

## Timothy D. Verstynen Ph.D.

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### Education

***Ph.D. in Psychology, Emphasis: Cognition, Brain and Behavior***

University of California, Berkeley (December 2006)

***B.A. in Psychology***, University of New Mexico (May 2001)

### Professional Experience

2014-Present	Adjunct Faculty, Psychology, Univ. Pittsburgh
2012-Present	Assistant Professor, Psychology & CNBC, Carnegie Mellon Univ.
2011-2012	Research Associate, LRDC, Univ. Pittsburgh
2009-2011	Post-doctoral Fellow, Psychology, Univ. Pittsburgh
2007-2009	Co-founder, NeuroScouting LLC
2006-2009	Post-doctoral Fellow, Neuroscience, UCSF

### Academic Honors

2001	University Honors, Suma Cum Laude, University of New Mexico
2000	Departmental Honors, Dept. of Psychology, University of New Mexico

### Awards

2013	Distinguished Alumni Award, University of New Mexico
2008-2009	Swartz Foundation Fellowship, Theoretical Neurobiology
2007	Society for Neuroscience Postdoctoral Travel Award
2006	Travel Award, Human Brain Mapping Conference, Florence Italy
2006-2007	Vision Science Training Grant Fellowship, UCSF
2002-2004	Cognitive Neuroscience Training Grant Fellowship, UC Berkeley
1999	Travel Award, HealthEmotions Institute, Madison Wisconsin.
1999-2001	New Mexico Access to Research Careers-COR Fellowship.
1996-2000	University Scholars Scholarship from the University of New Mexico

### Grants

Principal Investigator: “Action binding during long-term sequential skill learning: computational and neural mechanisms”, NSF-CAREER: \$507,836 (#1351748); Status: Funded. Dates: 6/1/2014-5/31/2019.

Principal Investigator (Contract, DCS Corp): “Network-Based Advancement of Complex Brain Systems”, CTA-CAN Seedling: \$150,000; Status: Funded. Dates: 5/26/2014-5/25/2015.

Co-Investigator: “Covert Sensorimotor Mapping for Guiding Brain-Computer Interfaces”, VHA-RRDA: \$808,256; (PI: J. Collinger). Status: Funded. Dates: 10/1/2014-9/30/2017

Co-Investigator: “Influence of Physical Activity and Weight Loss on Brain Plasticity”, NIH-RO1 (DK095172-02): \$2,723,812; Status: Funded (PI: K. Erickson), Dates: 6/1/2012-5/31/2017

Co-Investigator: “BIGDATA: Mid-Scale: DA: Distribution-based machine learning for high dimensional datasets”, NSF (#1247658): \$1,000,000; Status: Funded (PI: A. Singh), Dates: 1/1/2013-12/31/2016.

Principal Investigator (Contract, DCS Corp): “Connectome-Based Advancement of Brain Systems Analysis”, CTA-CAN Seedling: \$133,972; Status: Completed. Dates: 5/26/2012-5/25/2013.

Principal Investigator (Contract, DCS Corp): “Network-Based Advancement of Brain Systems Analysis”, CTA-CAN Seedling: \$79,000; Status: Funded. Dates: 5/26/2013-5/25/2014.

Principal Investigator: Translational Neuroscience Research Award, Sandler Foundation: \$15,000; Status: Completed, Dates: 1/1/2007 – 12/31/2007.

## **Books**

**T. Verstynen** and B. Voytek. “Do Zombies Dream of Undead Sheep? A Neuroscientific View of the Zombie Brain.” 1<sup>st</sup> ed. Princeton: Princeton, NJ, 2014. \*Winner of the 2014 PROSE Award in Biomedicine & Neuroscience.

