CONTACT INFORMATION

Institutional mailing address	Michigan State University Department of Psychology 316 Physics Road Room 110 C
E-mail Telephone	East Lansing, MI 48824 <u>kthakkar@msu.edu</u> +1 517 884 8489

EDUCATION

2012	Vanderbilt University, Department of Psychology, Nashville, TN
	Ph.D. in Psychology
2004	Boston University, Boston, MA
	B.A. in Psychology
	B.A. in Mathematics

PROFESSIONAL APPOINTMENTS

2021-present	Michigan State University
-	Associate Professor of Psychology
	Secondary appointment in Psychiatry and Behavioral Medicine
2015-2021	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
	Neuropsychology of exceptional abilities track

PUBLICATIONS

Refereed Journal Articles (*indicates trainee author)

- Yao, B., Rolfs, M., Slate, R., Roberts, D., Fattal, J. Achtyes, E.D., Tso, I.F., Diwadkar, V.A., Kashy, D., Bao, J., Thakkar, K.N. (in press) Abnormal oculomotor corollary discharge signaling as a trans-diagnostic mechanism of psychosis. *Schizophrenia Bulletin*.
- 2. Lehet, M.*, Rolfs, M., Bao, J.*, Fattal, J.*, **Thakkar, K.N.** (2024) Pre-saccadic shifts of attention in individuals diagnosed with schizophrenia. *Brain and Behavior*, 14(3): e3466.
- Thakkar, K.N., Silverstein, S.M., Fattal, J.*, Bao, J.*, Slate, R.*, Roberts, D.*, Brascamp, J.W. (2024) Stronger tilt aftereffects in individuals diagnosed with schizophrenia spectrum disorders but not bipolar disorder. *Schizophrenia Research*, 264: 345-353.
- 4. **Thakkar, K.N.**, McCleery, A., Minor, K.S., Lee, J., Humpston, C.S. Chopik, W.J., Burt, S.A., Pearson, A.L., Ungar, M., Park, S. (2023) Moving from risk to resilience in psychosis research, *Nature Reviews Psychology*, 2: 537-555.
- 5. Hasan, S.M., Huq, M.S., Chowdury, A.Z. [et al, including **Thakkar, K.N.**] (2023) Learning without contingencies: a loss of synergy between memory and reward circuits in schizophrenia. *Schizophrenia Research*, 258: 21-35.
- 6. Yao, B.*, Gu, P., Lasagna, C.A., Peltier, S., Taylor, S.F., Tso, I.F., **Thakkar, K.N.** (2023) Structural connectivity of an interoception network in schizophrenia. *Psychiatry Research: Neuroimaging*, 331: 111636.
- 7. Merritt, K., Aleman, A., Block, W., [et al, including **Thakkar**, **K.N.**] (2023) Variability and Magnitude of Brain Glutamate Levels in Schizophrenia: A Meta and Mega-Analysis. *Molecular Psychiatry*.

