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Work Experience

Full Professor	University of California Los Angeles	
Department of Psychology		Jul 2020–Present
Department of Neurosurgery, Brain Injury Research Center (<i>joint</i>)		
Associate Professor	University of California Los Angeles	
Department of Psychology		Jul 2016–Jun 2020
Department of Neurosurgery, Brain Injury Research Center (<i>joint</i>)		
Associate Professor	University of California Los Angeles	
Department of Psychology		Jan 2011–Jun 2016
Department of Neurosurgery, Brain Injury Research Center (<i>joint</i>)		
Postdoctoral Scientist	Medical Research Council	
Cognition & Brain Sciences Unit (Cambridge, UK)		Sep 2007–Dec 2010

Other Positions

Chair, Cognitive Area	University of California Los Angeles	
Department of Psychology		Sep 2021–Present
Chair, Therapeutic Interventions	Curing Coma Campaign Initiative	
Neurocritical Care Society, CDE Working Groups		Oct 2020–Sep 2023
Board Member & Officer	Institute for Advanced Studies of Consciousness	
Board Member, Treasurer		Nov 2019–Present
Representative, Legislative Assembly	University of California Los Angeles	
Academic Senate		Sep 2018–Present
Research Affiliate	Center for Experimental & Applied Epistemology	
Università Vita-Salute San Raffaele		Jan 2011–Present
Milan, Italy		

Education

Ph.D. in Psychology & Neuroscience	Princeton University	
Department of Psychology, Princeton, NJ 08544, USA		Jan 2006–Jun 2007
M.A. in Psychology & Neuroscience	Princeton University	
Department of Psychology, Princeton, NJ 08544, USA		Sep 2003–Dec 2005
Laurea in Discipline Economiche e Sociali	Università Commerciale L. Bocconi	
Milan, MI 20136, Italy		Sep 1997–Jun 2002
Grade: 110/110 <i>Cum Laude</i>		

National Habilitation

Abilitazione Scientifica Nazionale (Italian National Scientific Habilitation)		
Scientific domain 11/E1: <i>Psychology, psychobiology & psychometrics</i>		2019–2030

Awards and Fellowships

Fulbright U.S. Scholar Award	Feb 2025
UCLA School of Life Sciences Award Outstanding Research Publication [†]	Jun 2020
UCLA Psychology Department Distinguished Teaching Award	Jun 2019
Sciacca Foundation International Prize Giuseppe Sciacca	Oct 2018
UCLA Psychology Department Distinguished Teaching Award	Jun 2015
UCLA School of Life Sciences Award Outstanding Research Publication [†]	Jun 2020
Association for Psychological Science (APS) "Rising Star"	Apr 2013
Association of Princeton Graduate Alumni (APGA) Teaching Award	Jun 2006
National Academy of Sciences Kavli Fellowship	Aug 2015
Medical Research Council Career Development Fellowship	2007–2011
Mathey College Graduate Fellow	2006–2007
Princeton Graduate School Summer Fellowship	Summer 2006
Princeton University Graduate Fellowship	2003–2004
Rice University Lodieska Stockbridge Vaughan Fellowship	2002–2003
Rice University Graduate Fellowship	2002–2003

Selected Funding (as Principal Investigator)

National Institute of Biomedical Imaging & Bioengineering	2024–2026
<i>Predicting recovery after TBI: Development and comparison of MR-supplemented models</i>	\$427,518
UCLA Brain Injury Research Center	2024–2026
<i>Finding consciousness: validating the Perturbational Complexity Index in the ICU</i>	\$100,000
U.S. Department of Defense (CDMRP, TBIPHRP)	2024–2028
<i>Safety and efficacy of thalamic focused ultrasound stimulation for promoting recovery after severe traumatic brain injury</i>	\$2,169,063
Tiny Blue Dot Foundation	2019–2023
<i>Measuring consciousness: From theory to practice (Phase II)</i>	\$3,986,296
Tiny Blue Dot Foundation	2016–2019
<i>Measuring consciousness: From theory to practice (Phase I)</i>	\$417,112
Dana Foundation	2014–2019
<i>Filling the treatment gap: Ultrasonic thalamic stimulation in disorders of consciousness</i>	\$300,000
James S. McDonnell Foundation Scholar Award	2011–2017
<i>Cognitive processing and awareness at the lower boundaries of consciousness: Insights from the Vegetative State</i>	\$600,000

Selected Publications (from over 100; \star indicates MontiLab trainee)

- Toker D., \star Zheng Z.S., \star Thum J.A., . . ., Monti M.M. (in press) AI Discovery of Mechanisms of Consciousness, Its Disorders, and Their Treatment. *Nature Neuroscience*.
- Toker D. \star , Monti M.M. (2025) Different diseases, same circuits: lessons from rare and overlooked causes of disorders of consciousness. *Brain Communications*, fcaf439.

