

# Curriculum vitae

## Martin M. Monti, Ph.D.

📍 UCLA, Department of Psychology, Los Angeles, CA 90095, USA

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### WORK EXPERIENCE

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- Jul 2020 – Present **Full Professor**  
**University of California Los Angeles (UCLA)**, Los Angeles, CA 90095 USA  
*Department of Psychology (Primary)*  
*Department of Neurosurgery, Brain Injury Research Center (joint)*  
*Department of Psychiatry & Biobehavioral Sciences (joint)*
- Jul 2016 – Jun 2020 **Associate Professor**  
**University of California Los Angeles (UCLA)**, Los Angeles, CA 90095 USA  
*Department of Psychology (Primary)*  
*Department of Neurosurgery, Brain Injury Research Center (joint)*  
*Department of Psychiatry & Biobehavioral Sciences (joint)*
- Jan 2011 – Jun 2016 **Assistant Professor**  
**University of California Los Angeles (UCLA)**, Los Angeles, CA 90095 USA  
*Department of Psychology (Primary)*  
*Department of Neurosurgery, Brain Injury Research Center (joint)*  
*Department of Psychiatry & Biobehavioral Sciences (joint)*
- Sep 2007 – Dec 2011 **Postdoctoral Researcher**  
**Medical Research Council**, Cambridge, CB2 7EF, England  
*Cognition & Brain Sciences Unit*  
Advisor: Adrian M. Owen, PhD

### OTHER POSITIONS

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- Nov 2019 – Present **Board Member & Officer**  
**Institute for Advanced Study of Consciousness**  
Board Member and Officer (Treasurer)
- Jan 2019 – Present **Review Panel Member**  
**National Institute of Neurological Disorders & Stroke (NIH NINDS)**  
Special Emphasis Panel (ZNS1 SRB - S (02))
- Jan 2011 – Jun 2013 **Reviewer**  
**U.S. Department of Veterans Affairs**  
Rehabilitation Research & Development Scientific Merit Review: TBI and Stroke panel
- Jan 2011 – Present **Research Affiliate**  
**Center for Experimental and Applied Epistemology (CRESA)**

Oct 2012 – Jul 2013 **External Scientific Consultant**  
**Coma Research Center, I.R.C.C.S. Istituto Neurologico Carlo Besta, Milan, Italy**

## EDUCATION AND TRAINING

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- Jan 2006 – Jun 2007 **Ph.D. in Psychology & Neurosciences**  
**Princeton University**, Department of Psychology, Princeton, NJ 08544 USA  
Thesis title: *“The neural basis of deductive reasoning.”*  
Advisor: Daniel N. Osherson, Ph.D.
- Sep 2003 – Dec 2005 **M.A. in Psychology & Neurosciences**  
**Princeton University**, Department of Psychology, Princeton, NJ 08544 USA  
M.A. specialty paper title: *“Statistical analysis of fMRI time-series: A critical evaluation of the GLM approach.”*  
Advisor: Daniel N. Osherson, Ph.D.
- Sep 1997 - Jun 2002 **Laurea in Discipline Economiche e Sociali (DES)** Grade: 110/110 cum laude  
**Università Commerciale L. Bocconi**, Milan, Italy  
Thesis title: *“The role of emotions in negotiation: An experimental perspective.”*

## HABILITATION

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- 29 Apr 2019 - 29 Apr 2025 **Abilitazione Scientifica Nazionale (Italian National Scientific Habilitation)**  
Prima Fascia; Scientific domain: 11/E1 - Psychology, psychobiology and psychometrics (Settore concorsuale 11/E1 - Psicologia generale, psicobiologica e psicometria)  
Bando d.d. 1532/2015; validità: 29 Apr 2025.

## AWARDS AND FELLOWSHIPS

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- Jun 2020 UCLA Life Science Faculty Award (Associate Professor category) for **Outstanding Research Publication**<sup>‡</sup>
- May 2019 UCLA Psychology Department **Distinguished Teaching Award**
- Oct 2018 Sciacca Foundation **International Prize Giuseppe Sciacca for Medical Research**
- Jun 2015 UCLA Psychology Department **Distinguished Teaching Award**
- May 2014 UCLA Life Science Faculty Award (Assistant Professor category) for **Outstanding Research Publication**<sup>†</sup>
- Apr 2013 Association for Psychological Science (APS) **“Rising Star”**
- Jun 2006 Association of Princeton Graduate Alumni (APGA) **Teaching Award, for Excellence in Undergraduate Teaching**(yearly award, elected by faculty and students.)
- Aug 2015 Kavli Fellowship of the National Academy of Sciences
- AYs 2007/11 MRC Career Development Fellowship
- AY 2006/7 Mathey College Graduate Fellow
- Summer 2004 Princeton Graduate School Summer Fellowship
- AY 2003/4 Princeton University Graduate Fellowship
- AY 2002/3 Lodieska Stockbridge Vaughan Fellowship
- AY 2002/3 Rice University Graduate Fellowship

## REGISTERED CLINICAL TRIALS

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- Jul 2015 – Present Thalamic Low Intensity Focused Ultrasound in Acute Brain Injury (LIFUP)  
<https://clinicaltrials.gov/ct2/show/NCT02522429>

## FUNDING

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- Jan 2019 - Dec 2028 **Tiny Blue Dot Foundation** (PI: Monti)

