

Anita Bialunska, Ph.D., CBIS

Assistant Professor

University of Texas at El Paso

Dept. of Rehabilitation Sciences

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EDUCATION

Postdoctoral Training

Department of Rehabilitation Sciences (Dr. Anthony P. Salvatore and Dr. Bess Sirmon-Taylor), University of Texas at El Paso, USA
NIDILRR, ARRT grant, Program no. 90AR5016-03-00, CFDA No. 93.433

Feb 2017 –
Aug 2018

Clinical Degree in Psychotherapy

Jagiellonian University, Collegium Medicum (Dr. Jerzy Aleksandrowicz)
Cracow, Poland

2016

PhD in Neuropsychology Suma Cum Laude

University of Warsaw, Poland (Dr. Simone Dalla Bella – International Laboratory for Brain, Music and Sound Research BRAMS and Dept. of Psychology, University of Montreal)
Dissertation Title: *Factors affecting the precision of sensorimotor synchronization*

2016

MSc in Experimental Psychology Suma Cum Laude

Kazimierz Wielki University, Bydgoszcz, Poland (Dr. Piotr Jaśkowski (1957–2011))
Thesis Title: *The disjunctive reaction primed by the degraded stimulus*

2004

CERTIFICATES

- TeamSTEPPS Master Trainer – Texas IPE Consortium/Texas Tech University HSC
- Certified Brain Injury Specialist – Brain Injury Association of America

MEMBERSHIP

- American Congress of Rehabilitation Medicine
 - ACRM Organization Committee for the Early Career Development Course 2019
 - ACRM Brain Injury Interdisciplinary Special Interest Group (BI-ISIG)
 - ACRM MVANG Brain Injury-Focus on Behavioral Health (BI-FoBH) Task Force

- ACRM BI-SIG MVANG Community Re-integration Task Force
- ACRM Neuroplasticity Networking Group
- Brain Injury Association of America
- Polish Psychiatric Association, Scientific Section

AWARDS

The special award of the Council of the Faculty of Psychology at the University of Warsaw for the doctoral dissertation *Factors affecting the precision of sensorimotor synchronization* **2016**

WORK EXPERIENCE

Assistant Professor Department of Rehabilitation Sciences University of Texas at El Paso, USA	Sept 2018 -
Postdoctoral Research Fellow Department of Rehabilitation Sciences University of Texas at El Paso, USA	Feb 2017 – Aug 2018
Assistant Professor Department of Cognitive Psychology University of Finance and Management, Warsaw, Poland	Mar 2016 – Jan 2017
Guest Lecturer National Defense Academy, Poland	2015 - 2016
Lecturer Department of Cognitive Science Nicolaus Copernicus University, Torun, Poland	2010 - 2011
Co-PI and PI (in 2011) Polish partner in European Commission project ITN-Lateralized Attention Networks, FP7-PEOPLE	2008 - 2012
Managing Editor of the <i>Advances in Cognitive Psychology</i>	2005 - 2011
Research Assistant and Lecturer, The Psychophysiology Laboratory and The Music Performance and Brain Laboratory Department of Cognitive Psychology University of Finance and Management in Warsaw	2004 - 2016

TEACHING EXPERIENCE

Department of Rehabilitation Sciences, **2017 - 2018**
University of Texas at El Paso, USA

- Professional Ethics in Rehabilitation Sciences
- Collaboration in Rehabilitation Sciences
- Health and Wellness in Rehabilitation Sciences
- Concussion/mTBI Management - seminar

Graduate School, Center of Excellence **2015 - 2016**
National Defense Academy, Warsaw, Poland

- Communication and Motor Control
- Social Cognition
- Attitudes
- Social influence, persuasion, psychomanipulations

Department of the Cognitive Science , Faculty of Philosophy **2010 – 2011**
Nicolaus Copernicus University, Torun, Poland

- Fundamentals of Neuroscience - seminar

Department of Cognitive Psychology **2004 - 2016**
University of Finance and Management, Warsaw, Poland

