

Yi-Shin Sheu, Ph.D.

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EDUCATION

The Johns Hopkins University, Baltimore, MD
Ph.D., Psychological and Brain Sciences **2015**
Dissertation: "Cognitive Control of Abstract Rules"

The Johns Hopkins University, Baltimore, MD
M.A., Psychological and Brain Sciences **2011**
Thesis: "Neuroplasticity Underlying Working Memory Networks:
Evidence From ICA-Based fMRI Analysis in Patients with Multiple Sclerosis"

National Taiwan University, Taipei, Taiwan
B.S., Psychology (Graduated on Dean's List) **2006**

AWARDS AND HONORS

Taiwan Ministry of Education Scholarship (\$50,000 USD). **2009 – 2011**

ACADEMIC APPOINTMENT

Postdoctoral Fellow Oct 2015 – present
Department of Neurology, Cognitive Neuroscience Division
Johns Hopkins University School of Medicine, Baltimore, MD

Graduate Student Researcher Sep 2009 – Sep 2015
Psychological and Brain Sciences Program
Johns Hopkins University, Baltimore, MD

Research Specialist June 2006 – April 2009
Developmental Biopsychiatry Research Program
McLean Hospital/Harvard Medical School, Belmont, MA

TEACHING EXPERIENCE

Guest lecturer, Johns Hopkins University
Cognitive Control, Fall 2011

Graduate Instructor, Johns Hopkins University
Research Methods in Experimental Psychology, Spring 2012

Teaching Assistant, Johns Hopkins University
Advanced Statistical Method, Fall 2011
Law, Psychology, and Policy making, Fall 2014
Physiological Psychology, Fall 2010
Functional Human Neuroanatomy, Spring 2010

SERVICE

Reviewer for Journals: *Neuroimage*, *The Cerebellum*, *Cortex*
Member, Editorial Board of Medical Medicine Monitor Journal (2021- current)

PEER-REVIEWED PUBLICATIONS

- Sheu, Y.S.**, Desmond, J.E. Cerebro-Cerebellar Response to Sequence Violation in a Cognitive Task: an fMRI Study. *Cerebellum* (2021).
<https://doi.org/10.1007/s12311-021-01279-y>
- Desmond, J.E., Rice, L.C., Cheng, D.T., Hua, J., Qin, Q., Rilee, J.J., Faulkner, M.L., **Sheu, Y.S.**, Mathena, J.R., Wand, G.S., McCaul, M.E. (2020). Changes in hemodynamic response function resulting from chronic alcohol consumption. *Alcoholism: Clinical and Experimental Research* 44 (5), 1099-1111
- Cheng, D.T., Rice, L.C., McCaul, M.E., Rilee, J.J., Faulkner, M.L., **Sheu, Y.S.**, Mathena, J.R., Desmond, J.E. (2020). Neural substrates underlying eyeblink classical conditioning in adults with alcohol use disorders. *Alcoholism: Clinical and Experimental Research*. (manuscript accepted)
- Sheu, Y.S.**, Yu, Liang, Desmond, J.E. (2019). Disruption of cerebellar prediction in verbal working memory. *Frontiers in Human Neuroscience* 13, 61
- Peterburs, J., Blevins, L.C., **Sheu Y.S.**, Desmond, J.E. (2018). Cerebellar contributions to sequence prediction in verbal working memory. *Brain structure and function*, 1-15.
- Sheu, Y.S.** & Courtney, S.M. (2016). A neural mechanism of cognitive control for resolving conflict between abstract task rules. *Cortex*, 85, 13-24.
- Walsh, M., Montojo, C.A., **Sheu, Y.S.**, Marchette, S.A., Harrison, D.M., Newsome, S.D., Zhou, F., Shelton, A.L., Courtney, S.M. (2011) Object working memory performance depends on microstructure of the frontal-occipital fasciculus. *Brain connectivity* 1:317-329.

- Tomoda, A., **Sheu, Y.S.**, Rabi, K., Suzuki, H., Navalta, C.P., Polcari, A., Teicher, M. H. (2011) Exposure to parental verbal abuse is associated with increased gray matter volume in superior temporal gyrus. *Neuroimage* 54: S280-286.
- Sheu, Y.S.**, Polcari, A., Anderson, C.M., Teicher, M.H. (2010) Harsh corporal punishment is associated with increased T2 relaxation time in dopamine-rich regions. *Neuroimage* 53(2):412-419.
- Teicher, M.H., Samson, J.A., **Sheu, Y.S.**, Polcari, A., McGreenery, C.E. (2010) Hurtful words: association of exposure to peer verbal abuse with elevated psychiatric symptom scores and corpus callosum abnormalities. *The American journal of psychiatry* 167(12):1464-1471.
- Tomoda, A., Suzuki, H., Rabi, K., **Sheu, Y.S.**, Polcari, A., Teicher, M.H. (2009) Reduced prefrontal cortical gray matter volume in young adults exposed to harsh corporal punishment. *Neuroimage* 47: T66-71.

PUBLISHED BOOK CHAPTERS

- Seraphin, S.B., Teicher, M.H., Rabi, K., **Sheu, Y.S.**, Andersen, S.L., Anderson, C.M., Choi, J., Tomoda, A. (2010). Ontogenetic perspectives on the neurobiological basis of psychopathology following abuse and neglect. In Worthman, C.M., Plotsky, P.M., Schechter, D.S., Cummings, C.A. (Eds.) *Formative Experiences* (p.p. 308-330). New York: Cambridge University Press
- Teicher, M.H., Rabi, K., **Sheu, Y.S.**, Seraphin, S.B., Andersen, S.L., Anderson, C.M., Choi, J., Tomoda, A. (2010). Neurobiology of childhood trauma and adversity. In Lanius, R.A., Vermetten, E., Pain, C. (Eds.) *The Impact of Early Life Trauma on Health and Disease* (p.p. 112-122). New York: Cambridge University Press

CONFERENCE PROCEEDINGS & SYMPOSIUM TALK

- Sheu, Y. S.**, Liang, Y. Desmond, J. E. (2019). The effect of stimulus predictability on cerebro-cerebellar verbal working memory processing: An fMRI study. Proceedings of society for neuroscience, the 50th Annual Meeting (Chicago, USA)
- Sheu, Y. S.**, Liang, Y. Desmond, J. E. (2018). Transcranial magnetic stimulation of the right cerebellum impairs prediction of temporal order of items in verbal working memory. Symposium talk presented at International Society for Behavioural Neuroscience (ISBN), Anchorage, USA
- Sheu, Y. S.** & Courtney, S. M. (2014). A conflict-specific cognitive control mechanism for task rules: switching between task rules and resolving

rule conflicts. Proceedings of society for neuroscience, the 44th Annual Meeting (Washington DC, USA)

Sheu, Y. S. & Courtney, S. M. (2013). Testing the biased competition model of attention in the selection of abstract task rules. Proceedings of society for neuroscience, the 43th Annual Meeting (San Diego, USA)

Sheu, Y. S., Montojo, C., Walsh, M, Courtney, S. M. (2010). Altered prefrontal connectivity during spatial and object working memory performance in multiple sclerosis. Proceedings of the cognitive neuroscience society (CNS), Annual Meeting. (Montreal, Canada)

Sheu, Y. S., Polcari, A., Teicher, M. H. (2008). The effect of methylphenidate on functional connectivity of the default mode network. Proceedings of society for neuroscience, the 38th Annual Meeting. (Washington DC, USA)

LANGUAGES

Mandarin Chinese – native

English – speak fluently and read/write with high proficiency

MEMBERSHIPS

International Society for Behavioural Neuroscience

Society for Neuroscience