Maciej Kosiło

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Education

2012 – 2017	**Psychology (PhD)** City, University of London <u>Thesis</u>: "*The contribution of the luminance and opponent chromatic post-receptoral mechanisms to visual working memory*" PI: Dr Corinna Haenschel
2011 June	**Psychology (BSc)**, First Class with Honours University of Aberdeen <u>Dissertation</u>: "*High and low-level modulations of small fixational eye movements*" PI: Dr Jasna Martinovic

Publications

- **Kosilo**, M., Wuerger, S. M., Craddock, M., Jennings, B. J., Hunt, A. R., & Martinovic, J. (2013). Low-level and high-level modulations of fixational saccades and high-frequency oscillatory brain activity in a visual object classification task. *Frontiers in psychology*, 4.

- Rowe, P., Haenschel, C., **Kosilo**, M. & Yarrow, K. (2017). Objects rapidly prime the motor system when located near the dominant hand. *Brain and Cognition*, 113.

- Põder, E., **Kosilo, M**. (in press). What limits search for conjunctions of simple visual features? *Journal of Vision.*

- **Kosilo, M**., Martinovic, J., Haenschel, C. (*in preparation*). The contribution of luminance signals to visual working memory: evidence from psychophysics and EEG.

- **Kosilo, M**., Martinovic, J., Laxhman, N., Lisshammar, J.E., Barbur, J. & Haenschel, C. (*in preparation*). Post-receptoral contribution to visual working memory differs in schizophrenia and healthy controls.

Conference Abstracts

- Haenschel, C., **Kosilo, M.**, Laxhman, N., & Martinovic, J. (2018). T210. Influence of Early Visual Encoding on Working Memory Performance and its Dysfunctions in Schizophrenia. *Biological Psychiatry*, *83*(9), S210.

- **Kosilo, M**., Martinovic, J., Laxhman, N., Lisshammar, J.E., Barbur, J. & Haenschel, C. (2017). The contribution of luminance signals to visual working memory in healthy controls and patients with schizophrenia. *Poster presentation at European Conference on Visual Perception (ECVP 2017), Berlin, Germany.*

- **Kosilo**, M., Haenschel, C., Martinovic, J. (2016). Visual working memory benefits from luminance inputs - evidence from psychophysics and EEG. *Poster presentation at Society for Neuroscience Annual Meeting (SfN 2017), San Diego, US.*

- **Kosilo**, M., Haenschel, C., Martinovic, J. (2015). Preferential inputs of luminance signals for visual working memory. *PERCEPTION, 44, 9-10.*

- Martinovic, J., **Kosilo**, M., Wuerger, S. M., & Hunt, A. R. (2011). Induced gamma-band activity and fixational eye movements are differentially influenced by low and high-level factors in a visual object classification task. *i-Perception*, 2(3), 187-187.

- **Kosilo** M., Hunt, A.R., Wuerger, S.M., Martinovic, J. (2011). Modulations of small fixational eye movements by low-level factors in a visual object classification task. In F. Vitu, E. Castet, & L. Goffart (Eds.), *Abstracts of the 16th Conference on Eye Movements, Marseille*, 21 – 25 August. Journal of Eye Movement Research, 4(3).

- Martinovic J., **Kosilo** M., Wuerger S.M. & Hunt, A. (2011). Induced gamma-band activity and fixational eye movements are differentially influenced by low and high-level factors in a visual object classification task. *Frontiers in Human Neuroscience. Conference Abstract: XI International Conference on Cognitive Neuroscience (ICON XI).*

Activities and teaching

2019 – current	Postdoctoral researcher (Institute of Biophysics and Biomedical Engineering, University of Lisbon, Portugal) Researcher at Dr Diana Prata's Biomedical Neuroscience Lab. *The physiological bases of social reinforcement learning in healthy subjects and patients.* EEG data collection and analysis.
2017 – 2019	**Visiting Lecturer** (City, University of London) Biological Psychology (2nd year undergraduate Psychology course). Lecture preparation and delivery; assignments; student feedback and support.
2012 – 2017	**Graduate teaching assistant** Teaching; marking; developing exam questions; exam invigilation; student feedback.
2012 – 2017	**Student mentoring** I trained a number of undergraduate, Masters, and fellow PhD students in EEG recording procedures, data collection, lab maintenance, overlooked their projects as well as introduced them to data processing and analysis methods.

2017 – 2018	**Research associate** (University of Tartu, Estonia)

"What limits search for conjunctions of simple visual features?"

Data collection; data analysis; manuscript preparation.

2012 – 2018	**Lab manager**

Managing EEG lab schedule for different research groups; student/research assistant training; experimental design optimisation; programming; contact with manufacturers, technical support, ad-hoc problem solving; equipment maintenance, testing; lab space organisation; showcasing lab to visitors.