## **Peer Reviewed Publications**

### **In Process**

“DeBaCl: A Python Package for Interactive DENSITY-BASED CLUSTERING” B.P. Kent, A. Rinaldo, **T. Verstynen**. (under revision)

“Stopping versus not going: The competitive dynamics of inhibitory control.” K. Dunovan, B. Lynch, T. Molesworth, **T. Verstynen** (in preparation)

“Dissociable effects of lean mass versus fat mass on neuromorphology in children.” B. Lynch, **T. Verstynen**, A. M. Weinstein, N. A. Khan, L. Raine, A. F. Kramer, C. H. Hillman & K. I. Erickson. (in preparation)

“Conversion of the Human Connectome Project Diffusion Data to High Angular Resolution Diffusion Imaging using Generalized Q-Sampling Method.” F-C. Yeh, W-Y Tseng, **T. Verstynen** (in preparation)

“Connectometry: an integrative framework for generating and analyzing structural connectome atlases.” F-C Yeh, D Badre, W-Y Tseng, **T. Verstynen** (in preparation)

“Microstructural differences in water diffusion properties between the inner and outer globus pallidus in humans” P. Beukema, F-C. Yeh, **T. Verstynen** (in preparation)

### **2015**

“Convergence of superior parietal, orbitofrontal and lateral prefrontal inputs into the human striatum.” K. Jarbo & **T. Verstynen**. *J. Neurosci.* (in press).

“Social network diversity predicts white matter microstructural integrity in humans.” T. Molesworth, L. Sheu, S. Cohen, P.J. Gianaros, **T. Verstynen**. *SCAN* (in press)

## 2014

“The organization and dynamics of corticostriatal pathways link the medial orbitofrontal cortex to future behavioral responses.” **T. Verstynen**. *J. Neurophys* 112 (10): 2457-2469 (2014).

“Asymmetry, connectivity, and segmentation of the arcuate fascicle in the human brain.” JC Fernández-Miranda, Y Wang, S Pathak, L Stefaneau, **TD Verstynen**, FC Yeh. *Brain Struct Funct.* (in press).

“Mapping Topographic Structure in White Matter Pathways with Level Set Trees” B.P. Kent, A. Rinaldo, F. Yeh, **T. Verstynen**. *PLoS ONE* 9(4):e93344 (2014).

## 2013

“Cerebral Blood Flow Links Insulin Resistance and Baroreflex Sensitivity” J.P. Ryan, L.K. Sheu, **T. Verstynen**, I.C. Onyewuenyi, P.J. Gianaros. *PLoS ONE*. 8(12):e83288. (2013).

“Explicating the Face Perception Network with White Matter Connectivity.” JA Pyles, **T Verstynen**, W Schneider, MJ Tarr. *PLoS ONE* 8(4): e61611. doi:10.1371/journal.pone.0061611 (2013).

“Competing physiological pathways link individual differences in weight and abdominal adiposity to white matter microstructure.” **T. Verstynen**, AM Weinstein, KI Erickson, L Sheu, A Marsland, PJ Gianaros. *NeuroImage* 79:129-37 (2013).

“Deterministic diffusion fiber tracking improved by quantitative anisotropy.” F-C. Yeh, **T. Verstynen**, Y. Wang, J.C. Fernandez-Miranda, W-Y. Tseng. *PLoS One* 8(11): e80713. (2013).

“Inflammatory pathways link socioeconomic inequalities to white matter architecture.” P. Gianaros, A. Marsland, L. Sheu, K. Erickson, **T. Verstynen** *Cerebral Cortex* 23(9):2058-71 (2013).

"Rethinking the role of the middle longitudinal fascicle in language and auditory pathways." Y. Wang, JC. Fernández-Miranda, **T. Verstynen**, S. Pathak, W. Schneider, F.-C. Yeh. *Cerebral Cortex* Oct;23(10):2347-56 (2013).

