

# CURRICULUM VITAE

## Barbara Knowlton

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### Positions held

Professor of Psychology, UCLA (2004-present)  
Associate Professor of Psychology, UCLA (2001-2004)  
Assistant Professor of Psychology, UCLA (1995-2001)  
Post-doctoral Fellow, laboratory of Dr. Larry Squire, Dept. of Psychiatry, UC San Diego (1991-1995).  
Fulbright Junior Researcher, Dept. of Psychology, Tel Aviv University (1990)  
Graduate Research Assistant, laboratory of Dr. Richard Thompson, Stanford University (1984-1987), and University of Southern California (1987-1990)

### Education

Doctor of Philosophy in Neuroscience, Stanford University, 1990  
Bachelor of Arts in Psychology, Johns Hopkins University, 1984

### Awards and Honors

UCLA Psychology Graduate Students Association Arthur Woodward Mentorship Award 2015  
UCLA Department of Psychology Distinguished Service Award 2013  
Fellow, Hanse Institute for Advanced Study, 2002  
G. Stanley Hall Prize for Excellence in Psychology, 1984  
Graduated from Johns Hopkins University with General and Departmental Honors, 1984  
National Merit Scholar 1981-4

### Extramural Grant and Fellowship Support (PI or Co-PI)

NSF (PI) Investigating the Neural Substrates of Learning that Supports Transfer 2016-19  
Scientific Research Network for Decision Neuroscience and Aging (subaward under National Institutes of Health grant AG039350) (Co-PI) 2012-14  
NSF (PI) Subregional Analysis of Human Medial Temporal Lobe in Human Episodic Memory 2009-11  
ONR (Co-PI) Analogical Reasoning: Integration of Neural, Behavioral and Computational Analyses 2008-11.  
NIH/NIMH RO3 (Co-PI) Neural Substrates of Analogical Reasoning 2005-7  
NSF CAREER Award (PI) Mnemonic Functions of the Basal Ganglia 2000-5  
James S. McDonnell Foundation Grant in Cognitive Rehabilitation (PI) Applying Contextual Interference Paradigms to a Rehabilitation Setting”, 1997-9  
NIMH Post-doctoral Fellowship, 1992-5  
McDonnell-Pew Post-doctoral Fellowship in Cognitive Neuroscience, 1991-2  
Fulbright Fellowship, 1990  
NSF Graduate Fellowship 1984-7

### Professional Societies

Society for Neuroscience

Psychonomic Society  
Cognitive Neuroscience Society  
Memory Disorders Research Society (by invitation)  
Center for the Neurobiology of Learning and Memory (by invitation)  
Society of Experimental Psychologists (by invitation)

### **Service - Academic**

Member, California State University General Education Task Force (2017-2018)  
Chair, University of California Education Policy Committee (2016-2017)  
Vice Chair, University of California Education Policy Committee (2015-2016)  
Vice-Chair for Undergraduate Programs, Department of Psychology, UCLA (2002-present)  
Vice Chair, UCLA Undergraduate Council (2014-2015)  
Interim Associate Director for Research, Brain Research Institute, UCLA (2005)

### **Service-Editorial**

Associate Editor, Neuropsychology, (2001-2006)  
Consulting Editor, Journal of Experimental Psychology: Learning, Memory, and Cognition  
(2000-2005), Behavioral Neuroscience (2002-2004), Cognitive Science (2005-2008)  
Regular contributor to the "Paper Alerts" section, Current Opinion in Neurobiology (1997-2000)

### **Service-Federal Agencies**

Member, NSF Advisory Panel member 2001-2002, 2010, 2017-present  
Member, NIA/NIMH Challenge Grants Panel- 2009  
Member, NIA/NIMH ARRA P30 Review Panel- 2009  
Member, NIA/NIH Review Panel -Neural and Behavioral Profiles of Cognitive Aging- 2009  
Member, NSF Science of Learning Centers Site Visit Review Panel, 2008  
Member, NIMH/NIH Ruth Kirchstein Fellowship Review Panel, 2003

