MAXIMILIAN MAIER

m.maier@ucl.ac.uk

RESEARCH INTEREST

Experimental
Judgement & Decision Making, Behaviour Change, Moral Psychology

Statistics and Methodology
Bayesian Statistics, Cognitive Modeling, Meta-Analysis

EDUCATION AND TRAINING

PhD Candidate in Experimental Psychology (supervisor Prof. Adam Harris) *2021 -*
University College London

Computational and Mathematical Modeling of Cognition *July, 2022*
European Summer School in Szklarska Poreba, Poland

Research Master Psychology (specialization in statistics, 8.8, distinction) *2019 - 2021*
University of Amsterdam
Thesis: *Evaluating human forecasts using Bayesian inference (awarded prize for best thesis)*

B.Sc. Psychology (1.0, distinction) *2016 - 2019*
Julius-Maximilians-Universität Würzburg
Thesis: *Why do we search for information online? - How Google search queries can be used to measure attitudes on aggregate level*

Semester abroad *2018*
Lingnan University, Hong Kong

Abitur (1.0, distinction) *2009-2016*
Meranier-Gymnasium, Lichtenfels

RESEARCH ASSISTANT POSITIONS & INTERNSHIPS

Research Assistant with Eric-Jan Wagenmakers and JASP *March 2020 - July 2021*
University of Amsterdam, Department of Psychology

I was responsible for writing grants to attract new funding for the open-source statistical software JASP. In addition, I developed and implemented a new robust Bayesian meta-analysis in the presence of publication bias.

Research Internship with Denny Borsboom *March 2020 - June 2020*
University of Amsterdam, Department of Psychology

We developed a computational model to compare the quality of theories in the (social) sciences to improve theories in psychology and beyond.

Remote Research Assistant with Maya Mathur *June 2019 - October 2020*
Stanford University, Quantitative Sciences Unit

I was research assistant on a project to conduct a large meta-meta-analysis across fields to assess publication bias and also took the lead on a paper for *Campbell Systematic Reviews* on selection models to adjust for publication bias.

Research Internship with Daniël Lakens   *February 2019 - April 2019*
TU Eindhoven, Human Technology Interaction Group

I worked on detecting publication bias by p-curving a large existing database of published meta-analyses in the journal Psychological Bulletin.

SCHOLARSHIPS AND AWARDS

Virtual Mobility Grant for my assistance in Bayesian meta-analysis to the EU funded consortium Determinants of Physical ActivitieS in Settings (DE-PASS) (*€1500*)   *2022*

UCL Graduate Conference Fund to present at MAER-net (Meta-Analysis in Economics Research) (*£600*)   *2022*

Philosophy of Science Association Travel Fund for the Annual Meeting of the Philosophy of Science Association in Pittsburgh (*$600*)   *2022*

Thesis prize of the Research Master's Psychology at the University of Amsterdam for the best thesis in my cohort (*€250*)   *2022*

Admitted to the Forethought Fellowship for Global Priorities Research, a fellowship for promising ECRs contributing to global priorities research with a focus on the well-being of future generations over the very long run (*£5 000*)   *2022*

Research Grant by the Centre for Effective Altruism for a research assistant (*£25 000*)   *2022*

Ph.D. scholarship by Longview Philantrophy to work on the Psychology of Existential Risk and Longtermism (*£91 600*)   *2021*

Study abroad grant and study fee coverage for the Research Master's Psychology awarded by the "Studienstiftung des Deutschen Volkes"   *2019 - 2021*

Admitted to the "Studienstiftung des Deutschen Volkes", a German sponsorship organisation for highly talented students.   *2019 - 2021*

Travel grant "Forschung vor Ort" for research visit to Daniël Lakens Lab at TU Eindhoven.   *2019*

Admitted to the "Max-Weber Program", a Baviarian sponsorship organization for highly talented students.   *2016 - 2021*

Student affiliate of the Center for the Science of Moral Understanding at the University of North Carolina.   *2020 - Present*

TEACHING EXPERIENCE

M.Sc. & B.Sc. Theses
University College London, Department of Experimental Psychology

Megan Oh: B.Sc. Project developing a new Bayesian-frequentist hybrid p-value together with Dr. Henrik Singmann.
Victoria Gyntelberg: M.Sc project evaluating the influence of joint versus separate evaluation on effectiveness focus in charitable decision making.

Teaching Assistant in the Course Statistics, Data Analysis, and Modelling   *October 2021 - December 2021 & October 2022 - December 2022*
University College London, Department of Experimental Psychology

In this Master's level statistics course, students learn about advanced data analytical techniques in R. As a teaching assistant, I answered student questions during tutorials and helped with the programming assignments. Finally, I also helped with the marking of the final assignments.

Supervision of Two Undergraduate Projects   *October 2021 - February 2022*
University College London, Department of Experimental Psychology

Together with Prof. Adam Harris, I supervise two undergraduate students working on a project about temporal unpacking in the domains of both existential risks and consumer choice.