## 2012

“Dynamic sensorimotor planning during long-term sequence learning: the role of variability, response chunking and planning errors.” **T. Verstynen**, J. Phillips, E. Braun, B. Workman, C. Schunn, and W. Schneider. *PLoS ONE* 7(10):e47336 (2012)

"Caudate nucleus volume mediates the link between cardiorespiratory fitness and cognitive flexibility in older adults." **T. Verstynen\***, B. Lynch\*, D. Miller, M. W. Voss, R. S. Prakash, L. Chaddock, C. Basak, A. Szabo, E. A. Olson, T. R. Wojcicki, J. Fanning, N. P. Gothe, E. McAuley, A.F. Kramer, K. I. Erickson. *Journal of Aging Research*, 2012, Article ID 939285 (2012). \* authors contributed equally

“Increased body mass index is associated with global decreases in white matter microstructural integrity.” **T. Verstynen**, A. Weinstein, D. Rofey, W. Schneider, J. Jakicic, K. Erickson. *Psychosomatic Medicine* 74(7):682-90 (2012).

"Microstructural organizational patterns in the human corticostriatal system." **T. Verstynen**, D. Badre, K. Jarbo and W. Schneider. *J Neurophys.* 107(11):2984-95 (2012).

"High definition fiber tractography of the human brain: Neuroanatomical validation and neurosurgical applications." J.C. Fernandez-Miranda, J. Engh, S. Pathak, K. Jarbo, **T. Verstynen**, Y. Wang, F. Boada, W. Schneider, R. Friedlander *Neurosurgery* 71(2):430-53 (2012).

"Visuotopic cortical connectivity underlying attention revealed with white-matter tractography." A. Greenberg, **T. Verstynen**, Y.C. Chiu, S. Yantis, W. Schneider, M. Behrmann. *J. Neuroscience* 32(8), 2773-2782 (2012).

"In vivo quantification of global connectivity in the human corpus callosum." K. Jarbo, **T. Verstynen**, W. Schneider. *NeuroImage* 59(3): 1988-1996 (2012).

"High definition fiber tracking for assessment of neurologic deficit in a case of traumatic brain injury: Finding, visualizing, and interpreting small sites of TBI damage." S. Shin, **T. Verstynen**, S. Pathak, K. Jarbo, A. Hricik, M. Maserati, S. Beers, A.M. Puccio, D. Okonkwo, W. Schneider. *J. Neurosurgery* 116(5):1062-9 (2012).

## 2011

"How each movement changes the next: an experimental and theoretical study of fast adaptive priors in reaching." **T. Verstynen** and P.N. Sabes. *J. Neuroscience* 31(27):10050-10059 (2011).

"Using pulse oximetry to account for high and low frequency physiological artifacts in the BOLD signal" **T. Verstynen** and V. Deshpande. *NeuroImage*. 55(4):1633-44 (2011).

"Network dynamics mediating ipsilateral motor cortex activity during unimanual actions." **T. Verstynen** and R.B. Ivry. *J Cog Neuro* 23(9):2468-80. (2011).

"In vivo assessment of microstructural topographies in the human corticospinal pathways." **T. Verstynen**, K. Jarbo, S. Pathak, and W. Schneider. *J Neurophysiol.* 105: 336-346 (2011).

## 2010

"Transcranial magnetic stimulation of posterior parietal cortex affects decisions of hand choice." F. Olivera, J. Diedrichsen, **T. Verstynen**, J. Duque and R.B. Ivry. *Proc Natl Acad Sci U S A.* (2010). 107(41):17751-17756

"Evidence of somatotopy in the lateral cerebellar hemisphere for coordinated actions." J. Schlerf\*, **T. Verstynen\***, R.B. Ivry, and R. Spencer. *J. Neurophysiol.* 103(6):3330-3336 (2010). \*co-first authors

## 2008

"Prefrontal and parietal contributions to refreshing: An rTMS study" B.T. Miller, **T. Verstynen**, M. K. Johnson, M. D'Esposito. *NeuroImage* 39:436-440 (2008).

"Voluntary and involuntary attention affect face discrimination differently " M. Esterman, W. Prinzmetal, J. DeGutis, A. Landau, E. Hazeltine, **T. Verstynen**, and L. Robertson. *Neuropsychologia* 46(4):1032-40 (2008).

