Thackery Ian Brown, Ph.D.

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Education

2007-2012	Doctor of Philosophy, Psychology: Brain, Behavior, and Cognition Boston University, Graduate School of Arts and Sciences, Boston, MA Dissertation title: *Functional MRI investigations of overlapping spatial memories and flexible decision-making in humans.* Awarded 01/2013 Advisor: Dr. Chantal Stern; Committee: Dr. Michael Hasselmo, Dr. Helen Barbas, Dr. Howard Eichenbaum, Dr. David Somers
2003-2007	Bachelor of Arts, Psychology Boston University, College of Arts and Sciences, Boston, MA *Summa Cum Laude*

Positions/Research Experience

2013-present	Post-doctoral research. Advisor: Professor Anthony Wagner Stanford Memory Laboratory, Stanford University
2016-present	Adjunct Professor in Psychology, San Jose State University
2012-2013	Post-doctoral research. Advisor: Professor Chantal Stern Cognitive Neuroimaging Laboratory, Boston University
2007-2012	Doctoral research. Advisor: Professor Chantal Stern Cognitive Neuroimaging Laboratory, Boston University
2006-2007	Research Assistant. Advisor: Professor Chantal Stern Cognitive Neuroimaging Laboratory, Boston University
2006-2007	Research Assistant. Advisor: Professor Jacqueline Liederman Cognitive Neuroscience Laboratory, Boston University
Summers 2001-2004	Laboratory Technician. Physics and chemistry research New England Research

Teaching and Mentoring Experience

2017	Instructor for The Nervous System (NBIO206), Stanford University
2016-present	Instructor for Advanced Research Methods and Design (Psyc120), San Jose State University
2014-2015	Led select discussion/seminar sessions for Current Debates in Learning and Memory (PSYCH266), Stanford University

2013-present	Research mentor for Department of Psychology undergraduate research and research assistant, Stanford University. *Catherine Escher, B.A.; Laura Austin; Morgan Grace Graziadei; Sarah Mariko Matsunaga*
2012	Invited lecturer for Memory Systems (PS337), Boston University
2011-2012	Research mentor for Department of Psychology doctoral research, Boston University. *Katherine Sherrill, Ph.D.; Lauren Groves, Ph.D.*
2011-2012	Research mentor for Department of Psychology undergraduate research, Boston University. *Evan Stein, B.A.; Andrew Whiteman, B.A.; Irem Aselcioglu, B.A.*
2008-2011	Research mentor for Department of Psychology master's research, Boston University. *Sean Tobyne, M.A.; Joseph Keller, M.A.*
2008-2009	Teaching Fellow, Introduction to Cognitive Neuroscience (NE202), Department of Neuroscience/Department of Psychology, Boston University Professors: Chantal Stern and David Somers

Grants, Awards, Honors

2017-2019	2016 NARSAD Young Investigator Grant: *Neurobiology of Stress Effects on Memory-Guided Planning and Behavior.* $70,000
2016	CNI seed grant award for fMRI pilot study, Stanford University CNI. $4,200
2015-present	Network Scholar of The MacArthur Foundation Research Network on Law and Neuroscience
2015	Honorarium awardee from The MacArthur Foundation Research Network on Law and Neuroscience
2015	Cognitive Neuroscience Society Post-doctoral Fellow Award
2014-2016	Templeton Science of Prospection Award (**co-applicant**, P.I. - Anthony Wagner). $100,000
2013	CNI seed grant award for fMRI pilot study, Stanford University CNI. $3,150
2011	Boston University Department of Psychology Graduate Travel Award
2008-2009	Teaching Fellowship, Boston University
2007-2012	Graduate Research Assistantship, Boston University
2007	*Summa Cum Laude*, B.A. in Psychology, Boston University
2006-2007	Golden Key International Honour Society
2003-2006	Dean's List, College of Arts and Sciences, Boston University

Professional service

Academic conference organizer (2014)	Bay Area Memory Meeting (BAMM)
Subfield Working Group contributor (2013)	Hippocampal Subfield Segmentation Summit (HS3)
Manuscript reviewer (dates vary)	Science The Journal of Neuroscience Cerebral Cortex Journal of Cognitive Neuroscience Human Brain Mapping Behavioural Brain Research Cognitive and Behavioral Neurology The Journal of General Psychology

Professional memberships and affiliations

Cognitive Neuroscience Society
Hippocampal Subfields Group (HSG – www.hippocampalsubfields.com)
Society for Neuroscience

Invited Talks

Contextual memory and goal-directed behavior in humans. University of Toronto, St. George, Dept. of Psychology, Toronto, ON. 2016

Functional MRI investigation of flexible navigation of overlapping routes in humans. Stanford University Psychology Dept., Palo Alto, CA. 2012

Medial temporal and striatal contributions to the integration and separation of overlapping spatial memories. Fifteenth International Conference on Cognitive and Neural Systems, Boston, MA. 2011

fMRI investigation of flexible spatial navigation. Boston University Brain Behavior and Cognition program, Psychology Dept., Boston, MA. 2011

Publications

Brown, T.I., Uncapher, M.R., Chow, T.E., Eberhardt, J., & Wagner, A.D. (2017). Cognitive Control, Attention, and the Other Race Effect in Memory. PLOS ONE, In Press.

