

# Ezra E Smith, PhD

Clinical Neuropsychologist  
Tucson, AZ

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## Education and Licensure

- 2019 Licensed Psychologist in the State of Arizona (License PSY-005110)
- 2018 University of Arizona, Doctor of Philosophy (PhD)  
Clinical Psychology with specialization in neuropsychology and neuroscience  
*Dissertation committee:* John JB Allen (chair), Dave Sbarra, Matthew Grilli, Lee Ryan
- 2011 Stony Brook University, Master of Arts (MA), Psychology
- 2007 University of Oregon, Bachelor of Science (BS), Psychology

## Clinical activity

- 2023—Present Clinical Neuropsychologist, Southern Arizona VA, Tucson, AZ  
*Focus:* Individual and group psychotherapy for depression, anxiety, and PTSD (50%).  
Objective neuropsychological assessment of adults with dementia, stroke, epilepsy, and brain injury (50%).
- 2023—Present Clinical Neuropsychologist, Sierra Tucson, Tucson, AZ  
*Focus:* Group psychotherapy for insomnia (20%). Objective neuropsychological assessment of adults with dementia, stroke, epilepsy, and brain injury (80%).
- 2020—Present Clinical Neuropsychologist, Private practice, Tucson, AZ  
*Focus:* Objective neuropsychological assessment of adults with dementia, stroke, epilepsy, and depression in a private practice setting
- 2018—2020 Postdoctoral Neuropsychologist, Private practice, Tucson, AZ  
*Focus:* objective neuropsychological assessment of adults with neurocognitive and psychiatric disorders in a private practice setting  
*Postdoctoral supervisor:* Shannah Biggan, PhD ABPP-CN
- 2017—2018 Intern psychologist, University of Arizona Department of Psychiatry  
*Focus:* Evaluation and treatment of psychosis and SMI  
*Director of internship training:* Marisa Menchola, PhD ABPP-CN
- 2016—2017 Trainee, Palo Santo Psychotherapy and Wellness, Tucson AZ  
*Focus:* Individual and family psychotherapy with adolescent and adults in a private practice outpatient setting  
*Supervisor:* Michelle Ellis, PhD
- 2015—2016 Trainee, Southern Arizona VA, Tucson AZ  
*Focus:* Objective neuropsychological assessment of dementia, brain injury, and psychiatric disturbance in outpatient Veterans (50%). Individual, family, and group psychotherapy for Veteran outpatients in an integrative primary-care clinic (50 %).  
*Neuropsychology supervisor:* John Tsanadis, PhD ABPP-CN  
*Psychotherapy supervisor:* Michelle Dorsey, PhD

- 2014—2015 Trainee, La Frontera Arizona, Tucson AZ  
*Focus:* individual, family, and group psychotherapy with residents at a substance abuse treatment facility  
*Supervisor:* Patricia Penn, PhD
- 2012—2017 Trainee, Neuropsychology Ltd., Tucson, AZ  
*Focus:* objective neuropsychological assessment of dementia, brain injury, and psychiatric disturbance in a private practice setting  
*Supervisor:* Shannah Biggan, PhD ABPP-CN

## Research activity

- 2017—Present Consulting scientist, University of Cologne, Department of Psychiatry  
*Focus:* mapping brain circuits important for deep brain stimulation treatment success in patients with refractory OCD and Tourette's disorder  
*PI:* Jens Kuhn, PhD
- 2018—2022 Consulting scientist, Nash Family Center for Advanced Circuit Therapeutics  
*Focus:* mapping brain circuits important for deep brain stimulation treatment success in patients with refractory major depression  
*PI:* Helen Mayberg, MD
- 2018—2020 Research scientist, New York State Psychiatric Institute  
*Focus:* developing biomarkers of treatment response for major depression  
*PI:* Jürgen Kayser, PhD
- 2011—2018 Junior research scientist, The University of Arizona  
*Focus:* identifying novel biomarkers of neural and psychological health  
*PI:* John J.B. Allen, PhD
- 2010—2011 Junior research scientist, State University of New York at Stony Brook  
*Focus:* quantifying neural indices of emotional function in normal and depressed mood  
*PI:* Greg Hajcak, PhD
- 2005—2007 Junior research scientist, The University of Oregon  
*Focus:* quantifying neural correlates of the self and self-referential thinking  
*PI:* Don Tucker, PhD

## Publications

- Smith, E.E., Choi, K.S., Veerakumar, A., Obatusin, M., Howell, B., Smith, A.H., ... & Waters, A. C. (2022) Time-frequency signatures evoked by single-pulse deep brain stimulation to the subcallosal cingulate. *Frontiers in Human Neuroscience*, 566.
- Smith, E.E., Bel-Bahar, T.S., & Kayser, J. (2022). A systematic data-driven approach to analyze sensor-level EEG connectivity: Identifying robust phase-synchronized network components using surface Laplacian with spectral-spatial PCA. *Psychophysiology*, e14080.
- Schüller, T., Gruendler, T. O., Smith, E.E., Baldermann, J.C., Kohl, S., Fischer, A.G., ... & Huys, D. (2021). Performance monitoring in obsessive-compulsive disorder: Insights from internal capsule/nucleus accumbens deep brain stimulation. *NeuroImage: Clinical*, 31, 102746.
- Smith, E.E., Schüller, T., Huys, D., Baldermann, J.C., Andrade, P., Allen, J.J., ... & Kuhn, J. (2020). A brief demonstration of frontostriatal connectivity in OCD patients with intracranial electrodes. *Neuroimage*, 220, 117138.
- Smith, E.E., Schüller, T., Huys, D., Balderman, J.C., Ullsperger, M., Allen, J.J.B. Veerle Visser-Vandewalle, Kuhn, J., & Gruendler, T.O.J. (2020). Prefrontal delta oscillations during deep brain stimulation predict

treatment success in patients with Obsessive-Compulsive Disorder, *Brain stimulation*, 13(1), 259-261. DOI: [10.1016/j.brs.2019.09.008](https://doi.org/10.1016/j.brs.2019.09.008)