*Measuring consciousness: From theory to practice (Phase II)*

Year 1: \$627,350.00; Year 2: \$1,015,653.00

- Jan 2017 - Nov 2021 **NIH NINDS [5U54NS100064-02]** (PI: A. Toga, USC; role: co-I)  
*The Epilepsy Bioinformatics Study for Antiepileptogenic Therapy (EpiBioS4Rx)*  
\$4,282,449.00 (consortium total)
- Apr 2016 - Dec 2019 **Tiny Blue Dot Foundation** (PI: Monti)  
*Measuring consciousness: From theory to practice (Phase I)*  
\$417,112.00
- Sep 2015 - Aug 2018 **Ministero della Salute [PE 002359287]** (PI: S. Ferraro, IRCCS Besta; role: PI-abroad)  
*Structural biomarkers of awareness and wakefulness in disorders of consciousness*  
€239,508.00
- May 2015 - Jun 2016 **UCLA Academic Senate, Faculty Research Grant** (PI: Monti)  
*From correlation to causation: testing the role of language in human cognition*  
\$9,600.00
- Apr 2014 - Oct 2018  
(Extended: Oct 2019) **Dana Foundation, Clinical Neuroscience Research** (PI: Monti)  
*Filling the treatment gap: Ultrasonic Thalamic Stimulation in Disorders of Consciousness Following Severe Brain Injury*  
\$300,000.00
- Aug 2013 - Dec 2015 **U.S. Office of Naval Research [ONR BAA 13-001]** (PI: P. Reber, NWU; Role: co-I)  
*Enhancing intuitive decision making through implicit learning*  
\$2,850,000.00 (consortium total)
- Aug 2013 - Jun 2014 **UCLA Academic Senate, Faculty Research Grant** (PI: Monti)  
*The representation of meaning and structure in the human brain*  
\$9,000.00
- Jun 2013 - May 2014 **UCLA Center for Autism Research and Treatment** (PI: H. Lu, UCLA; role: co-I)  
*The impact of autism on action perception*  
\$22,500.00
- Sep 2011 - Jun 2017 **James S. McDonnell Foundation Scholar Award** (PI: Monti)  
*Cognitive Processing and Awareness at the Lower Boundaries of Consciousness: Insights from the Vegetative State*  
\$600,000.00
- Sep 2011 - Jul 2013 **UCLA Transdisciplinary Seed Grant** (PI: Monti)  
*The representation of meaning and structure in the human brain*  
\$20,000.00
- Sep 2009 - Jun 2013 **European Union FP7-ICT 2009 [247919]** (PI: A. Kübler, U. Wuerzburg; role: co-I)  
*Deployment of Brain-Computer Interfaces for the Detection of Consciousness in Non-Responsive Patients (DECODER)*  
€2,799,921.00 (consortium total)

## PUBLICATIONS

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(★ MontiLab mentees)

Article Lutkenhoff E.S.,★ Casarotto S., Massimini M., **Monti M.M. (accepted)** Subcortical atrophy correlates with the Perturbational Complexity Index in patients with disorders of consciousness. *Brain Stimulation*.

Article Chiang J.N.,★ Peng Y., Lu H., Holyoak K.J., **Monti M.M. (accepted)** Distributed Code for Semantic Relations Predicts Neural Similarity During Analogical Reasoning. *Journal of Cognitive Neuroscience*.