### **Service, Professional Societies**

Member, Glushko Dissertation Prize Selection Committee, Cognitive Science Society, 2017  
Co-Organizer, International Conference on Memory VI  
Abstract Referee, National Academy of Neuropsychology Annual Meeting 2016-2017  
Member, Executive Committee, Society of Experimental Psychologists, 2015-present, Chair,  
2015  
Abstract Referee, Organization for Human Brain Mapping Annual Meeting 2009, 2017-2018  
Member, Selection Committee, APA Early Career Award in Behavioral and Cognitive  
Neuroscience, 2008  
Member, Program Committee, International Basal Ganglia Society 2007  
Member, Program Committee, Cognitive Science Society 2005  
Member, Cognitive Neuroscience Society Young Investigator Award Committee 2002-2005,  
Chair, 2006

### **Teaching**

Behavioral Neuroscience (undergraduate)  
Introduction to Psychobiology (undergraduate)  
Human Neuropsychology (undergraduate)  
Cognitive Neuroscience (undergraduate)  
Memory, A User's Guide (Fiat Lux Freshman Seminar)  
Molecules to Mind (undergraduate, co-taught)  
Mind over Matter General Education cluster (undergraduate co-taught)  
Introductory Psychology (undergraduate co-taught)

Laboratory in Behavioral Neuroscience (undergraduate, co-taught)  
Laboratory in Neuroscience (undergraduate, co-taught)  
Neuropsychology of Perception (graduate)  
Neuropsychology of Memory (graduate)  
Modulation of Affective Memory (graduate, co-taught)  
Current Literature in Neuroscience (graduate, co-taught)

### **Invited Presentations**

Symposium on the Neuropsychology of Memory, American Psychological Association, Los Angeles, CA, August, 1994.  
18th International Symposium on Brain Sciences: Emotion, Memory, and Behavior-Study of Human and Non-human Primates, Kohala Coast, HI, February, 1995.  
Seminar, Dept. of Psychology, Pomona College, Claremont, CA, February, 1996  
Symposium on Remembering and Knowing the Past, Second International Conference on Memory, Abano Terme, Italy, July, 1996  
Colloquium, Dept. of Psychology, Carnegie Mellon University, Pittsburgh, PA, October, 1996  
Seminar, Dept. of Psychology, UC Santa Barbara, February, 1997  
Symposium on the Neuropsychology of Memory, Theoretical and Experimental Neuropsychology Conference XIII (TENNET), Montreal, Canada, June 1997  
Symposium on Familiarity and Recollection: Components of Recognition Memory, 9th Annual Meeting of the Memory Disorders Research Society, San Francisco, CA, November, 1997  
Symposium on Alternate Mechanisms for Motor and Visuospatial Cognition, American Association for the Advancement of Science Annual Meeting, Philadelphia, PA, February 1998.  
James S. McDonnell Foundation Inaugural Symposium on Cognitive Rehabilitation, St Louis, MO, September, 1998  
Colloquium, Dept. of Biokinesiology, University of Southern California, September, 1998.  
Symposium on Alzheimer's Disease: The Relevance of Transgenics and Knockouts to Understanding Pathogenesis, Los Angeles, CA, March, 1999  
Seminar, UCSF Memory Disorders Clinic Retreat, San Francisco, CA, September, 1999  
Colloquium, Dept. of Psychology, Northwestern University, Evanston, IL., October 1999  
Colloquium, Program in Computation and Neural Science, Caltech, Pasadena, CA, April 2000  
Workshop sponsored by the John Douglas French Alzheimer's Disease Foundation, Redondo Beach, CA May, 2000  
Colloquium, Neuroscience Program, University of Southern California, Los Angeles, CA September, 2000  
Symposium on the Role of the Prefrontal Cortex in Cognition (organizer) 13<sup>th</sup> Annual Winter Conference on Neural Plasticity, Antigua, West Indies, February, 2001  
Colloquium, Dept. of Brain and Cognitive Sciences, MIT, Cambridge, MA, March, 2001  
Workshop on Biomarkers for Huntington's Disease sponsored by the Hereditary Disease Foundation, Playa del Rey, CA, June 2001  
Lecturer, Course on Mouse Behavioral Analysis, Cold Spring Harbor Laboratory, New York, July 2001 and 2003  
Symposium on Categorization, Third International Conference on Memory, Valenica, Spain, July 2001  
Workshop on Neuroscience for Novel Intelligence sponsored by the National Imagery and Mapping Agency, Hot Springs, VA, August, 2001  
Symposium on Dissociating Basal Ganglia and Medial Temporal Lobe Contributions to Learning: Implications for Understanding the Cognitive Deficits in Parkinson's Disease, Society for Neuroscience 31<sup>st</sup> Annual Meeting, San Diego, CA November 2001.  
Colloquium, Dept. of Psychology, Ruhr University-Bochum, February 2002  
Symposium on Functional and Clinical Neuroanatomy. Conference on Binding in Human