- Cognitive Psychology – lecture and seminar
- Experimental Psychology – seminar
- Research Methods – seminar
- Methods of Neurorehabilitation – lecture and seminar
- Statistics - seminar
- Neuroscience in Psychotherapy - seminar
- Clinical Neuropsychology – lecture and seminar
- Psychometry - seminar
- History of Psychology – lecture

GRANTS

National Academy of Neuropsychology CLINICAL RESEARCH GRANT **Submitted**
The evaluation of perceptual and sensorimotor timing deficits in Traumatic Brain Injury **Jun, 2020**
PI - Dr. Anita Bialunska

NIH, National Institute Child Health and Human Development, R03, PAR-16-162 **Submitted**
Neural Correlates of Motor Preparation and Action in Children Diagnosed with Autism **Jun, 2020**
Spectrum Disorder
co-PI Dr. Anita Bialunska

National Academy of Science SenSE 20-556 Wearable Multimodal Wireless Biosensors with Embedded Machine Learning Algorithms as Precise Biomarkers for Patient-Specific Analysis of Traumatic Brain Injuries Co-PI – Dr. Anita Bialunska	Submitted May, 2020
Brain Research Foundation Seed Grant The multimodal modulation of brain networks dysregulated in depression PI - Dr. Anita Bialunska	Not-funded Sep 13, 2019
CHS Grants for Strategic Transformation – Applied & Translational Research The multimodal neurostimulation-based treatment for depression PI - Dr. Anita Bialunska	Funded Jul 31, 2019
Whitehall Foundation Grants-in-Aid Neuromodulatory sensitivity of sensorimotor timing networks PI - Dr. Anita Bialunska	Non-funded Jun, 2019
J. Edward Stern and Helen M.C. Stern Fund Transcranial Magnetic Stimulation and cognitive rehabilitation to improve sensorimotor timing deficits in Traumatic Brain Injury PI - Dr. Anita Bialunska	Submitted May 13, 2019
National Academy of Neuropsychology CLINICAL RESEARCH GRANT The evaluation of perceptual and sensorimotor timing deficits in Traumatic Brain Injury PI - Dr. Anita Bialunska	Not-funded Jul, 2019
UNDERGRADUATE RESEARCH IN GERIATRICS (URGE) PROGRAM, NIH – R25, Co-Investigator - Dr. Anita Bialunska National Institute of Health U01	Not-funded May, 2019
J. Edward and M.C. Helen Stern Foundation Development of a Neurotechnology for Diagnosis and Prognosis of (Mild) Traumatic Brain Injuries Co-PI – Dr. Anita Bialunska	Funded 2018 – 2020
National Science Foundation, CogNeuro Bilingual and Bicultural Benefits for Auditory Processing PI – Dr. Anita Bialunska, co-PI – Dr. Bess Sirmon-Taylor	Non-funded Aug, 2018
Research Postdoctoral Fellow in <i>Advanced Rehabilitation Research Training</i> (ARRT) grant in Traumatic Brain Injury, the National Institute on Disability and Rehabilitation Research (NIDRR) Department of Health and Human Services PI – Dr. Anthony P. Salvatore, Dr. Bess Sirmon-Taylor	Feb 2017 – Aug 2018

Marie Curie Initial Training Network (ITN) Grant from the European Union (7th Framework Programme) Europe, BRain and MUSic. New perspectives in stimulating cognitive and sensory processes (EBRAMUS) Coordinators - Dr. Emmanuel Bigand, Dr. Simone Dalla Bella	2009 – 2013
Marie Curie Initial Training Network (ITN) Grant from the European Union 7th Framework Programme Lateralized Attention Networks (LAN) Coordinators - Prof. Niels Birbaumer, Dr. Michal Lavidor PI of Polish partner – Dr. Piotr Jaśkowski (1957–2011)/Dr. Anita Białuńska/Dr. Rob van der Lubbe	2008 – 2012
Polish Ministry of Science and Higher Education, H01F 007 29 The role of masking in the motor reaction priming PI - Dr. Piotr Jaśkowski (1957–2011)	2006 – 2007
Polish Ministry of Science and Higher Education Synchronized coordination in the activity of group members PI – Dr. Peter Keller	2005 - 2008