- Article Lutkenhoff E.S., ★ Wright M.J., Shrestha V., Real C., McArthur D.L., Buitrago-Blanco M., Vespa P.M., **Monti M.M. (accepted)** The subcortical basis of outcome and cognitive impairment in traumatic brain injury. *Neurology*.
- Article **Monti M.M.** & Holyoak K.J. (*in press*) Relational Integration in the Human Brain: A Review and Synthesis. *Journal of Cognitive Neuroscience*.
- Article Dell'Italia J., ★ Johnson M.A., ★ Vespa P., **Monti M.M. (in press)** Accounting for changing structure in functional network analysis of TBI patients. *Frontiers Systems Neuroscience*.
- Article Lutkenhoff E.S., ★ Shrestha V., Ruiz-Tejadab J., Real C., McArthur D.L., Duncan D., La Rocca M., Garner R., Toga A.W., Vespa P.M., **Monti M.M.**, for the EpiBioS4Rx Study Group (*in press*) Early brain biomarkers of post-traumatic seizures: initial report of the multicenter Epilepsy Bioinformatics Study for Anti-epileptogenic Therapy (EpiBioS4Rx) prospective study. *Journal of Neurology, Neurosurgery, and Psychiatry*.
- Letter Schnakers C., **Monti M.M. (2020)** Towards improving care for disorders of consciousness. *Nature Reviews Neurology*, 1-2. <https://doi.org/10.1038/s41582-020-0358-y>.
- Article Iglehart C., **Monti M.M.**, Cain J., ★ Tourdias T., Saranathan M. (2020) A systematic comparison of structural, structural connectivity, and functional connectivity based thalamus parcellation techniques. *Brain Structure & Function*, 225:1631–1642. <https://doi.org/10.1007/s00429-020-02085-8>
- Article Olsen A., Babikian T., Bigler, E. Caeyenberghs K., Conde V., Dams-O'Connor K., . . . & Heggland, I. (2020) Toward a Global and Reproducible Science for Brain Imaging in Neurotrauma: The ENIGMA Adult Moderate/Severe Traumatic Brain Injury Working Group. *Brain Imaging and Behavior*.
- Article 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):niaa008. <https://doi.org/10.1093/nc/niaa008>.
- Article 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):niaa005. <https://doi.org/10.1093/nc/niaa005>.
- Article Garner R., La Rocca M., Vespa P., Jones N., **Monti M.M.**, Toga A.W., Duncan D. (2019) Imaging biomarkers of posttraumatic epileptogenesis. *Epilepsia*, 60(11):2151-2162. [https://doi: 10.1111/epi.16357](https://doi:10.1111/epi.16357)
- Book chapter Schnakers C., **Monti M.M. (2019)** Management of severely brain injured patients recovering from coma in the neurointensive care unit. In M. Torbey (Ed.) *Neurocritical Care (2<sup>nd</sup> edit.)*. Cambridge : Cambridge University Press. pp. 404-412.
- Article Ellingson B.M., Yao J., Raymond C., Chakhoyan A., Khatibi K., Salamon N., Villablanca J.P., Wanner I., Real C.R., Laiwalla A., McArthur D.L., **Monti M.M.**, Hovda D.A., Vespa P.M. (2019) pH-weighted molecular MRI in human traumatic brain injury (TBI) using amine proton chemical exchange saturation transfer echoplanar imaging (CEST EPI). *Neuroimage: Clinical*, 22:101736. <https://doi.org/10.1016/j.nicl.2019.101736>.
- Article Cheng L., Cortese D., **Monti M.M.**, Wang F., Riganello F., Arcuri F., Di H., Schnakers C. (2018). Do sensory stimulation programs have an impact on consciousness recovery? *Frontiers in Neurology*, 9:826. <https://doi.org/10.3389/fneur.2018.00826>.
- Article Vespa P.M., Shrestha V., Abend N., Agoston D., Au A., Bell M.J., Bleck T.P., Buitrago-Blanco M., Claassen J., Diaz-Arrastia R., Duncan D., Ellingson B. *et al.* (2018) The epilepsy bioinformatics study for anti-epileptogenic therapy (EpiBioS4Rx) clinical biomarker: Study design and protocol. *Neurobiology of Disease* <https://doi.org/10.1016/j.nbd.2018.07.025>.
- Article Tubi M.A., Lutkenhoff E.S. ★, Buitrago-Blanco M., McArthur D., Villablanca P., Ellingson B., Diaz-Arrastia R., *et al.* (2018) Early seizures and temporal lobe trauma predict post-traumatic epilepsy: A longitudinal study. *Neurobiology of Disease* <https://doi.org/10.1016/j.nbd.2018.05.014>.
- Article 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. [Previously *bioRxiv* 202382]. <https://doi.org/10.1101/202382>.
- Letter 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*. <http://dx.doi.org/10.1136/jnnp-2017-317829>.
- Article Dell'Italia J. ★, Johnson M.A. ★, Vespa P.M., **Monti M.M. (2018)** Network analysis in disorders of consciousness: four problems and one solution (Exponential Random Graph Models). *Frontiers in Neurology* 9:439. <https://doi.org/10.3389/fneur.2018.00439>.

- Article 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. <https://doi.org/10.1002/hbm.23979>.
- Article Tashjian S., Goldberg D., Monti M.M., Galvan A. (2018) Sleep Quality and Adolescent Default Mode Network Connectivity. *Social Cognitive Affective Neuroscience* 13(2):290–299. <https://doi.org/10.1093/scan/nsy009>.
- Book chapter Crone J.S.★, Monti M.M. (2018) Consciousness. In M.H. Bornstein (Ed.), *The SAGE Encyclopedia of Lifespan Human Development*. Thousand Oaks, CA:SAGE Publications. DOI:9781506307657.
- Article Schnakers C., Monti M.M. (2017) Disorders of consciousness after severe brain injury: Therapeutic options. *Current Opinion in Neurology* 30(6):573–579. <https://doi.org/10.1097/WCO.0000000000000495>.
- Book chapter Crone J.S.★, Monti M.M. (2017) Linking Complex Alterations in Functional Network Connectivity to Disorders of Consciousness. In C. Schnakers, S. Laureys (Eds.), *Coma and Disorders of consciousness*, 2<sup>nd</sup> edition; Springer:London.
- Article Crone J.S.★, Bio B.J.★, Vespa P.M., Lutkenhoff E.S.★, Monti M.M. (2017) Restoration of thalamo-cortical connectivity after brain injury: recovery of consciousness, complex behavior, or passage of time? *Journal of Neuroscience Research* 96(4):671-687. <https://doi.org/10.1002/jnr.24115>.
- Article 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. <https://doi.org/10.1002/hbm.23370>.
- Book chapter Monti M.M. (2017) The role of language in structure-dependent cognition. In Mody M. (Ed.) *Neural Mechanisms of Language*, Springer:New York, NY, pp. 81-101. ISBN: 978-1-4939-7323-1. <https://doi.org/10.1007/978-1-4939-7325-5>.
- Article DeWolf M., Chiang J.N.★, Bassok M., Holyoak K.J., Monti M.M. (2016) Neural Representations of Magnitude for Natural and Rational Numbers. *Neuroimage*, 141:304-312. <https://doi.org/10.1016/j.neuroimage.2016.07.052>.
- Letter† 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. <https://doi.org/10.1016/j.brs.2016.07.008>.
- Article 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. <https://doi.org/10.1093/cercor/bhw112>.
- Article Thurman S.M., van Boxtel J.J., Monti M.M., Chiang J.N.★, Lu H. (2016) Neural adaptation in pSTS correlates with perceptual aftereffects to biological motion and with autistic traits. *Neuroimage* 136:149-61. <https://doi.org/10.1016/j.neuroimage.2016.05.015>.
- Book (editor) Monti M.M., Sannita W.G. (2016), *Brain Function and Responsiveness in Disorders of Consciousness*, Springer International Publishing: Switzerland. <https://doi.org/10.1007/978-3-319-21425-2>.
- Book chapter Lutkenhoff E.S.★, Monti, M.M. (2016) Brain Responsiveness After Severe Brain Injury: Revolutions and Controversies. In M.M. Monti and W.G. Sannita (eds.), *Brain Function and Responsiveness in Disorders of Consciousness*, Springer International Publishing: Switzerland. <https://doi.org/10.1007/978-3-319-21425-2>.
- Article 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. <https://doi.org/10.1002/ana.24423>.
- Article Monti M.M., Rosenberg M.★, Finoia P., Kamau E., Pickard J.P., Owen A.M. (2015) Thalamo-frontal connectivity mediates top-down cognitive functions in disorders of consciousness. *Neurology*, 84(2):167-73. <https://doi.org/10.1212/WNL.0000000000001123>. [With accompanying editorial by S. Goldman & N. Schiff, Functional imaging to uncover willful brain behavior in non-communicative patients, *Neurology* 84(2):1-2.]
- Article Crone J.S.★, Schurz M., Höller Y., Bergmann J., Monti M.M., Schmid E., Trinka E., Kronbichler M. (2015) Impaired consciousness is linked to changes in effective connectivity of the posterior cingulate cortex within the default mode network. *NeuroImage*, 110:101-109. <https://doi.org/10.1016/j.neuroimage.2015.01.037>.
- Book chapter Monti M.M. (2015) Disorders of consciousness. In *Emerging Trends in the Social and Behavioral Sciences*, Robert Scott and Stephen Kosslyn (eds.), Hoboken, NJ: John Wiley and Sons, 1-13. <https://doi.org/10.1002/9781118900772.etrds0077>.

