

# BENGI BARAN

Department of Psychological & Brain Sciences  
370 PBSB Iowa City IA 52242

bengi-baran@uiowa.edu

## EDUCATION

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- 07/2015 - 07/2017 Post-doctoral Research Training Certificate Program  
**HARVARD MEDICAL SCHOOL**, Division of Sleep Medicine
- 09/2008 - 01/2014 Ph.D.  
**UNIVERSITY OF MASSACHUSETTS AMHERST**  
Department of Psychological and Brain Sciences  
Advisor: Rebecca Spencer, Ph.D.
- 09/2005 - 02/2008 M.A.  
**BOGAZICI UNIVERSITY**, Istanbul, Turkey, Department of Psychology
- 09/2000 - 05/2004 B.A., with high honors  
**BOGAZICI UNIVERSITY**, Istanbul, Turkey, Department of Psychology

## PROFESSIONAL APPOINTMENTS

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- 08/2020 – present Assistant Professor, Department of Psychological and Brain Sciences, University of Iowa
- 07/2019 – 08/2020 Assistant Professor of Psychiatry, Harvard Medical School / Massachusetts General Hospital
- 07/2017 – 07/2019 Instructor in Psychiatry, Harvard Medical School / Massachusetts General Hospital
- 01/2014 – 07/2017 Postdoctoral Fellow, Harvard Medical School / Massachusetts General Hospital

## RESEARCH SUPPORT

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- 04/2018- 04/2023 **K01 MH114012-01A1**  
**Mentored Research Scientist Career Development Award**  
PI: Bengi Baran  
*The Role of Thalamic Circuitry Dysfunction in Cognitive Deficits in Schizophrenia: Wake and Sleep*
- 06/2015- 06/2017 **5T32HL007901-17**  
NIH Postdoctoral Fellowship, Harvard Medical School, Division of Sleep Medicine
- 07/01/14-06/30/15 **Fund for Medical Discovery Clinical Fellowship Award**  
MGH/Harvard Medical School Executive Committee on Research

## AWARDS & HONORS

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- 2019 UC Davis/SDSU ERP Bootcamp Travel Award
- 2019 Research Career Development Institute for Psychiatry (CDI), Class of 2019
- 2019 Domestic Travel Fellowship Award, Society of Biological Psychiatry
- 2017 Young Investigator Award, International Congress on Schizophrenia Research
- 2013 Graduate School Dissertation Research Award, University of Massachusetts Amherst
- 2013 The UCLA Advanced Neuroimaging Summer Program Travel Award
- 2013 Sleep Research Society Abstract Meritorious Award
- 2012 Sleep Research Society Trainee Award
- 2012 Wisconsin Symposium on Emotion Travel Award

## PUBLICATIONS

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- Mylonas D, **Baran B**, Demanuele C, Cox R, Vuper TC, Seicol B, Fowler R, Correll D, Parr E, Callahan CE, Morgan A, Henderson D, Vangel M, Stickgold R, Manoach DS (in press). The effects of eszopiclone on sleep spindles and memory consolidation in schizophrenia: A randomized clinical trial. *Neuropsychopharmacology*.
- Mylonas D, Tocci C, Coon WG, **Baran B**, Kohnke EJ, Zhu L, Vangel MG, Stickgold R, Manoach DS (2019). Naps reliably estimate nocturnal sleep spindle density in health and schizophrenia. *Journal of Sleep Research*, e12968. PMID: 31860157
- Baran B**, Karahanoglu FI, Mylonas D, Demanuele C, Vangel M, Stickgold RS, Anticevic A, Manoach DS (2019). Increased thalamocortical connectivity in schizophrenia correlates with sleep spindle deficits: evidence for a common pathophysiology. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 4(8), 706-714. PMID: 31262708
- Baran B**, Correll D, Vuper TS, Morgan A, Manoach DS, Stickgold S. (in press) Spared and impaired sleep-dependent memory consolidation in schizophrenia. *Schizophrenia Research*. PMID: 29706447
- Karahanoglu FI\*, **Baran B**, Nguyen TQ, Meskaldji DE, Vangel M, Santangelo SL, Manoach DS. (2018) Diffusion-weighted imaging evidence of altered white matter development from late childhood to early adulthood in Autism Spectrum Disorder. *NeuroImage: Clinical*, 19, 840-847. PMID: 29946509
- Baran B**, Karahanoglu FI, Agam Y, Mantonakis L, Manoach DS (2016). Failure to mobilize cognitive control for challenging tasks correlates with symptom severity in schizophrenia. *NeuroImage: Clinical*, 12, 887-893. PMID: 27872811.
- Demanuele C, Bartsch U, **Baran B**, Khan S, Vangel M, Cox R, Hämäläinen M, Jones M, Stickgold S, Manoach DS (2016). Coordination of slow waves and sleep spindles predicts sleep-dependent memory consolidation in schizophrenia. *Sleep*, 40(1). PMID: 28364465.
- Baran B**, Mantua J, Spencer RMC (2016). Age-related changes in the sleep-dependent reorganization of declarative memories. *Journal of Cognitive Neuroscience*, 28(6),792-802. PMID: 26918588.
- Mantua J, **Baran B**, Spencer RMC (2016). Sleep benefits consolidation of visuo-motor adaptation learning in older adults. *Experimental Brain Research*, 234(2),587-595. PMID: 26563162.
- Jones BJ, Schultz KS, Adams S, **Baran B**, Spencer RMC (2016). Emotional bias of sleep-dependent processing shifts from negative to positive with aging. *Neurobiology of Aging*, 45,178-89. PMID: 27459938.
- Sonni A, Kurdziel LBF, **Baran B**, Spencer RMC (2014). The effects of sleep dysfunction on cognition, affect, and quality of life in individuals with cerebellar ataxia. *Journal of Clinical Sleep Medicine*, 10(5), 535-543. PMID: 24812539.
- Baran B**, Daniels D, Spencer RMC (2013). Sleep-dependent consolidation of value- based learning. *PloS One*, 8(10), e75326. PMID: 24130703.
- Tükel R, Gürvit H, Öztürk N, Özata B, Ertekin BA, Ertekin E, **Baran B**, Kalem SA, Buyukgok D, Direskeneli GS (2013). COMT Val158Met polymorphism and executive functions in obsessive-compulsive disorder. *Journal of Neuropsychiatry and Clinical Neurosciences*, 25(3), 214–221. PMID: 23774999.
- Baran B**, Pace-Schott EF, Ericson C, Spencer RMC (2012). Processing of emotional reactivity and emotional memory over sleep. *Journal of Neuroscience*, 32(3), 1035–1042. PMID: 22262901.
- Wilson J, **Baran B**, Pace-Schott EF, Ivry RB, Spencer RMC (2012). Sleep modulates word pair learning but not motor sequence learning in healthy older adults. *Neurobiology of Aging*, 33(5), 991–1000. PMID: 22244090.
- Tükel R, Gürvit H, Ozata B, Oztürk N, Ertekin BA, Ertekin E, **BaranB**, Kalem SA, Buyukgok D, Direskeneli GS (2012). Brain-derived neurotrophic factor gene Val66Met polymorphism and cognitive function in obsessive-compulsive disorder. *American Journal of Medical Genetics*, 159B(7),850-858. PMID: 2291190.

