

Henrik R. Godmann

PhD Candidate at the Psychological Methods Department, University of Amsterdam.

Working on Bayesian model averaging for state space models, interrupted and non-linear time series.

Interested in Darts, Sports Betting and all kinds of time series applications. In Psychology, interested in (gambling) addiction, cognitive modeling, and depression.

Department of Psychological Methods | University of Amsterdam | +31 610 487154 | hrgodmann@gmail.com | <https://github.com/hrgodmann> | Date of birth: 07. February 1993

Education

- **Ph.D. Candidate - Psychological Methods & Statistics**
University of Amsterdam, Amsterdam, The Netherlands | since 01/2024
 - Main Topic/Working Title: Robust Bayesian Inference for Interrupted Time Series Models
 - Promotor: Prof. Eric-Jan Wagenmakers
 - Co - Promotor: Prof. Han van der Maas
 - Key Collaborators: Prof. Zita Oravecz, Prof. Wim Otte
- **Research Master (M. Sc.) in Psychology (Psychological Methods and Statistics)**
University of Amsterdam, Amsterdam, The Netherlands | 09/2021 - 12/2023
 - Major: Psychological Methods and Statistics; Minor: Clinical / Developmental Psychology
 - GPA: 8.44 (Dutch system)
- **Bachelor of Science in Psychology**
Humboldt-University, Berlin, Germany | 10/2018 - 08/2021
 - GPA : 1.6 (German system)

Publications

Peer-reviewed articles

- Sekulovski, N., Bartoš, F., van den Bergh, D., Arena, G., **Godmann, H. R.**, Goyal, V., Pfadt, J. M., Marsman, M., & Raftery, A. E. (2026). Comparing variable selection and model averaging methods for logistic regression. *Proceedings of the National Academy of Sciences*, 123(19), e2534552123. <https://doi.org/10.1073/pnas.2534552123>.
- Sarafoglou, A., Giacobello, A., **Godmann, H. R.**, Johnson, T., Visser, I., Haaf, J. M., & Szymanik, J. (2026). Are Semantic Representations Stable? A Bayesian Framework Applied to the Study of Quantifier Meaning. *Computational Brain & Behavior*, 1–38: <https://doi.org/10.1007/s42113-026-00302-x>
- **Godmann, H. R.**, Bartoš, F., & Wagenmakers, E.-J. (2025). Truncating the likelihood allows outlier exclusion without overestimating the evidence in the Bayes factor t test. *Psychological Methods*. Advance online publication. <https://dx.doi.org/10.1037/met0000782>
- Bartoš, F., Sarafoglou, A., **Godmann, H. R.**, Sahrani, A., Klein Leunk, D., Gui, P. Y., ... Wagenmakers, E.-J. (2025). Fair Coins Tend to Land on the Same Side They Started: Evidence from 350,757 Flips. *Journal of the American Statistical Association*, 1–10. <https://doi.org/10.1080/01621459.2025.2516210>
- Horstmann, K.T., Biesok, A., Witte, K., **Godmann, H.R.**, Fliedner, K., Wilm, L., Doran, L., & Ziegler, M. (2023). The Berlin Aptitude Test for Psychology (BSF-P) [title translated from German]. *Psychologische Rundschau*. <https://econtent.hogrefe.com/doi/epdf/10.1026/0033-3042/a000628>

Preprints / Under Review / Comments

- Mensink, L., **Godmann, H. R.**, de Swart, J., Derks, K., & Wetzels, R. (2026). Expectation Development in Analytical Procedures: A Bayesian State Space Approach. *PsyArXiv*. <https://doi.org/10.1101/2026.06.22.20260628>

[//osf.io/preprints/psyarxiv/tzxsk_v2](https://osf.io/preprints/psyarxiv/tzxsk_v2).