Memory, Saarbrueken, Germany, May 2002  
 Lecturer, Course in Cognitive Neuropsychology of Memory, 9<sup>th</sup> International Summer School in Cognitive Science, Sofia, Bulgaria, July, 2002.  
 Invited Talk, “Psychiatric manifestations of basal ganglia disorders” !7<sup>th</sup> Annual Meeting of the Society for Research on Psychopathology, San Francisco, September, 2002.  
 Colloquium, Dept. of Psychology, University of Arizona, Tuscon, AZ March 2003  
 Keynote Talk, Ohio State Cogfest, Ohio State University, Columbus, OH, March 2003  
 Workshop on Dopamine and Memory: Integrating Computational and Empirical Approaches, Newark, NJ March 2003.  
 Symposium on Cross-Species Comparisons, 2nd Annual Cognitive Neuroscience of Category Learning Conference, New York, September, 2003  
 Colloquium, Dept. of Psychology, UC San Diego, October, 2003  
 Symposium on Cognitive Control American Psychological Association 112<sup>th</sup> Annual Meeting, Honolulu, Hawaii, July 2004  
 Workshop on the Cognitive Phenotype of Huntington’s Disease, sponsored by the Hereditary Disease Foundation, New York, July 2004.  
 Symposium on Human Memory Representation, Winter Conference on the Neurobiology of Learning and Memory (Conference-Co-organizer), Park City Utah, January, 2005  
 Symposium on The Past, Present, and Future of Cognitive Psychology, Cal. State Sacramento, February, 2005  
 Symposium on Neurocognitive Processes in Tobacco and Alcohol Trajectories. 2<sup>nd</sup> East-West Conference on Tobacco and Alcohol: Culture, Environment and Genes, Pasadena, CA April 2005  
 Tourette Syndrome Association Behavioral Consortium, San Antonio, TX, October 2005.  
 Symposium on Animal and Human Models of Basal Ganglia Dysfunction, European Behavioral Pharmacology Society, Krakow, Poland, September 2006  
 Symposium of Statistical Learning, 47<sup>th</sup> meeting of the Psychonomic Society, Houston, TX, November, 2006  
 Colloquium, NIDA Intramural Research Program, Baltimore, MD February 2007  
 Symposium on Functions of Human Medial Temporal Lobe (organizer) 19<sup>th</sup> Winter Conference on Neural Plasticity, Moorea, French Polynesia, February 2007  
 Symposium on Behavioral Correlates of Basal Ganglia Function and Dysfunction, Ninth International Basal Ganglia Society Meeting, Egmond aan Zee, September, 2007  
 Colloquium sponsored by NIH/MBRS Research Initiative for Scientific Enhancement at Cal State Fresno – February 2008  
 Lecturer, Higher Cognition and Decision-Making, Summer Institute of Cognitive Neuroscience, Lake Tahoe, CA- July 2008  
 Workshop on Cognitive Testing in Animal Models of Huntington’s Disease sponsored by CHDI, Los Angeles, CA, October, 2008  
 Colloquium, Gladstone Institute for Neurological Disease, San Francisco, CA January 2009  
 Symposium on Brain Mechanisms of Analogy- 2nd International Conference on Analogy, Sofia Bulgaria, July 2009  
 Keynote Speaker, NSF-sponsored Research Experiences for Undergraduates program, Colorado State University, Fort Collins, CO August 2009  
 Symposium on Habit Learning and the Striatum, Annual Meeting of the Pavlovian Society, Burlington, VT, October 2009  
 Colloquium, Center for Neuroscience, UC Davis, February, 2010.  
 Speaker, 80<sup>th</sup> Birthday Festschrift for Richard F. Thompson, University of Southern California, Los Angeles, May, 2010  
 Workshop on Psychophysiology of Huntington’s Disease sponsored by CHDI, New York, NY September 2010.  
 Colloquium, Department of Psychology, Texas A&M University, College Station, TX, September, 2010  
 Symposium on Pattern Separation, 23<sup>rd</sup> Winter Conference on Neuroplasticity, Moorea, French