Smith, E.E., Tenke, C.E., Deldin, P.J., Trivedi, M.H., Weissman, M.M., Auerbach, R.P., Bruder, G.E., Pizzagalli, D.A., Kayser J. (2020). Frontal theta and posterior alpha in resting EEG: A critical examination of convergent and discriminant validity, *Psychophysiology*, 57(2), DOI: [10.1111/psyp.13483](https://doi.org/10.1111/psyp.13483)

Sanguinetti, J. L., Hameroff, S., Smith, E. E., Sato, T., Daft, C. M., Tyler, W. J., & Allen, J. J. (2020). Transcranial Focused Ultrasound to the Right Prefrontal Cortex Improves Mood and Alters Functional Connectivity in Humans. *Frontiers in Human Neuroscience*, 14, 52. DOI: [10.3389/fnhum.2020.00052](https://doi.org/10.3389/fnhum.2020.00052)

Smith, E.E. and Allen, J.J.B. (2019). Theta-band functional connectivity and single-trial cognitive control in sports-related concussion: Demonstration of proof-of-concept for a potential biomarker of concussion. *Journal of the International Neuropsychological Society*, 25(3), 314-323. DOI: [10.1017/S135561771800108X](https://doi.org/10.1017/S135561771800108X)

Vlissides, P.E., Bel-Bahar, T., Nelson, A., Chilton, K., Smith, E.E., Janke, E., Tarnal, V., Picton, P., Harris, R.E., Mashour, G.A., (2018). Subanaesthetic ketamine and altered states of consciousness in humans. *British journal of anaesthesia*, 121(1), 249-259. DOI: [10.1016/j.bja.2018.03.011](https://doi.org/10.1016/j.bja.2018.03.011)

Smith, E.E., Cavanagh, J.F., & Allen, J.J.B., (2018). Intracranial source activity (eLORETA) related to scalp-level asymmetry scores and depression status. *Psychophysiology*, 55(1), DOI: [10.1111/psyp.13019](https://doi.org/10.1111/psyp.13019)

Smith, E.E., Reznick, S.J., Stewart, J.L., & Allen, J.J.B., (2017). Assessing and conceptualizing frontal EEG asymmetry: An updated primer on recording, analyzing, and interpreting frontal alpha asymmetry. *International Journal of Psychophysiology*, 111, 98-114. DOI: [10.1016/j.ijpsycho.2016.11.005](https://doi.org/10.1016/j.ijpsycho.2016.11.005)

Smith, E.E., Zambrano-Vazquez, L., & Allen, J.J.B. (2016). Patterns of alpha asymmetry in those with elevated worry, trait anxiety, and obsessive-compulsive symptoms: A test of the worry and avoidance models of alpha asymmetry. *Neuropsychologia*, 85, 118-126. DOI: [10.1016/j.neuropsychologia.2016.03.010](https://doi.org/10.1016/j.neuropsychologia.2016.03.010)

Sanguinetti, J.L., Smith, E.E., Allen, J.J.B., & Hameroff, S. (2014). Human Brain Stimulation with Transcranial Ultrasound (TUS); Potential Applications for Mental Health. In P.J. Rosch & M.S. Markov (Eds.), *Bioelectromagnetic Medicine*. New York: Taylor and Francis. [link](#)

Smith, E.E., Weinberg, A., Moran, T., & Hajcak, G. (2013). Electrocortical responses to NIMSTIM facial expressions of emotion. *International Journal of Psychophysiology*, 88, 17-25. DOI: [10.1016/j.ijpsycho.2012.12.004](https://doi.org/10.1016/j.ijpsycho.2012.12.004)

Kujawa, A., Smith E.E., Luhmann C., & Hajcak, G. (2013). The Feedback Negativity Reflects Favorable Compared to Non-favorable Outcomes Based on Global, Not Local, Alternatives. *Psychophysiology*, 50, 134-138. DOI: [10.1111/psyp.12002](https://doi.org/10.1111/psyp.12002)

Bress, J.N., Smith, E.E., Foti, D., Klein, D.N., & Hajcak, G. (2011). Neural response to reward and depressive symptoms in late childhood to early adolescence. *Biological Psychology*, 89, 156-162. DOI: [10.1016/j.biopsycho.2011.10.004](https://doi.org/10.1016/j.biopsycho.2011.10.004)

## Service and professional societies

Consulting editor – *Biological Psychology*, *International Journal of Psychophysiology*

Ad Hoc Reviewer – *Psychophysiology*, *Biological Psychology*, *PLoS One*, *Brain and Behavior*, *Brain Imaging and Behavior*

Southern Arizona Psychological Association

Society for Psychophysiological Research

International Organization of Psychophysiology

International Neuropsychological Society

Association for Psychological Science

American Psychological Association (Divisions 3 and 40)