

Magdalena Kachlicka

The Auditory, Language, Perception, Hearing and Attention Lab
Centre for Brain and Cognitive Development
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Education

Birkbeck University of London PhD Student 2020 – Present
Thesis: Perceptual strategies underlying second language acquisition
Supervisors: Dr Adam Tierney, Dr Kazuya Saito, and Prof Fred Dick

University College London Master of Philosophy (MPhil), Cognitive Science, 2020
Thesis: Mapping acoustic and semantic dimensions of auditory perception
Supervisors: Prof Jian Kang and Prof Fred Dick

Birkbeck University of London Master of Science (MSc, Distinction), Psychological Research Methods, 2018
Thesis: Individual differences in auditory processing in second language learning
Supervisor: Dr Adam Tierney

University of Nicosia Bachelor of Science (BSc, First Class), Psychology, 2017
Thesis: Adaptation of the BHI-R Questionnaire from Polish to Greek and English Languages
Supervisor: Dr Marios Adonis

Research Experience

Institute of Education, University College London Apr 2020 – Present
Responsibilities: participants' recruitment, online data collection, behavioural testing (language, musical and auditory tests), task design on Gorilla platform (using built-in capabilities and JS scripting), data processing and analysis with R and MATLAB, acoustic analyses of speech using Praat software and Python Parselmouth package, literature reviews

University of Social Sciences and Humanities – SWPS (Poznan, Poland) Jul 2022 – Present
Project: "Speech acoustics and contents of narrative reconstructions of past events as indicators of cognitive processing of trauma and posttraumatic growth"
Responsibilities: audio recordings processing with Adobe Audition, acoustic analysis of speech using Python DisVoice and Parselmouth packages, text processing and sentiment analysis in R and Python NLTK package

Department of Psychological Sciences, Birkbeck University of London Oct 2018 – Sep 2020
Responsibilities: participants' recruitment, data collection with EEG and FFR using BioSemi ActiveTwo system, behavioural testing (language, musical and auditory tests), pre-processing of neurophysiological data using Matlab and FieldTrip toolbox, speech acoustics analyses with Praat software, literature reviews

Experimental Psychology Lab at University of Cyprus (Nicosia, Cyprus) Jan 2017 – Apr 2017
Project: "The impact of visual imagery on the experience of pain: A comparison between altered visual feedback and distraction strategy"
Responsibilities: measuring heart rate, EMG and skin conductance using BIOPAC M150 system

Publications

- Saito K, Petrova K, **Kachlicka M**, Suzukida Y, Tierney A (2022) Training auditory processing promotes second language speech acquisition. *Journal of Experimental Psychology: Human Perception and Performance*, 48(12), 1410-1426.
- Saito K, **Kachlicka M**, Suzukida Y, Petrova K, Lee BJ, Tierney A (2022) Auditory precision hypothesis-L2: Dimension-specific relationships between auditory processing and second language segmental learning. *Cognition*, 229, 105236.
- Saito K, Hanzawa K, Petrova K, **Kachlicka M**, Suzukida Y, Tierney A (2022) Incidental and multimodal high variability phonetic training: Potential, limits, and future directions. *Language Learning*, 72(4), 1049-1091.
- **Kachlicka M**, Laffere A, Dick F, Tierney A (2022) Slow phase-locked modulations support selective attention to sound. *NeuroImage*, 252, 119024.
- Saito K, Macmillan K, **Kachlicka M**, Kuniyama T, Minematsu N (2022) Automated assessment of second language comprehensibility: Review, training, validation, and generalization studies. *Studies in Second Language Acquisition*, 45(1), 234-263.
- Saito K, Macmillan K, Kroeger S, Magne V, Takizawa K, **Kachlicka M**, Tierney A (2022) Roles of domain-general auditory processing in spoken second language vocabulary attainment in adulthood. *Applied Psycholinguistics*, 43(3), 581-606.
- Saito K, Sun H, **Kachlicka M**, Alayo J, Nakata T, Tierney A (2022) Domain-general auditory processing explains multiple dimensions of L2 acquisition in adulthood. *Studies in Second Language Acquisition*, 44(1), 57-86.
- Mitchell A, Oberman T, Aletta F, **Kachlicka M**, Lionello M, Erfanian M, Kang J (2021) Investigating urban soundscapes of the COVID-19 lockdown: A predictive soundscape modeling approach. *The Journal of Acoustical Society of America*, 150, 4474–4488.
- Saito K, **Kachlicka M**, Sun H, Tierney A (2020) Domain-general auditory processing as an anchor of post-pubertal second language pronunciation learning: Behavioural and neurophysiological investigations of perceptual acuity, age, experience, development, and attainment. *Journal of Memory and Language*, 115, 104168.
- Mitchell A, Oberman T, Aletta F, Erfanian M, Kachlicka M, Lionello M, Kang J (2020) The Soundscape Indices (SSID) protocol: A method for urban soundscape surveys – questionnaires with acoustical and contextual information. *Applied Sciences*, 10(7), 2397.
- **Kachlicka M**, Saito K, Tierney A (2019) Successful second language learning is tied to robust domain-general auditory processing and stable neural representation of sound. *Brain & Language*, 192, 15-24.