Brown, T.I., Carr, V.A., LaRocque, K.F., Favila, S.E., Gordon, A.M., Bowles, B., Bailenson, J.N., & Wagner, A.D. (2016). Prospective representation of navigational goals in the human hippocampus. Science, 352:1323-1326.

van Kesteren, M.T.R., **Brown, T.I.**, & Wagner, A.D. (2016). Interactions between memory and new learning: Insights from fMRI multivoxel pattern analysis. Frontiers in Systems Neuroscience, 10:46. doi: 10.3389/fnsys.2016.00046.

Brown, T.I., Staresina, B.P., & Wagner, A.D. (2015). Noninvasive Functional and Anatomical Imaging of the Human Medial Temporal Lobe. In E. Kandel, Y. Dudai, & M.R. Mayford (Eds.), Cold Spring Harbor Perspectives in Biology, 7:a021840.

van Kesteren, M., & **Brown, T.I.** (2014). The medial prefrontal cortex and the deceptiveness of memory. The Journal of Neuroscience, 34:13569-13570.

Brown, T.I., Hasselmo, M.E., & Stern, C.E. (2014). A high-resolution study of hippocampal and medial temporal lobe correlates of spatial context and prospective overlapping route memory. Hippocampus, 24:819-839.

Brown, T.I., Whiteman, A.S., Aselcioglu, I., & Stern, C.E. (2014). Structural differences in hippocampal and prefrontal gray matter volume support flexible context-dependent navigation ability. The Journal of Neuroscience, 34:2314-2320.

Brown, T.I. & Stern, C.E. (2013). Contributions of medial temporal lobe and striatal memory systems to learning and retrieving overlapping spatial memories. Cerebral Cortex, 24:1906-1922.

Sherrill, K.R., Erdem, U.M., Ross, R.S., **Brown, T.I.**, Hasselmo, M.E., & Stern, C.E. (2013). Hippocampus and retrosplenial cortex combine path integration signals for successful navigation. The Journal of Neuroscience, 33:19304-19313.

Brown, T.I., Ross, R.S., Tobyne, S.M., & Stern, C.E. (2012). Cooperative interactions between hippocampal and striatal systems support flexible navigation. Neuroimage, 60:1316-1330.

Brown, T.I., Ross, R.S., Keller, J.B., Hasselmo, M.E., & Stern, C.E. (2010). Which Way Was I Going? Contextual Retrieval Supports the Disambiguation of Well Learned Overlapping Navigational Routes. The Journal of Neuroscience, 30:7414-7422.

Ross, R.S, **Brown, T.I.**, & Stern, C.E. (2009). The Retrieval of Learned Sequences Engages the Hippocampus: Evidence From fMRI. Hippocampus, 19:790-799.

Manuscripts submitted

Brown, T.I., Aselcioglu, I., & Stern, C.E. (in revision). Contextual memory and behavioral flexibility. Evidence for a gradient within the medial temporal lobe for flexible associative retrieval under changing task rules.

Manuscripts in preparation

Brown, T.I., Uncapher, M.R., Rissman, J., & Wagner, A.D. (in preparation). Parietal and medial temporal lobe correlates of real-world autobiographical semantic memory.

Chrastil, E.R., **Brown, T.I.**, Aselcioglu, I., Hasselmo, M.E., & Stern, C.E. (in preparation). Brain network sensitive to heading direction in humans mirrors head direction regions in the rat.

Peth, J., **Brown, T.I.**, Wagner, A.D., & Gamer, M. (in preparation). The influence of mental countermeasures on memory detection using an fMRI-based Concealed Information Test.

Abstracts and conference presentations

Brown, T.I., LaRocque, K.F., Carr, V.A., Favila, S.E., Gordon, A.M., Bowles, B., Bailenson, J.N., Wagner, A.D. (2016). Mechanisms of prospective navigation in the human brain. Talk given at the annual meeting of the Society for Neuroscience, San Diego, CA

Brown, T.I., LaRocque, K.F., Favila, S.E., Carr, V.A., Gordon, A.M., Bowles, B., Wagner, A.D. (2015). Prospective representation of navigational events in the human hippocampus. Poster presented at the annual meeting of the Society for Neuroscience, Chicago, IL

Peth, J., **Brown, T.I.**, Wagner, A.D., Gamer, M. (2015). The influence of mental countermeasures on memory detection using an fMRI-based Concealed Information Test. Poster presented at the annual meeting of the Society for Neuroscience, Chicago, IL

Brown, T.I., LaRocque, K.F., Favila, S.E., Carr, V.A., Gordon, A.M., Bowles, B., Wagner, A.D. (2015). Prospective representation of navigational events in the human hippocampus. Poster presented at the annual Bay Area Memory Meeting, Davis, CA

van Kesteren, M., **Brown, T.I.**, Escher, C., Wagner, A.D. (2015). Reinstating to encode: How prior spatial knowledge impacts learning of new locations. Talk given to Department of Psychology, University of Toronto, Toronto, ON

