.
61. Wendelken, C., Lee, J., Pospisil, J., Sastre III, M., **Bunge**, S.A., & Ghetti, S. (2014). White Matter Tracts Connected to the Medial Temporal Lobe Support the Development of Mnemonic Control. *Cerebral Cortex*. Mar 27. E-pub ahead of print.
60. Johnson, E.L., Miller Singley, A.T., Peckham, A., Johnson, S., & **Bunge**, S.A. (2014). Task-evoked pupillometry provides a window into the development of short-term memory capacity. *Frontiers in Developmental Psychology*. Mar 13;5:218.
59. Guerra-Carrillo, B., Mackey, A.P., & **Bunge**, S.A. (2014) Resting-state fMRI: A window into human brain plasticity. *The Neuroscientist*. Feb 21. Epub ahead of print. PMID: 24561514
58. 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
57. 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**
56. 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.

55. 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.
54. 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.
53. Ghetti, S. & **Bunge**, S.A. (2012) Neural changes underlying the development of episodic memory during middle childhood. *Developmental Cognitive Neuroscience*. 2, 381-395.
52. **Bunge**, S.A. & Whitaker, K.J. (2012) Brain Imaging: Your MRI scan doesn't lie about your age. *Current Biology* 22(18):R800-1.
51. 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.
50. 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]
49. 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.
48. 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
47. 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.
46. 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.
45. 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.
44. Baldo JV, **Bunge** SA, Wilson SM, Dronkers NF. (2010) Is relational reasoning dependent on language? A voxel-based lesion symptom mapping study. *Brain and Language* May;113(2):59-64. Epub 2010 Mar 5.
43. 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.

42. Blais, C., Risko, I., & **Bunge**, S.A. (2009) Item-specific cognitive control. *Journal of Cognitive Neuroscience* Nov 19.
41. 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.
40. 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.
39. 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.
38. Wendelken, C. & **Bunge**, S.A. (2009) Transitive Inference: Distinct Contributions of Rostrolateral Prefrontal Cortex and the Hippocampus. *Journal of Cognitive Neuroscience*, Mar 25.
37. **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.
36. 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.
35. 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.
34. **Bunge**, S.A. & Wendelken, C. (2009) Comparing the Bird in the Hand with the Ones in the Bush. *Neuron* 62, June 11.
33. 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.
32. 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*.
31. 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.
30. 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.

29. Wendelken, C., Nakhabenko D., Donohue, S.E., Carter, C.S. & **Bunge**, S.A. (2008) 'Brain is to Thought as Stomach is to...?' – Investigating the role of rostralateral prefrontal cortex in relational reasoning. *Journal of Cognitive Neuroscience*, 20:682-93.
28. 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.
27. Wendelken, C., **Bunge**, S.A., & Carter, C.S. (2007) Parietal and prefrontal roles in maintaining structured information. *Neuropsychologia*, Oct 6; [Epub ahead of print]
26. Mauss, I.B., **Bunge**, S.A. & Gross, J.J. (2007) Automatic Emotion Regulation: Neuroscientific Considerations. *Social and Personality Psychology Compass*.
25. **Bunge**, S.A. & Wright, S.B. (2007) Neurodevelopmental changes in working memory and cognitive control. *Current Opinion in Neurobiology*, 17(2), 243-50.
24. 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.
23. 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.
22. **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.
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.
20. 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.
19. **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.
18. 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.
17. 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.
16. 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.

15. Donohue, S.E., Wendelken, C., Crone, E.A., & **Bunge**, S.A. (2005) Retrieving rules for behavior from long-term memory. *NeuroImage* 26:1140-49.
14. 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.
13. 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.
12. 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.
11. **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.
10. **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.
9. **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.
8. **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
7. 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.
6. **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.
5. 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]
4. **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.
3. **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.

2. **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.

1. **Bunge**, S.A., Mauelshagen, J. & Carew, T.J. (1997) 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.

