

Katharine N. Thakkar

Curriculum vitae

CONTACT INFORMATION

Institutional mailing address Michigan State University
Department of Psychology
316 Physics Road
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East Lansing, MI 48824

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EDUCATION

2012 **Vanderbilt University**, Department of Psychology, Nashville, TN
Ph.D. in Psychology
Dissertation title: Inhibition and monitoring of saccadic eye movements in schizophrenia

2004 **Boston University**, Boston, MA
B.A. in Psychology
B.A. in Mathematics

PROFESSIONAL APPOINTMENTS

2015-present **Michigan State University**
Assistant Professor of Psychology
Secondary appointment in Psychiatry and Behavioral Medicine

2012-2015 **Brain Center Rudolf Magnus, University Medical Center Utrecht**, Utrecht, Netherlands
Post-doctoral fellow

2011-2012 **University of California Los Angeles Semel Institute for Neuroscience**, Los Angeles, CA
Pre-doctoral clinical intern (Primary supervisor: Robert Bilder, Ph.D.)
Neuropsychology of exceptional abilities track

PUBLICATIONS

Refereed Journal Articles (*indicates student author)

Thakkar, K.N., Antinori, A., Carter, O., Brascamp, J.W. (accepted) Altered short-term synaptic plasticity related to schizotypal traits: evidence from visual adaptation.

Thakkar, K.N., Brascamp, J.W., Ghermezi, L.*, Fifer, K.*, Schall, J.D., Park, S. (in press) Reduced pupil dilation during action preparation in schizophrenia. *International Journal of Psychophysiology*.

Yao, B., Mueller, S., Grove, T., McLaughlin, M., **Thakkar, K.N.**, Ringold, V., McClinnis, M., Taylor, S., Deldin, P., Tso, I. (2018) Eye Gaze Perception in Bipolar Disorder: Self-referential Bias but Intact Perceptual Sensitivity. *Bipolar Disorders*, 20: 60-69.

Thakkar, K.N., Diwadkar, V., Rolfs, M. (2017) Oculomotor prediction: a window into the psychotic