Polynesia, February, 2011  
 Inaugural Keynote Speaker, Brain Awareness Week, Miami University, Oxford, OH, March, 2011.  
 Bauer Colloquium Series, Brandeis University, Waltham, MA, March 2011  
 Colloquium, Laboratory of Integrative Neuroscience, University of Illinois, Chicago, September, 2011  
 Integrative Center for Learning and Memory Inaugural Symposium speaker, UCLA, February, 2012  
 11<sup>th</sup> Annual Southern California Learning and Memory Conference speaker, La Jolla, CA June 2012  
 Independence and Interaction of Memory Systems, Satellite Symposium, Society for Neuroscience Annual Meeting, New Orleans, LA, October, 2012  
 Brain Health Seminar Series, University of Michigan School of Kinesiology, Ann Arbor, MI November, 2012  
 Guest Lecturer, 2nd Annual Berkeley Interdisciplinary Research Conference- UC Berkeley, May 2013  
 Workshop on Cognitive Science (sponsored by NSF) at the International Joint Conference on Neural Networks, Dallas Texas August, 2013  
 Brown Bag Seminar, Social Psychology Area, Department of Psychology, University of Southern California, Los Angeles, September, 2013  
 Symposium on Early Life Stress and Learning (organizer), Annual Meeting of the Pavlovian Society, Seattle, WA, October, 2014  
 Brown Bag Seminar, Cognitive Psychology Area, Dept. of Psychology, UC Riverside, October, 2014  
 Symposium on Implicit Learning: Mechanisms, Computations and Systems (Sponsored by the European Society for Cognitive Psychology. First International Conference of Psychological Science, Amsterdam, Netherlands, March, 2015  
 Theme Speaker, Interdisciplinary Advances in Statistical Learning, San Sebastian, Spain, June, 2015  
 Speaker, Advances in the Science of Habits Conference, Two Harbors, Catalina Island, California, July, 2015  
 Brown Bag Seminar, Behavioral Neuroscience Area, Dept. of Psychology, University of Washington, Seattle, WA October 2015  
 Seminar, Loyola Interdisciplinary Neuroscience Program, Chicago, IL, November 2015.  
 Brown Bag Seminar, Cognitive Area, Dept. of Psychology, University of Washington, Seattle, WA, January 2016  
 Symposium Organizer: Brain Stimulation Methods for Memory Enhancement. Winter Conference on Neural Plasticity, Maui, Hawaii, February, 2016  
 Lecturer, 4<sup>th</sup> Bangalore Cognition Workshop, India, July, 2016  
 Symposium on Cognitive Control in Memory, Sixth International Conference on Memory, (Conference Co-organizer) Budapest, Hungary, July 2016.  
 Southern California Learning and Memory Symposium, Riverside CA, May 2017.  
 Colloquium, Claremont Colleges Neuroscience Program, Claremont, CA, October, 2017  
 Speaker, 50 Years of Implicit Learning Research: A Symposium in Honor of Arthur S. Reber at the 58<sup>th</sup> Annual Meeting of the Psychonomic Society, Vancouver, BC, November 2017.