- Article Lutkenhoff E.S.★, Rosenberg M.★, Chiang J.★, Zheng R.★, Pickard J.D., Owen A.M., Monti M.M. (2014) Optimized brain extraction script for pathological brains (optiBET). *PLoS ONE* 9(12): e115551. <https://doi.org/10.1371/journal.pone.0115551>.
- Article Chennu S., Finoia P., Kamau E., Allanson J., Williams G.B., Monti M.M., Menon D.K., Pickard J.D., Owen A.M., Bekinschtein T.A. (2014) Spectral signatures of reorganised brain networks in disorders of consciousness. *PLoS Computational Biology*, 10(10): e1003887. <https://doi.org/10.1371/journal.pcbi.1003887>.
- Book chapter Guger G., Sorger B., Noirhomme Q., Naci L., Monti M.M., Real R., et al (2014) Brain-computer interfaces for assessment and communication in disorders of consciousness. *Emerging Theory and Practice in Neuroprosthetics*. IGILOBAL:Hershey, PA. <https://doi.org/10.1002/9781119332428.ch1>.
- Article Sandrone S., Bacigaluppi M., Galloni M.R., Cappa S.F., Moro A., Catani M., Filippi M., Monti M.M., Perani D., Martino G. (2014) Weighing brain activity with the balance: Angelo Mosso's original manuscripts come to light. *Brain*, 137(Pt 2):621-33. <https://doi.org/10.1093/brain/awt091>.
- Article Lutkenhoff E.S.★, McArthur D.L., Hua X., Thompson P.M., Vespa P.M., Monti M.M. (2013) Thalamic atrophy in antero-medial and dorsal nuclei correlates with six-months outcome after severe brain injury. *NeuroImage: Clinical*, 3:396-404. <https://doi.org/10.1016/j.nicl.2013.09.010>.
- Article† Monti M.M., Lutkenhoff E.S.★, Rubinov M., Boveroux P., Vanhauzenhuysse 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). <https://doi.org/10.1371/journal.pcbi.1003271>.
- Article Chennu S., Finoia P., Kamau E., Monti M.M., Allanson J., Pickard J.D., Owen A.M., Bekinschtein T. (2013) Dissociable Endogenous and Exogenous Attention in Disorders of Consciousness. *NeuroImage: Clinical*, 3:450-461. <https://doi.org/10.1016/j.nicl.2013.10.008>.
- Editorial Monti M.M. (2013) Editorial – Ethics, neuroimaging and disorders of consciousness: What is the question? *American Journal of Bioethics, Neuroscience*, 4(4):1-2. <https://doi.org/10.1080/21507740.2013.836337>.
- Article Torrisi S., Moody T.D., Vizueta N., Thomason M.E., Monti M.M., Townsend J.D., Bookheimer S.Y., Altschuler L.L. (2013) Differences in resting corticolimbic functional connectivity in bipolar I euthymia. *Bipolar Disorders*, 15(2):156-166. <https://doi.org/10.1111/bdi.12047>.
- Article Monti M.M., Pickard J.D., Owen A.M. (2013) Visual cognition in disorders of consciousness: From V1 to top-down attention, *Human Brain Mapping*, 34(6):1245-53. <https://doi.org/10.1002/hbm.21507>.
- Letter 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. <https://doi.org/10.1016/j.tics.2012.08.008>.
- Article 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. <https://doi.org/10.1177/0956797612437427>.
- Article Monti M.M. (2012) Cognition in disorders of consciousness, *Annual Reviews of Clinical Psychology*, 8:431-454. <https://doi.org/10.1177/0956797612437427>.
- Article Monti M.M., Osherson D.N. (2012) Language, logic and the brain, *Brain Research*, 1428:33-42. <https://doi.org/10.1016/j.brainres.2011.05.061>.
- Article Naci L., Monti M.M., Cruse D., Kübler A., Sorger B., Goebel R., Kotchoubey B., Owen A.M. (2012) Brain computer interfaces for communication with non-responsive patients, *Annals of Neurology*, 72(3):312-23. <https://doi.org/10.1002/ana.23656>.
- Article Monti M.M. (2011) Statistical analysis of fMRI time-series: A critical evaluation of the GLM approach, *Frontiers in Human Neuroscience*, 5(28). <https://doi.org/10.3389/fnhum.2011.00028>.
- Article Cruse D., Monti M.M., Owen A.M. (2011) Neuroimaging in disorders of consciousness: contributions to diagnosis and prognosis, *Future Neurology* 6(2): 291-299. <https://doi.org/10.2217/fnl.10.87>.
- Letter Monti M.M., Laureys, S., Owen, A.M. (2010) Reply to correspondence on: Willful modulation of brain activity in disorders of consciousness, *New England Journal of Medicine* 362(20):1937-1938.
- Article Monti M.M., Vanhauzenhuysse 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. <https://doi.org/10.1056/NEJMoa0905370>. [With accompanying editorial by A.H. Ropper, Cogito Ergo Sum by fMRI, *New England Journal of Medicine* 362(7):648.]