Katharine N. Thakkar-page 1 of 11 August 13, 2024

- Roberts, D.*, Rösler, L.*, Wijnen, J., Thakkar, K.N. (2023) Associations between N-Acetylaspartate and white matter integrity in individuals with schizophrenia and unaffected relatives. *Psychiatry Research: Neuroimaging*, 330: 111612.
- 9. Fry, B.[†], Roberts, D.^{*†}, **Thakkar, K.N.**, Johnson, A.W. (2022) Variables influencing conditioning-evoked hallucinations: overview and future applications. *Psychological Medicine*, 52: 2937-2949. [†]*Authors contributed equally*
- 10. Fattal, J.*, Brascamp, J.W., Slate, R.E.*, Lehet, M.*, Achtyes, E.D., **Thakkar, K.N.** (2022) Blunted pupil light reflex is associated with negative symptoms and working memory in individuals with schizophrenia. *Schizophrenia Research*, 248: 254-262.
- 11. Culbert, K.M., **Thakkar, K.N.**, Klump, K.L. (2022) Risk for midlife psychosis in women: critical gaps and opportunities in exploring perimenopause and ovarian hormones as mechanisms of risk. *Psychological Medicine*, 52: 1612-1620.
- 12. Yao, B.*, **Thakkar, K.N.** (2022) Interoception abnormalities in schizophrenia: A review of preliminary evidence and an integration with Bayesian accounts of psychosis. *Neuroscience and Biobehavioral Reviews*, 132: 757-773.
- Migó, M., Guillory, S.B., McLaughlin, C.S., Isenstein, E.L., Grosman, H.E., Thakkar, K.N., Castellanos, F.X., Foss-Feig, J.H. (2022) Investigating motor preparation in patients with ASD and ADHD. *Journal of Autism and Developmental Disorders*, 52: 2379-2387.
- 14. Barr, S.M.[†], Roberts, D.^{†*}, **Thakkar, K.N.**[†] (2021) Psychosis in transgender and gender non-conforming individuals: a review of the literature and a call for more research. *Psychiatry Research*, 306: 114272. [†]*Authors contributed equally*
- 15. Lehet, M.*, Tso, I.F., Park, S., Neggers, S.F.W., Thompson, I.A.*, Kahn, R.S., **Thakkar, K.N.** (2021) Altered effective connectivity within an oculomotor control network in unaffected relatives of individuals with schizophrenia. *Brain Sciences*, 11(9): 1228.
- 16. Lehet, M.*, Tso, I.F., Neggers, S.F.W., Thompson, I.A.*, Yao, B.*, Kahn, R.S., **Thakkar, K.N.** (2021) Altered effective connectivity within an oculomotor control network in individuals with schizophrenia. *Neuroimage: Clinical*, 31:102764.
- Yao, B.*, Rolfs, M., McLaughlin, C., Isenstein, E.L., Guillory, S.B., Grosman, H., Kashy, D.A., Foss-Feig, J.H., Thakkar, K.N. (2021) Corollary Discharge Signaling is related to Repetitive Behavior and Sensory Processing in Children with Autism Spectrum Disorder. *Journal of Vision*, 21: 9.
- 18. Dave, A.*, Lehet, M.*, Diwadkar, V.A., **Thakkar, K.N.** (2021) Ocular measures index efficiency in cognitive subprocesses of associative learning. *International Journal of Psychophysiology*, 166: 103-115.
- 19. Merritt, K., Aleman, A., Block, W., [et al, including **Thakkar, K.N.**] (2021) A mega-analysis of 1H-MRS brain glutamate levels in schizophrenia; investigating the effect of age, antipsychotic medication and symptom severity. *JAMA Psychiatry*, 78: 667-681.
- 20. Chopik, W. J., Oh, J., Nuttall, A. K., **Thakkar, K. N.**, Ingersoll, B. (2021). Age differences in Broader Autism Phenotype traits from young adulthood to older adulthood. *Autism Research*, 14: 1456-1471.
- 21. **Thakkar, K.N.**, Mathalon, D.H., Ford, J.M. (2021) Reconciling competing mechanisms posited to underlie auditory verbal hallucinations. *Philosophical Transactions of the Royal Society B*, 376:20190702.
- 22. **Thakkar, K.N.**, Ghermezi, L.*, Slate, R.*, Yao, B.*, Silverstein, S.M., Achtyes, E.D., Brascamp, J.W. (2021) Stronger tilt aftereffects in persons with schizophrenia. *Journal of Abnormal Psychology*, 130(2):186-197.
- Tso, I.F., Lasagna, C.A., Fitzgerald, K.D., Colombi, C. Sripada, C.S., Peltier, S., Johnson, T.D., Thakkar, K.N. (2020) Disrupted eye gaze perception as a biobehavioral marker of social dysfunction: An RDoC investigation. *Journal of Psychiatry and Brain Science*, 5: e200021.
- 24. Yao, B.*, Neggers, S.F.W., Kahn, R.S., **Thakkar, K.N.** (2020) Altered thalamocortical structural connectivity in persons with schizophrenia and unaffected siblings. *Neuroimage: Clinical*, 28: 102370.
- 25. Robison, A.J., **Thakkar, K.N.**, Diwadkar, V. (2020) Cognition and reward circuits in schizophrenia: synergistic, not separate. *Biological Psychiatry*, 87, 204-214.
- 26. **Thakkar, K.N.**, Antinori, A., Carter, O., Brascamp, J.W. (2019) Altered short-term synaptic plasticity related to schizotypal traits: evidence from visual adaptation. *Schizophrenia Research*, 207: 48-57.
- 27. **Thakkar, K.N.**, Rolfs, M. (2019) Disrupted corollary discharge in schizophrenia: evidence from the oculomotor system. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 4, 773-781.
- Nuttall, A.K., Thakkar, K.N., Luo, X.*, Mueser, K.T., Glynn, S.M., Achtyes, E.D., Kane, J.M. (2019) Longitudinal associations of family burden and patient quality of life in the context of first-episode schizophrenia in the RAISE-ETP study. *Psychiatry Research*, 276: 60-68.
- 29. Thakkar, K.N., Silverstein, S.M., Brascamp, J.W. (2019) A review of visual aftereffects in schizophrenia.