- **Monti M.M.** (2025) The subcortical correlates of self-reported sleep quality. *Sleep*, zsaf115.
- Toker D.,[☆] Chiang J.N., Vespa P.M., Schnakers C.,[♡] **Monti M.M.** (2025) The Dipeptidyl Peptidase-4 Inhibitor Saxagliptin as a Candidate Treatment for Disorders of Consciousness: A Deep Learning and Retrospective Clinical Analysis. *Neurocritical Care*, 1-18.
- Toker D.,[☆] Müller E., Miyamoto H., Riga M.S., Lladó-Pelfort L., Yamakawa K., Artigas F., Shine J.M., Hudson A.E., Pouratian N., **Monti M.M.** (2024) Criticality supports cross-frequency cortical-thalamic information transfer during conscious states. *Elife*, 13:e86547
- Toker D.,[☆] Pappas I., Lendner J.D., Frohlich J.,[☆] Mateos D.M., Muthukumaraswamy S.D., Carhart-Harris R., Paff M., Vespa P.M., **Monti M.M.**, Sommer F.T., Knight R.T., D'Esposito M. (2023) Consciousness is supported by near-critical slow cortical electrodynamics. *Proceedings of the National Academy of Sciences USA*, 119(7):e2024455119.
- Frohlich J.,[☆] Crone J.S.,[☆] Johnson M.A.,[☆] Lutkenhoff E.S.,[☆] Spivak N.,[☆] Dell'Italia J.,[☆] ... **Monti M.M.** (2022). Neural oscillations track recovery of consciousness in acute traumatic brain injury patients. *Human Brain Mapping*, 43(6):1804-1820.
- **Monti M.M.**, Schnakers C.[♡] (2022) Flowchart for implementing advanced imaging and electrophysiology in patients with disorders of consciousness: to fMRI or not to fMRI? *Neurology*, 98(11), 452-459.
- Frohlich J.,[☆] Toker D.,[☆] **Monti M.M.** (2021) Consciousness Among Delta Waves: A Paradox? *Brain*, 144; 2257-2277.
- Chiang J.N.,[☆] Peng Y., Lu H., Holyoak K.J., **Monti M.M.** (2021) Distributed Code for Semantic Relations Predicts Neural Similarity During Analogical Reasoning. *Journal of Cognitive Neuroscience*, 33(3):377-89.
- Cain J.A.,[☆] Visagan S., Johnson M.A.,[☆] Crone J.S., Blades R.,[☆] Spivak N.,[☆] Shattuck D., **Monti M.M.** (2021) Real Time and Delayed Effects of Subcortical Low Intensity Focused Ultrasound. *Scientific Reports*, 11(1):6100.
- Cain J.A.,[☆] Spivak N.M.,[☆] Coetze J.P.,[☆] Crone J.S.,[☆] Johnson M.A.,[☆] Lutkenhoff E.S.,[☆] ..., **Monti, M.M.** (2021). Ultrasonic thalamic stimulation in chronic disorders of consciousness. *Brain Stimulation*, 14(2):301-303.
- **Monti M.M.** & Holyoak K.J. (2021) Relational Integration in the Human Brain: A Review and Synthesis. *Journal of Cognitive Neuroscience*, 33(3):341-56.
- Lutkenhoff E.S.,[☆] Wright M.J., Shrestha V., Real C., McArthur D.L., Buitrago-Blanco M., Vespa P.M., **Monti M.M.** (2020) The subcortical basis of outcome and cognitive impairment in TBI: A longitudinal cohort study. *Neurology*, 95:e2398-e2408.
- Lutkenhoff E.S.,[☆] Nigri A., Sebastiano D.R., Sattin D., Visani E., Rosazza C., D'Incerti L., ..., **Monti M.M.** (2020). EEG power spectra and subcortical pathology in chronic disorders of consciousness. *Psychological Medicine*, 52(8):1491-1500.
- Lutkenhoff E.S.,[☆] Casarotto S., Massimini M., **Monti M.M.** (2020) Subcortical atrophy correlates with the Perturbational Complexity Index in patients with disorders of consciousness. *Brain Stimulation*, 13:1426-1435.
- Frohlich J.,[☆] Bird, L., Dell'Italia J.,[☆] Johnson M.A.,[☆] Hipp, J., **Monti M.M.** (2020) High-voltage, diffuse delta rhythms coincide with wakeful consciousness and complexity in Angelman syndrome. *Neuroscience of Consciousness*, 6(1):n1aa005.
- Crone J.S.,[☆] Lutkenhoff E.S.,[☆] Vespa P., **Monti M.M.** (2020) A Systematic Investigation of the Association between Time-Varying Network Organization in the Human Brain and the State of Consciousness. *Neuroscience of Consciousness*, 6(1):n1aa008.
- Schnakers C.,[♡] Lutkenhoff E.S.,[☆], Bio B.J.,[☆], McArthur D.L., Vespa P.M., **Monti M.M.** (2018) Acute EEG spectra characteristics predict thalamic chronic atrophy after severe TBI. *Journal of Neurology, Neurosurgery, and Psychiatry*, 90(5):617-619.