- mind. *Trends in Cognitive Sciences*, 21:344-356.
- Thakkar, K.N.**, *Rösler, L., Wijnen, J.P., Boer, V.O., Klomp, D.W.J., Cahn, W., Kahn, R.S., Neggers, S.F.W. (2017) 7T proton magnetic resonance spectroscopy of GABA, glutamate, and glutamine in schizophrenia reveals altered metabolite concentrations in patients and unaffected relatives. *Biological Psychiatry*, 81:525-535.
- *Zerr, P., **Thakkar, K.N.**, Uzunbajakau, S., Van der Stigchel, S. (2016) Error compensation in random vector double step saccades with and without global adaptation. *Vision Research*, 127:141-151.
- Thakkar, K.N.**, *van den Heiligenberg, F.M.Z., Kahn, R.S., Neggers, S.F.W. (2016) Cortico-striatal white matter structure predicts latencies of saccade execution and redirection. *Human Brain Mapping*, 37: 2811-2822.
- *Asscheman, S.J., **Thakkar, K.N.**, Neggers, S.F.W. (2016) Changes in effective connectivity of the superior parietal lobe during inhibition and redirection of eye movements. *Journal of Experimental Neuroscience*, 9(Suppl 1): 27-40.
- Thakkar, K.N.**, Schall, J.D., Heckers, S., Park, S. (2015) Disrupted saccadic corollary discharge in schizophrenia. *Journal of Neuroscience*, 35(27): 9935-9945.
- *Rösler, L., Rolfs, M., van der Stigchel, S., Neggers, S.F.W., Cahn, W., Kahn, R.S., **Thakkar, K.N.** (2015) Failure to use corollary discharge to remap visual target locations is associated with psychotic symptom severity in schizophrenia. *Journal of Neurophysiology*, 114: 1129-1136.
- Thakkar, K.N.**, Schall, J.D., Logan, G.D., Park, S. (2015) Response inhibition and response monitoring in a saccadic double-step task in schizophrenia. *Brain and Cognition*, 95: 90-98.
- Thakkar, K.N.**, Schall, J.D., Logan, G.D., Park, S. (2015) Cognitive control of gaze in bipolar disorder and schizophrenia. *Psychiatry Research*, 225: 254-262.
- Thakkar, K.N.**, *van den Heiligenberg, F. Kahn, R.S., Neggers, S.F.W. (2014) Fronto-striatal contributions to reactive control of gaze. *Journal of Neuroscience*, 34(26): 8918-8929.
- Thakkar, K.N.**, Peterman, J.S., Park, S. (2014) Altered brain activation during action imitation and observation in schizophrenia: a translational approach for studying social dysfunction. *American Journal of Psychiatry*, 171(5): 539-548.
- Thakkar, K.N.**, Congdon, E., Poldrack, R.A., Sabb, F.W., London, E.D., Cannon, T.D., Bilder, R.M. (2014) Women are more sensitive than men to prior trial events on the stop signal task. *British Journal of Psychology*, 105(2):254-72. PMID: PMC4000536
- Matthews, N., Collins, K., **Thakkar, K.N.**, Park, S. (2014) Visuospatial imagery and working memory in schizophrenia. *Cognitive Neuropsychiatry*, 19(1): 17-35. PMID: PMC3762896.
- Thakkar, K.N.**, Park, S. (2012) Impaired passive maintenance and spared manipulation of internal representations in patients with schizophrenia. *Schizophrenia Bulletin*, 38(4): 787-795. PMID: PMC3406515
- Thakkar, K.N.**, Nichols, H.S., McIntosh, L.G., Park, S. (2011) Disturbances in body ownership in patients with schizophrenia: evidence from the rubber hand illusion and case study of a spontaneous out-of-body experience. *PLoS ONE*, 6(10): e27089. PMID: PMC3205058
- Roffman, J.L., Brohawn, D.G., Friedman, J.S., Dyckman, K.A., **Thakkar, K.N.**, Agam, Y., Vangel, M.G., Goff, D.C., Manoach, D.S. (2011) MTHFR 677C>T effects on anterior cingulate structure and function during response monitoring in schizophrenia: a preliminary study. *Brain Imaging and Behavior*, 5(1): 65-75.
- Thakkar, K.N.**, Schall, J.D., Boucher, L., Logan, G.D., Park, S. (2011) Response inhibition and response monitoring in a saccadic countermanding task in schizophrenia. *Biological Psychiatry*, 69: 55-62. PMID: PMC3006077
- Thakkar, K.N.**, & Park, S. (2010) Empathy, schizotypy, and spatial transformations. *Cognitive Neuropsychiatry*, 15: 477-500. PMID: PMC2933940
- Manoach, D.S., **Thakkar, K.N.**, Stroynowski, E., Ely, A., McKinley, S.K., Djonlagic, I., Vangel,

- M.G., Goff, D.C., Stickgold, R.S. (2010). Reduced overnight consolidation of procedural learning in chronic medicated schizophrenia is related to specific sleep stages. *Journal of Psychiatric Research*, 44: 112-120. PMID: PMC2813320
- Thakkar, K.N.**, Brugger, P., Park, S. (2009). Exploring empathic space: correlates of perspective transformation ability and biases in spatial attention. *PLoS ONE*, 4(6):e5864. PMID: PMC2688758
- Thakkar, K.N.**, Polli, F.E., Joseph, R.M., Tuch, D.S., Hadjikhani, N., Barton, J.J.S., Manoach, D.S. (2008) Abnormal response monitoring, repetitive behavior, and decreased microstructural integrity of white matter underlying anterior cingulate cortex in autism spectrum disorders. *Brain*, 131: 2464-78. PMID: PMC2525446
- Polli, F.E., Barton, J.J.S., Thakkar, K.N., Cain, M.S., Goff, D.C., Rauch, S.L., Manoach, D.S. (2008) Reduced error-related activation in two anterior cingulate circuits is related to impaired performance in schizophrenia. *Brain*, 131(4): 971-86.
- Barton, J.J.S., Pandita, M., **Thakkar, K.N.**, Goff, D.C., Manoach, D.S. (2008) The relation between antisaccade errors, fixation stability and prosaccade errors in schizophrenia. *Experimental Brain Research*, 186(2):273-82.
- Manoach, D.S., Ketwaroo, G.A., Polli, F.E., **Thakkar, K.N.**, Barton, J.J.S., Goff, D.C., Vangel, M., Tuch, D.S. (2007). The association of reduced microstructural integrity of the anterior cingulum bundle is associated with increased saccadic latency in schizophrenia. *Neuroimage*, 37(2):599-610.
- Manoach, D.S., **Thakkar, K.N.**, Cain, M.S., Polli, F.E., Edelman, J., Barton, J.J.S. (2007). Neural activity is modulated by trial history: An fMRI study of the effects of a prior antisaccade. *Journal of Neuroscience*, 27(7): 1791-1798.
- Polli, F.E., Barton, J.J.S., Cain, M.S., **Thakkar, K.N.**, Rauch, S.L., Manoach, D.S (2005). Rostral and dorsal anterior cingulate cortex make dissociable contributions during antisaccade error commission. *Proceedings of the National Academy of Sciences*, 102(43): 15700-5. PMID: PMC1255733