- **Godmann, H. R.**, Mensink, L., Wetzels, R., & Wagenmakers, E.-J. (2026). No data left behind: A primer on Bayesian state-space models for acceptance sampling. *PsyArXiv*. https://osf.io/preprints/psyarxiv/3uh85_v1.
- **Godmann, H. R.**, Mensink, L., Singla, P., Derks, K., & Wagenmakers, E.-J. (2026). Belief, evidence, and predictions in simple Bayesian acceptance sampling plans with JASP. *PsyArXiv*. https://osf.io/preprints/psyarxiv/8rv2z_v1.
- **Godmann, H. R.**, Molenaar, D., Ziegler, M., & Pfadt, J. (2025). A Tutorial on Assessing Measurement Invariance with Moderated (Non-) Linear Factor Analysis in JASP. *PsyArXiv preprint*: https://osf.io/preprints/psyarxiv/6ftqg_v1
- **Godmann, H. R.**, Haaf, J. M., Visser, I., Szymanik, J., & Sarafoglou, A. (2025). Toward a Principled Bayesian Workflow in Semantics & Pragmatics: A Tutorial. *PsyArXiv*: https://osf.io/preprints/osf/wck5s_v1
- Pfadt, J. M., Bartoš, F., **Godmann, H. R.**, Waaijers, M., Groot, L., Heo, I., ... & Wagenmakers, E.-J. (2025). A Methodological Metamorphosis: The Rapid Rise of Bayesian Inference and Open Science Practices in Psychology. *PsyArXiv preprint*: https://doi.org/10.31234/osf.io/ck3js_v1
- Bartoš, F., & **Godmann, H. R.** (2025). A Comment on "A Systematic Review and Meta-Analysis of Transdiagnostic Cognitive Behavioural Therapies for Emotional Disorders" (No. 213). I4R Discussion Paper Series. <https://www.econstor.eu/handle/10419/313186>
- Wagenmakers, E.-J., **Godmann, H.R.**, de Ruiter, J.P., & van Doorn, J. (2023). Visualizing the Equation for the Sample Correlation Coefficient. *PsyArXiv*: <https://osf.io/preprints/psyarxiv/gwu8b>.

Research Experience

- **Doctoral Researcher / Research Software Development**

University of Amsterdam, Amsterdam, The Netherlands | since 01/2024

- Research at the Psychological Methods Group (Bayes' Lab) and development of modules for the *JASP* open-source software program for statistical analyses
- Head of Lab: Prof. Eric-Jan Wagenmakers

- **Research Assistant**

University of Amsterdam, Amsterdam, The Netherlands | 10/2022 - 12/2023

- Assisting in research on open data bases related to mathematical and computational cognitive models
- Head of Lab: Prof. Dora Matzke

- **Research Internship**

University of Amsterdam, Amsterdam, The Netherlands | 06/2022 - 09/2023

- Jeffreys, Popper and the First Induction Theorem - In Defense of the Scientific Practice of Probabilistic Induction
- Supervisor: Prof. Eric-Jan Wagenmakers

- **Student Research Assistant**

Humboldt-University, Berlin, Germany | 06/2020 - 06/2023

- Test construction, Cognitive ability, Item Response Theory
- Head of Lab: Prof. Matthias Ziegler

- **Student Research Assistant / Internship**

Charité Universitätsmedizin, Berlin, Germany | 10/2020 - 08/2021

- Assistance in the project "Kein Täter werden" at the Institute for Sexual Medicine

- Head of Lab: Prof. Klaus M. Beier

Teaching Experience

Teaching Assistance

- **Master Courses**

- **3x Bayesian Hypothesis Testing in Practice** (2026, 2025; 2024; 2023)
 - * Lecturer: Prof. Eric-Jan Wagenmakers; 3 ECTS course; University of Amsterdam
- **4x Bayesian Inference for Psychology** (2025, 2024, 2023; 2022)
 - * Lecturers: Prof. Eric-Jan Wagenmakers & Prof. Dora Matzke; 6 ECTS course; University of Amsterdam
- **Meta Analysis** (2023)
 - * Lecturer: František Bartoš; 3 ECTS course; University of Amsterdam

- **Bachelor Courses**

- **2x Bayesian Statistics** (2024, 2023)
 - * Lecturers: Prof. Maarten Marsman & Prof. Julia Haaf (2023); University of Amsterdam

Supervision

- **Master Thesis**

- Do You Really Know How You Will Feel? Comparing Human- and Time Series Model-Based Affective Forecasting Using Interval Predictions (01/2025 - 07/2025)
 - * Student: *name anonymized* (Research Master Psychology)
 - * Supervision together with Fridtjof Petersen
- Bayesian State-Space Models for Acceptance Sampling in Quality Control (05/2024 - 08/2024)
 - * Student: *name anonymized* (Master: Behavioral Data Science)
 - * Supervision together with Prof. Eric-Jan Wagenmakers

- **Research Internship**

- Teaching Bayesian Updating Using the Intuitive Example of Biodiversity (02/2024 - 06/2024)
 - * Student: *name anonymized* (Research Master Psychology)
 - * Supervision together with Prof. Eric-Jan Wagenmakers

Other

- **Workshops**

- Workshop on “Bayesian Estimation of Time-Variant Multinomial Process Tree Models to Showcase Model Misspecification” at the Mathematical Psychology (Quantitative Thinking) seminar 2024 in Balatonföldvár, Hungary
 - * together with Prof. Eric-Jan Wagenmakers, Prof. Johnny van Doorn, Prof. Francis Tuerlinckx and Dr. Florian Wickelmaier