- Schnakers C.,[♡] **Monti M.M.** (2020) Towards improving care for disorders of consciousness. *Nature Reviews Neurology*, 16:405-406.
- Coetzee J.P.[☆], **Monti M.M.** (2018) At the core of reasoning: dissociating deductive and non-deductive difficulty. *Human Brain Mapping* 39(4):1850-1861.
- Chiang J.[☆], Rosenberg M.[☆], Bufford C., Stephens D., Lysy A., **Monti M.M.** (2018) The language of music: Common neural codes for structured sequences in music and natural language. *Brain & Language* 185:30-37.
- Zheng Z.S.[☆], Reggente N., Lutkenhoff E.S.[☆], Owen A.M., **Monti M.M.** (2017) Disentangling disorders of consciousness: insights from diffusion tensor imaging and machine learning. *Human Brain Mapping* 38(1):431-443.
- Schnakers C.,[♡] **Monti M.M.** (2017) Disorders of consciousness after severe brain injury: Therapeutic options. *Current Opinion in Neurology* 30(6):573-579.
- **Monti M.M.**, Schnakers C.,[♡] Korb A.S., Bystritsky A., Vespa P.M. (2016) Non-invasive ultrasonic thalamic stimulation in disorders of consciousness after severe brain injury: a first-in-man report. *Brain Stimulation*, 9(6):940-941.†
- Crone J.S.[☆], Lutkenhoff E.S.[☆], Bio B.[☆], Laureys S., **Monti, M.M.**(2016) Testing proposed neuronal models of effective connectivity within the cortico-basal ganglia-thalamo-cortical loop during loss of consciousness. *Cerebral Cortex* 27(4):2727-2738.
- Lutkenhoff E.S.[☆], Chiang J.[☆], Tshibanda L., Kamau E., Kirsch M., Pickard J.D., Laureys S., Owen A.M., **Monti M.M.** (2015) Thalamic and extrathalamic mechanisms of consciousness after severe brain injury. *Annals of Neurology* 78(1):68-76.
- **Monti M.M.**, Rosenberg M.[☆], Finoia P., Kamau E., Pickard J.P., Owen A.M. (2015) Thalamofrontal connectivity mediates top-down cognitive functions in disorders of consciousness. *Neurology*, 84(2):167-73. With [accompanying editorial](#) by S. Goldman & N. Schiff, Functional imaging to uncover willful brain behavior in non-communicative patients, *Neurology* 84(2):1-2.
- **Monti M.M.** (2013) Editorial – Ethics, neuroimaging and disorders of consciousness: What is the question? *American Journal of Bioethics, Neuroscience*, 4(4):1-2.
- **Monti M.M.**, Lutkenhoff E.S.,[☆] Rubinov M., Boveroux P., Vanhaudenhuyse A., Gosseries O., Bruno M-A., Noirhomme Q., Boly M., Laureys S. (2013) Dynamic change of global and local information processing in propofol-induced loss and recovery of consciousness. *PLoS Computational Biology*, 9(10).†
- **Monti M.M.**, Parsons L.M., Osherson D.N. (2012) Response to Tzourio-Mazoyer and Zago: yes, there is a neural dissociation between language and reasoning. *Trends in Cognitive Sciences*, 16(10):495-496.
- **Monti M.M.**, Parsons L.M., Osherson D.N. (2012) Thought beyond language: neural dissociation of arithmetic and natural language. *Psychological Science*. 23(8): 914-922.
- **Monti M.M.** (2012) Cognition in disorders of consciousness, *Annual Reviews of Clinical Psychology*, 8:431-454.
- **Monti M.M.**, Vanhaudenhuyse A., Coleman M.R., Boly M., Pickard J., Tshibanda, J-F., Owen, A.M., Laureys, S. (2010) Willful modulation of brain activity in disorders of consciousness, *New England Journal of Medicine* 362(7):579-589. With [accompanying editorial](#) by A.H. Ropper: Cogito Ergo Sum by fMRI, *New England Journal of Medicine* 362(7):648.
- **Monti M.M.**, Laureys S., Owen A.M. (2010) The Vegetative State, *BMJ* 341:c3765.
- **Monti M.M.**, Coleman M.R., Owen A.M. (2009) Neuroimaging and the vegetative state: Solving the behavioral dilemma? *Annals of the New York Academy of Sciences* 1157:81-9.
- **Monti M.M.**, Parsons L.M., Osherson D.N. (2009) The boundaries of language and thought in deductive inference, *Proceedings of the National Academy of Sciences* 106: 12554-59.