Peer-reviewed papers under review or in revision

Eckstein, M., Starr, A., & **Bunge**, S.A. (under review) Real-time measurement of rule inference.

Williams, A.I., Zhou, Q., Uchikoshi, & **Bunge**, S.A. (under review). Links between English and heritage language proficiency and executive functions in dual language learners from Head Start families.

Brod, G., Hasselhorn, M., & **Bunge**, S.A. (under review). When making a prediction boosts learning: The element of surprise.

Miller Singley, A.T. & **Bunge**, S.A. (revised-and-resubmitted) Componential and relational processing of fractions. Invited submission to *Thinking and Reasoning*: Special issue on "Reasoning and mathematics".

Miller Singley, A.T., Crawford, J.L., & **Bunge**, S.A. (under review) Using Eye Tracking to Probe Developmental and Skill-based Differences in Fraction Magnitude Evaluation.

Peer-reviewed papers in preparation

Guerra-Carrillo, B. & **Bunge**, S.A. (in prep.)

Eckstein, M., Christian, P., & **Bunge**, S.A. (in prep.) Keep it in one hemisphere: laterality effects on the ability to infer rules.

Bernstein, L.T., Green, C.T., Pratini, N., Neufeld, J.A., Martin, K., & **Bunge**, S.A. (in prep.) Effects of Right Frontal Lobe Injury in Childhood: A Case Study involving a Patient and his Twin.

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

Chapters, commentaries, and other publications

Gabrieli, J.D.E., & **Bunge**, S.A. (2017) The stamp of poverty: Growing up in a poor family can leave its mark on the developing brain. Understanding how and why has important implications for society and educators. *Scientific American Mind*. Jan/Feb 54-61.

Bunge, S.A. (2017). How does going to school change your brain? Blog on Learning and Development. <http://bold.expert/how-does-going-to-school-change-your-brain/>

Fandakova, Y., & **Bunge**, S.A. (2016) How might we draw connections between research on long-term memory and student learning? Introduction to Special Issue on Education and Neuroscience, Mind, Brain, and Education.

Niebaum, J.C. & **Bunge**, S.A. (2014). Your Brain is Like a Muscle: Use it and Make it Stronger. *Frontiers for Young Minds*.
http://kids.frontiersin.org/articles/20/your_brain_is_like_a_muscle/

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>

Blakemore, S.J. & **Bunge**, S.A. (2012). At the nexus of neuroscience and education. Supplement on Neuroscience and Education, *Developmental Cognitive Neuroscience*. Feb 15;2 Suppl 1:S1-5

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

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.

Barrow, M., Jaques, R., Ponischil, K., Lengua, L., & **Bunge**, S.A. (2015) Improved cognitive flexibility after a structured play intervention with a high-risk sample of preschoolers. Available on ResearchGate.

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.

Preregistered studies

Starr, A., Wendelken, C., Whitfield-Gabrieli, S., & **Bunge**, S.A. (in prep) Investigating whether functional connectivity and activation in parietal cortex link math and reasoning abilities during development.

Brod, G., **Bunge**, S.A., & Hasselhorn, M. (2017) Does making a prediction improve memory? *Open Science Framework*.

Guerra-Carrillo, B., Wendelken, C., Ghetti, S., & **Bunge**, S.A. (2017) The influence of parental education and family in the development of reasoning skills and the lateral fronto-parietal network. *Open Science Framework*.

Whitfield-Gabrieli, S., Wendelken, C., Cutting, L.E., & **Bunge**, S.A. (2016) The intrinsic functional architecture of the brain predicts subsequent change in behavior during typical development. *Open Science Framework*.

Magis-Weinberg, L., Wendelken, C., Ghetti, S., Cutting, L.E., Figley, C.R., Dumontheil, I., Whitfield-Gabrieli, S., **Bunge**, S.A. (2016) Structural and functional connectivity between and within executive control and anterior salience networks over development. *Open Science Framework*.