## 2007

"Cerebellar activation during discrete and not continuous timed movements: an fMRI study" Rebecca Spencer, **T. Verstynen**, M. Brett & R. B. Ivry. *NeuroImage* 36, 378-87 (2007). \* Winner of the Editors Choice Award for Systems Neuroscience 2007.

"Attenuating illusory binding with TMS of the right parietal cortex" M. Esterman, **T. Verstynen** & L. C. Robertson. *NeuroImage* 35, 1247-1255 (2007).

"Ipsilateral corticospinal projections do not predict congenital mirror movements: A case report." **T. Verstynen**, R. Spencer, C. Stinear, T. Konkle, J. Diedrichsen, W. Byblow & R. B. Ivry *Neuropsychologia* 45(4), 844-852 (2007).

"Illusions of force perception: the role of sensori-motor predictions, visual information, and motor errors." J. Diedrichsen\*, **T. Verstynen\***, A. Hon, Y. Zhang & R.B. Ivry. *J Neurophysiol* 97, 3305-3313 (2007). \*co-first authors

## 2006

"Coming Unbound: disrupting automatic integration of synesthetic color and graphemes by TMS of the right parietal lobe" M. Esterman, **T. Verstynen**, R.B. Ivry & L.C. Robertson. *J Cog Neuro* 18, 1570-1576 (2006).

"Two types of TMS-induced movement variability following stimulation of the primary motor cortex." **T. Verstynen**, T. Konkle, & R. B. Ivry. *J Neurophysiol* 96, 1018-1029 (2006).

## 2005

"Ipsilateral motor cortex activity during unimanual hand movements relates to task complexity" **T. Verstynen\***, J. Diedrichsen\*, N. Albert, P. Aparicio, and R.B. Ivry. *J Neurophysiol* 93(3), 1209-1222 (2005). \*co-first authors

"Cerebellar involvement in anticipating the consequences of self-produced actions during bimanual movement." J. Diedrichsen, **T. Verstynen**, S. Lehman, & R.B. Ivry. *J Neurophysiol* 93(2), 801-812 (2005).

## 2003

"Anticipatory adjustments in the unloading task: Is an efference copy necessary for learning?" J. Diedrichsen, **T. Verstynen**, A. Hon, S. Lehman and R.B. Ivry, *Exp Brain Res* 148, 272-276 (2003).

## 2002

"Early life exposure to a novel environment modulates 'handedness' in rats" A. C. Tang and **T. Verstynen**, *Behavioural Brain Research* 131, 1-7 (2002).

## 2001

"Neonatal novelty exposure modulates hippocampal volumetric asymmetry in the rat" **T. Verstynen**, R. Tierney, T. Urbanski, and A. Tang. *NeuroReport* 12(14), 3019-3022 (2001).

## Book Chapters and Invited Reviews

K. Erickson, J.D. Creswell, **T. Verstynen**, & P. Gianaros "Health Neuroscience: Defining a New Field." *Current Directions in Psychological Science* (in press).

**T. Verstynen** (in press). "How form constrains function in the human brain" In R. Scott & S. Kosslyn (Eds), *Emerging Trends in Social & Behavioral Sciences*. New York, NY: Wiley.

J. Schlerf, **T. Verstynen**, J. Diedrichsen (2014). Big challenges from the "little brain" – Imaging the cerebellum. In T. Papageorgiou, G. Christopoulos, & S. Smirnakis (Eds), *Advanced Brain Neuroimaging Topics in Health and Disease- Methods and Applications* (pp. 199-223). Rijeka, Croatia: InTech.

"Advances in functional imaging of the human cerebellum." J. Diedrichsen, **T. Verstynen**, J. Schlerf, and T. Wiester. *Current Opinion in Neurology*. 23(4):382-387 (2010).