- Article Fernández-Espejo D., Bekinschtein T., **Monti M.M.**, Pickard J.D., Junque C., Owen A.M., Coleman M.R. (2010) Diffusion Weighted Imaging Distinguishes the Minimally Conscious from the Vegetative State, *NeuroImage* 54:103-112. <https://doi.org/10.1016/j.neuroimage.2010.08.035>.
- Article **Monti M.M.**, Laureys S., Owen A.M. (2010) The Vegetative State, *BMJ* 341:c3765. <https://doi.org/10.1136/bmj.c3765>.
- Article Hampshire A., Chamberlain S., **Monti M.M.**, Duncan J., Owen A.M. (2010) The Role of the Right Inferior Frontal Gyrus: Inhibition and Attentional Control, *NeuroImage* 50(3):1313-9. <https://doi.org/10.1016/j.neuroimage.2009.12.109>.
- Article **Monti M.M.**, Owen A.M. (2010) Looking for consciousness, the aware mind in the motionless body, *The Psychologist* 23(6):478-481.
- Article **Monti M.M.**, Owen A.M. (2010) Behavior in the brain: using functional neuroimaging to assess residual cognition and awareness after severe brain injury, *Journal of Psychophysiology* 24:76-82. <https://psycnet.apa.org/doi/10.1027/0269-8803/a000016>.
- Article **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* 106:12554-12559. <https://doi.org/10.1073/pnas.0902422106>.
- Article **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* 1157:81-89. <https://doi.org/10.1111/j.1749-6632.2008.04121.x>.
- Article **Monti M.M.**, Coleman M.R., Owen A.M. (2009) Executive Functions in the Absence of Behavior: Functional Imaging of the Minimally Conscious State, *Progress in Brain Research* 117:249-260. [https://doi.org/10.1016/S0079-6123\(09\)17717-8](https://doi.org/10.1016/S0079-6123(09)17717-8).
- Article Coleman M.R., Bekinschtein T., **Monti M.M.**, Owen A.M., Pickard J.D. (2009) A Multi-Modal Approach to the Assessment of Patients with Disorders of Consciousness, *Progress in Brain Research* 177:231-248. [https://doi.org/10.1016/S0079-6123\(09\)17716-6](https://doi.org/10.1016/S0079-6123(09)17716-6).
- Article **Monti M.M.**, Parsons L.M., Martinez M.J., Osherson D.N. (2007) Functional Neuroanatomy of Deductive Inference: A Language-Independent Distributed Network, *NeuroImage* 37:1005-1016. <https://doi.org/10.1016/j.neuroimage.2007.04.069>.
- Book chapter **Monti M.M.**, Mura G. (2007) Gli effetti delle emozioni nelle interazioni negoziali. In Diamantini D. & Oliverio N. (Eds.) *Clienti, controparti e amici*. Guerrini e associati: Milan, Italy, 51-75. <https://doi.org/10.1400/104061>.
- Article **Monti M.M.**, Grant S., Osherson D.N. (2005) A Note on Concave Utility Functions, *Mind & Society*, 4(1):85-96. <https://doi.org/10.1007/s11299-005-0006-7>.
- Book chapter Diamantini D., **Monti M.M.**, Pietroni D. (2002) L'impatto delle emozioni nelle interazioni negoziali. In Bellelli, G. & Curci, A. *Emozioni: Cultura, Comunicazione, Benessere*. Progedit:Bari, 237-42. ISBN: 9788888550091