Book Chapters

- Thakkar, K.N.**, Park, S., Schall, J.D. (submitted) Monitoring of action in schizophrenia, in *Phenomenological Neuropsychiatry: Bridging the Clinic with Clinical Neuroscience*, A. Mishara, P. Fletcher, P. Corlett, P.R. Swarcz (eds.), Springer.

Commentaries

- Park, S. & **Thakkar, K.N.** (2010) "Splitting of the mind" revisited: recent neuroimaging evidence for functional dysconnection in schizophrenia. *American Journal of Psychiatry*, 167: 366-368.
- Thakkar, K.N.**, Matthews, N., Park, S. (2008) A complete theory of psychosis and autism as diametric disorders of the social brain must consider full range of clinical syndromes. *Behavioral and Brain Sciences*, 31(3): 277-278.

EDITORIAL WORK

2017- Review Editor, *Frontiers in Psychiatry, Neuroimaging and Neurostimulation Section*

HONORS AND AWARDS

- 2013** **Young Investigator Award**
International Congress on Schizophrenia Research
- 2012** **Short-stay Fellowship**
Utrecht University
Awarded to conduct research at a Utrecht University

- 2012** **Jum Nunnally Dissertation Award**
Vanderbilt University
- 2010** **Department of Psychology Scientific Development Award**
Vanderbilt University
\$5000 award for achievement in graduate research
- 2010** **Pat Burns Memorial Graduate Student Research Award**
Vanderbilt University
\$500 award for achievement in graduate research
- 2008** **Kennedy Center Travel Award**
Vanderbilt University
- 2008** **Developmental Psychopathology Pre-doctoral Trainee**
National Institute of Health and Vanderbilt University (T32 MH018921-21A1)
- 2008** **Honorable Mention, Graduate Research Fellowship**
National Science Foundation
- 2007** **Runner Up, Law and Neuroscience Research Prize**
Vanderbilt University
For research proposal investigating issues at the intersection of law and neuroscience
- 2007** **ThinkSwiss Pre-doctoral Research Scholarship**
Embassy of Switzerland, Office of Science, Technology and Higher Education
Awarded to conduct research at a Swiss University
- 2006** **University Fellowship**
Vanderbilt University
Awarded to students in the incoming Vanderbilt University Ph.D. class.
- 2000** **University Scholarship**
Boston University
Half-tuition scholarship to incoming undergraduate students at Boston University

GRANTS

Current

NIMH, R21: "Sensory consequences of action in children with autism spectrum disorders"; Co-PI (with Jennifer Foss-Feig); \$471,529 (total costs); 9/14/2017-7/31/2019

NIMH, R01: "Uncovering pathophysiological mechanisms of psychosis using the oculomotor system"; PI; \$1,542,887 (total costs); 9/1/2017-8/31/2021.

Brain and Behavior Foundation, NARSAD Young Investigator Award: "Corollary discharge disturbances in schizophrenia: investigating the role of the thalamus"; PI; \$70,000; 1/15/2016-1/15/2018.

Michigan State University College of Social Sciences, Provost Undergraduate Research Initiative (PURI) Award: "Predicting the future: understanding attention abnormalities in schizophrenia"; Mentor (Recipient: Han Wang); \$2,000; 9/15/2017-5/15/2018.