Katharine N. Thakkar-page 2 of 11 August 13, 2024 Neuroscience and Biobehavioral Reviews, 101: 68-77.

- 30. Verbruggen, F., Aron, A. R., Band, G., [et al, including **Thakkar, K.N.**] (2019) Capturing the ability to inhibit actions and impulsive behaviors: A consensus guide to the stop-signal task. *eLife*;8:e46323.
- Yao, B*., Neggers, S.F.W., Rolfs, M., Rösler, L., Thompson, I.A., Hopman, H.J., Ghermezi, L., Kahn, R.S., Thakkar, K.N. (2019) Structural thalamo-frontal hypoconnectivity is related to oculomotor corollary discharge in schizophrenia. *Journal of Neuroscience*, 39: 2102: 2113.
- 32. **Thakkar, K.N.**, Brascamp, J.W., Ghermezi, L.*, Fifer, K.*, Schall, J.D., Park, S. (2018) Reduced pupil dilation during action preparation in schizophrenia. *International Journal of Psychophysiology*, 128: 111-118.
- Yao, B.*, Mueller, S., Grove, T., McLaughlin, M., Thakkar, K.N., Ringold, V., McInnis, 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.
- 34. **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.
- 36. *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.
- 37. **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.
- 38. *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.
- 39. **Thakkar, K.N.**, Schall, J.D., Heckers, S., Park, S. (2015) Disrupted saccadic corollary discharge in schizophrenia. *Journal of Neuroscience*, 35(27): 9935-9945.
- 40. *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.
- 41. **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.
- 42. **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.
- 43. **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.
- 44. **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.
- 45. **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.
- 46. Matthews, N., Collins, K., **Thakkar, K.N.**, Park, S. (2014) Visuospatial imagery and working memory in schizophrenia. *Cognitive Neuropsychiatry*, 19(1): 17-35.
- 47. **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.
- 48. **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.
- 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.
- 50. **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.
- 51. **Thakkar, K.N.**, & Park, S. (2010) Empathy, schizotypy, and spatial transformations. *Cognitive Neuropsychiatry*, 15: 477-500.
- 52. 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.

Katharine N. Thakkar-page 3 of 11 August 13, 2024

- 53. **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.
- 54. **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.
- 55. 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.
- 56. 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.
- 57. 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.
- 59. 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.

Book chapters

1. **Thakkar, K.N.**, Park, S., Schall, J.D. (2024) Monitoring of action in schizophrenia, in *Phenomenological Neuropsychiatry: Bridging the Clinic with Clinical Neuroscience*, A. Mishara, M. Moskalewiz, M.A. Schwartz, A. Kranjec (eds.), Springer.

Commentaries

- 1. 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.
- 2. **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.