Conference Papers

- Mitchell A*, Aletta F, Oberman T, Erfanian M, Lionello M, **Kachlicka M**, Kang J (2019) Making cities smarter with new soundscape indices. *178th Meeting of the Acoustical Society of America, San Diego, USA*.
- Aletta F*, Oberman T, Mitchell A, Erfanian M, Lionello M, **Kachlicka M**, Kang (2019) A field study on associations between soundscape experience and self-reported well-being measures in open public urban spaces. *Lancet Public Health Science 2019, London, UK*.

Posters

- **Kachlicka M***, van den Bosch J, Kang J, Dick F (2022) Representations of natural sound categories. *FENS Summer School 'Artificial and natural computations for sensory perception' (Bertinoro, Italy)*

Talks

- 'Auditory processing in second language learning' at Brain & Language Seminar (February 2019), University of Helsinki, Finland

Teaching Experience

- PSYC0046 Introduction to Statistics in R; UCL Psychology and Language Sciences Department – demonstrator and teaching assistant (2021-22 & 2022-23)
- PSYC0012 Research Methods in Psychology; UCL Psychology and Language Sciences Department – research project coordinator (2020-21 & 2021-22)
- Methods for Dummies Course; Wellcome Centre for Human Neuroimaging (UCL Institute of Neurology) – course organizer and content coordinator (2019-20 & 2020-21)
- PSYC0005 Introduction to Psychological Experimentation; UCL Psychology and Language Sciences Department – demonstrator (2019-20 & 2020-21)
- COMP0016 Systems Engineering & Human-Computer Interaction; UCL Interaction Centre, Department of Computer Sciences – teaching assistant (2019-20, & 2022-23)
- COMP0067 Design & Human-Computer Interaction; UCL Interaction Centre, Department of Computer Sciences – teaching assistant (2019-20 & 2022-23)

Grants and Awards

- Albert Valdman Award for outstanding publication in Studies in Second Language Acquisition, 2022
- Travel Award, Computational Cognitive Modelling for Language Summer School, University of California Irvine, 2022
- Research Grant (\$2000), Language Learning Dissertation Award, 2022
- Research Grant (£1120), Student Project Fund, University College London, 2021
- Bloomsbury Studentship, Birkbeck University and UCL IOE, 2020-2023
- Research Grant (£530), Student Project Fund, University College London, 2020
- ERC Studentship, ERC Advanced Grant to Prof J Kang No. 740696, 2018-2020
- JUCE Diversity Scholarship, Audio Developers Conference, 2019
- Student Travel Award, Real World Communication Workshop, University of Connecticut, 2018
- Kenway Legacy Scholarship, Birkbeck University, 2017-2018
- Scholarship Based on Academic Performance, University of Nicosia, 2016-2017