Brown, T.I., LaRocque, K.F., Favila, S.E., Carr, V.A., Gordon, A.M., Bowles, B., Wagner, A.D. (2015). Prospective representation of navigational goals in the human MTL. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA

Brown, T.I., Uncapher, M.R., LaRocque, K.F., Wagner, A.D. (2014). Stability in hippocampal representation of faces during encoding relates to race effects in memory. Poster presented at the annual meeting of the Cognitive Neuroscience Society, Boston, MA

Sherrill, K.R., Erdem, U.M., **Brown, T.I.**, Ross, R.S., Hasselmo, M.E., Stern, C.E. (2014). Successful navigation in the absence or presence of an orienting landmark. Poster presented at the annual meeting of the Cognitive Neuroscience Society, Boston, MA

Brown, T.I., Aselcioglu, I., Stern, C.E. (2013). Prefrontal and hippocampal interactions support rule shifts and flexibility in context-dependent memory retrieval. Poster presented at the annual meeting of the Society for Neuroscience, San Diego, CA

Sherrill, K.R., Ross, R.S., **Brown, T.I.**, Erdem, U.M., Hasselmo, M.E., Stern, C.E. (2013). Path integration and optic flow correlates of ground-level navigation. Poster presented at the annual meeting of the Society for Neuroscience, San Diego, CA

Chrastil, E.R., **Brown, T.I.**, Aselcioglu, I., Hasselmo, M.E., Stern, C.E. (2013). Brain mechanisms supporting heading direction in humans. Poster presented at the annual meeting of the Society for Neuroscience, San Diego, CA

Brown, T.I., Newmark, R.E., Hasselmo, M.E., Stern, C.E. (2012). Contributions of hippocampal subfields and entorhinal cortex to spatial disambiguation in humans. Poster presented at the annual meeting of the Society for Neuroscience, New Orleans, LA

Sherrill, K.R., Erdem, U.M., Ross, R.S., **Brown, T.I.**, Hasselmo, M.E., Stern, C.E. (2012). The hippocampus encodes and translates route information into successful navigation. Poster presented at the annual meeting of the Society for Neuroscience, New Orleans, LA

Stern, C.E., **Brown, T.I.**, Ross, R.S., Hasselmo, M.E. (2012). An fMRI study examining the learning and retrieval of overlapping spatial memories. Poster presented at the AREADNE: Research in Encoding and Decoding of Neural Ensembles conference, Santorini, Greece

Brown, T.I., Ross, R.S., Hasselmo, M.E., Stern, C.E. (2011). Medial temporal and striatal contributions to the updating and integration of overlapping spatial memories. Poster presented at the fall meeting of the Charles River Association for Memory, Boston, MA

Brown, T.I., Ross, R.S., Hasselmo, M.E., Stern, C.E. (2011). Medial temporal and striatal contributions to the updating and integration of overlapping spatial memories. Poster presented at the annual meeting of the Society for Neuroscience, Washington, D.C.

Brown, T.I., Ross, R.S., Tobyne, S.M., Stern, C.E. (2011). The functional connectivity of the hippocampus and caudate during successful disambiguation of well-learned spatial sequences. Poster presented at the annual Boston University Science and Engineering Day, Boston, MA

Brown, T.I., Ross, R.S., Tobyne, S.M., Stern, C.E. (2010). The functional connectivity of the hippocampus and caudate during successful disambiguation of well-learned spatial sequences. Poster presented at the annual meeting of the Society for Neuroscience, San Diego, CA

Brown, T.I., Ross, R.S., Keller, J.B., Hasselmo, M.E., Stern, C.E. (2010). Disambiguation of learned spatial sequences activates medial temporal and frontal lobes. Poster presented at the annual Boston University Neuroscience Day, Boston, MA

Brown, T.I., Ross, R.S., Keller, J.B., Hasselmo, M.E., Stern, C.E. (2009). Disambiguation of learned spatial sequences activates medial temporal and frontal lobes. Poster presented at the annual meeting of the Society for Neuroscience, Chicago, IL

Brown, T.I., Ross, R.S., Keller, J.B., Hasselmo, M.E., Stern, C.E. (2009). Hippocampal and orbitofrontal recruitment in the disambiguation of learned spatial sequences. Poster presented at the annual Boston University Science and Engineering Day, Boston, MA

Brown, T.I., Ross, R.S., Keller, J.B., Hasselmo, M.E., Stern, C.E. (2009). Hippocampal and orbitofrontal recruitment in the disambiguation of learned spatial sequences. Poster presented at the Thirteenth International Conference on Cognitive and Neural Systems, Boston, MA

Ross, R.S., **Brown, T.I.**, Stern, C.E. (2008). Hippocampal activation during retrieval of sequences. Poster presented at the annual meeting of the Society for Neuroscience, Washington, D.C.

Programming, scripting, graphical modeling experience:

Matlab, Python, R, POV-Ray, E-Basic (E-Prime), Blender, Maya