Submitted

- 1. McLaughlin, C.S., Guillory, S.B., Trayvick, J., Isenstein, E.L., Roach, B.J., Mathalon, D.H., **Thakkar, K.N.**, Foss-Feig, J.H. (under re-review) Sensory consequences of action in children with autism spectrum disorder.
- 2. Martin, E., Chowdury, A., Kopchick, J., Thomas, P., Khatib, D., Rajan, U., Zajac-Benitez, C., Haddad, L., Amirsadri, A., Robison, A.J., **Thakkar, K.N.**, Stanley, J.A., Diwadkar, V.A. (submitted) The mesolimbic system and the loss of higher order network features in schizophrenia when learning without reward.
- Roberts, D., Yao, B., Rolfs, M., Slate, R., Fattal, J., Bao, J., Achtyes, E.D., Tso, I.F., Diwadkar, V.A., Thakkar, K.N. (under revision) Altered use of extraretinal information during sequential saccadic eye movements in individuals with schizophrenia ad bipolar disorder with psychotic features.

HONORS AND AWARDS

2021	Rising Star Award
	Schizophrenia International Research Society
2020	Rising Star Award
	Michigan State University College of Social Science
2018	Face of the Future
	Society for Research in Psychopathology
2013	Young Investigator Award
	International Congress on Schizophrenia Research
2012	Short-stay Fellowship
	Utrecht University
	Awarded to conduct research at Utrecht University
2012	Jum Nunnally Dissertation Award
	Vanderbilt University

Katharine N. Thakkar-page 4 of 11 August 13, 2024

2010	Department of Psychology Scientific Development Award Vanderbilt University
	\$5000 award for achievement in graduate research
2010	Pat Burns Memorial Graduate Student Research Award
_0.0	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

<u>Current</u>

NIMH, R01: "Hormonal Mechanisms of Perimenopausal Risk for Psychosis in Women"; co-PI (with MPI: Klump/Culbert); \$2,510,821 (direct costs); 2/1/2022-1/31/2027.

NIMH, R01: "Visual perception as a window into prediction anomalies in schizophrenia"; PI; \$2,266,377 (total costs); 4/1/2021-1/31/2026.

NIMH, R01: "Disrupted eye gaze perception as a biobehavioral marker of social dysfunction: An RDoC investigation"; Co-I (PI: Tso); 5/1/2020-3/31/2025.

Past

American Psychological Foundation, Visionary Grant: "Promoting Resilience and Well-Being in a Psychosis-Prone Population: Identifying Protective Factors in Daily Life"; co-PI; \$20,000 (total costs); 10/15/2021-9/1/2023

NIMH, R01: "Uncovering pathophysiological mechanisms of psychosis using the oculomotor system"; PI; \$1,542,887 (total costs); 9/1/2017-8/31/2022.

NIMH, R21: "Sensory consequences of action in children with autism spectrum disorders"; Co-PI (with Jennifer Foss-Feig); \$471,529 (total costs); 9/14/2017-7/31/2020

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. 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.

OUTREACH

Mental Health Research Connect, Director

MSU Mental Health Research Connect (MHRC) is a program that seeks to foster two-way communication between mental health researchers at MSU and community members who stand to be impacted by mental health research. Through this program, we alert community members about research studies that they might be interested in learning more about, solicit input from community members about what they think mental health research should focus on, and sponsor regular outreach activities.

INVITED TALKS

Nov 2023	From Eye to Brain: Oculomics and Schizophrenia webinar Visual aftereffects in the psychosis spectrum
May 2022	Icahn School of Medicine at Mount Sinai, Psychiatry Grand Rounds
•	Sensorimotor mechanisms of self-disturbance in individuals with schizophrenia
April 2022	University of Michigan, Functional MRI Speaker Series
-	Behavioral and neural correlates of rapid action modification and cancellation in individuals with
	schizophrenia and healthy controls
March 2022	Pine Rest Christian Mental Health Services, Grand Rounds
	Understanding Anomalous Self-Experiences in Individuals Diagnosed With Schizophrenia Spectrum Disorders
Nov 2021	Harvard University, Trends in Psychology Summit
	Sensorimotor mechanisms of self-disturbance in individuals diagnosed with schizophrenia
Oct 2021	Columbia University, Dept. of Psychiatry Clinical Cognitive Computational Neuroscience Center
	How experience shapes perception in schizophrenia
Nov 2020	EPICENTER Psychosis Speaker Series
	How expectations and experience shape visual perception in the schizophrenia spectrum
July 2019	Gordon Research Conference on Eye Movements, Lewiston, ME
	Eye Movements in Psychiatry and Neurology, Discussion leader
April 2018	Rutgers-Princeton Center for Computational Cognitive Neuro-Psychiatry
	Visuomotor Prediction Abnormalities in the Schizophrenia Spectrum
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