OTHER PROJECTS

- The nature of the deficits manifest by athletes with concussion in the multimodal tasks. The Auditory Brainstem Responses study – with Dr. Patricia Lara and Dr. Bess Sirmon-Taylor (Dept. of Rehab. Sciences, University of Texas at El Paso) **from Sep 2017**
- Role of the rhythm perception and performance skills in evoking altered states of consciousness (ASC) – with Dr. Simone Dalla Bella (University of Montreal & International Laboratory for Brain, Music, and Sound Research BRAMS, Montreal, Canada) **from Oct 2016**
- Neuropsychological testing of sensorimotor synchronization processes for neurorehabilitation of adults with Autism Spectrum Disorder – with Dr. Simone Dalla Bella **2010 – 2011**
- The effect of the previous foreperiod on current preparation as reflected in speed, force and preparation-related brain potentials - with Dr. Rob van der Lubbe (Dept. of Cognitive Psychology and Ergonomics, University of Twente, Enschede, Netherlands) **2009 – 2010**
- Implicit sequence learning - with Dr. Elger Abragamse **2010**
- Study of the time entrainment in exceptionally talented children in playing the drums –with Dr. Simone Dalla Bella **2008 – 2009**
- The interference between working memory and spatial-numerical association – with Dr. Piotr Jaśkowski (1957–2011) **2008 – 2009**

- The effect of music's temporal structure on the fostering tight coupling between drums sound and movement – with Prof. Simone Dalla Bella **2007 – 2011**
- Lateralization of the orienting and executive attention. EEG study – with Dr. Piotr Jaśkowski (1957–2011) **2007 - 2009**

PUBLICATIONS

PEER-REVIEWED FULL-LENGTH JOURNAL ARTICLES

published and accepted

- **Bialunska A**, Sirmon-Taylor B (2020). Traces left on timing mechanisms years after Traumatic Brain Injury. *Journal of Head Trauma Rehabilitation*, 35(2):e156.
- **Bialunska, A.** (2019). Recovery in Auditory-Visual-Motoric Task After a Concussion is Linked to Visual-Motor Processing. *Archives of Physical Medicine & Rehabilitation*, 100(10):e113.
- **Bialunska A**, Salvatore AP (2018). Improvement in auditory comprehension reaction time following a sport-related concussion is linked to visual processing abilities and visual-motor speed. *Journal of Head Trauma Rehabilitation*, 33(3), e6.
- **Białuńska A**, Salvatore AP (2017). The auditory comprehension changes over time after sport-related concussion can indicate multisensory processing dysfunctions. *Brain and Behavior*, 7(12), e0087.
- **Białuńska A**, Dalla Bella S (2017). Music and speech distractors disrupt sensorimotor synchronization: Effects of musical expertise. *Experimental Brain Research*, 235, 3619-3630. doi 10.1007/s00221-017-5080-7
- Dalla Bella S, **Białuńska A**, Sowiński J (2013). Why movement is captured by music, less by speech. Role of Temporal Regularity. *PLOS One*, 8(8).
- **Białuńska A**, Dalla Bella S, Jaśkowski P (2011). Increasing stimulus intensity reduces reaction time, but does not affect sensorimotor synchronization. *Psychological Research*, 1, 43-53.
- Jaśkowski P, **Białuńska A**, Tomanek M, Verleger R (2008). Mask- and distractor-triggered inhibitory processes in the priming of motor responses: An EEG study. *Psychophysiology*, 45, 70-85.

submitted or under revision

- **Bialunska, A.**, Szumska, I., van Der Lubbe, R. Motor and attentional priming effects in metacontrast, go-nogo paradigm reflected in responses timing, correctness and brain activity. EEG study. *Consciousness and Cognition*, re-submission November 5th, 2019, in review.
- **Bialunska, A.**, Dalla Bella, S. Role of the rhythm perception and performance skills in the altering of consciousness. What have we known? Review. *Frontiers in Psychology*, re-submission December 1st, 2019, in review.