Teaching Assistant in the Course Good Research Practices   *November 2020 - January 2020*
University of Amsterdam, Department of Psychology

In this course, students learn about the replication crisis and steps they can take in their research to reach more reliable conclusions. As a TA, I gave a lecture on the Student Initiative for Open Science and graded essays and presentations.

PUBLICATIONS & IN PRESS

Maier, M.*, Bartoš, F.*, Stanley, T. D., Shanks, D. R., Harris, A. J., Wagenmakers, E. J. (2022). No evidence for nudging after adjusting for publication bias. *Proceedings of the National Academy of Sciences*, 119(31), e2200300119.

Maier, M.*, Bartoš, F.*, & Wagenmakers, E.-J. (2022). Robust Bayesian Meta-Analysis: Addressing publication bias with model-averaging. *Psychological Methods*. Advance online publication. `https://doi.org/10.1037/met0000405`

Maier, M. & van Dongen, N., Borsboom, D. (2021). Comparing theories with the Ising model of Explanatory Coherence. *In press at Psychological Methods.* `https://doi.org/10.31234/osf.io/shaef`.

Khudair, M., Marcuzzi, A., Ng, K., Tempest, G. D., Bartoš, F., Peric, R., ... **Maier, M.**, ... Ling, F. C. M. (2022). DE-PASS Best Evidence Statement (BESt): modifiable determinants of physical activity and sedentary behaviour in children and adolescents aged 5–19 years–a protocol for systematic review and meta-analysis. *BMJ Open*, 12(9), e059202.

Hoogeveen, S., Sarafoglou, A., Aczel, B., Aditya, Y., Alayan, A. J., Allen, P. J., **...Maier, M.**, ... Nilsonne, G. (2022). A many-analysts approach to the relation between religiosity and well-being. *Religion, Brain & Behavior*, 1-47.

Grossman, I., Rotella, A. ... **Maier, M.** ..., & The Forecasting Collaborative (2022). Insights into accuracy of social scientists' forecasts of societal change. In press at Nature Human Behaviour. `https://www.researchgate.net/publication/363511325_Insights_into_accuracy_of_social_scientists'_forecasts_of_societal_change.`.

Bartoš, F., **Maier, M.**, & Wagenmakers, E.-J., D(2021). No need to choose: Robust Bayesian meta-analysis with competing publication bias adjustment methods. *Manuscript in press at Evidence Synthesis Methods.* `https://doi.org/10.31234/osf.io/kvsp7`.

Bartoš, F.*, **Maier, M.***, Wagenmakers, E.-J., Doucouliagos, H., Stanely, T.D (2022). Adjusting for publication bias in JASP - selection models and robust Bayesian meta-analysis. *Advances in Methods and Practices in Psychological Science* 5(3), 1-19. `https://doi.org/10.31234/osf.io/75bqn`

Maier, M. & VanderWeele, T., Mathur, M. (2022). Using selection models to assess sensitivity to publication bias: A tutorial and call for more routine use. *Campbell Systematic Reviews*, 18(3), e1256. `https://doi.org/10.31222/osf.io/tp45u`.

Maier, M. & Lakens, D. (2022). Justify your alpha: A primer on two practical approaches. *Advances in Methods and Practices in Psychological Science.* 5(2) `https://doi.org/10.1177/25152459221080396`

Bartoš, F.*, & **Maier, M.*** (2020). Power or alpha? The better way of decreasing the false discovery rate. *Meta-Psychology*, 6. `https://doi.org/10.15626/MP.2020.2460`.

*authors contributed equally

MANUSCRIPTS SUBMITTED FOR PUBLICATION

Maier, M., Caviola, L., Schubert, S., Harris, A. J. L. (2022). Investigating (Sequential) Unit Asking - An Unsuccessful Quest for Scope Sensitivity. *Manuscript submitted for publication.*`https://doi.org/10.31234/osf.io/ps34b`

Maier, M.*, Bartoš, F.*, Quintana, D. S., Dablander, F., van den Bergh, D., Marsman, M., Wagenmakers, E.J (2022). Model-Averaged Bayesian t-Tests. *Manuscript submitted for publication.*`https://doi.org/10.31234/osf.io/d5zwc`

Bartoš, F.*, **Maier, M.***, Stanley, T. D., & Wagenmakers, E. (2022). Adjusting for publication bias reveals mixed evidence for the impact of cash transfers on subjective well-being and mental health. *Manuscript submitted for publication.*`https://doi.org/10.31234/osf.io/d9vcg`

Maier, M., Bartoš, F., Oh, M., Wagenmakers, E., Shanks, D., & Harris, A. J. L. (2022). Publication bias in research on construal level theory. *Manuscript submitted for publication.*`https://doi.org/10.31234/osf.io/r8nyu`

Schoenegger, P.*, **Maier, M.***, Bastos, R*. (2022) Introduction and Validation of the Short Antinatalism Scale. *Manuscript submitted for publication.* `https://doi.org/10.31234/osf.io/xfptc`.