Grants

Current Support

Collaboration: The role of brain connectivity in reasoning development

Principal Investigators: Wendelken (Research scientist in Bunge Lab) and Bunge

National Science Foundation

Period Covered: 03/01/2016-03/01/2018

Description: This grant covers the analysis of multi-modal longitudinal MRI data collected in our lab at UC Berkeley, at UC Davis (Co-I Simona Ghetti), and at Vanderbilt University (Co-I Laurie Cutting), with a view to identifying the changes in structural and functional brain connectivity that support the development of reasoning ability over childhood and adolescence.

Location of Project: University of California, Berkeley

Total Award Amount: \$500,000 direct costs

Jacobs Foundation Advanced Career Research Fellowship

Principal Investigator: Silvia Bunge, Ph.D.

Period Covered: 2016-2018

Description: Awarded to the most innovative mid-career researchers working on child and youth development. Proposal focused on investigating individual variability in responsiveness to different kinds of cognitive training in socioeconomically disadvantaged children, both in terms of cognitive functioning and academic achievement.

Location of Project: University of California, Berkeley

Total Award Amount: 400,000 Swiss Francs

Alexander von Humboldt Research Award

Principal Investigator: Silvia Bunge, Ph.D.

Location of Project: Max Planck Institute of Lifespan Psychology in Berlin

Description: Awarded annually to 100 scholars in any field and of any nationality. This research award will support research on brain plasticity in children, assessing the effectiveness of an intervention aimed at boosting reasoning skills and strengthening the underlying brain network.

Period Covered: 2016-2018

Total Award Amount: 60,000 Euros

Contributions of Executive Function Subdomains to Mathematical Learning and Literacy in the Classroom: Assessment and Training

Principal Investigators: Adam Gazzaley and Melina Uncapher, UCSF

Role: Co-investigator

Source of Support: NSF Science of Learning: Collaborative Network

Description: Our collaborative network aims to clarify how the multiple domains of executive functions (EFs) contribute to individual differences in learning of math and reading skills in middle childhood.

Period Covered: 10/01/15-10/01/18

Location of Project: University of California, San Francisco

UC Berkeley subaward: \$59,853

Relational reasoning: Neural mechanisms, development, & plasticity

Principal Investigator: Silvia Bunge, Ph.D.

Source of Support: James S. McDonnell Foundation Scholar 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.

Total Award Amount: \$600,000

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

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

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

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

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

Consultant

Science-based Innovation in Learning Center for English Language Learners and Learning Disabilities

Principal Investigator: Fumiko Hoeft

Proposed source of support: University of California Multicampus Research Programs and Initiatives

1/1/2017-12/31/2020

Role: Consultant

Pending support

Bidirectional Relations: Bilingual and Socio-Emotional Development in Dual Language Learners

Principal Investigators: Qing Zhou, Yuuko Yuchikoshi, and Silvia Bunge

Proposed source of support: National Institute of Minority Health and Health Disparities

Proposed period of coverage: 04/01/2017-03/31/2022

Unfunded proposals

Characterizing Effects of Inequality on Brain Development & Strengthening Resilience against Adversity

Principal Investigators: Linda Wilbrecht, Silvia Bunge

Proposed source of support: Vice Chancellor for Research, UC Berkeley

Proposed period of coverage: 2017-2019

Pediatric Acquired Brain Injury: Cognitive Deficits and Compensatory Mechanisms

Principal Investigators: *Silvia Bunge, Ph.D., Kenneth Martin, M.D., Elysa Marco, M.D.*

Executive Function Development and Academic Achievement over Middle Childhood

Principal Investigator: Melina Uncapher, UCSF

Institute of Education Sciences

Role: Co-investigator

Effects of Fluid Reasoning Training on Neurocognitive Function and Academic Achievement

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

NSF submission

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.*

IES submission

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 on Grant Proposals

Executive function and brain maturation in children with severe congenital heart disease: A window of opportunity for intervention

