# Dominika Radziun

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# **Education and Professional Experience**

#### 2023-present Postdoctoral Researcher

Donders Institute for Brain, Cognition, and Behaviour, Nijmegen, the Netherlands Understanding the plasticity of spatial body representations – a computational perspective Advisor: Dr. Luke E. Miller

# 2018–2023 PhD in Neuroscience

Karolinska Institutet, Stockholm, Sweden Thesis title: Body perception and brain plasticity in blind and sighted individuals Supervisors: Prof. Henrik Ehrsson (KI), Prof. Marcin Szwed (Jagiellonian University), Prof. Amir Amedi (Reichman University), Dr. Laura Crucianelli (KI) External examiner: Prof. Brigitte Röder (University of Hamburg)

#### 2013–2018 MA in Psychology

Jagiellonian University, Kraków, Poland Inter-faculty Individual Studies in the Humanities and Social Sciences Supervisors: Prof. Henrik Ehrsson (Karolinska Institutet) and Prof. Marcin Szwed (JU)

# Nov 2016- Visiting Student

<sup>Jan 2017</sup> University of Cambridge, United Kingdom Department of Psychology, Behavioural and Clinical Neuroscience Institute

#### Jan 2016- Visiting Student

May 2016 University of Oslo, Norway Department of Psychology Department of Philosophy, History of Art and Ideas, Greek and Latin

# **Journal Articles**

2024 Stroh, A. L.\*, **Radziun, D.**\*, Korczyk, M., Crucianelli, L., Ehrsson, H. H., & Szwed, M. (2024). Blind individuals' enhanced ability to sense their own heartbeat is related to the thickness of their occipital cortex. *Cerebral Cortex*, *34*(8). [Link]

**Radziun, D.**, Korczyk, M., Szwed, M., & Ehrsson, H. H. (2024). Are blind individuals immune to bodily illusions? Somatic rubber hand illusion in the blind revisited. *Behavioural Brain Research*, 460, 114818. [Link]

Crucianelli, L., **Radziun, D.**, & Ehrsson, H. H. (2024). Thermosensation and emotion: Thermosensory accuracy in a dynamic thermal matching task is linked to depression and anxiety symptomatology. *Physiology & Behavior*, *273*, 114407. [Link]

2023 Radziun, D., Korczyk, M., Crucianelli, L., Szwed, M., & Ehrsson, H. H. (2023). Heartbeat counting accuracy is enhanced in blind individuals. *Journal of Experimental Psychology: General*, 152(7), 2026–2039. [Link]

Radziun, D., Crucianelli, L., Korczyk, M., Szwed, M., & Ehrsson, H. H. (2023). The perception of affective and discriminative touch in blind individuals. *Behavioural Brain Research*, 444, 114361. [Link]

2022 Radziun, D., Crucianelli, L., & Ehrsson, H. H. (2022). Limits of cross-modal plasticity? Short-term visual deprivation does not enhance cardiac interoception, thermosensation, or tactile spatial acuity. *Biological Psychology*, 168, 108248. [Link]

Ehrsson, H. H., Fotopoulou, A., **Radziun, D.**, Longo, M. R., & Tsakiris, M. (2022). No specific relationship between hypnotic suggestibility and the rubber hand illusion. *Nature Communications*, *13*(1). [Link]

2018 Radziun, D., & Ehrsson, H. H. (2018). Auditory cues influence the rubber-hand illusion. Journal of Experimental Psychology: Human Perception and Performance, 44(7), 1012–1021. [Link]

**Radziun, D.**, & Ehrsson, H. H. (2018). Short-term visual deprivation boosts the flexibility of body representation. *Scientific Reports*, 8(1). [Link]