Past

Michigan State University College of Social Sciences, Provost Undergraduate Research Initiative (PURI) Award: "Associative learning: evaluating the role of eye movements"; Mentor (Recipient: Aakash Dave); \$1,500; 5/15/2017-8/15/2017.

Michigan State University College of Social Sciences, Faculty Initiatives Fund award: “Assessing prediction failures in the visual system of individuals with schizophrenia”; co-PI (with Jan Brascamp); \$7,000; 8/31/2016-8/30/2017.

Netherlands Organisation for Scientific Research, Rubicon Grant: “Fronto-striatal contributions to the control of action in schizophrenia”; PI; €118,000; 11/1/2012-10/13/2014.

NIMH, Pre-doctoral NRSA: “Control of action in schizophrenia: countermanding saccades and ERPs”; PI; \$77,619; 1/1/2009-6/30/2012.

INVITED TALKS

- January 2018** **Purdue University, Department of Psychology**
Prediction failures in schizophrenia: evidence from the oculomotor system
- May 2017** **Mount Sinai, Icahn School of Medicine**
Experimental evidence for self-disturbances in the schizophrenia spectrum
- January 2017** **Wayne State University, School of Medicine**
Prediction failures in schizophrenia: evidence from the oculomotor system
- Sept. 2015** **University of Michigan, Department of Psychology**
Understanding agency abnormalities in schizophrenia: what can eye movements tell us?
- March 2014** **Erwin L. Hahn Spectroscopy Workshop 2014**, Essen, Germany
Striatal levels of GABA and glutamate in schizophrenia patients and their healthy relatives
- April 2014** **Neural Control of Movement**, Amsterdam, the Netherlands
Cortico-striatal contributions to saccade inhibition and reprogramming
- June 2013** **Gordon Research Conference on Eye Movements**, Stonehill, MA
Cortico-striatal contributions to saccade inhibition and reprogramming
- July 2010** **University Medical Center Utrecht**, Utrecht, Netherlands
Response inhibition and response monitoring of saccades in a countermanding task in schizophrenia

CONFERENCE PRESENTATIONS

(*indicates student author)

- Thakkar, K.N., Rolfs, M., Brascamp, J.W., Rösler, L., Schall, J.D., Park, S. (2017, September) Visuomotor prediction abnormalities in the schizophrenia spectrum. Symposium talk presented at the annual meeting of the Society for Research in Psychopathology (role: Chair), Denver, CO, USA.
- Ghermezi, L.*, Neggers, S.F.W., Kahn, R.S., Cahn, W., Van der Stigchel, S., Hopman, H.J., Thompson, I.A., Thakkar, K.N. (2017, September) The role of ventral attention network integrity on reactive inhibition in schizophrenia. Poster presented at the annual meeting of the Society for Research in Psychopathology, Denver, CO, USA.
- Yao, B.*, Rösler, L., Rolfs, M., Neggers, S.F.W., Thakkar, K.N. (2017, September) Neural underpinning of altered corollary discharge in schizophrenia. Poster presented at the annual meeting of the Society for Research in Psychopathology, Denver, CO, USA.
- Thakkar, K.N. (2017, March) Prediction failures in the oculomotor system of schizophrenia patients. Talk presented at the annual meeting of the International Congress on Schizophrenia Research, San Diego, CA, USA.