**T. Verstynen**, M. Oliver, & R. B. Ivry (2010). "Experiencing the future: The influence of self-initiation on temporal perception." In R. Nijhawan, *Space and Time in Perception and Action* (pp. 164-180). Cambridge, UK: Cambridge University Press.

## **Editorial Boards**

Guest Editor, *Frontiers in Human Neuroscience*. Special Topic: Explicating the interplay between anatomical and functional connectivity in the human brain.

## **Ad Hoc Review Experience**

Journal of Neuroscience	Clinical Neurology and Neurosurgery
Cerebral Cortex	Neuropsychologia
Journal of Cognitive Neuroscience	Journal of Motor Behavior
Journal of Neurophysiology	Experimental Brain Research
JEP: Human Percept. & Performance	Quarterly Review of Exercise & Sport Science
Journal of Neuroscience Methods	
Psychosomatic Medicine	

## **Teaching Experience**

- 2014 *Multimodal Neuroimaging Training Program (MNTP): DWI Module*  
Duties: Supervise 6-week summer training in using diffusion weighted imaging as part of an NIH funded training grant in collaboration with the University of Pittsburgh.
- 2014 *Carnegie Mellon University (86-173): Virtual Neuroanatomy*  
Duties: Graduate lab-based seminar using interactive imaging tools to learn functional neuroanatomy. Completely designed and structured.
- 2013-14 *Carnegie Mellon University (85-314): Research Methods in Cognitive Neuroscience*  
Duties: Upper level, lab-based undergraduate course. Completely designed and structured.
- 2013 *Carnegie Mellon University (86-111): Immortui Cerebrum: The neuroanatomy of zombie minds.*  
Duties: Freshmen seminar on diagnosing the zombie brain using neuropsychology and neuroanatomy.

Duties: Graduate student instructor that involved teaching weekly discussion sections, reviewing and assisting students in reading current class-relevant literature, and test preparation.

- 2012 *University of Pittsburgh Psychology 499: Brain Connectivity Class*  
Duties: Guest lecturer and guided laboratory tutorials.
- 2012 *Brown University: In-vivo Fiber Tractography Workshop*  
Duties: Two day accelerated workshop on white matter tractography methods.
- 2011 *University of Pittsburgh: In-vivo Fiber Tractography Short Courses (2 per year)*  
Duties: Instructor of workshop designed to train basic proficiency at white matter tractography methods. Also designed as independent guest lectures in diffusion imaging classes.
- 2003 *UCB Psychology 101: Research Design and Statistics*  
Duties: Graduate student instructor that involved teaching 2 weekly discussion sections, statistical laboratories, reviewing and assisting students in homework problems.
- 2002 *UCB Cognitive Science 84: Transcranial Magnetic Stimulation*  
Duties: Technical assistant that was primarily involved in demonstrations of TMS experiments, assisting in programming group designed experiments and training students to use TMS

### **Scientific Advisory Boards**

2009-Present	Neuroscouting, LLC
2010-Present	Zombie Research Society

### **Professional Affiliations**

Cognitive Neuroscience Society	Society for the Neural Control of Movement
Society for Neuroscience	Organization for Human Brain Mapping
American Physiological Society	American Psychosomatic Society

### **Invited Talks**

*March 10, 2015:* Molecular, Cellular and Integrative Neurosciences Program Lecture: Colorado State University, Fort Collins, CO.

*Feb 25, 2015:* Magnetic Resonance Research Center Lecture: UPMC, Pittsburgh, PA

*Nov 3, 2014:* Pittsburgh MRI Retreat. University of Pittsburgh, Pittsburgh, PA

*Oct 16, 2013:* Cognitive Lunch Seminar. Princeton University, Princeton, NJ

*Feb 28, 2013:* UNM Lobo Living Room Lecture. University of New Mexico, Albuquerque, NM

*June 7, 2013:* Café Sci Lecture. Carnegie Science Center. Pittsburgh, PA.

