Maria Korochkina, PhD

I am a cognitive neuroscientist studying **how we learn**, with a particular focus on how we acquire knowledge **of language** and **through experience with language**. I have a strong interest in **applied statistics** and am committed to promoting **transparency and reproducibility** in research. I'm also passionate about **making science accessible** to the wider community and **engaging diverse voices in research** to drive meaningful societal change.

Education and qualifications

PhD in Cognitive Science

Joint degree from Macquarie University (Australia) and Universities of Potsdam (Germany),

Newcastle upon Tyne (UK), Groningen (Netherlands), Trento (Italy), IDEALAB PhD programme

2015 − 2018

MSc in Experimental and Clinical Linguistics

University of Potsdam, Germany, IECL programme

2010 − 2015

BA & MA in Philology

Lomonosov Moscow State University, Russia

Academic employment

Teaching and educating

10/07/2024 **Invited speaker**, Opening up Open Science: Nuts and Bolts for Beginners workshop 31st annual meeting of the Society for the Scientific Study of Reading, Denmark 27/03/2023 **Instructor**, Bayesian LME and Distributional Regression models with brms workshop Royal Holloway, University of London 7/11/2022 – ongoing Instructor, ReproducibiliTea workshop series, Royal Holloway, University of London 02/2020 - 06/2022 Academic Tutor, Macquarie University Session 1, 2021 & 2022: Design and Statistics III Session 2, 2020 & 2021: Design and Statistics II Session 2, 2020 & 2021: Acquired Speech and Language Disorders Session 1, 2020: Exp Design and Data Analysis for the Cognitive and Brain Sciences 18/02/2021 ■ Instructor, Data analysis using (generalised) linear mixed effects models in R workshop Macquarie University 21-25/09/2020 Instructor, Introduction to R Software Carpentry workshop, Macquarie University

Publications

Pre-registrations, materials, data, and analysis code for all papers are available at https://osf.io/zf8px/.

Under review

Korochkina, M., & Rastle, K. (2024). *Morphology in children's books: What's there and what's useful for learning?* Pre-print available at https://doi.org/10.31219/osf.io/63pb4.

Korochkina, M., & Rastle, K. (2024). The vocabulary barrier in the General Certificate of Secondary Education (GCSE) in English Literature. Pre-print available at https://doi.org/10.31219/osf.io/vg8c3.

Peer-reviewed

- Crawford, M., Raheel, N., **Korochkina, M.**, & Rastle, K. (2024). Inadequate foundational decoding skills constrain global literacy goals for pupils in low- and middle-income countries. *Nature Human Behaviour*. https://doi.org/10.1038/s41562-024-02028-x
- Korochkina, M., Nickels, L., & Bürki, A. (2024). What can we learn about integration of novel words into semantic memory from automatic semantic priming? *Language, Cognition, and Neuroscience*, 39(4), 455–488. https://doi.org/10.1080/23273798.2024.2328586
- Korochkina, M., Marelli, M., Brysbaert, M., & Rastle, K. (2024). The Children and Young People's Books Lexicon (CYP-LEX): A large-scale lexical database of books read by children and young people in the United Kingdom. *Quarterly Journal of Experimental Psychology*. https://doi.org/10.1177/17470218241229694
- Lombard, A., Ulicheva, A., **Korochkina, M.**, & Rastle, K. (2024). The regularity of polysemy patterns in the mind: Computational and experimental data. *GLOSSA Psycholinguistics*, 3(1), 3, 1–24. https://doi.org/10.5070/G60111327
- **Korochkina, M.**, Sowman, P., Nickels, L., & Bürki, A. (2023). Neural correlates of encoding in novel word learning. *Collabra: Psychology*, 9(1), 57525. https://doi.org/10.1525/collabra.57525
- **Korochkina, M.**, Bürki, A., & Nickels, L. (2021). Apples and oranges: How does learning context affect novel word learning? *Journal of Memory and Language*, 120, 104246. https://doi.org/10.1016/j.jml.2021.104246

Outreach contributions

Publications

- **Korochkina, M.,** & Rastle, K. (2024). What makes GCSE English Literature so hard for students? *Tes.* https://www.tes.com/magazine/teaching-learning/secondary/what-makes-gcse-english-lit-so-hard-students
- **Korochkina, M.**, & Rastle, K. (2024). What words do children encounter when they read for pleasure? *Nomanis*, Issue 27. https://www.nomanis.com.au/blog/issue-17-june-2024. Also available here.

