

# Maria Korochkina, PhD

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I am a cognitive neuroscientist studying language and memory, with **advanced technical skills** in data analysis and statistics. I have a strong commitment to **open science** and am actively involved in promoting transparency and reproducibility in research. I am passionate about **making research accessible** to the wider community and strive to **engage diverse voices in research** to drive meaningful societal change.

## Education and qualifications

- 2018 – 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](#)
- 2021 **Badged Instructor, The Carpentries**
- 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

- 06/2022 – ongoing **Postdoctoral Research Fellow**, [Rastle Lab](#), Royal Holloway, University 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

## Teaching and educating

- 10/07/2024 **Invited speaker**, 31<sup>st</sup> annual meeting of the Society for the Scientific Study of Reading Workshop "Opening up Open Science: Nuts and Bolts for Beginners"  
[Pre-registration & Open Materials: The What, Why, & How](#)
- 10/06/2024 **Invited speaker**, Festival of Research, Royal Holloway, University of London  
[ReproducibiliTea journal club: Fostering open science and reproducible research](#)
- 27/03/2023 **Workshop instructor**, Royal Holloway, University of London  
[Bayesian Linear Mixed Effects and Distributional Regression models with brms](#)
- 7/11/2022 – ongoing **Instructor**, [ReproducibiliTea journal club](#), 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 **Workshop instructor**, Macquarie University  
[Data analysis using \(generalised\) linear mixed effects models in R](#)
- 21–25/09/2020 **Co-instructor**, Introduction to R Software Carpentry workshop, Macquarie University

## Publications

Pre-registrations, data, materials, analysis code, and pre-prints for all papers are available on OSF (<https://osf.io/zf8px/>).

### Pre-prints under review

- 1 **Korochkina, M.**, & Rastle, K. (2024a). The vocabulary barrier in the General Certificate of Secondary Education (GCSE) in English Literature [Pre-print]. <https://doi.org/10.31219/osf.io/vg8c3>

### Peer-reviewed

- 1 Crawford, M., Raheel, N., **Korochkina, M.**, & Rastle, K. (In press). Inadequate foundational decoding skills constrain global literacy goals for pupils in low- and middle-income countries. *Nature Human Behaviour*. <https://osf.io/preprints/psyarxiv/2qxm9>
- 2 **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 [Published online ahead of print]. *Quarterly Journal of Experimental Psychology*. <https://doi.org/10.1177/17470218241229694>
- 3 **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>
- 4 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>
- 5 **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>
- 6 **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>

### Theses

- 1 **Korochkina, M.** (2022a). *Learning of new words: Behavioural and electrophysiological correlates of encoding and integration* [PhD thesis]. Macquarie University. <https://doi.org/10.25949/23707128.v1>

## Outreach contributions

### Publications

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

### Talks

- 1 **Korochkina, M.** (2024d, June). *What does it take to read and understand the GCSE English Literature texts?* Working Together: Research and Practice event 2024, The South East Research Network for Schools, Egham, UK. <https://www.royalholloway.ac.uk/research-and-teaching/departments-and-schools/psychology/research/serns/serns-events/2024/>

**Korochkina, M., & Rastle, K.** (2024d, September). *Words in books: A challenge, a blessing, or both?* (Invited talk). ResearchED National Conference, London, UK.  
<https://researched.org.uk/event/researched-national-conference-2024/>

## Academic and administrative service

Peer-review	<ul style="list-style-type: none"> <li>■ <b>Reviewer</b> for Psychonomic Bulletin &amp; Review; Behavior Research Methods; Journal of Memory and Language; Language, Cognition, &amp; Neuroscience; Advances in Cognitive Psychology; Language and Speech; Psychology &amp; Neuroscience, Applied Psycholinguistics</li> </ul>
Open science	<ul style="list-style-type: none"> <li>■ <b>Organiser</b>, <a href="#">ReproducibiliTea journal club</a> Royal Holloway, University of London</li> </ul>
Equality, diversity, & inclusion	<ul style="list-style-type: none"> <li>■ <b>Postdoc representative</b> in a successful bid for the Athena Swan Silver award Royal Holloway, University of London</li> </ul>

## Awards and funding

2023	<ul style="list-style-type: none"> <li>■ <b>Student Researcher Credibility Prize</b>, The British Neuroscience Association Read the media announcement <a href="#">here</a>.</li> </ul>
2021	<ul style="list-style-type: none"> <li>■ <b>Funding award</b> for an 8-week Instructor Training with <a href="#">The Carpentries</a>, Macquarie University</li> </ul>
2020	<ul style="list-style-type: none"> <li>■ <b>Postgraduate Research Fund</b>, Macquarie University</li> </ul>
2019–2022	<ul style="list-style-type: none"> <li>■ <b>International Research Excellence PhD Scholarship</b>, Macquarie University</li> </ul>
2019	<ul style="list-style-type: none"> <li>■ <b>Conference travel &amp; participant recruitment awards</b>, University of Potsdam</li> </ul>
2018–2019	<ul style="list-style-type: none"> <li>■ <b>PhD Scholarship</b>, University of Potsdam</li> </ul>
2012 & 2014	<ul style="list-style-type: none"> <li>■ <b>Student exchange awards</b>, University of Vienna, Austria</li> </ul>