- **Bialunska, A**, Dalla Bella, S. Combining Transcranial Magnetic Stimulation and Rhythmic Cueing to treat gait deficits in Traumatic Brain Injury. Archives of Physical Medicine & Rehabilitation, submitted December 14, 2019, in review.

in preparation

- Bialunska, A., Sirmon-Taylor, B. Why performance in the auditory comprehension task reveal deficits and predict recovery of visuo-motor integration after concussion? PlosONE. Expected submission March 2019 March 2020.
- Bialunska, A., Gupte, A., Navarrete, V.S., Dalla Bella, S. Sensorimotor timing deficits in patients with history of mild Traumatic Brain Injury are associated with problems in executive functions. Frontiers in Neurology, Neurorehabilitation, Expected submission May 2020.
- Navarrete, V.S., Gupte, A., Dalla Bella, S., Bialunska, A. How persistent non-addressed in therapy sensorimotor timing deficits in patients with history of mTBI affect executive functions, current symptoms related to head injury and overall quality of life? Expected submission August 2020.
- Bialunska, A., Dalla Bella, S. Can we stimulate brain effectively presenting sounds and administering magnetic clicks? Letter to Editors, Brain Stimulation, Expected submission August 2020.

PEER-REVIEWED ABSTRACTS/PROCEEDINGS OF CONFERENCE PRESENTATIONS

- Diaz C, Cereceres P, **Bialunska A**, Manning R, Jason B. Upper Extremity Control in Children Diagnosed with ASD: The Role of Vision and Proprioception in Sine Wave Tracking. *Journal of Sport & Exercise Psychology*, 42.
- **Bialunska A**, Sirmon-Taylor B (2020). The mTBI patients demonstrate perceptual and sensorimotor time processing deficits years after injury. *Journal of Head Trauma Rehabilitation*, 35(2), e256.
- **Bialunska, A** (2019). Recovery in Auditory-Visual-Motoric Task After a Concussion is Linked to Visual-Motor Processing. *Archives of Physical Medicine & Rehabilitation*, 100(10):e113.
- **Bialunska A**, Salvatore AP. (2018). Improvement in auditory comprehension reaction time following a sport-related concussion is linked to visual processing abilities and visual-motor speed. *Journal of Head Trauma Rehabilitation*, 33(3), e67-e118.
- **Bialunska A**, Salvatore AP. (2017). Multimodal tasks can cause more difficulty compared to simple tasks in concussed athletes indicating a dysfunction of the sensorimotor integration mechanisms. *Program No. 394.03. 2017 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2017.*
- **Bialunska A**, Salvatore AP (2017). What's going on with auditory comprehension after sport-related concussion? *Archives of Physical Medicine and Rehabilitation*, 98(10), e22.
- **Białuńska A**, Dalla Bella S (2007). Music disrupts pressure force more than speech during sensorimotor synchronization. *Proceedings of the Meeting of the Society for Music Perception and Cognition (SMPC)*, 86.

- **Białyńska A**, Dalla Bella S (2007). Movement is more strongly attracted to music than to speech. *Supplement of the Journal of Cognitive Neuroscience*, 150-151.
- Dalla Bella S, **Białyńska A**, Sowiński J (2006). Captured by music, less by speech. *Proceedings of the 9th International Conference on Music Perception and Cognition*, 235.
- **Białyńska A**, Jaśkowski P, Dalla Bella S (2006). Changing the pacing stimulus intensity does not affect sensorimotor synchronization. *Proceedings of the 9th International Conference on Music Perception and Cognition*, 426-427.
- **Białyńska A**, Jaśkowski P, Dalla Bella S (2005). Effect of stimulus intensity on sensorimotor synchronization. *Proceedings of the XXXIInd Scientific Congress of of the Polish Psychological Association*, 147.

BOOKS

Białyńska A. (2016). Czynniki wpływające na precyzję synchronizacji sensomotorycznej. [Factors affecting the precision of sensorimotor synchronization.] Doctoral Dissertation, Faculty of Psychology, University of Warsaw.