## PUBLIC ENGAGEMENT

- Newspaper article **Monti, M.M.**, Essere svegli ma non coscienti, *Il Sole 24 Ore – Domenica*, 07<sup>th</sup> June, 2015.
- Newspaper article **Monti, M.M.**, C'è più materia grigia con il Mac, *Il Sole 24 Ore – Domenica*, 08<sup>th</sup> July, 2012.
- Newspaper article **Monti, M.M.**, Motterlini, M., Il cervello sa se lo spot funziona, *Il Sole 24 Ore – Domenica*, 20<sup>th</sup> May, 2012.
- Newspaper article **Monti, M.M.**, Motterlini, M., Tutti i colori della neurofuffa, *Il Sole 24 Ore – Domenica*, 11<sup>th</sup> April, 2012.
- Newspaper article **Monti, M.M.**, Motterlini, M., Il caso ha le sue ragioni, *Il Sole 24 Ore – Domenica*, 1<sup>th</sup> April, 2012.
- Newspaper article **Monti, M.M.**, La coscienza è sempre più visibile, *Il Sole 24 Ore – Domenica*, 13<sup>th</sup> November, 2011.
- Newspaper article **Monti, M.M.**, Guarda a cosa penso – o quasi, *Il Sole 24 Ore – Domenica*, 16<sup>th</sup> October, 2011
- Newspaper article **Monti, M.M.**, La coscienza a colori, *Il Sole 24 Ore – Domenica*, 3<sup>rd</sup> March, 2011.
- Encyclopedia Entry **Monti, M.M.**, Stato di minima coscienza. *Enciclopedia Scientifica Treccani*, Edizione 2011.
- Educational Materials (book chapter) **Monti, M.M.**, Fotografare il cervello mentre pensa. In Comi G. & Kasam V. (eds) (2011) *La rivoluzione del cervello* Editrice San Raffaele:Milano, Italia, pp. 31-38.

- Public lecture Il mistero della coscienza: tecnologia e futuro (The mystery of consciousness: technology and the future). *La scienza e noi (Science and us)*, **Brain Forum**, Rome, Italy, April 2018.
- Public lecture Le rotte della coscienza (The paths of consciousness). **Leggendo Metropolitan**, Cagliari, Italy, June 2015.
- Public lecture Il cervello ai confini della coscienza: coma, stato vegetativo e stato di minima coscienza (The brain at the limits of consciousness: coma, vegetative state, and minimally conscious state). **Bergamo Scienza**, October 2010, Bergamo, Italy.
- Public lecture Consciousness and the Vegetative State. **Brain Forum**, Rome, Italy, Aprile 2010.
- Public lecture The aware mind in the motionless body: fMRI of the vegetative state. **Cambridge Science Festival – Exploring the Brain**, Cambridge UK, March 2010.

#### INTERNATIONAL MEETING ORGANIZATION

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- Conference session organizer [Targeting the Injury in the Injured Brain - Advanced Diagnostics and Treatment Methods](#). *National Neurotrauma Society*, Pittsburgh, PA, July 2019.
- Conference symposium organizer [Transcranial Low Intensity Focused Ultrasound: A novel approach to non-invasive brain mapping](#). *Organization for Human Brain Mapping (OHBM)*, Singapore, June 2018.
- Conference nanosymposium organizer Monti M.M., Konofagou E., Legon W., Yoo S-S. [Human Long-Term Memory: Encoding-Retrieval Interactions](#). *Society for Neuroscience*, Singapore, November 2014.

#### SELECTED ORAL PRESENTATIONS

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- Symposium From the Science to the Clinic: Thalamic Low Intensity Focused Ultrasound in Recovery from Severe Brain Injury *From Mind-Wandering to Mindfulness: The Role of Attention and Awareness*, NIH, Bethesda, MD, March 2019.
- Guest lecture [Motion in resting state fMRI analysis: Comparing different preprocessing strategies](#). *Neuroimaging Affinity Group*, UCLA Los Angeles CA, March 2019.
- Invited speaker Recovery after TBI: From science to clinic. *President's Lecture Series*, LA Biomed, Torrance, CA, October 2018.
- Symposium Thalamic low intensity focused ultrasound in recovery of consciousness after severe brain injury. *Organization for Human Brain Mapping (OHBM)*, Singapore, June 2018.
- Symposium Low intensity thalamic sonication in post-coma patients. *Society for Brain Mapping & Therapeutics*, Los Angeles, CA, april 2018.
- Invited speaker Brain function and structure at the limits of consciousness. Tel Aviv University, April 2018.
- Keynote lecture Loss and Recovery of Consciousness Following Brain Injury. *Mark P. Cilo Lectureship*, Craig Hospital, Englewood CO, April 2017.
- Invited speaker Ultrasonic thalamic neurostimulation in disorders of consciousness. *Neuroscience in Intensive Care International Symposium (NICIS)*, Washington DC, March 2018.
- Invited speaker [Denosing data with multi-echo EPI \(multi-echo EPI, multi-echo EPI, . . .\)](#) *Neuroimaging Affinity Group*, UCLA Los Angeles CA, April 2017.
- Keynote lecture Recovering Consciousness after severe brain injury: From science to the clinic (and back to science). *International Brain Injury Association (IBIA)*, Annual Meeting, New Orleans, LA, March 2017.
- Invited speaker The damage after the damage: Subcortical brain pathology & recovery after severe TBI. *93<sup>rd</sup> Annual Meeting of the American Congress of Rehabilitation Medicine (ACRM)*, Chicago IL, November 2016.
- Invited speaker Speak to me: 18 years of neuroimaging in disorders of consciousness: what have we learned? *The Science of Consciousness (Plenary Lecture)*, Tucson AZ, April 2016; and *UCLA Brain Mapping Center Seminar Series*, Los Angeles CA, December 2016.
- Guest lecture [Are your analyses too parametric? That's not Normal!](#) *Neuroimaging Affinity Group*, UCLA Los Angeles CA, April 2016.
- Invited speaker (and moderator) Cognition at the edge of awareness (introductory speaker/chair). *Indo-US Science and Technology Forum & US National Academy of Sciences*, 6<sup>th</sup> Kavli frontiers of science symposium, Irvine CA, August 2015.
- Invited speaker When the world dissolves into nothingness: disorders of consciousness after severe brain injury. *Robert Efron Lectureship*, Pomona College, Claremont CA, April 2015.
- Nanosymposium speaker Order from chaos: Return of thalamo-frontal connectivity after severe brain injury. *Society for Neuroscience*, Washington D.C., November 2014.