2017 Westerhausen, R., Põldver, N., Naar, R., Radziun, D., Kaarep, M. S., Kreegipuu, K., ... Kompus, K. (2017). Effect of voicing on perceptual auditory laterality in Estonian and Norwegian native speakers. Applied Psycholinguistics, 39(2), 259–273. [Link] Bola, Ł., **Radziun, D.**, Siuda-Krzywicka, K., Sowa, J. E., Paplińska, M., Sumera, E., & Szwed, M. (2017). Universal Visual Features Might Be Necessary for Fluent Reading. A Longitudinal Study of Visual Reading in Braille and Cyrillic Alphabets. *Frontiers in Psychology*, 8. [Link]

#### Invited and Prize Talks

- July 2024 Body perception and brain plasticity in blind and sighted individuals. Glushko Dissertation Prize talk given at the 46<sup>th</sup> Annual Meeting of the Cognitive Science Society, 27<sup>th</sup> of July 2024, Rotterdam, the Netherlands
- April 2024 Body perception and brain plasticity in blind and sighted individuals. Invited talk given at the Department of Psychology, University of Milano-Bicocca, April 29<sup>th</sup> 2024, Milan, Italy
- Sept 2022 The perception of interoceptive signals in blind individuals. Invited talk given at the Disability Research Division, Linköping University, September 14<sup>th</sup> 2022, Linköping, Sweden
- June 2022 The perception of interoceptive signals in blind individuals. Invited talk given at the Clinical and Affective Neuroscience Group, University College London, June 9<sup>th</sup> 2022, London, United Kingdom (remote)

#### **Conference Talks**

- Sept 2023 Body perception and brain plasticity in blind and sighted individuals. Talk given at the 5<sup>th</sup> Body Representation Network Conference, September 15<sup>hth</sup> 2023, Palma de Mallorca, Spain
- Sept 2023 Enhanced cardiac interoception in blind individuals: unraveling cross-modal plasticity and emotional processing. Symposium talk given at the 23<sup>rd</sup> Conference of the European Society for Cognitive Psychology, September 9<sup>th</sup> 2023, Porto, Portugal
- Sept 2023 Body perception and brain plasticity in blind and sighted individuals: from heartbeats to rubber hands. Talk given at the 23<sup>rd</sup> Conference of the European Society for Cognitive Psychology, September 7<sup>th</sup> 2023, Porto, Portugal
- June 2023 Body perception and brain plasticity in blind and sighted individuals: from heartbeats to rubber hands. Talk given at the 21<sup>st</sup> International Multisensory Research Forum, June 30<sup>th</sup> 2023, Brussels, Belgium
- Oct 2022 The perception of interoceptive signals in blind individuals. Talk given at the Neuronus Neuroscience Forum, October 17<sup>th</sup> 2022, Kraków, Poland
- July 2022 The perception of interoceptive signals in blind individuals. Talk given at the 6<sup>th</sup> European Society for Cognitive and Affective Neuroscience conference, July 19<sup>th</sup> 2022, Vienna, Austria
- March 2022 Cardiac interoception and affective touch sensitivity are enhanced in the blind. Talk given at the 9<sup>th</sup> Mind, Brain and Body Symposium, March 16<sup>th</sup> 2022, online
- June 2021 Physiologically implausible warmth, but not cold, suppresses the feeling of limb ownership in the somatic rubber hand illusion. Short talk presented at the 24<sup>th</sup> Annual Meeting of the Association for the Scientific Study of Consciousness, June 15<sup>th</sup> 2021, online
- March 2016 Diagnoza inteligencji u osób niewidomych. Możliwości i ograniczenia [Intelligence testing in blind individuals. Possibilities and limitations]. Talk given at the 8<sup>th</sup> Cracow Cognitive Science Conference, March 19–20<sup>th</sup> 2016, Kraków, Poland