*Oct 7, 2011:* Biological & Health Psychology Brown Bag Series. University of Pittsburgh, Pittsburgh

*May 14, 2010:* Psychology Afternoon Lecture Series. University of New Mexico, Albuquerque

*July 27, 2009:* Sloan-Swartz Annual Meeting on Computational Neuroscience, Harvard University, Cambridge

*April 2, 2008:* Interdisciplinary Forum on Cognitive Neuroscience Seminar, University of California, San Francisco

*March 20, 2007:* Interdisciplinary Forum on Cognitive Neuroscience Seminar, University of California, San Francisco

*October 19, 2006:* Informal Seminar: Human Motor Control Section, National Institute of Health (NIH), Bethesda, MD

*April 26, 2006:* Department of Psychology Seminar, University of Auckland, New Zealand

*February 16, 2006:* Cognition, Brain and Behavior Symposium, Department of Psychology, University of California, Berkeley

## **Conference Presentations**

“Visualization and quantification of corticothalamic somatotopies in humans.” E Kilroy, W Burge, F-C Yeh, & **T Verstynen**. Human Brain Mapping 2015.

“Efficacy of Generalized Q-Sampling Imaging on Deterministic Tractography in Phantom & Neural Data” S Lichenstein\*, J. Bishop, F-C Yeh, **T Verstynen**. Human Brain Mapping 2015.

“The development of corticostriatal structural connectivity patterns during adolescence” B Larsen, **T Verstynen**, F-C Yeh, K Jarbo, B Luna. Human Brain Mapping 2015.

“Construction of a high angular resolution diffusion MRI atlas using Human Connectome Project Data” F-C.Yeh and **T Verstynen**. IMSRM 2015

“Learning to stop or waiting to go: Targets of adaptive Bayesian updating during inhibitory control.” **T. Verstynen**, L. Scholl & T. Molesworth, Abst. Society for Neuroscience, 2014.

“A fiber orientation distribution function (fODF) atlas of the healthy human brain.” F.-C. Yeh & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

“Parcellating the internal and external globus pallidus using diffusion-based clustering.” P. Beukema & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

“Differentiating serial cue prediction from motor sequence learning during long-term skill training.” B. Lynch, A. Ting, S. Wilhelmi, D. Marchetto & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

“The difference between stopping and deciding not to go: Behavioral, imaging and modeling evidence.” K. Dunovoan, T. Molesworth & **T. Verstynen**, Abst. Society for Neuroscience, 2014.



“Highway from the Danger Zone: Interactions between uncertainty and cost in spatial estimation.” K. Jarbo, R. Flemming & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

“The predictive value of functional connectivity.” M. Clute, A. Singh, B. Poczoz, **T. Verstynen**. Abst. Organization for Human Brain Mapping, 2014.

“FuSSO: Functional Shrinkage and Selection Operator.” J. B. Oliva, B. Poczoz, **T. Verstynen**, A. Singh, J. Schneider, F. Yeh, W-Y. Tseng. (*AISTATS Conference*) *Journal of Machine Learning Research W&CP*, 33 :715-723 (2014)

“Convergence of superior parietal, orbitofrontal and lateral prefrontal inputs into the human striatum” K. Jarbo & **T. Verstynen**, Abst. Cog. Neuro. Society, 2013.

“Dissociable effects of lean mass versus fat mass on neuromorphology in children” B. Lynch, **T. Verstynen**, A. M. Weinstein, N. A. Khan, L. Raine, A. F. Kramer, C. H. Hillman & K. I. Erickson, Abst. American Psychosomatic Society, 2013.

“Social network diversity predicts white matter microstructural integrity in humans” **T. Molesworth**, L. Sheu, S. Cohen, P. Gianaros & T. Verstynen, Abst. American Psychosomatic Society, 2013.

“Level set trees for visualization and clustering of fiber tractography data” B. P. Kent, A. Rinaldo, F. C. Yeh & **T. Verstynen**, Abst. Organization for Human Brain Mapping, 2013.