Ready RE, **Baran B**, Chaudhry M, Schatz K, Gordon J, Spencer RMC (2011). Apolipoprotein E-e4, processing speed, and white matter volume in a genetically enriched sample of midlife adults. *American Journal of Alzheimer's Disease and Other Dementias*, 26(6), 463–468. PMID: 21937476.

Tükel R, Gürvit H, Ertekin BA, Oflaz S, Ertekin E, **Baran B**, Kalem SA, Kandemir PE, Ozdemiroğlu FA, Atalay F (2012). Neuropsychological function in obsessive-compulsive disorder. *Comprehensive Psychiatry*, 53(2), 167-175. PMID: 21550029.

**Baran B**, Wilson J, Spencer RMC (2010). REM-dependent repair of competitive memory suppression. *Experimental Brain Research*, 203(2), 471-477. PMID: 20401652.

**Baran B**, Tekcan AI, Gürvit H, Boduroglu A (2009). Episodic memory and metamemory in Parkinson's disease patients. *Neuropsychology*, 23(6), 736-745. PMID: 19899832.

Erdogan A, **Baran B**, Avlar B, Tas AC, Tekcan AI (2008). On the persistence of positive events in life scripts. *Applied Cognitive Psychology*, 22(1). 95-111.

## SELECTED CONFERENCE PRESENTATIONS

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**Baran B**, Karahanoglu FI, Mylonas D, Denis D, Keshavan M, Stickgold R, Manoach DS (2019, June). Sleep and Wake Biomarkers of Psychotic Disorders and Their Relations with Thalamocortical Connectivity. *Association of Professional Sleep Societies*, San Antonio, TX.

**Baran B**, Denis D, Larson O, Sato E, Kohnke E, Keshavan M, Stickgold R, Manoach DS (2019, May). Abnormal Thalamocortical functional connectivity and Sensory Gating Deficits in Psychotic Disorders: Are These Two Biomarkers Related? 74th Annual Meeting of the Society of Biological Psychiatry, Chicago, IL.

**Baran B**, Karahanoglu FI, Nguyen TM, Santangelo S, Manoach DSM. Functional connectivity of thalamocortical circuitry in Autism Spectrum Disorders (2018, May). *73rd Annual Meeting of the Society of Biological Psychiatry*, New York, NY.

**Baran B**, Karahanoglu FI, Demanuele C, Vangel M, Stickgold R, Anticevic A, Manoach D (2018, May). Abnormal Thalamocortical Functional Connectivity Correlates with Sleep Spindle Deficits in Schizophrenia. 73rd Annual Meeting of the Society of Biological Psychiatry, New York, NY.