Bartoš, F.*, **Maier, M.***, Shanks, D., Stanley, T. D., Sladekova, M., Wagenmakers, E.J (2022). Meta-Analyses in Psychology Often Overestimate Evidence for and Size of Effects. *Manuscript submitted for publication. Manuscript Submitted for Publication*`https://doi.org/10.31234/osf.io/tkmpc`

Bartoš, F.*, **Maier, M.**, Wagenmakers, E.J., Nippold, F., Doucouliagos, H., Ioannidis, J.P.A, Otte, W.M.,Sladekova, M.,Deresssa, T.K, Bruns, S.B, Fanelli, D., Stanley, D.D. (2022) Footprint of publication selection bias on meta-analyses in medicine, environmental sciences, psychology, and economics. *Manuscript submitted for publication.* `https://doi.org/10.48550/arXiv.2208.12334`

Maier, M.,* Wong, Y.*, Feldman, G.* (2022). Revisiting and Rethinking the Identifiable Victim Effect: Replication and Extension of Small, Loewenstein, and Slovic (2007). *Manuscript submitted for publication.* `https://www.researchgate.net/publication/362813392_Revisiting_and_Rethinking_the_Identifiable_Victim_Effect_Replication_and_Extension_of_Small_Loewenstein_and_Slovic_2007`

*authors contributed equally

TALKS

Maier, M. (2022). Robust Bayesian Meta-Analysis: Addressing Publication Bias with Model-Averaging (with Applications in Experimental Psychology), UCL Experimental Psychology Seminar

Maier, M. (2022). Robust Bayesian Meta-Analysis of Research on Nudging, Invited Talk at the UIUC Quantitative Psychology Brownbag

Maier, M., Schoennegger P. (2021). Introduction and Validation of the Short Antinatalism Scale, Online Experimental Philosophy Workshop

Maier, M. (2021). Tracking the footprint of publication bias across science. Talk given at the annual conference of the Meta-Analysis in Economics Research Network (MAER-NET), University of Piraeus

Maier, M. (2021). RoBMA (Robust Bayesian Meta-Analysis) - Bayesian model-averaging over selection models and PET-PEESE. Talk given online at the world meeting of the International Society for Bayesian Analysis (ISBA).

Maier, M. (2021). Introduction to Bayesian approach to statistical analysis - From estimation to model-averaging. Invited talk at the research consortium on Determinants of Physical Activities in Settings (DE-PASS).

Maier, M. (2020). Comparing theories with the Ising Model of Explanatory Coherence. Talk given online at the International Workshop on Theory (Re)Construction in the Empirical Social and Behavioral Sciences. `https://tinyurl.com/yyv62mwq`

Maier, M. & van Dongen, N., (2020). We want good theories. But when do we have a good theory? Invited Talk at Daniël Lakens' Lab, TU Eindhoven.

Maier, M. (2020). Bayesian benefits for meta-analysis in the presence of publication bias. Talk given online at the International Meeting of the Psychometric Society. `https://youtu.be/KFt9YraOykM`

Maier, M., Dahrendorf, M., & Schumacher, L. (2020). An introduction to open science. Invited Lecture at the College for Politics, Psychology, Law and Economics (PPLE), University of Amsterdam.

Maier, M., Geiger, S., & Stephan., A. (2020). Preregistration and preprints – What, why and how? Invited Lecture at the Faculty of Behavioral and Movement Sciences, VU Amsterdam.

Maier, M. (2019). Google search queries as a data source for psychology. Talk given at Projects and Methods for Social Psychology, University of Würzburg.

SOFTWARE

Maier, M., & Lakens, D. (2021). JustifyAlpha [R package]. `https://cran.r-project.org/web/packages/JustifyAlpha/index.html`

Bartoš, F., & Maier, M. (2020). RoBMA: An R Package for Robust Bayesian Meta-Analyses [R package]. `https://CRAN.R-project.org/package=RoBMA`

Maier, M. (2020) Estimating the Ising Model of Explanatory Coherence [R package]. `https://github.com/MaxMaier42/IMEC`

Maier, M. Justify Alpha by Optimizing Learning [Shiny App]. `https://maxma1er.shinyapps.io/OptimizeAlpha`

MEDIA COVERAGE

BBC News: Does 'nudge theory' work after all?

The Economist: Evidence for behavioural interventions looks increasingly shaky

Atlantico: Changer les comportements par le nudge? Une illusion [Changing Behaviours with Nudging? - An Illusion]

Psychology Today: Do Nudges Work?

OTHER ACTIVITIES

Ad hoc reviews for Research Synthesis Methods, Royal Society Open Science, Plos One, & Multivariate Behavior Research Methods

Member of the Student Initiative for Open Science (SIOS), an initiative that tries to spread adoption of open science practices among students.   *2019 - 2021*

Ad-hoc review for the Effective Thesis Price   *2022*

Internship in the German Bundestag (MP Margarete Bause).   *2018*

REFERENCES

Prof. Eric-Jan Wagenmakers, University of Amsterdam, Department of Psychology

Prof. Denny Borsboom, University of Amsterdam, Department of Psychology

Prof. Daniël Lakens, TU Eindhoven, Human Technology Interaction Group

Dr. Henrik Singmann, University College London, Department of Experimental Psychology

Prof. Adam Harris, University College London, Department of Experimental Psychology