Katharine N. Thakkar-page 6 of 11 August 13, 2024 Cortico-striatal contributions to saccade inhibition and reprogramming

June 2013 Gordon Research Conference on Eye Movements, Stonehill, MA

July 2010Cortico-striatal contributions to saccade inhibition and reprogrammingJuly 2010University Medical Center Utrecht, Utrecht, NetherlandsResponse inhibition and response monitoring of saccades in a countermanding task in
Schizophrenia

SERVICE AND PROFESSIONAL ACTIVITIES

Professional Credentials

Licensed Psychologist, State of Michigan, 2020 - present

Professional Service: Editorial Work

2024-present Consulting Editor, Journal of Psychopathology and Clinical Science (formerly Journal of Abnormal Psychology)
2023-present Associate Editor, Schizophrenia Bulletin
2017-present Review Editor, Frontiers in Psychiatry, Neuroimaging and Neurostimulation Section

Professional Service: Grant Review

2017 Medical Research Council (ad hoc)

Professional Service: Ad-hoc Reviewing

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

Professional Service: Other

2023-2024	Society for Research in Psychopathology, Program Committee (Chair)
2022-2023	Society for Research in Psychopathology, Program Committee
2022-current	Consortium for Vision and Oculomics in Psychiatry, Secretary
2022-current	Schizophrenia International Research Society, Program Committee
2020-2023	Society for Research in Psychopathology, Diversity Committee
2019	Society for Research in Psychopathology, Program Committee
2019	Society for Research in Psychopathology, Smadar Levin Award Committee

Department and University Service

2023	Program Development Committee, Michigan State University, Dept. of Psychology, Clinical Area Group
2021-current	Advisory Committee, Michigan State University, Dept. of Psychology
2015-2020	Clinical Science Forum Committee, Michigan State University, Dept. of Psychology, Clinical Area Group
2018-2021	Graduate Admissions Committee, Michigan State University, Dept. of Psychology, Clinical Area Group
2018-current	Website Committee, Michigan State University, Dept. of Psychology, Clinical Area Group
2019-2021	Graduate Admissions Committee, Neuroscience Program
2019	Colloquium Committee, Michigan State University, Dept. of Psychology

MENTORSHIP

Doctoral Students 2024-current Anna Benedict

Katharine N. Thakkar-page 7 of 11 August 13, 2024 2024-currentElizabeth Eberlin2022-currentChristophe Delay2019-currentDominic Roberts2016-2022Beier Yao2016-2018Livon Ghermezi

Post-doctoral Fellows

2019-2024 Matthew Lehet

CONFERENCE PRESENTATIONS (*indicates trainee author)