## **Publications**

1. Knowlton, B.J., Wenk, G.L., Olton, D.S., & Coyle, J. (1985). Basal forebrain lesions produce a dissociation between trial dependent and trial independent memory performance. Brain Research, 345, 315-321.
2. Knowlton, B.J., McGowan, M., Olton, D.S., & Gamzu, E. (1985). Hippocampal stimulation

- results in an impairment of working memory even eight hours after acquisition. Behavioral and Neural Biology, 44, 325-337.
3. Lavond, D.G., Knowlton, B.J., Steinmetz, J.E., & Thompson, R.F. (1987). Classical conditioning of the rabbit eyelid response with a mossy fiber stimulation CS: II. Lateral reticular nucleus stimulation. Behavioral Neuroscience, 101, 676-82.
  4. Knowlton, B.J., Lavond, D.G., & Thompson, R.F. (1988). The effects of lesions of the cerebellar cortex on retention of the classically conditioned eyeblink response when stimulation of the lateral reticular nucleus is used as a conditioned stimulus. Behavioral and Neural Biology, 49, 293-301.
  5. Knowlton, B.J., & Thompson, R.F. (1988). Microinjections of local anesthetic into the pontine nuclei reduce the amplitude of the classically conditioned eyeblink response. Physiology & Behavior, 43, 855-857.
  6. Knowlton, B.J., & Thompson, R.F. (1989). Stimulation of the lateral septum acts as a much more effective CS than stimulation of the medial septum in the classically conditioned eyeblink response. Behavioral Neuroscience, 103, 206-208.
  7. Knowlton, B.J., Shapiro, M.L., & Olton, D.S. (1989). Hippocampal seizures impair working memory performance but not reference memory acquisition. Behavioral Neuroscience, 103, 1144-1147.
  8. Knowlton, B.J., Ramus, S. & Squire, L.R. (1992) Intact artificial grammar learning in amnesia: Dissociation of classification learning and explicit memory for specific instances. Psychological Science, 3, 172-179.
  9. Knowlton, B.J., & Thompson, R.F. (1992) Conditioning using a cerebral cortical CS is dependent on the cerebellum and brainstem circuitry. Behavioral Neuroscience, 106, 509-517.
  10. Squire, L.R., Knowlton, B., & Musen, G. (1993) The structure and organization of memory. Annual Review of Psychology, 44, 453-495.
  11. Knowlton, B.J., Thompson, J.K. & Thompson, R.F. (1993) Projections from the auditory cortex to the pontine nuclei in the rabbit. Behavioural Brain Research, 56, 23-30.
  12. Mintz, M. & Knowlton, B.J. (1993) Dissociation of kainic acid lesion effects on the asymmetry of rotation and lateral head movements. Brain Research Bulletin, 31, 641-647.
  13. Mintz, M., Knowlton, B.J. & Myslobodsky, M. (1993). The effect of solcoseryl on kainic acid induced seizures in the rat. Pharmacology, Biochemistry & Behavior, 45, 55-58.
  14. Knowlton, B.J., & Squire, L.R. (1993). The learning of categories: Parallel brain systems for item memory and category knowledge. Science, 262, 1747-1749.
  15. Knowlton, B.J. & Squire, L.R. (1994). The information acquired during artificial grammar learning. Journal of Experimental Psychology: Learning, Memory & Cognition, 20, 79-91.
  16. Knowlton, B.J. & Squire, L.R. (1994) Artificial grammar learning and implicit memory: Reply to Higham and Vokey. Psychological Science, 5, 61.