## Scientific societies

- [The British Neuroscience Association](#)
- [The Experimental Psychology Society](#)
- [Society for the Scientific Study of Reading](#)
- [The European Society for Cognitive Psychology](#)
- [The Psychonomic Society](#)

## Skills

Experimental techniques	<ul style="list-style-type: none"> <li>■ Behavioural, eye-tracking, fNIRS, EEG Corpus linguistics, computational modelling</li> </ul>
Programming languages & software	<ul style="list-style-type: none"> <li>■ MATLAB, Python, R, Stan, Presentation Neurobehavioural Systems Stata, HTML, OpenSesame, <math>\text{\LaTeX}</math></li> </ul>
Languages	<ul style="list-style-type: none"> <li>■ English, German, Russian, Swedish, Icelandic (beginner) British Sign Language (beginner)</li> </ul>

## Conference contributions

Slide decks for all talks and posters are available on my website (<https://mariakna.github.io>).

### Selected talks














- 1 **Korochkina, M.** (2024b, July). *The nature of morphemic regularities in children's literature: What do British children learn about derivational morphology when they read?* Talk given at the 31<sup>st</sup> annual meeting of the Society for the Scientific Study of Reading, Copenhagen, Denmark.
- 2 **Korochkina, M.** (2024c, July). *What can children learn about English morphology through book reading?* Talk given at the annual meeting of the Experimental Psychology Society, York, UK.
- 3 **Korochkina, M.** (2023a, September). *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.
- 4 **Korochkina, M.** (2023b, January). *Behavioural and electrophysiological markers of integration in novel word learning.* Talk given at the annual meeting of the Experimental Psychology Society, London, UK.
- 5 **Korochkina, M.** (2023c, September). *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 23<sup>rd</sup> meeting of the European Society for Cognitive Psychology, Porto, Portugal.
- 6 **Korochkina, M.** (2023d, July). *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.
- 7 **Korochkina, M.** (2023e, September). *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.
- 8 **Korochkina, M.** (2021, October). *Behavioural and electrophysiological markers of integration in novel word learning.* Talk given at the annual meeting of the Society for the Neurobiology of Language, online attendance.
- 9 **Korochkina, M.** (2020a, October). *A behavioural and electrophysiological investigation of novel word learning.* Talk given at the Words in the World conference, online attendance.

### Posters

- 1 **Korochkina, M.** (2024a, November). *Learning in the wild: What can children learn about morphemic statistical regularities through reading?* Poster to be presented at the 65<sup>th</sup> annual meeting of the Psychonomic Society, New York City, USA.
- 2 **Korochkina, M.** (2022b, September). *Neural correlates of encoding in learning of novel names for novel concepts.* Poster presented at the Architectures & Mechanisms for Language Processing conference, York, UK.
- 3 **Korochkina, M.** (2020b, November). *Behavioural and electrophysiological markers of integration in novel word learning.* Poster presented at the 61<sup>st</sup> annual meeting of the Psychonomic Society, online attendance.
- 4 **Korochkina, M.** (2019a, September). *The effect of the learning context on novel word learning.* Poster presented at the Architectures & Mechanisms for Language Processing conference, Moscow, Russia.
- 5 **Korochkina, M.** (2019b, September). *Semantic integration of new vocabulary: Does learning context matter?* Poster presented at the 21<sup>st</sup> meeting of the European Society for Cognitive Psychology, Tenerife, Spain.

## Further training and development

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- 2022  **Introduction to Natural Language Processing in Python**  
*DataCamp*
-  **The 6<sup>th</sup> Summer School on Statistical Methods for Linguistics and Psychology**  
Bayesian Advanced Track  
University of Potsdam
- 2020  **Getting Started with Python**  
**Python Data Structures**  
MOOC, University of Michigan
-  **MATLAB Fundamentals**  
A MathWorks workshop, Macquarie University
-  **Python Basics for Data Science**  
*edX*
-  **Understanding the Brain: The Neurobiology of Everyday Life**  
MOOC, University of Chicago
- 2019  **Australasian Magnetoencephalography (WAM)**  
Workshop on the Neurocognitive clinical applications of MEG: Present and future  
Macquarie University
-  **Introduction to Python**  
Software Carpentry Workshop, Macquarie University
-  **The 3<sup>rd</sup> Summer School on Statistical Methods for Linguistics and Psychology**  
Bayesian Advanced Track  
University of Potsdam
- 2018  **Advanced Methods: Bayesian Statistics with R**  
Workshop, University of Potsdam
- 2017  **fNIRS-Workshop**  
NIRx Medizintechnik GmbH, Berlin
- 2016  **fNIRS-Workshop**  
NIRx Medizintechnik GmbH, Berlin
-  **Standardised Tests of Cognitive and Language Development in Children**  
Workshop, University of Potsdam