Talks

- Words in books: A challenge, a blessing, or both? (September 2024, with Kathy Rastle). Invited talk, ResearchED National Conference, London, UK.
- What makes GCSE English Literature so hard for students? (June 2024). Working Together: Research and Practice meeting, The South East Research Network for Schools, Egham, UK.

Recent conference talks

A full list of talks and posters (along with the slide decks) is available at https://mariakna.github.io.

2024

- The nature of morphemic regularities in children's literature: What do British children learn about derivational morphology when they read? Talk given at the 31st annual meeting of the Society for the Scientific Study of Reading, Copenhagen, Denmark.
- What can children learn about English morphology through book reading? Talk given at the annual meeting of the Experimental Psychology Society, York, UK.

- Apples and oranges: How does learning context affect novel word learning? Talk given at the Contextual Diversity Workshop organised by the Experimental Psychology Society, London, UK.
- What do children read as they transition into and through adolescence? Insights from CYP-LEX, a new large-scale lexicon of books for children and young people. Talk given at the annual meeting of the Cognitive and Developmental sections of the British Psychological Society, Bristol, UK.
- The Children and Young People's Books Lexicon (CYP-LEX): A lexical database of books directed at children and young adults. Talk given at the 23rd meeting of the European Society for Cognitive Psychology, Porto, Portugal.
- The Children and Young People's Books Lexicon (CYP-LEX): How does book language change as children transition into and through adolescence? Talk given at the annual meeting of the Experimental Psychology Society, Swansea. UK.
- Behavioural and electrophysiological markers of integration in novel word learning. Talk given at the annual meeting of the Experimental Psychology Society, London, UK.

Awards and funding

2023	■ Student Researcher Credibility Prize, The British Neuroscience Association Read the media announcement here.	
2021	■ Funding award for an 8-week Instructor Training with The Carpentries, Macquarie University	
2020	Postgraduate Research Fund, Macquarie University	
2019-2022	International Research Excellence PhD Scholarship, Macquarie University	
2019	Conference travel & participant recruitment awards, University of Potsdam	
2018-2019	■ PhD Scholarship, University of Potsdam	
2012 & 2014	Student exchange awards, University of Vienna, Austria	

Skills

Experimental techniques	■ Behavioural, EEG, eye-tracking, fNIRS Corpus linguistics, computational modelling
Programming languages & software	MATLAB, Python, R, Stan, Presentation Neurobehavioural Systems Stata, HTML, OpenSesame, 上下
Languages	English, German, Russian, Swedish, Icelandic (beginner) British Sign Language (beginner)

Recent training and development

2024	■ Storytelling with Impact: Visual storytelling workshop, Nifty Fox Creative
	■ Storytelling with Impact: Unleash the power of narrative workshop, Duncan Yellowlees Training
	■ Storytelling to success: Developing your Narrative CV workshop, University of Leeds
2023	Effective Grant Writing workshop, Royal Holloway, University of London
2022	■ Introduction to Natural Language Processing in Python, MOOC, DataCamp
	■ The 6 th Summer School on Statistical Methods for Linguistics and Psychology Bayesian Advanced Track, University of Potsdam
	Dadad Instructor training The Compartnies

- Badged Instructor training, The Carpentries 2021 Understanding the Brain: The Neurobiology of Everyday Life, MOOC, University of Chicago 2020