17. Knowlton, B.J., Squire, L.R. & Gluck, M.A. (1994). Probabilistic category learning in amnesia. Learning and Memory, 1, 106-120.
18. Squire, L.R., Hamann, S., & Knowlton, B. (1994) Dissociable learning and memory systems of the brain. Behavioral and Brain Sciences. 17., 422-423.
19. Squire, L.R. & Knowlton, B. J. (1995) Memory, hippocampus, & brain systems. In The Cognitive Neurosciences (M.Gazzaniga, ed.) Cambridge, MA; MIT Press. pp. 825-837.
20. Squire, L.R. & Knowlton, B. J. (1995) The organization of memory. In The Mind, the Brain, and Complex Adaptive Systems. (H. Morowitz & J. Singer, eds.) Reading, MA; Addison-Wesley. pp 63-97.
21. Knowlton, B.J. & Squire, L.R. (1995) Remembering and knowing: Two different expressions of declarative memory. Journal of Experimental Psychology: Learning, Memory, & Cognition. 21, 699-710.
22. Knowlton, B.J. (1995) Category learning in amnesia. In Emotion, Memory and Behavior: Study of Human and Non-human Primates. (T. Nakajima & T. Ono, eds.) Boca Raton, FL; CRC Press. pp 105-115.
23. Squire, L.R. & Knowlton, B. J. (1995) Learning about categories in the absence of memory. Proceedings of the National Academy of Sciences 92, 12470-12474.
24. Knowlton, B.J. & Squire, L.R. (1996) Artificial grammar learning depends on implicit acquisition of both rule-based and exemplar-specific information. Journal of Experimental Psychology: Learning, Memory, & Cognition. 22, 169-181.
25. Knowlton, B.J., Mangels, J.A., & Squire, L.R. (1996) A neostriatal habit learning system in humans. Science 273, 1399-1402.
26. Reber, P.J., Knowlton, B.J., & Squire, L.R. (1996) Dissociable properties of memory systems: Differences in the flexibility of declarative and nondeclarative knowledge. Behavioral Neuroscience 110, 859-869.
27. Knowlton, B.J., Squire, L.R., Paulsen, J.S., Swerdlow, N., Swenson, M., & Butters, N. (1996) Dissociations within nondeclarative memory in Huntington's disease. Neuropsychology 10(4), 1-11.
28. Knowlton, B.J. (1997) Declarative and nondeclarative knowledge: Insights from cognitive neuroscience. In Knowledge, Concepts and Categories. (K. Lamberts & D.Shanks, eds.) East Sussex, UK; Psychology Press. pp. 215-246.
29. Knowlton, B.J. & Fanselow, M.S. (1998). The hippocampus, consolidation, and on-line memory. Current Opinion in Neurobiology. 8, 293-296.
30. Knowlton, B.J. (1998) The relationship between remembering and knowing: A cognitive neuroscience perspective. Acta Psychologica, 98, 253-266.
31. Waltz, J.A., Knowlton, B.J., & Holyoak, K.J. (1998) Relational complexity, the central executive, and prefrontal cortex. Behavioral and Brain Sciences, 21, 846-847 .
32. Waltz, J.A., Knowlton, B.J., Holyoak, K.J., Boone, K.B., Mishkin, F.S., Santos, M.D., Thomas, C.R., & Miller, B.L. (1999). A system for relational reasoning in human