- Chopik, W.J., Nuttall, A.K., Thakkar, K.N. (2017, May) Age Differences in the Broader Autism Phenotype. Poster presented at the American Psychological Society Annual Convention, Boston, MA, USA.
- Thakkar, K.N., *Rösler, L., Wijnen, J.P., Boer, V.O., Klomp, D.W.J., Cahn, W., Kahn, R.S., Neggers, S.F.W. (2015, October) 7T proton magnetic resonance spectroscopy of GABA, glutamate, and glutamine in schizophrenia reveals altered metabolite concentrations in patients and unaffected relatives. Talk presented at the annual meeting of the Society for Neuroscience, Chicago, Illinois, USA.
- Thakkar, K.N., Peterman, J.S., Park, S. (2015, October) Schizotypy in the flesh: self-disturbances in the schizophrenia spectrum. Talk presented at the annual meeting of the Society for Research in Psychopathology, New Orleans, Louisiana, USA.
- Thakkar, K.N., *Thompson, I.A., *Hopman, H.J., Van der Stigchel, S., Cahn, W., Kahn, R.S., Neggers, S.F.W. (2015, October) Behavioral and neural correlates of reactive inhibition of gaze in schizophrenia patients and first-degree relatives. Poster presented at the annual meeting of the Society for Research in Psychopathology, New Orleans, Louisiana, USA.
- *Zerr, P., Thakkar, K.N., van der Stigchel, S. (2015, August) Perceptual memory can bias subsequent saccades after natural but not induced systematic endpoint errors. Poster presented at the European Conference on Eye Movements, Vienna, Austria.
- Thakkar, K.N., *Rösler, L., Wijnen, J., Klomp, D.W.J., Boer, V.O., Cahn, W., Kahn, R.S., Neggers, S.F.W. (2015, March) Glutamine, glutamate, and GABA concentrations in the striatum and visual cortex of schizophrenia patients and healthy first-degree relatives: a ¹H-MRS study at 7T. Poster presented at the annual meeting of the International Congress on Schizophrenia Research, Colorado Springs, CO.
- Thakkar, K.N., Park, S. (2015, March) Flexible representation of the body in schizophrenia. Workshop talk presented at the annual meeting of the International Congress on Schizophrenia Research, Colorado Springs, CO.
- *van den Heiligenberg, F.M.Z., Thakkar, K.N., Kahn, R.S., Neggers, S.F.W. (2014, June) Cortico-striatal white matter structure predicts latencies of saccade execution and redirection. Poster presented at the annual meeting of the Organization of Human Brain Mapping.
- Thakkar, K.N., *van den Heiligenberg, F., Kahn, R.S., Neggers, S.F.W. (2014, June). Fronto-striatal contributions to reactive control of gaze. Poster presented at the annual meeting of the Organization for Human Brain Mapping, Hamburg, Germany.
- Haarsma, J., Wijnen, J.P., Thakkar, K.N., Klomp, D.W.J., Neggers, S.F.W. (2014, May). Ultra high-field MR spectroscopy of the striatum in the human brain: On the relation between striatal metabolites and performance on a search-step task. Poster presented at the annual meeting of the International Society for Magnetic Resonance in Medicine, Milano, Italy.
- Thakkar, K.N., Schall, J.D., Logan, G.D., Park, S. (2013, April). Inhibition and monitoring of saccades in a double-step task in schizophrenia. Talk presented at the annual meeting of the International Congress on Schizophrenia Research, Orlando, FL.
- Thakkar, K.N., Schall, J.D., Heckers, S., Park, S. (2013, April). Altered corollary discharge in the saccadic eye movement system of patients with schizophrenia. Poster presented at the annual meeting of the International Congress on Schizophrenia Research, Orlando, FL.
- Thakkar, K.N., Nichols, H.S., McIntosh, L.G., Cochran, C., Park, S. (2011, April). Disturbed sense of body ownership in schizophrenia. Poster presented at the annual meeting of the International Congress on Schizophrenia Research, Colorado Springs, CO.
- Thakkar, K.N., Peterman, J.S., Nichols, H.S., Matthews, N., Park, S. (2010, October). Abnormal cortical activation during action imitation in schizophrenia. Poster presented at the annual meeting of the Society for Research in Psychopathology, Seattle, WA.
- Peterman, J.S., Thakkar, K.N., Nichols, H.S., Park, S. (2010, October). Gender differences in cortical activity during action imitation in healthy individuals. Poster presented at the annual meeting of the Society for Research in Psychopathology, Seattle, WA.