“Branching out with level set trees: Generalizing beyond densities and enabling interactive data analysis” B. P. Kent, A. Rinaldo & **T. Verstynen**, Abst. Joint Statistical Meeting, 2013.

“How reward and punishment influence proactive and reactive inhibition” T. Molesworth & **T. Verstynen**, Abst. Cog. Neuro. Society, 2013.

“Indirect influence of medial orbitostriatal projections on response selection: Check yourself before you rectus yourself” **T. Verstynen** & J. Vettel. Abst. Cog. Neuro. Society, 2013.

"Gray matter volume, cardiorespiratory fitness, and cognitive function: a whole brain, voxel-based mediation analysis." A.M. Weinstein, **T. Verstynen**, R.S. Prakash, M.W. Voss, L. Chaddock, A. Szabo, E. McAuley, A.F. Kramer, K.I. Erickson. *Abst. Society for Neuroscience 2012*.

"Altered cortico-basal ganglia connectivity with obesity predicts inefficient executive control processing" **T. Verstynen**, R. Leckie, A. M. Weinstein, J. Jakicic, D. L. Rofey, K. I. Erickson. Abst. *Society for Neuroscience 2012*.

“The Influence of an Aerobic Exercise Intervention on Brain Volume in Late Adulthood”, K. I. Erickson, A. M. Weinstein, **T. D. Verstynen**, M. W. Voss, R. Shaurya Prakash, J. Woods, E. McAuley, A. F. Kramer, *ICAD 2012*

“Resting State Connectivity Links Community Socioeconomic Status to Preclinical Atherosclerosis” L. Sheu, M. Wu, I. Christie, **T. Verstynen**, P. Gianaros, *HBM 2010*.

"The behavioral, neurophysiological and anatomical changes following long term motor skill learning." **T. Verstynen**, B. Workman, E. Braun, J. Phillips, C. Schunn, W. Schneider. *Abst. Society for Neuroscience 2011*.

"Topographic structural connectivity underlying visual attention." A. Greenberg, **T. Verstynen**, Y.-C. Chiu, S. Yantis, W. Schneider, M. Behrmann. *Abst. Society for Neuroscience 2011*.

"White matter connectivity of the human superior temporal sulcus using diffusion imaging." J.A. Pyles, **T.D. Verstynen**, W. Schneider, M.J. Tarr. *Abst. Society for Neuroscience 2011*.

"Increased BMI is associated with globally decreased white matter integrity." **T. Verstynen**, A. Weinstein, W. Schneider, J. Jakicic, K.I. Erickson. *Abst. Human Brain Mapping 2011*.

"Clinical Quality Fiber Tracking and Connectome Mapping in Neurosurgery & Traumatic Brain Injury." W. Schneider, K. Jarbo, S. Sin, **T. Verstynen**, S. Pathak, J. Fernandez-Miranda, D. Okonkwo, F. Boada. *Abst. Human Brain Mapping 2011*.

"Spatiotopic Structural Connectivity Underlying Visual Attention." A. Greenberg, **T. Verstynen**, W. Schneider, M. Behrman. *Abst. Human Brain Mapping 2011*.

"Structural connectivity of face selective cortical regions with high-definition fiber-tracking." J. Pyles, **T. Verstynen**, W. Schneider, M. Tarr. *Abst. Vision Sci. Soc. 2011*.

"High definition fiber tracking of corticostriatal projection subfields in vivo." **T. Verstynen**, K. Jarbo, J. Phillips, S. Pathak, W. Schneider. *Abst. Cog. Neuro. Soc. 2011*.

"High definition fiber tracking of corpus callosum fiber pathways." Kevin Jarbo, Timothy Verstynen and Walter Schneider. *Abst. Cog. Neuro. Soc. 2011*.

"High definition fiber tracking in neurosurgery & traumatic brain injury." Sudhir Pathak, **Timothy Verstynen**, Kevin Jarbo, Walter Schneider, Juan Fernandez-Miranda. *Abst. Cog. Neuro. Soc. 2011*.