Teaching Experience

Consciousness: Current Debates (PSYCH 124D) Undergraduate level, lecture Typical enrollment: 40 students	2024-Present
Laboratory in Functional Neuroimaging (PSYCH 186D) Undergraduate level, lecture & laboratory Typical enrollment: 25 students	2012-Present
Cognitive Psychology (PSYCH 120A) Undergraduate level, lecture Typical enrollment: 350 students	2011-2023
Computational Methods for Neuroimaging (PSYCH 265) Graduate level, lecture & laboratory Typical enrollment: 25 students	2012-Present

Mentoring

Post-doctoral scientists

Evan S. Lutkenhoff Ph.D. (09/11-04/23) *now* Senior Scientist, Magnus Medical
Julia Crone Ph.D.◦ (10/14-06/22) *now* Principal Investigator, University of Vienna
Marina Weiler Ph.D. (10/20-12/23) *now* Assistant Professor, University of Virginia
Joel Frohlich Ph.D. (09/18-12/21) *now* Postdoctoral Scientist, University of Tübingen
Daniel Toker Ph.D.◦ (09/21-present)

Former doctoral students

John Coetzee (Ph.D. 2018) *now* Postdoctoral Scientist, Sanford University/Palo Alto VA
Zhong Zheng★◦ (Ph.D. 2018) *now* Research Scientist, Casa Colina Research Institute
Micah Johnson ★♦◦ (Ph.D. 2019) *now* Postdoctoral Researcher, Johns Hopkins University
John Dell'Italia ★♦ (Ph.D. 2019) *now* Research Associate, AICS
Jeff Chiang♦ (Ph.D. 2019) *now* Assistant Professor, UCLA (Neurosurgery)
Andrew Frane◦ (Ph.D. 2019) *now* Assistant Professor, Occidental College (Psychology)
Joshua Cain△□ (Ph.D. 2022) *now* CEO, Symphony NeuroTech
Alessandra Dallavecchia□ (Ph.D. 2024) *now* Postdoctoral scientist, UCLA (Psychiatry)

Current doctoral students

Youngzie (Zoe) Lee, Psychology Department, Cognitive Psychology Area
Amber Hopkins * Psychology Department, Cognitive Psychology Area
Sonya Ashikyan, ◇♦ Psychology Department, Behavioral Neuroscience Area
Jojo Widi, Psychology Department, Cognitive Area

◦: NIH F32 Kirschstein-NRSA Postdoctoral Fellowship recipient.

★: National Science Foundation Graduate Fellowship recipient.

♦: National Defense Science & Engineering Graduate Fellowship recipient.

◆: NeuroImaging Training Program Fellowship (NITP) recipient.

□: UCLA Graduate Research Mentorship fellowship recipient.

◊: UCLA Dissertation year fellowship recipient.

△: Gengerelli Distinguished Dissertation Award recipient.

•: American Psychological Foundation COGDOP Graduate Research Scholarship recipient.

◇: Cota Robles Scholarship recipient.

♣: Mangasar Mangasarian Endowed Fellowship recipient.