- Yao, B., Rolfs, M., Slate, R., Roberts, D., Fattal, J., Achtyes, E. D., Tso, I. F., Diwadkar, V. A., Kashy, D., Bao, J., Thakkar, K. N. (May 2024). Abnormal oculomotor corollary discharge signaling as a trans-diagnostic mechanism of psychosis. Symposium talk to be presented at the annual meeting of the Vision Sciences Society (VSS), St. Pete Beach, FL.
- 2) Russell, M.T., Filip, T.F., Akhras, S., Busanet, H., Thakkar, K.N., McCleery, A., Minor, K.S. (April 2024) Evaluating social interactions in schizotypy using ecological momentary assessment. Talk presented at the annual meeting of the Schizophrenia International Research Society, Florence, Italy.
- 3) Roberts, D.*, Yao, B.*, Rolfs, M., Fattal, J.*, Achtyes, E. D., Tso, I. F. & Thakkar, K. N. (September 2023). Corollary Discharge Associated with Saccadic Eye Movements in Individuals with Schizophrenia and Bipolar Disorder with Psychotic Features. Poster presented at the 2023 Annual Meeting of the Society for Research in Psychopathology (SRP), St Louis, MO.
- Lehet, M.*, Rolfs, M., Bao, J.*, Fattal, J.*, Thakkar, K.N. (September 2023). Pre-saccadic shifts of attention in individuals diagnosed with schizophrenia. Poster presented at the 2023 Annual Meeting of the Society for Research in Psychopathology (SRP), St. Louis, MO.
- 5) Delay, C.*, Fattal, J.*, Bao, J.*, Brascamp J.W., Yao, B.*, Roberts, D.*, Thakkar, K.N. (September 2023). Investigating the Mechanisms of Negative Symptoms: A Pupillometry Study. Poster presented at the 2023 Annual Meeting of the Society for Research in Psychopathology (SRP), St. Louis, MO.
- 6) Filip, T.F., Akhras, S., Minor, K.S., Busanet, H.*, **Thakkar, K.N.**, McCleery, A. (September 2023). Associations between GPS-derived mobility indices, motivation and hedonic capacity, functioning, and affect among undergraduates with and without elevated schizotypal characteristics. Poster presented at the 2023 Annual Meeting of the Society for Research in Psychopathology (SRP), St. Louis, MO
- 7) **Thakkar, K.N.,** Mikhail, M.E., Burt, S.A., Neal, M.C., Keel, P.K., Boker, S., Culbert, K.M., Klump, K.L. (April 2023) Progesterone moderates the relationship between schizotypal traits and negative affect in young women. Talk presented at the annual meeting of the Schizophrenia International Research Society, Toronto, Canada.
- 8) Yao, B.*, Gu, P., Lasagna, C. A., Peltier, S., Taylor, S. F., Tso, I. F., & Thakkar, K. N. (September 2022). Structural connectivity of an interoception network in schizophrenia. Poster presented at the 2022 Annual Meeting of the Society for Research in Psychopathology (SRP), Philadelphia, PA
- 9) Roberts, D.*, Yao, B., Fattal, J., Achtyes, E.D., Tso, I.F., **Thakkar, K.N.** (2022, April) Corollary discharge associated with saccadic eye movements in individuals with schizophrenia and bipolar disorder with psychotic features. Poster presented at the annual meeting of the Schizophrenia International Research Society, Hybrid Conference.
- 10) Lehet, M.*, Tso, I.F., Neggers, S.F.W., Thompson, I.A.*, Yao, B.*, Kahn, R.S., **Thakkar, K.N.** (2021, April) Altered effective connectivity within an oculomotor control network in individuals with schizophrenia. Poster presented at the annual meeting of the Schizophrenia International Research Society, Virtual Conference.
- Yao, B.*, Rolfs, M., Slate, R.*, Fragoso, D., Achtyes, E. D., Tso, I. F., Diwadkar, V. A., Kashy, D. A., & Thakkar, K. N. (2021, April). Oculomotor corollary discharge abnormalities: a trans-diagnostic marker of psychosis? Poster presented at the 2021 Congress of the Schizophrenia International Research Society (SIRS), online.
- 12) Fattal, J.*, Slate, R.*, Achtyes, E.D. Lehet, M.*, Brascamp, J.W. & Thakkar, K.N. (2021, April) Abnormal pupil light reflex relates to negative symptom severity and working memory in schizophrenia. Poster presented at the annual meeting of the Schizophrenia International Research Society, Virtual.
- 13) Achtyes, E.D., Kempema, K., Luo, Thakkar, K.N., Adams, C., D'Mello, D., Stilwell, K., Tran, D., Marcy, P., Mueser, K., Schooler, N.R., Robinson, D.G., Kane, J.M. (2020, November) Implementation of NAVIGATE

Katharine N. Thakkar-page 8 of 11 August 13, 2024 Coordinated Specialty Care for First Episode Psychosis: the Michigan Experience. Poster presented at the Neuroscience Education Institute Congress, Virtual Conference.