Fang A, **Baran B**, Porth R, Wilhelm S, Manoach D. (2018, May). *Resting state functional connectivity in the Default Mode Network (DMN) in patients with maladaptive self-focused attention*. 73rd Annual Meeting of the Society of Biological Psychiatry, New York, NY.

**Baran B**, Karahanoglu FI, Nguyen TM, Meskaldji DE, Azzouz N, Vangel M, Santangelo S, Manoach DS (2017, June). Developmental abnormalities in white matter tracts in Autism Spectrum Disorders. *23rd Annual Meeting of the Organization for Human Brain Mapping*, Vancouver, Canada.

**Baran B**, Demanuele C, Vuper TC, Seicol B, Fowler RA, Correll D, Parr E, Callahan CE, Morgan A, Stickgold R, Manoach DS (2017, June). The effects of eszopiclone on sleep spindles and memory consolidation in schizophrenia: A double-blind randomized trial. *Association of Professional Sleep Societies*, Boston, MA.

**Baran B**, Karahanoglu FI, Demanuele C, Fowler RA, Vuper TC, Seicol B, Correll D, Callahan C, Parr E, Stickgold RS, Manoach DS (2017, March). Integrity of thalamocortical circuitry is associated with sleep spindle deficits in schizophrenia. *International Congress on Schizophrenia Research*, San Diego, CA.

**Baran B**, Karahanoglu FI, Demanuele C, Fowler RA, Vuper TC, Seicol B, Correll D, Callahan C, Parr E, Stickgold RS, Manoach DS (2016, May). The role of thalamocortical connectivity in understanding spindle deficits in schizophrenia. *International Conference on Sleep Spindling*, Budapest, Hungary.

**Baran B**, Correll D, Demanuele C, Vuper TC, Seicol B, Fowler RA, Callahan C, Parr E, Stickgold RS, Manoach DS (2015, October). Deficits in sleep-dependent memory consolidation in schizophrenia. *Society for Neuroscience Annual Meeting*, Chicago, IL.

**Baran B**, Agam Y, Karahanoglu FI, Mantonakis L, Goff D, Manoach DS (2015, May). Failure to use contextual cues to modulate the dACC cognitive control network correlates with symptom severity in schizophrenia. *Harvard Psychiatry Research Day*, Boston, MA.

**Baran B**, Mantua J, Spencer RMC (2014, April). Neural substrates of nap-dependent consolidation of declarative memory in young adults. *Cognitive Neuroscience Society Annual Meeting*, Boston, MA.

**Baran B**, Spencer RMC (2013, June). Sleep-dependent consolidation of visuomotor learning in young and older adults. *Association of Professional Sleep Societies*, Baltimore, MD

**Baran B**, Spencer RMC (2013, April). Effects of valence context on sleep dependent consolidation of emotional memories. *Cognitive Neuroscience Society Annual Meeting*, San Francisco, CA.

**Baran B**, Spencer RMC. (2012, October). Effects of aging on sleep dependent consolidation of procedural memory. *Society for Neuroscience Annual Meeting*, New Orleans, LA.

**Baran B**, Spencer RMC (2012, April). Effects of aging and sleep on emotional reactivity. *Wisconsin Symposium on Emotion*, Madison, WI.

**Baran B**, Ready RE, Chaudhry M, Schatz K, Gordon J, Spencer RMC (2011, November). Behavioral and physiological correlates of genetic vulnerability to Alzheimer's Disease. *Society for Neuroscience Annual Meeting*, Washington, DC.

**Baran B**, Pace-Schott EF, Spencer RMC (2010, November). Sleep strengthens memory and attenuates emotional reactivity for negative not positive emotional stimuli. *Society for Neuroscience Annual Meeting*, San Diego, CA.

**Baran B**, Spencer RMC (2009, November). Benefits of Sleep on Learning and Forgetting, *Society for Neuroscience Annual Meeting*, Chicago, IL.

## TEACHING EXPERIENCE

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### Instructor:

Methods of Inquiry in Psychology, UMASS AMHERST	Fall 2012
POWER Up for Success – How to Be a Successful College Student, UMASS AMHERST	Fall 2011

### Graduate TA:

Statistics, UMASS AMHERST	Spring 2012
Learning and Thinking, UMASS AMHERST	Fall 2008
Cognitive Psychology, UMASS AMHERST	Fall 2008

### Completed Coursework:

HMS 302qc: Teaching 101 - Bringing Effective Teaching Practices to Your Classroom	Spring 2016
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## SERVICE

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### Professional Memberships:

Society of Biological Psychiatry 2017- Present  
Sleep Research Society 2011- Present  
Society for Neuroscience 2009- Present

### Committee Membership:

Harvard University Joint Committee on the Status of Women

**Ad-Hoc Reviewer:** Cognition; Cognitive, Affective, and Behavioral Neuroscience; Journal of Abnormal Psychology; Journal of Cognitive Psychology; Journal of Experimental Psychology: General; Journal of Medical Psychology; Neuropsychopharmacology; NeuroReport; PlosOne; Schizophrenia Research; Sleep; Sleep Medicine Reviews; Translational Issues in Psychological Science