- Invited speaker Understanding disorders of consciousness after severe brain injury: 15 years of neuroimaging. *15<sup>th</sup> Annual Neuroscience of Brain Injury Conference: Research Informing Medical Treatment and Legal Practice*, Sonoma CA, November 2014.
- Invited speaker 15 anni di RMF nei DdC: Cosa abbiamo imparato? (“15 years of fMRI in DOC: what have we learned?”), symposium on clinical and ethical aspects of severe disorders of consciousness, *Istituto Superiore Della Sanità (Superior Institute of Health)*, Rome, Italy, October 2014.
- Invited speaker Disorders of Consciousness: Neuroimaging After Severe Brain Injury. *Grand Rounds*, Veteran’s Affairs Hospital, Los Angeles CA, October 2014.
- Invited speaker Consciousness and disorders of consciousness: A study of traumatic brain injury. *Richard Rosen Memorial Lecture, Grand Rounds*, Department of Psychiatry, UCLA, April 2014.
- Invited speaker Brain imaging in disorders of consciousness. *Cognitive lunch*, UC Riverside, December 2013.
- Nanosymposium speaker Thalamic atrophy and awareness in disorders of consciousness. *Society for Neuroscience*, San Diego, November 2013.
- Invited speaker Language in structure dependent cognition. *Mental notes: Music, Cognition and the Brain*, UCLA, May 2013.
- Invited speaker MRI in disorders of consciousness. *Imaging the Unimaginable: Ethics and Neuroimaging in Disorders of Consciousness*, Ronald Reagan Medical Center at UCLA, May 2013.
- Guest lecture Risonanza magnetica: introduzione e uso nella neuropsicologia cognitive (MRI: introduction and use in cognitive neuroscience). *Università Vita e Salute San Raffaele*, Milan, Italy, December 2012.
- Invited speaker Neuroimaging in disorders of consciousness. *UCLA Brain Mapping Center Seminars*, Los Angeles, December 2012.
- Invited speaker Disturbi persistenti della coscienza: inquadramento e contributo del neuroimaging. (Disorders of consciousness: overview and contributions of neuroimaging techniques) *Società Italiana di Neurologia*, Rimini – Italy, October 2012.
- Invited speaker Functional neuroimaging after severe brain injury. *UC Davis Neurosurgery Grand Rounds*, December 2011.
- Invited speaker Consciousness and cognition after severe brain injury: fMRI of the Vegetative State. *UCSD Psychology Department Colloquium*, November 2011.
- Invited speaker Language and structure-dependent cognition in the human brain. *Midwest PhilMath Workshop XII*, University of Notre Dame, November 2011.
- Invited speaker Imaging brain activation after severe TBI. *12<sup>th</sup> UC Neurotrauma Symposium*, Santa Barbara, September 2011.
- Invited speaker The aware mind in the still body: fMRI in disorders of consciousness. *Cognitive Lunch Series*, Claremont Graduate University, April 2011.
- Invited speaker Brain Imaging in Coma: fMRI. *ICU of the Future Symposium*, UCLA, January 2011.
- Invited speaker Disentangling the automatic from the conscious brain: fMRI of the vegetative state. *Consciousness and its Descriptors*, Limassol, Cyprus, December 2009.
- Nanosymposium speaker Language and thought: Neural basis of arithmetic and linguistic inference. *SFN Annual Meeting*, Chicago, IL, November 2009.
- Nanosymposium speaker Using fMRI to diagnose disorders of consciousness in the absence of behavior. *SFN Annual Meeting*, Chicago, IL, November 2009.
- Invited speaker fMRI and disorders of consciousness. *Building Bridges in Medical Science*, Cambridge UK, November 2009.
- Invited speaker Disentangling the automatic from the conscious brain. *Annual Meeting of the Association for the Scientific Study of Consciousness*, Berlin, Germany, June 2009.
- Invited speaker ‘Brain Reading’ with Real-Time fMRI: Communication via detection of brain states in the absence of motor response. *OHBM Annual Meeting*, Melbourne, AU, June 2008.
- Symposium Language, logic & the brain. *Defining Thoughts: Interdisciplinary Workshop on the Notion of Thought*. Ruhr-Universität Bochum, Germany, June 2008.
- Invited speaker Neural Correlates of Deductive Inference, Cognitive Brown Bag Series, Psychology Department, University of British Columbia.
- Invited speaker A Neural Similarity Approach to Cortical Representations in Deductive Reasoning, Center for Study of Brain Mind and Behavior, Princeton, NJ, March 2006.
- Invited speaker Logic, Language & the Brain, *Graduate Conference on ‘The Nature of Thought’*, Harvard University, Cambridge, MA, May 2005.