- Thakkar, K.N., Schall, J.D., Boucher, L., Logan, G., Park, S. Response inhibition and response monitoring of saccades in a stop signal task in schizophrenia and bipolar disorder. International Congress on Schizophrenia Research, San Diego, CA, 2009.
- Thakkar, K.N., Schall, J.D., Boucher, L., Logan, G., Park, S. Response inhibition and response monitoring of saccades in a stop signal task in schizophrenia. Society for Neuroscience, Washington, DC, 2008.
- Thakkar, K.N., Park, S. Evidence for intact manipulation of internal representations during mental rotation in schizophrenia. Schizophrenia International Research Society Conference, Venice, 2008.
- Thakkar KN, Brugger P, Park S. The relationship between visuospatial perspective-taking and empathy: implications for schizophrenia and autism. Vanderbilt Kennedy Center Science Day, Nashville, TN, 2007.
- Ono, K., Thakkar, K. N., Stroynowski, E., Djonlajic, I., Vangel, M.G., Goff, D.C., Stickgold, R., Manoach, D.S. Deficient sleep- and time- dependent consolidation of motor learning in chronic, medicated schizophrenia. Harvard Psychiatry Day, Boston, 2007.
- Roffman, J.L., Weiss, A.P., Purcell, S., Freudenreich, O., Henderson, D.C., Wong, D.H., Thakkar, K.N., Halstead, C.H., Manoach, D.S., Goff, D.C. Interactive effects of methylenetetrahydrofolate reductase polymorphisms and serum folate status on negative symptoms of schizophrenia. Society for Biological Psychiatry, Toronto, 2006.
- Thakkar, K.N., Polli, F.E., Barton, J.J.S., Cain, M.S., Joseph, R.M., Hadjikhani, N., & Manoach, D.S. Abnormal anterior cingulate activity during error processing in autism spectrum disorder. Society for Neuroscience, Washington, DC, 2005.
- Manoach, D.S., Cain, M.S., Thakkar, K.N., Polli, F.E., Barton, J.J.S. An fMRI study of the inter-trial effects of antisaccades. Society for Neuroscience, Washington, DC, 2005.
- Polli, F.E., Cain, M.S., Thakkar, K.N., Barton, J.J.S., Manoach, D.S. Intact task-induced deactivation but decreased performance evaluation during antisaccade errors in schizophrenia. Society for Neuroscience, Washington, DC, 2005.
- Tuch, D.S., Ketwaroo, G.A., Cain, M.S., Sauder, C.L., Thakkar, K.N., Polli, F.E., Barton, J.J.S., D.S. Mapping the neural circuitry of antisaccade performance using DTI. ISMRM, Miami Beach, FL, 2005.
- Polli, F.E., Barton, J.J.S., Cain, M.S., Thakkar, K.N., Rauch, S.L., Manoach, D.S. Failure to deactivate the 'default mode' network during error commission: A neural model for affective inference of cognition? Massachusetts General Hospital Clinical Research Day, Boston, MA, 2005.
- Polli, F.E., Cain, M.S., Thakkar, K.N., Gallagher, G., Sauder, C., Hamalainen, M.S., Barton, J.J.S., Manoach, D.S. Magnetoencephalography (MEG) complements functional magnetic resonance imaging (fMRI) to elucidate the role of anterior cingulate cortex in error detection. Massachusetts Neuropsychological Society, Boston, MA, 2005.

DEPARTMENTAL TALKS

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| 2017 | Michigan State University Cognition and Cognitive Neuroscience Seminar
Prediction failures in schizophrenia: evidence from the oculomotor system |
| 2016 | Michigan State University Neuroscience Program Seminar , East Lansing, MI
Understanding agency abnormalities in schizophrenia: what can eye movements tell us? |
| 2015 | Michigan State University Clinical Seminar , East Lansing, MI
Understanding agency abnormalities in schizophrenia: what can eye movements tell us? |
| 2010 | Vanderbilt University Clinical Seminar , Nashville, TN
Disturbance in body ownership in schizophrenia: evidence from the rubber hand illusion |

- 2010** **Vanderbilt University Psychiatric Neuroimaging Seminar**, Nashville, TN
Imitation impairment in schizophrenia: evidence from behavioral and fMRI studies and implication for social dysfunction
- 2008** **Vanderbilt University Clinical Seminar**, Nashville, TN
Indices of response inhibition and response monitoring in schizophrenia from countermanding saccades