2015 – 2017	**Research assistant**

NARSAD-grant funded project, conducted in collaboration with East London NHS Foundation Trust, UK.

"Luminance-driven perceptual mechanisms and their impact on visual working memory task performance in healthy controls and in patients with schizophrenia"

Data collection (clinical + control sample); data analysis; project overview; disseminating research findings on international conferences; manuscript preparation.

Skills & Experience

Programming

Languages used: Matlab (Mathworks, Natick, MA, US) and R (Foundation for Scientific Computing, Vienna, Austria) for data analysis, visualisation, statistical testing, experimental design. I write my own code and utilise functionalities of published toolboxes, including Psychtoolbox, EEGLAB, FieldTrip, ggplot2.

Lab management

I have set up an EEG laboratory (organised testing space, ordered equipment and utilities, assembled experimental set up for use in multiple studies & research groups) and subsequently managed it, overlooked data collection quality, provided technical and programming/experimental design support for colleagues and students.

Clinical testing

I have collected data from a clinical population (individuals diagnosed with schizophrenia), adapted experimental procedures to suit the needs and constraints of the tested group, collaborated with outside organisations (i.e. NHS East London Foundation Trust) in arranging the logistics of the recruitment and testing.

Psychophysics

Designing & running psychophysical experiments using variety of methods (e.g. adaptive procedures, QUEST, staircases, classic methods such as method of constant stimuli), threshold and slope estimation, fitting psychometric functions, model fitting and comparisons, multi-condition model fitting, maximum-likelihood difference scaling.

EEG analysis	Robust statistical testing, data visualisation, analysis methods including time-frequency decomposition, event-related potentials, ICA, cluster-based permutation tests, single-trial analysis.
Software	Brain Vision Recorder, Brain Vision Analyzer (Brain Products Germany), E-prime, Presentation, SPSS.
Hardware	Brain Products EEG recording system, Eyelink 1000 for eye movement recording, ViSaGe MKII Visual Stimulus Generator (Cambridge Research Systems, Rochester, England), Spectroradiometer & ColourCal for gamma correction/monitor calibration (Cambridge Research Systems).

Outreach

2018	**Psychology Taster Week** (City, University of London)
	Introduction to Psychology and a talk on memory with hands-on activities for 15-year old pupils (widening participation backgrounds).
	Psychology Master Class (City, University of London)
	Techniques in cognitive neuroscience workshop (EEG) for 17-year old pupils.
2018	**Psychology Teach-out**
	I organised a free, open-to-everyone, pub-based event with mini-lectures delivered by City, University of London academics from School of Arts and Social Sciences.
2015 – 2017	**Brain Awareness Week**
	Help in organisation, running, and promotion of department's activities during the Brain Awareness Week.
2012 – present	**Blogging**
	I established and write blog posts for [Neurobigos](#) – a blog promoting science and dispelling myths from neuroscience and psychology, written for a lay audience. It was the only neuroscience-related blog in Polish language at the time; when it was the most active, popular posts would reach 25-30,000 visitors, and the [Facebook fanpage](#) attracted around 7,200 fans.
2012 – present	**Micro-blogging**
	I use social media platform ([Twitter](#)) to engage with other academics, stay up-to-date with current academic affairs and promote my own work.

Awards, Grants, Scholarships

2018	Shortlisted for Best Graduate Teaching Assistant, City, University of London.
2017	Grindley Grant (Experimental Psychology Society) for conference attendance (£500).
2014	British Association for Cognitive Neuroscience Annual Meeting (BACN 2014) Student Bursary (travel and accommodation costs covered).
2014	London Mathematical Society travel grant (travel costs to Mathematics of Brain Dynamics meeting covered).
2012	City, University of London 3 year PhD Scholarship, with 1 year extension (~£58,000).
2011	Principal's Excellence Fund prize (University of Aberdeen) to present undergraduate research at a conference overseas (£245).
2011	Alan B. Milne Memorial Prize (University of Aberdeen) for best undergraduate research thesis in Psychology.

Research & practical skill workshops (selected)

I am staying up-to-date with current, cutting-edge research methods as well as with recent developments and methodological issues. This includes self-teaching analysis methods, improving my skill set, as well as participation in workshops, including:

- Cutting EEG symposium, University of Glasgow, 2017 (link)
- Computational Psychiatry course, University College London, 2015 (link)
- Mathematics of Brain Dynamics. University of Birmingham, Birmingham, UK, April 2014 (link)
- Best practice in EEG and TMS research. University of Kent, Kent, UK, April 2014 (link)
- EEGLAB workshop 2013, Aspet, France (link)