Principal Investigator: *Bea Latal*

Funded proposal (April 2017), Swiss National Science Foundation

Role: Consultant

Analogical Reasoning in High Functioning Autism Spectrum Disorders

Principal Investigators: *Adam Green, Ph.D. and Chandan Vaidya, Ph.D.*
R03 slated for resubmission

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

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)

2018	Invited address, Association for Psychological Sciences
2017	Robert and Russell Moody Lecture Series, Galveston, Texas
	Ambassadors School presentations, Galveston, Texas
	Webinar for Directors of California's Temporary Assistance for Needy Families program (CaWORKS 2.0)
	Symposium & Panel, Society for Research on Child Development
	Jacobs Foundation Research Fellows Meeting, Austin
	Society of Experimental Psychologists, Vanderbilt University
	Learning and the Brain Conference
2016	Conte Center Outreach series, Harvard University
	Wertheimer Colloquium, Goethe Institute, Frankfurt
	Max Planck Institute for Lifespan Development, Berlin
	Symposium, International Mind, Brain, and Education Society
	Jacobs Foundation Research Fellows Meeting: Early Experience and Sensitive Periods in Development, Sicily
	Mente y Cerebro: Homenaje a Pio Tudela. De la Psicología Experimental a la Neurociencia Cognitiva. University of Granada
	Latin American School on Education, Cognitive, and Neural Sciences, Argentina
2015	Lawrence Hall of Science, Berkeley

Institute of Human Development, UC Berkeley
Max Planck Institute for Lifespan Development, Berlin (two talks)
Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig
Center for Lifespan Psychology, Max Planck Institute for Lifespan
Development, Berlin
Latin American Society of Neuropsychology, 14th International Congress,
Medellín, Colombia
Webinar for Center on Budget and Policy Priorities, Washington, D.C.
Excellence in Teaching Day, Boston College
Cell Press LabLinks conference, UCSF
Minisymposium at Cognitive Neuroscience Society
Latin American School on Education, Cognitive & Neural Sciences, Chile
UT Dallas Center on Vital Longevity
Keynote address, Spring 2015 Teaching Conference for Graduate
Student Instructors, UC Berkeley

2014

Webinar for Frontiers of Innovation
Symposium chair, International Mind, Brain, & Education Society
Neuroplasticity and Education conference, Vancouver
Instructor in 1st Summer School, Swiss Graduate School for Cognition,
Learning, and Memory, Weggis, Switzerland
Jacobs Center Symposium on Productive Youth Development, University
of Zurich
Webinar for Center on Budget and Policy Priorities, Washington, D.C.
UC Berkeley Campus Shared Services Brown Bag
UC Office of the President Family Group
4th Latin American School for Education, Cognition, and Neural Sciences,
Uruguay
Public lecture, Universidad de la República, Montevideo Uruguay
Learning and the Brain Conference, San Francisco
U.S. Department of Health and Human Services meeting
Lecture for Psychology Graduate Student Instructors, UCB
University of Texas at Austin, Imaging Research Center
University of California Emeritus Association Luncheon

2013

Flux: The International Congress for Integrative Developmental
Cognitive Neuroscience, Pittsburgh, PA
Max Planck Institute in Human Development, Berlin (2 talks)
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,
Brazil
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
 Princeton University Department of Psychology
 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,
 Argentina
 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, Society for Neuroscience
 Symposium speaker, 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 group 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

2015	Co-Organizer (with Prof. John Gabrieli), Social Issues Roundtable at the Society for Neuroscience
2014 – 2014	Board of Directors, Flux: Developmental Cognitive Neuroscience Society Board of Directors, International Mind, Brain, & Education Society Symposium Chair, International Mind, Brain, & Education Society
2008 – 2014 2013	Co-Sponsor, Learning and the Brain Conference, San Francisco Panel host, Science Communication and Science Policy, Beyond Academia conference for UCB graduate students
2012 – 2011	Organizer, CHILD Research Center Public Lecture series 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)