Conference Contributions

Talks

- The Moderating Effect of Motivation on Cognitive Ability Test Scores as a Question of Validity

- together with Matthias Ziegler at the symposium *The Interplay of Personality and Cognitive Abilities Investigated with Moderated Nonlinear Factor Analysis*, 17nd DPPD Congress, September 2023, Salzburg, Austria. [Title translated from German]
- Analyzing the Item Characteristics of the New Berlin Study Ability Test
 - together with Matthias Ziegler at the symposium *Introduction and Evaluation of Student Selection Procedures in Psychology and Medicine Programs*, 52nd DGPs Congress, September 2022, Hildesheim, Germany). [Title translated from German]

Other

- Presenting JASP - A Fresh Way to Do Statistics, 2025 APS Annual Convention, May 2025, Washington D.C., USA
- Presenting JASP - A Fresh Way to Do Statistics, The Psychonomic Society's 65th Annual Meeting, November 2024, New York City, USA

Peer Reviewing (Journals)

- Psychological Test Adaptation and Development
- Journal of Experimental Psychology: General [together with E.J. Wagenmakers]
- PCI Registered Reports
- European Journal of Personality
- IEEE Transactions on Human-Machine Systems

Grants & Awards

Grants

Awards

- Ig Nobel Prize (2024, Category: Probability) for the project: *Fair Coins Tend To Land On The Same Side They Started: Evidence From 350,757 Flips*
- Pineapple Science Award (2023, Category: Mathematics) from the Zhejiang Science and Technology Museum in Hangzhou, China for the project: *Fair Coins Tend To Land On The Same Side They Started: Evidence From 350,757 Flips*

Invited Talks & Interviews

Talks

- Georgetown University, May 2025 (Washington D.C., USA). Topic: Reproducible Data Analysis with JASP.
- Ig Nobel Night at NEMO Science Museum, April 2025 (Amsterdam, The Netherlands). Topic: Demonstrating both theoretically and with 350,757 experiments that when you flip a coin, it tends to land on the same side on which it started (together with František Bartoš)

Interviews

- Folia (independent online magazine of the University of Amsterdam). Topic: 'Betting for the European Championship? It's not necessarily advantageous to bet on the favourite'. <https://www.folia.nl/en/wetenschap/162311/>

Academic Event Organization

Conferences

- Bayesian Methods for the Social Sciences II 2024 in Amsterdam - Organizing committee member
- 56th Annual Meeting of the Society for Mathematical Psychology (MathPsych) and the 21st International Conference on Cognitive Modeling (ICCM) 2023 in Amsterdam - Operational team member

Workshops

- Five day workshop week in Amsterdam - Organizing committee member (2025), featuring: “Discovering Statistics with *JASP*”, “State of the Art Meta Analysis with *JASP*”, “A Crash Course in Machine Learning with *JASP*”, and “Theory and Practice of Bayesian Hypothesis Testing with *JASP*”.
- Two-day workshop “Theory and Practice of Bayesian Hypothesis Testing with *JASP*” in Amsterdam - Organizing committee member (2024)
- Five-day workshop “Bayesian Modeling for Cognitive Science with *JAGS*” in Amsterdam - Organizing committee member (2024)

Statistical Software Development

- R package RoBTT: Robust Bayesian T-Test (Co-Developer); see <https://cran.r-project.org/web/packages/RoBTT/RoBTT.pdf>
- JASP modules: Bayesian Quality Control (Co-Developer), Bayesian Acceptance Sampling (Developer and Maintainer), Time Series (Co-Developer and Maintainer), Bayesian State Space Models (Maintainer)

Languages

- English (Fluent), German (Fluent), Dutch (Basic), R (Fluent), Python (Basic)

Other Activities

- **Co-Founder** – *JASP Services B.V.*
 - Founded in April 2025, we provide consultation and support services for companies using the open-source software JASP for quality control and data analysis. The company is based in the Netherlands with worldwide operations including costumers from *Fortune 500*.
 - Website: <https://jasp-services.com/>
 - Business contact: henrik@jasp-services.com

Role: As a Co-Founder and shareholder with substantial interest, I remain actively involved in the company’s operations and dedicate part of my time to its development alongside my academic research responsibilities. On the business side, I oversee sales and drive business development. On the product side, I contribute as R developer and data analyst, with a particular focus on time series modeling and contributing to our shared expertise in quality control.



Earlier Activities

Further details on earlier activities (unrelated to Science or JASP Services) available upon request.