CONFERENCE PRESENTATION

- **Bialunska A, Sirmon-Taylor B, Laflamme H, Dalla Bella S**. *Traces left on timing mechanisms by mild Traumatic Brain Injury years after*. Poster Presentation at the Annual Conference of the North American Brain Injury Society – ABI2020, New Orleans, February 2020.
- **Bialunska A**. *Recovery in Auditory-Visual-Motoric Task After a Concussion is Linked to Visual-Motor Processing*. Poster Presentation at the Annual Conference of the American Congress of Rehabilitation Medicine – ACRM 2019, Chicago, November 2019.
- **Bialunska A**. Does premorbid psychological and cognitive dysfunctions prolong athletes' recovery after concussion. Oral Presentation at the ACRM Neuroplasticity Networking Group seminar at the Spring Meeting of American Congress of Rehabilitation Medicine, Chicago, April 2019.
- **Bialunska A**. *Enforcement of standards in TBI*. Oral presentation, the 2nd International Symposium on TBI and PTSD in Warsaw, June 19-21, 2018, Warsaw, Poland.
- **Bialunska A**. *Neurodegenerative disorders after TBI*. Oral presentation, the 2nd International Symposium on TBI and PTSD in Warsaw, June 19-21, 2018, Warsaw, Poland.
- **Bialunska A**. *What we know about mTBI?* Oral presentation, the 2nd International Symposium on TBI and PTSD in Warsaw, June 19-21, 2018, Warsaw, Poland.
- **Bialunska A, Sirmon-Taylor B**. *Deficits of timing in auditory comprehension task after a concussion reveal problems with sensorimotor integration*. Accepted oral presentation, the 4th Federal Interagency Conference on TBI (FICTBI) TBI across the Life Span: research to practice, June 11-13, 2018, Washington, DC.

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- **Bialunska A**, Salvatore AP. *Improvement in auditory comprehension reaction time following a sport-related concussion is linked to visual processing abilities and visual-motor speed.* Oral presentation, the NABIS Brain Injury across the Age Spectrum: Improving Outcomes for Children and Adults Conference, March 14-17, 2018, Houston, TX.
 - **Bialunska A**, Salvatore AP. *Multimodal tasks can cause more difficulty compared to simple tasks in concussed athletes indicating a dysfunction of the sensorimotor integration mechanisms.* Poster, Annual Meeting of the Society for Neuroscience 'Neuroscience 2017', November 11 – 15, 2017, Washington, DC.
 - **Bialunska A**, Salvatore AP. *NIDILRR. What's going on with auditory comprehension after sport-related concussion?* Oral presentation, Young Investigators Symposium, 94th Annual Conference American Congress of Rehabilitation Medicine, Progress In Rehabilitation Research, October 23-28, 2017, Atlanta, GA.
 - **Białuńska A**, Dalla Bella S, Sowiński J. *Why movement is captured by music, less by speech?* Oral presentation, the 40th Poznań Linguistic Meeting, September 2-5, 2009, Gniezno, Poland.
 - **Białuńska A**, Dalla Bella S. *Music disrupts pressure force more than speech during sensorimotor synchronization.* Oral presentation, international meeting of the Society for Music Perception and Cognition (SMPC), July 30-August 3, 2007, Montreal, Canada.
 - **Białuńska A**, Dalla Bella S. *Movement is more strongly attracted to music than to speech.* Poster, 14th Annual Meeting of the Cognitive Neuroscience Society, May 5-8, 2007, New York, USA.
 - Dalla Bella S, **Białuńska A**, Sowiński J (2006). *Captured by music, less by speech.* Oral presentation, 9th International Conference on Music Perception and Cognition, August 22-26th, 2006, Bolonia, Italy.
 - **Białuńska A**, Dalla Bella S, Jaśkowski P (2006). *Changing stimulus intensity does not affect sensorimotor synchronization.* Poster, 9th International Conference on Music Perception and Cognition, August 22-26th, Bolonia, Italy.
 - **Białuńska A**, Jaśkowski P, Dalla Bella S. *Stimulus intensity effect on sensorimotor synchronization.* Poster, XXXII Scientific Congress of the Polish Psychological Association", September 22-25, 2005, Cracow, Poland.