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; Child Development Perspectives; Cognitive Brain Research; Cognitive Development; Cortex; Current Biology; Current Directions in Psychological Science; Developmental Cognitive Neuroscience; Current Opinion in Behavioral Sciences; Developmental Psychology; Developmental Science; eLife; Experimental Brain Research; Emotion; European Journal of Neuroscience; Frontiers in Human Neuroscience; Frontiers in Neuroscience; Frontiers in Systems Neuroscience; F1000Research; Journal of Adolescence; 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 Communications; Nature Neuroscience; Nature Reviews Neuroscience; NeuroImage; Neuron; Neuropsychologia; Neuropsychology; Neuroscience; Neuroscience & Biobehavioral Reviews; Quarterly Journal of Experimental Psychology; Personality and Individual Differences; Proceedings of the National Academy of Sciences; Psychological Bulletin; Psychological Review; Psychophysiology; Psychological Research; Psychological Science; PLoS One; Science; Trends in Cognitive Sciences; Trends in Neuroscience and Education

NIH Study Sections

Ad-hoc committee member for Child Psychopathology & Developmental Disabilities; Cognition and Perception; 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; NICHD Program Project Review

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 Organization for Scientific Research (NWO); Natural Sciences and Engineering Research Council of Canada (NSERC); Alexander von Humboldt Foundation, Germany; German Research Foundation (DFG); Templeton Foundation; Wellcome Trust Foundation; Swiss National Science Foundation; Canada First Research Excellence Fund; Canada Research Chairs Program

Review of book proposals

Guilford Press; Cambridge University Press; Oxford University Press

Summaries for book jackets/endorsements

"The Agile Mind", by Wilma Koutsdaal

“Origins and Development of Recollection: Perspectives from Psychology and Neuroscience”, edited by Simona Ghetti & Patricia Bauer
Executive Function: Development Across the Life Span, edited by Sandra A. Wiebe and Julia Karbach

Editorial Service

- 2016 – Associate Editor, *Mind, Brain, and Education*
- 2015 – 2016 Co-Editor with postdoctoral fellow Yana Fandakova, Special issue of *Mind, Brain, and Education: The relevance of memory research for education*
- 2015 – Associate Editor, *Frontiers for Young Minds*
- 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 – 2014 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

- 2015 Invited participant, White House Office of Science and Technology Policy Workshop on Neuroscience and Learning
- 2014 NICHD Reasoning Work Group Meeting
- 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: Neuroscience & Behavior Change

Expert Testimony

- 2014 Contribution to Amicus Brief for the Supreme Court of Ohio, submitted by Drs. Luna, Nelson III, Bunge, Galván, and Spear (re: Ohio v. Moore)
- 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 (re: Graham v. Florida)
- 2010 Co-author of statement on adolescent brain development signed by multiple leading developmental cognitive neuroscientists

Teaching Experience

2017	Lifestyle Influences on Brain Health (PSYCH 290) Professional Development for Graduate Students (PSYCH 293) Three-day course in Asunción, Paraguay, organized by the Asociación Paraguaya de Neuropsicología
2016	Developmental Proseminar (PSYCH 240, Co-instructor with Srinivasan) The Developing Brain (PSYCH 125)
2015	Sensitive Periods & Experience-Dependent Brain Plasticity (PSYCH 290, Co-instructor with Linda Wilbrecht)
2012, 2014	Undergraduate lecture course: The Developing Brain (PSYCH 125)
2013	Developmental Proseminar (PSYCH 240, Co-instructor with Fei Xu and Mahesh Srinivasan)
2008 – 2013	Professional Development for graduate students (PSYCH 293)
2012	Graduate seminar: The Developing Human Brain (PSYCH 290P)
2009	Developmental Proseminar (PSYCH 240, Co-instructor with Fei Xu and Frederic Theunissen) Neurological Disorders in Famous Artists (PSYCH 128)
2008	The Developing Brain (PSYCH 125, UCB), Fall 2008
2007	Developmental Cognitive Neuroscience (PSYCH 192) Developmental Proseminar (PSYCH 240, Co-instructor with Frederic Theunissen and Carla Hudson Kam) Faculty Sponsor, Brain and Medicine DeCal course
2003 – 2006	Cognitive Neuroscience (PSC 135, Bunge, UCD; <u>4 times</u>)
2004 – 2006	Cognitive Neuroscience (PSC 261/NSC 223; co-instructor, UCD; <u>3 times</u>)