- 14) Thakkar, K.N., Ghermezi, L.*, Slate, R.*, Silverstein, S.M., Brascamp, J.W. (2020, April) Visual aftereffects in schizophrenia. Symposium talk at the annual meeting of the Society for Biological Psychiatry, New York, NY, USA. (Conference canceled)
- 15) Lehet, M.*, Yao, B.*, Tso, I.F., Kahn, R.S., Neggers, S.F.W., Thakkar, K.N. (2020, April) Compromised neural circuit dynamics underlying impaired control of eye movements in schizophrenia. Poster presentation at the annual meeting of the Society for Biological Psychiatry, New York, NY, USA. (Conference canceled)
- 16) Fattal, J.*, Brascamp, J.W., Slate, R.*, Lehet, M.*, Achtyes, E., Thakkar, K.N. (2020, April) Abnormal pupil light reflex relates to negative symptom severity in schizophrenia. Poster presentation at the annual meeting of the Society for Biological Psychiatry, New York, NY, USA. (Conference canceled)
- 17) Yao, B.*, McLaughlin, C., Isenstein, E. L., Guillory, S. B., Grosman, H., Rolfs, M., Foss-Feig, J. H., & Thakkar, K. N. (2020, April). Corollary discharge signaling and repetitive behavior in children with autism spectrum disorder. Talk presented online at the annual meeting of the Society for Biological Psychiatry, New York, NY, USA.
- 18) Roberts, D.*, Rösler, L.*, Wijnen, J.P., Boer, V.O., Klomp, D.W.J., Cahn, W., Kahn, R.S., Neggers, S.F.W., Thakkar, K.N. (2020, April) Exploring the Relationship between N-Acetylaspartate and White Matter Integrity in Individuals with Schizophrenia and Unaffected relatives: A Combined 1H MRS-DTI Approach.
- 19) Thakkar, K.N., Ghermezi, L.*, Slate, R.*, Brascamp, J.W. (2019, September) Visual aftereffects in schizophrenia. Talk presented at the annual meeting of the Society for Research in Psychopathology, Buffalo, NY, USA.
- 20) Yao, B.*, McLaughlin, C., Isenstein, E. L., Grosman, H., Guillory, S. B., Layton, C. F., Falade, I., Rolfs, M., Foss-Feig, J. H., & Thakkar, K. N. (2019, May). Clinical correlates of corollary discharge signaling in children with autism spectrum disorder. Poster presented at the 2019 International Society for Autism Research Annual Meeting, Montreal, Canada.
- 21) Yao., B. *, Rolfs, M., Slate, R., Achtyes, E.A., Tso, I., Diwadkar, V.A., Kashy, D., Thakkar, K.N. (2019, September) Altered saccadic corollary discharge: specific to schizophrenia or a transdiagnostic deficit? Poster presented at the annual meeting of the Society for Research in Psychopathology, Buffalo, NY, USA.
- 22) Yao, B. *, Neggers, S.F.W., Kahn, R.S., Thakkar, K.N. (2018, September) Thalamo-cortical structural connectivity in schizophrenia patients and healthy siblings. Poster presented at the annual meeting of the Society for Research in Psychopathology, Indianapolis, IN, USA.
- 23) Slate, R.O.*, Ghermezi, L.*, Thakkar, K.N. (2018, September) The pupil light reflex as a function of schizotypal traits. Poster presented at the annual meeting of the Society for Research in Psychopathology, Indianapolis, IN, USA.
- 24) Thakkar, K.N. Yao, B.* (2018, September) Predicting the sensory consequences of action in schizophrenia: a role for thalamo-cortical connections. Symposium talk presented at the annual meeting of the Society for Research in Psychopathology (role: speaker), Indianapolis, IN, USA.
- 25) 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.
- 26) 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.
- 27) 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.
- 28) 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.
- 29) 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.
- 30) 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 siblings. Talk presented at the annual meeting of the Society for Neuroscience, Chicago, Illinois, USA.
- 31) 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.