## TEACHING EXPERIENCE

2012 – Present (yearly)

2012 – Present (yearly)

### Course instructor (at UCLA)

*Cognitive Psychology (PSYCH 120A)*

*Laboratory in Functional Neuroimaging (PSYCH 186D)*

2011 – Present (yearly) *Computational Methods for Neuroimaging (PSYCH 265)*  
Winter 2017 *Honors Seminar: Language & Thought (PSYCH 189)*

**Co-organizer/co-instructor (at UCLA)**  
2016 – Present Brain Research Institute [Neuroimaging Affinity Group](#) (faculty sponsor)  
2011 – 2015 UCLA [NeuroImaging Training Program \(NITP\)](#)

**Co-Instructor (at Anglia Ruskin University, Cambridge, UK)**  
2008 – 2009 “*Language and Thought*” module.

## MENTORING

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### Post-doctoral scientists

Staff Research Associate Evan S. Lutkenhoff, Ph.D. (09/11-present)  
Post-doctoral Scientist Julia Crone, Ph.D. (10/14-present)  
Post-doctoral Scientist Joel Frohlich, Ph.D. (09/18-present)  
Post-doctoral Scientist Daniel Toker, Ph.D. (09/19-present)

### Doctoral students

Doctoral dissertation committee (chair) John Coetzee, PhD (2018) Psychology Department, Cognitive Psychology Area  
Zhong (Amy) Zheng, PhD (2018)<sup>★</sup><sup>◇</sup> Psychology Department, Behavioral Neuroscience Area  
John Dell’Italia, PhD (2019)<sup>★</sup><sup>◆</sup> Psychology Department, Cognitive Psychology Area  
Jeff Chiang, PhD (2019)<sup>★</sup><sup>◆</sup> Psychology Department, Cognitive Psychology Area  
Andrew Frane, PhD (2019)<sup>◇</sup> Psychology Department, Cognitive Psychology Area

Doctoral dissertation committee (non-chair) **Psychology Department:** Courtney Kelly; Melissa DeWolf; Diane Goldenberg; Brian Keller; Sylvia Morelli; Nocolo Reggente; Majed Samad; Leanna Sharma; Junzhu Su; Kirsten Trickey; Michael Vendetti; Irena Vezich; Benjamin Welborn; Andrew Westphal  
**Interdepartmental Neuroscience Program:** Leonardo Christov-Moore; Austin Head; Cameron Rodriguez; Salvatore Torrisi.  
**Other departments:** Meaghan Fowlie (Department of Linguistics); Xenia Deviatkina-Loh (Herb Alpert School of Music).

Current graduate students (primary advisor) Micah Johnson, MA <sup>★</sup><sup>◇</sup> Psychology Department, Cognitive Psychology Area  
Joshua Cain,<sup>□</sup> Psychology Department, Cognitive Psychology Area  
Alessandra Dallavecchia,<sup>□</sup> Psychology Department, Cognitive Psychology Area

### Visiting Master Students

Yearlong visiting students Federico Micheli (Univerità di Trento, 2018-2019); Luca Bruder (Maastricht University, 2015-2016); Lauriens Nagels-Coune (Maastricht University, 2014-2015); Florence Bouhali (Univer-site Paris Dauphine, 2013-2014)

### Undergraduate Students

199B Senior Project Davis William (Neuroscience, Spring 2012), Rowshanshad Ebi (Cognitive Science, Winter 2013); Zhang Kunyu (Psychobiology, Spring 2013); McSwain Burke (Cognitive Science, Winter 2015); Rowshanshad David (Psychology, Winter 2015); Hess Michael (Cognitive Science, Winter 2018); Blades Robin (Cognitive Science, Spring 2018); Cruz-Heredia Aura (Psychobiology, Spring 2018); Krylova Sophie (Neuroscience, Spring 2018)

- ★ 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.

## SERVICE

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### Department Service

2017 – 2018 Psycho/Neurolinguistics Faculty Search Committee  
2015 – 2016 Quantitative Psychology Faculty Search Committee  
2014 – 2016 Social Psychology Faculty Search Committee  
2014 – Present Merit review committee (2015 – 2017, alternate member)

2012 – Present Graduate studies committee  
2011 – Present Psychology major committee  
2011 – Present Jeffrey lectures in Cognitive Neuroscience

#### University Service

2018 – Present Legislative Assembly  
2011 – Present Staglin IMHRO Center for Cognitive Neuroscience Executive Committee

#### ARTWORK

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- Project HandSight LLC I am the (co)founder of [Project HandSight: Art is everyone's](#). This project is aimed at developing “tactile painting” technology in order to allow blind and visually impaired individuals to experience and access a segment of the arts that they are currently largely excluded from. Part of this venture is also aimed at understanding the degree to which aesthetic experience is sensory-specific as opposed to “central” and whether it can be translated from one sensory modality to another.
- Exhibits [CONTATTO: Sentire la pittura con le mani \(CONTACT: to see paintings through touch\)](#): Four tactile paintings exhibited at Museo di Roma, Palazzo Braschi, Rome, Italy.  
[Raffaello, Correggio, Caravaggio: Un'esperienza tattile sulle orme di Scannelli \(Raffaello, Correggio, Caravaggio: A tactile experience on the traces of Scannelli\)](#): Four tactile paintings exhibited at Palazzo Rospigliosi in Zagarolo, Italy.  
[Autoritratto di Van Gogh per non vedenti \(Van Gogh self-portrait for the blind.\)](#): Tactile painting of Van Gogh's self portrait exhibited at Palazzo Ducale in Genova, Italy.
- Publications **Monti M.M. (2016)** Il cervello dell'arte: esperienza estetica, mente, e la traduzione tattile del linguaggio visivo (Art's brain: aesthetic experience, mind, and tactile translation of the visual language). In C. Occhipinti (Ed.) [Raffaello, Correggio, Cravaggio: Un'esperienza tattile sulle orme di Scannelli](#), Universitalia (*Horti Hesperidum Mostre* collection). ISBN: 9788865079737.