Guest lectures

2017	UCSF Psychiatry Residents
2015	Berkeley Review of CogSci Articles (BROCA) DeCal Introduction to Cognitive Science, UCB (Cog Sci 1)
2012, 2014	Cognitive proseminar: Lecture on Memory Development (Psych 290)
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

Current/incoming:

Belén Guerra Carrillo (Psychology)
Monica Ellwood-Lowe (Psychology) – co-advised with Mahesh Srinivasan

Doctoral alumni:

Michael Souza, Psychology, 2009; Associate Professor, Department of Psychology, University of Toronto at Scarborough
Allyson Mackey, Neuroscience, 2012; Postdoctoral fellow at MIT, Assistant Professor at the University of Pennsylvania beginning in 2016
Kirstie Whitaker, Neuroscience, 2012; Postdoc at Cambridge University
Anna Luerssen, Psychology, 2013 (co-Advisor with Ozlem Ayduk); Assistant Professor at Lehman College, CUNY as of Summer 2013
Zdeña Op de Macks, Psychology, 2016 (co-Advisor with Ron Dahl); Postdoctoral fellow at the University of Oregon as of Summer 2016
Alison Miller Singley, Psychology, 2017
Chloe Green, School of Education, 2017 (secondary advisor, with Frank Worrell); Postdoctoral fellow in San Diego as of Summer 2017

Doctoral fellowships:

Monica Ellwood-Lowe (Psychology): NSF Graduate Fellowship, started 07/2017
Belén Guerra Carrillo (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
Maria Eckstein: German Academic Exchange Service (DAAD) Predoctoral Fellowship
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

Postdoctoral fellows

Current/incoming

Ariel Starr, Ph.D. from Duke University. Postdoctoral NRSA Fellow (2016-2019)
Wei-Chun Wang, Ph.D. from Duke University (arriving 09/2017)
Elena Galeano Weber, Ph.D. from Goethe University in Frankfurt. Applicant for a Feodor Lynen Research Fellowship to visit the host laboratory of a recipient of an Alexander von Humboldt Foundation Research Award (Arriving 03/2018)

Alumni

Yana Fandakova, Ph.D. Graduate student with Ulman Lindenberger at the Max Planck Institute on Human Development: Received German Research Foundation fellowship, “The Developmental Trajectories of Prefrontal and Parietal Regions: Contributions to Episodic Memory Development during Childhood”. Co-mentors: Simona Ghetti and Silvia Bunge.

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.*

Michael Vendetti, Ph.D. Graduate student with Keith Holyoak and Barbara Knowlton at UCLA. *Current position: Research analyst at Oracle.*

Visiting scholars

Natália Mota, Ph.D. student at the University of Natal, Brazil. 2-week residence in the lab.

Patricia Christian, Master’s student at Ludwigs-Maximilians-University in Munich. 3-month residence in the lab funded by a GEO Partner Programm from LMU (2016)

Lucia Magis Weinberg, Ph.D. student at University College London. 3-month residence in lab funded by a Bogue Fellowship from UCL (2016)

Martina Stüder, Ph.D. from University of Berne. Funded by Swiss National Science Foundation Postdoctoral Fellowship. (2015-2016).