## **Poster Presentations**

- March 2025 The influence of using finger-extending exoskeletons on tactile and proprioceptive localization. Poster presented at the 12<sup>th</sup> Mind, Brain and Body Symposium, March 11<sup>th</sup> 2025, Berlin, Germany
- Sept 2024 The influence of using finger-extending exoskeletons on tactile localization. Poster presented at the 6<sup>th</sup> Body Representation Network Conference, September 13<sup>th</sup> 2024, Verona, Italy
- July 2023 The perception of affective and discriminative touch in blind individuals. Poster presented at the Festival of Touch Conference, July 4–7<sup>th</sup> 2023, Marseille, France | **Poster Prize**
- July 2022 The perception of interoceptive signals in blind individuals. Poster presented at the 25th Annual Meeting of the Association for the Scientific Study of Consciousness conference, July 12–15<sup>th</sup> 2022, Amsterdam, The Netherlands
- March 2022 Cardiac interoception and affective touch sensitivity are enhanced in the blind. Emotional and mental health implications of increased sensory acuity. Poster presented at the Society for Affective Science Interoception Preconference, March 30<sup>th</sup> 2022, online
  - Feb 2022 Cardiac interoception and affective touch sensitivity are enhanced in blind individuals. Poster presented at The Brain Conference 2022, February 24–25<sup>th</sup> 2022, online

- Oct 2018 Short-term visual deprivation boosts the flexibility of body representation. Poster presented at the Blind Brain Workshop, October 11-13<sup>th</sup> 2018, Lucca, Italy
- June 2018 Short-term visual deprivation boosts the flexibility of body representation. Poster presented at the 22<sup>nd</sup> Annual Meeting of the Association for the Scientific Study of Consciousness, June 26-29<sup>th</sup> 2018, Kraków, Poland
- April 2018 The influence of short-term visual deprivation on body representation. Poster presented at the Neuronus IBRO&IRUN Neuroscience Forum, April 20-22<sup>nd</sup> 2018, Kraków, Poland
- June 2017 Auditory Cues Influence the Rubber-Hand Illusion. Poster presented at the 2<sup>nd</sup> Nordic Neuroscience Meeting, June 7–9<sup>th</sup> 2017, Stockholm, Sweden
- March 2017 The role of visual deprivation in bodily awareness. Poster presented at the 5<sup>th</sup> Mind, Brain and Body Symposium, March 16–17<sup>th</sup> 2017, Berlin, Germany
- April 2016 Are universal visual features necessary for reading? Preliminary results of a longitudinal study of visual Braille and Cyryllic alphabets' learners. Poster presented at the Neuronus IBRO&IRUN Neuroscience Forum, April 22–24<sup>th</sup> 2016, Kraków, Poland
- April 2015 Age-related alterations in attentional set-shifting. Poster presented at the Neuronus IBRO & IRUN Neuroscience Forum, April 17–19<sup>th</sup> 2015, Kraków, Poland

#### Awards and Scholarships

- 2024 Glushko Dissertation Prize (\$10,000) Awarded by the Cognitive Science Society and the Glushko-Samuelson Foundation to recognize outstanding PhD theses in cognitive science that advance interdisciplinary research on minds and intelligent systems
- 2013-2018 Pro Akademika Foundation Scholarship for academic excellence and social involvement (€1100 annually)
  - <sup>2017</sup> 'Pathway to Harvard' competition laureate (organized by Harvard Club of Poland in cooperation with Bain & Company and BNP Paribas)
  - 2017 Jagiellonian University Chancellor Scholarship for the best students (€1500 annually)
  - 2017 Polish Ministry of Higher Education Scholarship for outstanding students (€3600 annually)
- 2013–2014 The Educational Enterprise Foundation Scholarship for academic excellence (€1200 annually)