WORKSHOPS AND SPECIAL COURSES

Team-Based Learning Course, UTEP, El Paso.	Dec 2019
"NIH JUMPSTART @ UTEP," UTEP, El Paso, TX	Oct 2019 -
TeamSTEPPS Training	Sep 2019 -
Faculty Fellowship, "AWARE," UTEP.	Sep 2019 –
Bi-Annual Meeting Texas IPE Consortium	Sep 2019

Visiting Fellowship in Transcranial Magnetic Stimulation (TMS), DUKE University, School of Medicine, Durham, NC. (July 12, 2019 - July 16, 2019).	Jul 2019
OFFICIAL Certified Brain Injury Specialist Course, ACADEMY OF CERTIFIED BRAIN INJURY SPECIALISTS, Chicago. (April 12, 2019 - April 13, 2019).	Apr 2019
West Texas Regional Veterans Health Conference, Texas Tec, El Paso.	Mar 2019
PINK 6 - The PINK Concussions/Tampa VA Summit: Explorations in Female Military Brain Injury Katherine Helmick, Deputy Director, Defense and Veterans Brain Injury Center (DVBIC), and Dr. Paul Pasquina, leading NCAA Care Consortium Concussion Research for the US Service Academies, Tampa, FL, December 16-17	Dec 2018
2nd International Symposium on TBI and PTSD in Warsaw, Tracie Kaip PsyD, Dr. Willis Clem Maples, David LeMay, M.D., Kevin Lacz, PA-C, Rachel Dzieran, CEO, Navy SEALs Fund Warsaw, Poland	Jun 2018
Brain Injury across the Age Spectrum: Improving Outcomes for Children, Adolescents, Adults and the Elderly (NABIS 14 th Annual Conference on Brain Injury), Dr. Jonathan Silver, Dr. Christopher Giza, Dr. Ramon Diaz-Arrastia, Dr. Steven Flanagan, Dr. Juliet Haarbauer-Krupa, Dr. Stuart A. Yablon, Dr. Jennifer Vasterling Houston, TX, USA	June 2018
Workshop on Interprofessional Health Education College of Health Sciences, School of Nurses, School of Pharmacy University of Texas at El Paso	2018
Progress in Rehabilitation Research. Translation to Clinical Practice. (American Congress of Rehabilitation Medicine 94 th Annual Conference), Dr. Douglas Katz, Dr. Pamela Roberts, Dr. Maurizio Corbetta, Dr. Gary R. Ulicny, Dr. Ann McKee Atlanta, GA, USA	2017
3rd ITN-LAN-Training Course 7PF, EU- Marie Curie Training Network Prof. Niels Birbaumer, Prof. Eric Sieroff, Prof. Vincent Walsh, Prof. Michal Lavidor, Prof. Eran Zaidel, Prof. Anat Barnea <i>Clinical neuropsychology training: imaging techniques and paradigms</i> Fondazione Santa Lucia. Prof. Luigi Pizzamiglio, Università di Roma "La Sapienza" Rome, Italy	2010
Summer Training Course ITN-LAN 7FP, EU - Marie Curie Training Network EEG analysis, Eyetracker, programming in Presentation and Matlab Rozlogi, Poland	2010
SPM workshop Dr. Marek Binder <i>fMRI data analysis</i> , Warsaw, Poland	2010
European Science Foundation (ESF)	2009

Prof. Simone Dalla Bella, Dr. Barbara Tillmann and Prof. Emmanuel Bigan
Exploratory Workshop Music and the brain: New perspectives for stimulating cognitive and sensory processes
Gdańsk, Poland

Introductory course of Matlab programming 2009
MSc Maciej Jaśkowski, Warsaw, Poland

Neuroimaging of human brain function and structure – fMRI workshop 2008
Warsaw School of Social Science and Humanities
Nencki Institute of Experimental Biology
Warsaw, Poland

EEG recording and analysis workshop 2008
Prof. Piotr Jaśkowski (1957–2011)
EEG analysis with BrainVision Analyzer. Programming in Presentation
Wierzba, Poland