Garvin Brod, Ph.D. 3-month & 1-month residences in lab funded by the German Academic Exchange Service (DAAD). Now an Assistant Professor at the Goethe University in Frankfurt

Maria Eckstein, Master's student at Ludwigs-Maximilians-University in Munich

Zdeña Op de Macks, Master's student at Leiden University

Sabbatical visitors: Prof. Yuko Munakata (University of Colorado at Boulder), Prof. Pio Tudela (University of Granada)

Lab managers/ research assistants

Current: Joshua Erdsieck (undergraduate at UC Berkeley)

Former: Heather Anderson (Graduate student at University of Oregon), Jesse Niebaum (NSF Graduate Fellow at CU-Boulder), Jordan Tharp (Graduate student at UC Berkeley), Maia Barrow, Susanna Hill; Chloe Green (Graduate student at UC Berkeley); Samantha Wright; Carol Baym (Ph.D. from U Illinois), Sarah Donohue (Ph.D. from Duke University; Research Scientist at Max Planck Institute in Tübingen)

Graduate Student Qualifying Exam & Thesis Committee Membership

Qualifying Exam Committee Membership

Falk Lieder, Neuroscience, UCB; Christopher Adalio, Psychology, UCB (Chair); Andrew Peckham, Psychology, UCB; 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 Luerssen, 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; Benjamin Mullin, Psychology, UCB; Zdena Op de Macks, Psychology, UCB (Co-Chair); Stacey Seidel, Neuroscience, UCD; Shaun O'Grady, Psychology, UCB (Chair); Joe Winer, Psychology (Chair), UCB; Ruairidh Battleday, Neuroscience, UCB; Maria Eckstein, Psychology (Chair); Wan Chen Lin, Psychology (Chair); Megan Norr, Psychology (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

Christopher Adalio, Psychology, UCB; Jamil Bhanji, Psychology, UCD; Robert Blumenfeld, Psychology, UCD; Maya Cano, Neuroscience, UCB; Jenny Chai, Psychology, UCB; Lina Haldar-Chopra, Education, UCB; Kate Frankel, Education, UCB; Chloe Green, School Psychology, UCB; Anett Gyurak, Psychology, UCB; Bona Kang, Education, 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); Andrew Peckham, Psychology, UCB; Anne Richards, Neuroscience, UCD; Stacey Seidel, Neuroscience, UCD; Michaela Simpson, Psychology, UCB; Michael Souza, Psychology, UCB (Chair); Bong Walsh, Neuroscience, UCD; Kirstie Whitaker, Neuroscience, UCB (Chair)

Reader for Master's Degrees

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

External Ph.D. Examiner

Yana Fandakova, Humboldt University, Berlin
Garvin Brod, Humboldt University, Berlin
Natália Mota, Universidade Federal do Rio Grande do Norte, Natal

Undergraduate Mentoring

Undergraduate Honors students: Jeffrey Crawford, Bryan Wu (co-advised with Dr. Elysa Marco at UCSF), Orly Perlstein (Warner Brown Awardee for top undergraduate thesis in Psychology at UCB, 2014), Sally Bae, Layne Bernstein, Connor Lemos, Natalie De Shetler, Sasha Gupta, Justin Louie, Mehdi Bouhaddou, Sandeep Sahblock, Bryan Matlen, Michael Souza

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.

2016 – present Advisory Committee on Graduate and Postdoctoral Professional Development, Graduate Council, UCB Senate Sub-committee
2014 – present Member, Graduate Council, UCB Senate Committee
2011 – present Head Graduate Advisor, Department of Psychology, UCB
2009-10, 14-15 Cog Neuro 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

Jan-June 2018 Interim Chair, Committee for the Protection of Human Subjects (CPHS-I)
2017 – 2018 Member, Committee for the Protection of Human Subjects (CPHS-I)
 Area Head for Change, Plasticity, & Development, Dept of Psychology
 Search Committee, Faculty position in Social Development
2016 – 2017 Futures Committee, Department of Psychology, UCB
2014, 2016 Panelist, *Beyond Academia* Conference
2015 Reviewer for Summer Undergraduate Research Fellowship program
2014 – Executive Committee member, Institute of Human Development
2012 – Founding member, 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 – 2014 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