- 32) 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.
- 33) *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.
- 34) 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.
- 35) 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.
- 36) *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.
- 37) 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.
- 38) 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.
- 39) Thakkar, K.N., Schall, J.D., Logan, G.D., Park, S. (2013, April). Inhibition and monitoring of saccades in a doublestep task in schizophrenia. Talk presented at the annual meeting of the International Congress on Schizophrenia Research, Orlando, FL.
- 40) 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.
- 41) 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.
- 42) 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.
- 43) 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.
- 44) Thakkar, K.N., Schall, J.D., Boucher, L., Logan, G., Park, S. (April 2009) 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.
- 45) Thakkar, K.N., Schall, J.D., Boucher, L., Logan, G., Park, S. (November 2008) Response inhibition and response monitoring of saccades in a stop signal task in schizophrenia. Society for Neuroscience, Washington, DC.
- 46) Thakkar, K.N., Park, S. (2008) Evidence for intact manipulation of internal representations during mental rotation in schizophrenia. Schizophrenia International Research Society Conference, Venice.
- 47) Thakkar KN, Brugger P, Park S. (2007) The relationship between visuospatial perspective-taking and empathy: implications for schizophrenia and autism. Vanderbilt Kennedy Center Science Day, Nashville, TN.
- Ono, K., Thakkar, K. N., Stroynowski, E., Djonlajic, I., Vangel, M.G., Goff, D.C., Stickgold, R., Manoach, D.S. (2007) Deficient sleep- and time- dependent consolidation of motor learning in chronic, medicated schizophrenia. Harvard Psychiatry Day, Boston.
- 49) 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. (2006) Interactive effects of methylenetetrahydrofolate reductase polymorphisms and serum folate status on negative symptoms of schizophrenia. Society for Biological Psychiatry, Toronto.
- 50) Thakkar, K.N., Polli, F.E., Barton, J.J.S., Cain, M.S., Joseph, R.M., Hadjikhani, N., & Manoach, D.S. (2005) Abnormal anterior cingulate activity during error processing in autism spectrum disorder. Society for Neuroscience, Washington, DC.

Katharine N. Thakkar-page 10 of 11 August 13, 2024

- 51) Manoach, D.S., Cain, M.S., Thakkar, K.N., Polli, F.E., Barton, J.J.S. (2005) An fMRI study of the inter-trial effects of antisaccades. Society for Neuroscience, Washington, DC.
- 52) Polli, F.E., Cain, M.S., Thakkar, K.N., Barton, J.J.S., Manoach, D.S. (2005) Intact task-induced deactivation but decreased performance evaluation during antisaccade errors in schizophrenia. Society for Neuroscience, Washington, DC.
- 53) Tuch, D.S., Ketwaroo, G.A., Cain, M.S., Sauder, C.L., Thakkar, K.N., Polli, F.E., Barton, J.J.S., D.S. (2005) Mapping the neural circuitry of antisaccade performance using DTI. ISMRM, Miami Beach, FL.
- 54) Polli, F.E., Barton, J.J.S., Cain, M.S., Thakkar, K.N., Rauch, S.L., Manoach, D.S. (2005) 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.
- 55) Polli, F.E., Cain, M.S., Thakkar, K.N., Gallagher, G., Sauder, C., Hamalainen, M.S., Barton, J.J.S., Manoach, D.S. (2005) Magnetoencephalography (MEG) complements functional magnetic resonance imaging (fMRI) to elucidate the role of anterior cingulate cortex in error detection. Massachusetts Neuropsychological Society, Boston, MA.

DEPARTMENTAL TALKS

2022	Michigan State University Clinical Seminar, East Lansing, MI
	Moving from risk to resilience in psychosis research
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

2021-	Comprehensive Psychological Services, East Lansing, MI
	Neuropsychologist
2017-2019	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 Ángeles, 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.)

COURSES TAUGHT

Social, Cognitive, and Affective Neuroscience, Michigan State University Cognitive and Neuropsychological Assessment, Michigan State University Research Design and Measurement in Psychological Research, Michigan State University

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

OTHER TEACHING EXPERIENCE

Guest lecturer, University of Utrecht
Response Selection (Master's level course)
Guest lecturer, Vanderbilt University
Schizophrenia (Bachelor's level course)
Teaching assistant, Vanderbilt University
Personality Psychology (Bachelor's level course)
Teaching assistant, Vanderbilt University Social Psychology (Bachelor's level course)

MEDIA COVERAGE OF RESEARCH

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