- prefrontal cortex. Psychological Science , 10, 119-125.
33. Knowlton, B.J. (1999) What can neuropsychology tell us about category learning? Trends in Cognitive Science 3, 123-124.
  34. Anderson, B.J., Relucio, K., Haglund, K., Logan, C., Knowlton, B., Thompson, J. Steinmetz, J.E., Thompson, R.F., & Greenough, W.T. (1999). Effects of paired and unpaired eye-blink conditioning on Purkinje cell morphology. Learning & Memory, 6, 128-137.
  35. Knowlton, B.J. (1999). Recall, recognition, and the medial temporal lobes. Behavioral and Brain Sciences, 22, 455-456.
  36. Squire, L.R. & Knowlton, B.J. (2000) The medial temporal lobe, the hippocampus, and the memory systems of the brain. In The New Cognitive Neurosciences, 2nd Edition. (M. Gazzaniga, ed.) Cambridge, MA; MIT Press pp. 765-779.
  37. McAuliffe, S.P. & Knowlton, B.J. (2000) Dissociating the effects of featural and conceptual interference on multiple target processing in rapid serial visual presentation Perception & Psychophysics, 62, 187-195.
  38. Sage, J.R. & Knowlton, B.J. (2000) Effects of US devaluation on win-stay and win-shift radial maze performance in rats. Behavioral Neuroscience, 114, 295-306.
  39. McAuliffe, S.P. & Knowlton, B.J. (2000) Long term retinotopic priming in object identification. Perception & Psychophysics, 62, 953-959.
  40. Eldridge, L.E., Knowlton, B.J., Furmanski, C., Bookheimer, S. & Engel, S.A. (2000) Remembering episodes: A selective role for the hippocampus during retrieval. Nature Neuroscience, 3, 1149-1152
  41. McAuliffe, S.P. & Knowlton, B.J. (2001) Hemispheric differences in object identification. Brain & Cognition. 45, 119-128.
  42. Squire, L.R., Clark, R.E. & Knowlton, B.J. (2001). Retrograde Amnesia. Hippocampus, 11, 50-55.
  43. Hollingsworth, D.E., McAuliffe, S.P., & Knowlton, B.J. (2001). Temporal allocation of visual attention in adults with attention deficit hyperactivity disorder Journal of Cognitive Neuroscience 13, 298-305.
  44. Yin, H.H. & Knowlton, B.J. (2002) US devaluation abolishes conditioned cue preference: Evidence for S-S associations Behavioral Neuroscience, 116, 174-177.
  45. Knowlton, B.J. (2002). The role of the basal ganglia in learning and memory. In Neuropsychology of Memory, Third Edition (L.R. Squire & D. L. Schacter, eds.) Guilford Publications, New York, pp143-153.
  46. Eldridge, L.L., Sarfatti, S., & Knowlton B.J. (2002). The effect of testing procedure on remember/know judgments. Psychonomic Bulletin and Review , 9, 139-145.
  47. Sullivan, K.J., Knowlton, B.J., & Dobkin, B.H.(2002). Body weight supported treadmill training: Effect of treadmill speed and stroke severity on overground walking in chronic hemiplegic stroke Archives of Physical Medicine and Rehabilitation, 83, 683-691.



