Maria Korochkina, PhD



Personal website

ResearchGate

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I am a researcher interested in how we acquire **linguistic knowledge** and use language to facilitate knowledge acquisition **in other domains** and **across the lifespan**. I study these questions using tools from **cognitive science** and **neuroscience**. I have strong expertise in **applied statistics** and am committed to promoting **transparency and reproducibility** in research. I am also passionate about **making science accessible** to the

wider community and **engaging diverse voices in research** to drive meaningful societal change.

Education

2022 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

2018 MSc in Experimental and Clinical Linguistics

University of Potsdam, Germany, IECL programme

2015 MA-equivalent in Philology

Lomonosov Moscow State University, Russia **2012** & **2014**, Non-EU student exchange, University of Vienna, Austria

Academic appointments

06/2022 – ongoing **Postdoctoral Research Fellow**, Royal Holloway, Univ. of London, UK

02/2020 – 06/2022 Academic Tutor, Macquarie University, Australia

07/2016 – 08/2018 Research Assistant, NOLA Lab & Vasishth Lab, University of Potsdam, Germany

Publications

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

Under review

Korochkina, M., Marelli, M., & Rastle, K. (Under review). Morphemes in the wild: Modelling affix learning from the noisy landscape of natural text. Pre-print at https://doi.org/10.31234/osf.io/yzcqm_v1.

Peer-reviewed

- **Korochkina, M.**, Cooper, H., Brysbaert, M., & Rastle, K. (In press). Morpheme knowledge is shaped by information available through orthography. *Psychonomic Bulletin & Review*. Pre-print at https://doi.org/10.31219/osf.io/ad3jh_v2.
- **Korochkina, M.**, & Rastle, K. (2025). Morphology in children's books, and what it means for learning. *npj Science of Learning*, 10:22. https://doi.org/10.1038/s41539-025-00313-6.
- Korochkina, M., & Rastle, K. (2025). The vocabulary barrier in the General Certificate of Secondary Education (GCSE) in English Literature. *The Use of English*, 76(2), 12–26. https://englishassociation.ac.uk/the-use-of-english/. Also available at https://doi.org/10.31219/osf.io/vg8c3
- 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*, 9, 74–83. 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*, 77(12), 2418–2438. 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

- What can children learn about morphology from reading for fun? (2025) Blog post.
- What makes GCSE English Literature so hard for students? (2024) Tes.
- What words do children encounter when they read for pleasure? (2024) Nomanis. Also available as a blog post.

Talks

- The words children and young people encounter when they read for pleasure, and what it means for learning (June 2025). Working Together: Research and Practice meeting 2025, The South East Research Network for Schools, Egham, UK.
- Words in books: A challenge, a blessing, or both? (Sept 2024). Invited talk, ResearchED National Conference, London, UK.
- What makes GCSE English Literature so hard for students? (June 2024). Working Together: Research and Practice meeting 2024, The South East Research Network for Schools, Egham, UK.

Teaching and educating

20/06/2025 - ongoing

■ **Data analysis training developer**, South East Doctoral Training Arc (SEDARC)

7/11/2022 – ongoing

Workshop instructor, ReproducibiliTea series, Royal Holloway, Univ. of London

27/03/2023

Workshop instructor, Bayesian LME and Distributional Regression models with *brms*, Royal Holloway, Univ. 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

Workshop instructor, Data analysis using (generalised) linear mixed effects models in R, Macquarie University

Teaching and educating (continued)

21–25/09/2020 Workshop co-instructor, Introduction to R, Software Carpentry

Recent conference talks (selected)

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

2025

- Morpheme knowledge is shaped by information available through orthography. Talk to be given at the 24th meeting of the European Society for Cognitive Psychology, Sheffield, UK.
- What and how do we learn about morphemes through reading experience? Talk given at the annual meeting of the Experimental Psychology Society, Lancaster, UK.

2024

- The graded nature of morphological information in text, and what it means for morpheme learning. Talk given at a meeting of the Forum for Research in Literacy and Language (FRiLL), Reading, UK.
- 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.

2023

- Vocabulary and morphological complexity in books popular with British children. Talk given at a meeting of the Forum for Research in Literacy and Language (FRiLL), Reading, 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

- Student Researcher Credibility Prize, The British Neuroscience Association Includes a £500 prize. Read the media announcement here.
- Funding award for an 8-week Instructor Training with The Carpentries (A\$1,500) Awarded by Macquarie University's Research and Innovation team

Awards and funding (continued)

Postgraduate Research Fund, Macquarie University (A\$5,000)
Competitive university-wide award for international conferences and lab visits

2019 ■ Conference travel & participant recruitment awards, University of Potsdam (€2,500)

2018–2022 PhD Fellowship, IDEALAB

Highly competitive fellowship providing full tuition, stipend, and travel costs

Non-EU student exchange awards, University of Vienna, Austria Competitive awards providing tuition and stipend for 2 semesters

Skills

Experimental techniques Rehavioural, EEG, eye-tracking, fNIRS, NLP, comput. modelling

Programming languages & software MATLAB, Python, R, Stan, Presentation Neurobehav. Systems, Languages & Systems, L

English, German, Russian, Swedish, Icelandic, BSL (beginner)

Recent training and development (selected)

Languages

Best practices for the processing and analysis of eye movements during reading, EPS-funded research workshop, University College London

2024 📕 Introduction to Research Impact, Social Science Impact Accelerator, Royal Holloway, Univ. of London

Storytelling with Impact: Visual storytelling, Nifty Fox Creative

Storytelling with Impact: Unleash the power of narrative with Duncan Yellowlees

Marrative CV, University of Leeds

2022 Introduction to Natural Language Processing in Python, DataCamp

The 6th Summer School on Statistical Methods for Linguistics and Psychology, University of Potsdam

2021 Radged Instructor training, The Carpentries

2020 Inderstanding the Brain: The Neurobiology of Everyday Life, University of Chicago

Professional service

Peer-review

Reviewer for Psychological Science; Psychonomic Bulletin & Review; Behavior Research Methods; Journal of Memory and Language; Instructional Science; Language, Cognition, & Neuroscience; Journal of Research in Reading; Advances in Cognitive Psychology; Language and Speech; Psychology & Neuroscience; Applied Psycholinguistics

Conference abstract reviewer for the 2024 & 2025 editions of the *Architectures and Mechanisms for Language Processing* (AMLaP) conference

Open science

■ Organiser, ReproducibiliTea meetings, Royal Holloway, Univ. of London Invited speaker, Opening up Open Science: Nuts and Bolts for Beginners Workshop at the 31st annual meeting of the Society for the Scientific Study of Reading, Denmark, 10 July 2024

Invited speaker, Festival of Research, Royal Holloway, Univ. of London

Professional service (continued)

Equality, diversity, & inclusion

■ Postdoc representative in a successful bid for the *Athena Swan Silver award*, Royal Holloway, Univ. of London

Mentor for In2research, supporting access to postgraduate research and career opportunities for individuals from low socioeconomic and underrepresented backgrounds in the UK