CLINICAL EXPERIENCE

- 2017-** **Michigan State University Psychological Clinic**, East Lansing, MI
Post-doctoral clinician (Supervisor: Keith Ostien, Ph.D.)
- 2011-2012** **UCLA Medical Psychological Assessment Center**, Los Angeles, CA
Pre-doctoral intern (multiple supervisors)
Inpatient and outpatient neuropsychological and psychological assessment
- 2011-2012** **UCLA Aftercare Program**, Los Angeles, CA
Pre-doctoral intern (Supervisor: Keith Nuechterlein, Ph.D.)
Outpatient individual and group therapy for first-episode schizophrenia patients
- 2010-2011** **Vanderbilt University Department of Neurology and Neurosurgery**, Nashville, TN
Neuropsychology practicum student (Supervisor: Bradley Folley, Ph.D.)
- 2009-2010** **Behavioral Health and Intellectual Disabilities Clinic at Vanderbilt**, Nashville, TN
Psychotherapy practicum student (Supervisor: Bruce Davis, Ph.D.)
- 2008-2009** **Private practice**, Nashville, TN
Neuropsychology practicum student (Supervisor: Mark Phillips, Ph.D.)
- 2003** **Northgate Clinic**, London, UK
Undergraduate Psychotherapy Intern (Supervisor: Freddy Gainza, Ph.D.)

RESEARCH AND TRAINING EXPERIENCE

- 2007** **UCLA Advanced Neuroimaging Summer School**, Los Angeles, CA
- 2007** **University Hospital Zurich**, Zurich, Switzerland
Visiting pre-doctoral researcher (Supervisor: Peter Brugger, Ph.D.)
- 2004-2006** **Massachusetts General Hospital, Harvard Medical School**, Boston, MA
Research Assistant (Supervisor: Dara Manoach, Ph.D.)
- 2003-2004** **Danielsen Institute, Boston University**, Boston, MA
Research Assistant (Supervisor: Brian McCorkle, Ph.D.)
- 2004** **Center for Anxiety and Related Disorders at Boston University**, Boston, MA
Research Volunteer

COURSES TAUGHT

- Fall 2015, 2017** Cognitive and Neuropsychological Assessment, Michigan State University
- Spring 2016,2017** Research Design and Measurement in Psychological Research, Michigan State University

OTHER TEACHING EXPERIENCE

- 2013** **Guest lecturer, University of Utrecht**
Response Selection (Master's level course)
- 2012** **Guest lecturer, Vanderbilt University**
Schizophrenia (Bachelor's level course)
- 2008** **Teaching assistant, Vanderbilt University**
Personality Psychology (Bachelor's level course)
- 2007** **Teaching assistant, Vanderbilt University**
Social Psychology (Bachelor's level course)

AD-HOC REVIEWER

Acta Neurobiologiae Experimentalis	Journal of Neuroscience
Acta Psychologia	Journal of Experimental Psychology: General
American Journal of Psychiatry	Journal of Experimental Psychology: Human
Annals of the New York Academy of Sciences	Perception and Performance
Biological Psychiatry	Neuropsychologia
Biological Psychiatry: Cognitive Neuroscience	Neuropsychology
and Neuroimaging	Neuropsychopharmacology
Biological Psychology	PLoS ONE
Brain and Cognition	Progress in Neuropharmacology and Biological
Brain Imaging and Behavior	Psychiatry
Cerebral Cortex	Psychiatry Research
Cognitive Neuropsychiatry	Psychological Medicine
Cognitive Science	Psychoneuroendocrinology
Experimental Brain Research	Psychopharmacology
JAMA Psychiatry	Psychophysiology
Journal of Abnormal Psychology	Schizophrenia Bulletin
Journal of Cognitive Neuroscience	Schizophrenia Research
Journal of Neurophysiology	Vision Research

MEDIA COVERAGE OF RESEARCH

- "MSU scientists open window into psychosis." *MSU Today* (online), January 2018.
- "Study uncovers clue to deciphering schizophrenia." *MSU Today* (online), June 2016.
- "Brain's Indiana Joneses search for empathy." *Pacific Standard* (online), August 2009.
- "Man with schizophrenia has out-of-body experience in lab, gains knowledge, controls his psychosis."
Discover Magazine Blogs (online), October 2011.
- "Gummihand-Illusion: Schizophrene nehmen Körper schwächer wahr." *Spiegel Online*, November 2011.

PROFESSIONAL MEMBERSHIPS

American Psychological Association
Society for Neuroscience
Society for Research in Psychopathology