## Pre-doctoral Research and Clinical Experiences

- 2017-2018 Clinical Psychology Intern, Dr. Józef Babiński Clinical Hospital, Kraków, Poland Assisted in psychological assessments and patient observations under supervision. Took part in therapeutic sessions and group activities. Gained experience in case documentation and interdisciplinary team collaboration. Observed the application of psychiatric treatments, including pharmacotherapy and psychotherapy.
- 2015–2018 Research Intern, Jagiellonian University, Kraków, Poland
  Supervisor: Prof. Marcin Szwed
  Project: Are universal visual features necessary for fluent reading? Longitudinal study of visual reading in Braille and Cyrillic alphabets
  - 2017 Research Intern (thesis internship), Karolinska Institutet, Stockholm, Sweden Supervisor: Prof. Henrik Ehrsson
     Project: The influence of short-term visual deprivation on body representation
- 2016–2017 Research Intern, University of Cambridge, United Kingdom Supervisors: Dr. Maria Niedernhuber, Prof. Tristan Bekischtein Project: Investigating conscious processes underlying the prediction of sensory inputs in the somatosensory and auditory domain – an EEG study
  - <sup>2016</sup> Research Intern, Karolinska Institutet, Stockholm, Sweden
    Supervisor: Dr. Björn van der Hoort, Prof. Henrik Ehrsson
    Project: Body–ownership and visual awareness a continuous flash suppression study
  - <sup>2016</sup> Research Intern, University of Oslo, Norway
    Supervisor: Prof. René Westerhausen
    Project: Effect of voicing on perceptual auditory laterality in Estonian and Norwegian native speakers

# Supervision

Sept 2024–	David Teulings
ongoing	Master's in Artificial Intelligence (thesis)

Sept 2024- Arina Schippers March 2025 Master's in Artificial Intelligence (internship)

March 2024- Siebe Geurts Dec 2024 Master's in Artificial Intelligence (thesis)

# Teaching

Oct 2020- **Teaching Assistant** March 2022 TA on the neuroanatomy workshop for medical students at Karolinska Institutet

# **Occasional Reviewing**

Consciousness & Cognition, Cortex, Disability and Rehabilitation: Assistive Technology, Frontiers in Psychology, Heliyon, Human Brain Mapping, Journal of Behavior Therapy and Experimental Psychiatry, Journal of Experimental Psychology: Human Perception and Performance, Journal of Psychiatric Research, Nature Human Behaviour, Perception, Psychophysiology, PLOS ONE, Scientific Reports, Translational Psychiatry, Virtual Reality

# **Community Service**

Sept 2024-Postdoc Representative, Donders Postdoc Council present As a postdoctoral representative at the Donders Centre for Cognition, I work to support early-career researchers by fostering collaboration, addressing concerns, and advocating for policies that enhance professional development and inclusivity. Jan 2024-**Co-Chair**, Halkes Women+ Faculty Network present The Halkes Women+ Faculty Network strives to make Radboud University a more diverse, inclusive, and fair place. One of our aims is to contribute to the advancement of women and gender minority faculty at the higher ranks of the university. October 2023- Conference Co-Organizer, Body Representation Network present I assisted in the planning and coordination of the conference, communicate with speakers and participants, and support logistical and organizational aspects of the event. Dec 2017-

Dec 2017-Dec 2023 Assistant Director of Communications & Volunteers Coordinator, Association for the Scientific Study of Consciousness Association for the Scientific Study of Consciousness is a professional organization promoting interdisciplinary research on the nature and mechanisms of consciousness.

I managed the ASSC social media presence and newsletter. I was a coordinator of the volunteers team during the ASSC 22 Conference (June 26-29<sup>th</sup> 2018,

Kraków, Poland).

# Oct 2015- **Tutor & Project Coordinator**, Collegium Invisibile & Polish Children's Fund

I conducted an introductory course in neuroscience and series of weekly supervision for high school students (one student in 2015/2016, two students in 2016/2017, one student in 2017/2018, three students in 2018/2019, three students in 2019/2020, two students in 2020/2021, and two students in 2021/2022).

I coordinated the "First Tutor" program from the academic year 2016/2017 until 2020/2021. I co-organized two academic summer schools (Wioska Olimpijska in 2018 and Szkoła Letnia in 2019) for gifted high school students, and taught a course on the scientifc study of consciousness.