"Structural connectivity of high-level visual cortex with high-definition fiber tracking." J. Pyles, **T. Verstynen**, W. Schneider, and M. Tarr. *Abst. Society for Neuroscience 2010*.

"High-definition fiber tracking of human cortical eye fields." J. Phillips, S. Pathak, **T. Verstynen**, and W. Schneider. *Abst. Society for Neuroscience 2010*.

"Characterizing the topography of corticospinal pathways with high definition fiber tractography" **T. Verstynen**, K. Jarbo, S. Pathak, J. Phillips, and W. Schneider. *Abst. Human Brain Mapping 2010*.

"Using pulse-oximetry to account for both heart-rate and breathing artifacts in the BOLD signal" **T. Verstynen** and V. Deshpande. *Abst. Human Brain Mapping 2009*.

"Competitive learning predicts the emergence of Bayesian priors in motor planning networks." **T. Verstynen** and P.N. Sabes. *Abst. Society for Neuroscience 2008*.

"Variability vs. flexibility: How experience can adaptively change motor representations." **T. Verstynen** and P.N. Sabes. *CSAIL Meeting 2008*.

"Noise or Adaptive Tuning? The role of variability in flexible motor strategies." **T. Verstynen** and P.N. Sabes. *Abst. Society for Neuroscience 2007*.

"Functional role of inhibitory processes during hand selection." J. Duque, **T. Verstynen**, and R. B. Ivry. *Abst. Cog. Neuro. Soc. 2007*.

"Different behavior and neural consequences of voluntary and involuntary attention to faces." M. Esterman, J. DeGutis, E. Hazeltine, **T. Verstynen**, A. Landau, L. Robertson, W. Prinzmetal. *Abst. Cog. Neuro. Soc. 2006.*

"Using low-frequency rTMS to suppress BOLD and map functional connectivity." **T. Verstynen**, B. Pasley, R.B. Ivry. *Abst. Human Brain Mapping 2006.*

"Functional network of precentral motor areas controlling unimanual movements." **T. Verstynen** and R. B. Ivry. *Abst. Society for Neuroscience 2006.*

"fMRI measurements of the cerebellar response to nonrhythmic movements." J. Schlerf, **T. Verstynen**, R. B. Ivry. *Abst. Society for Neuroscience 2006.*

"Coming Unbound: Disruption of synesthesia with parietal rTMS." M. Esterman, **T. Verstynen**, R. B. Ivry, L. Robertson. *Abst. Cog. Neuro. Soc. 2005.*

"Contralateral muscle control predicts the degree of mirror movements: A case report on congenital mirror movements" **T. Verstynen**, R. Spencer, C. Stinear, W. Byblow, J. Diedrichsen, R.B. Ivry. *Abst. Neural Control of Movement 2005.*

"Action-induced modulation of perceived duration in different sensory modalities." M. Oliver, **T. Verstynen**, and R.B. Ivry. *Abst. Cog. Neuro. Soc. 2004.*

"Mechanisms behind TMS-induced response variability in a rhythmic tapping task" T. Konkle, **T. Verstynen**, and R. B. Ivry. *Abst. Society for Neuroscience 2004.*

"Asymmetries in motor cortex inhibition during bimanual isometric muscle activation" **T. Verstynen**, C.M. Stinear, T. Konkle, R.B. Ivry, and W.D. Byblow. *Abst. Society for Neuroscience 2004*

"Cerebellar activation during discrete and continuous repetitive tapping movements." Rebecca M. C. Spencer, **Timothy Verstynen**, Matthew Brett, & Richard B. Ivry. *Abst. Society for Neuroscience 2004*

"Did I do that? -- Modulating the somatosensory percept through self production." M. Oliver, **T. Verstynen**, and R.B. Ivry. *Abst. Cog. Neuro. Soc. 2003.*

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