48. Packard, M.G. & Knowlton, B.J. (2002). Learning and memory functions of the basal ganglia. Annual Review of Neuroscience, *25*, 563-593.
49. Knowlton, B.J. (2002). Categorization. In The Encyclopedia of the Human Brain, Volume 1 (V.S. Ramachandran, ed.), Academic Press, San Diego, pp 603-609
50. Eldridge, L.L., Masterman, D., & Knowlton, B.J.(2002). Intact implicit habit learning in Alzheimer's disease Behavioral Neuroscience *116*, 722-726..
51. Viskontas, I.V. & Knowlton, B.J. (2003). Procedural learning in humans. In J. H. Byrne (ed) Learning & Memory, 2nd Edition. Macmillan Reference USA, New York, pp 547-550.
52. Sage, J.R., Anagnostaras, S.G., Mitchell, S., Bronstein, J.M., De Salles, A., Masterman, D., & Knowlton, B.J. (2003). Analysis of probabilistic classification in patients with Parkinson's disease and controls: What is learned? Learning & Memory, *10*, 226-236.
53. Fales, C.L., Knowlton, B.J., Holyoak, K.J., Geschwind, D., Swerdlov, R.S., & Gaw-Gonzalo, I. (2003) Working memory and relational reasoning in Klinefelter syndrome Journal of the International Neuropsychological Society, *9*, 839-846.
54. Knowlton, B.J., & Viskontas, I.V. (2003) Retention systems of the brain: Evidence from neuropsychological patients. Behavioral and Brain Sciences *26*: 743-744.
55. Yin, H.H., Knowlton, B.J., & Balleine, BW (2004). Lesions of the dorsolateral striatum preserve outcome expectancy but disrupt habit formation in instrumental learning. European Journal of Neuroscience. *19*, 181-189.
56. Iacoboni, M., Lieberman, M.D., Knowlton, B.J., Molnar-Szakacs, I., Moritz, M., Throop, C.J., & Fiske, A.P. (2004). Watching social interactions produces dorsomedial prefrontal and medial parietal BOLD fMRI signal increase compared to a resting baseline. Neuroimage, *21*, 1167-1173.
57. Morrison, R.G., Krawczyk, D.C., Holyoak, K.J., Hummel, J.E., Chow, T.W., Miller, B.L., & Knowlton, B.J. (2004). A neurocomputational model of analogical reasoning and its breakdown in Frontotemporal Lobar Degeneration. Journal of Cognitive Neuroscience *16*, 260-271.
58. Waltz, J.A., Knowlton, B.J., Holyoak, K.J., McPherson, S., Boone, K.B., Back-Madruga, C. Masterman, D., Chow, T., Cummings, J.L., & Miller, B.L. (2004). Relational reasoning and executive function in Alzheimer's disease. Neuropsychology *18*, 296-305.
59. Lieberman, M.D., Chang, G.Y., Chiao, J., Bookheimer, S.Y., & Knowlton, B.J. (2004). An event-related fMRI study of artificial grammar learning in a balanced chunk strength design. Journal of Cognitive Neuroscience, *16*, 427-438.
60. Moody, T.D. Bookheimer, S.Y. Vanek, Z. & Knowlton, B.J. (2004). An implicit learning task activates medial temporal lobe in patients with Parkinson's disease Behavioral Neuroscience *118*, 438-442.
61. Chang, G.Y. & Knowlton, B.J. (2004). The effect of surface feature manipulations on artificial grammar learning. Journal of Experimental Psychology: Learning, Memory, & Cognition *30*, 714-722.

62. Yin, H.H. & Knowlton, B.J. (2004) Contributions of striatal subregions to place and response learning. Learning & Memory 24:459-463.
63. Stacy, A.W., Ames, S.L. & Knowlton, B.J. (2004). Neurologically plausible distinctions in cognition relevant to drug use etiology and prevention. Substance Use and Misuse, 39:1571-1623.
64. Viskontas, I.V., Morrision, R.G., Holyoak, K.J., Hummel, J.E., & Knowlton, B.J. (2004). Relational integration, inhibition, and analogical reasoning in older adults. Psychology and Aging. 19:581-591.
65. Knowlton, B.J. (2004). Cognitive neuropsychology of learning and memory. In K. Lamberts & R.L. Goldstone, (eds.) Handbook of Cognition. Sage Publications, London pp 365-381.
66. Eldridge, L.L., Engel, S.A., Zeineh, M.M., Bookheimer, S.Y., & Knowlton, B.J. (2005). A dissociation of encoding and retrieval processes in the human hippocampus. Journal of Neuroscience 25, 3280-3286..
67. Poldrack RA, Sabb FW, Foerde K, Tom SM, Asarnow RF, Bookheimer SY, Knowlton BJ. (2005).The neural correlates of motor skill automaticity Journal of Neuroscience, 25:5356-5364.
68. Yin, H.H., Ostlund, S., Knowlton, B.J. & Balleine, B.W. (2005). The role of the dorsomedial striatum in instrumental conditioning. European Journal of Neuroscience, 22, 513-523
69. Viskontas, I.V., Holyoak, K.J. & Knowlton, B.J. (2005) Relational integration in older adults. Thinking & Reasoning., 11: 390-410.
70. Yin, H.H., Knowlton, B.J. & Balleine, B.W. (2005). Blockade of NMDA receptors in the dorsomedial striatum prevents action outcome learning in instrumental conditioning. European Journal of Neuroscience , 22, 505-512.
71. Yin H.H. & Knowlton, B.J. (2005). Addiction and learning in the brain. In R.W. Wiers and A.W. Stacy (eds.) Handbook of Implicit Cognition and Addiction Sage Publications, London. 167-183.
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