Dr. Frederik Aust

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Professional experience

University of Cologne	9/2023–present
Research Methods and Experimental Psychology	Cologne, DE

AKADEMISCHER RAT (TENURED RESEARCHER AND LECTURER)

University of Amsterdam	9/2020–8/2023
Psychological Methods	Amsterdam, NL

POSTDOCTORAL RESEARCHER
- Topic: Bayesian hypothesis testing and cognitive modeling

University of Missouri	1–2/2017
Perception and Cognition Lab	Columbia, MO

VISITING RESEARCHER
- Topic: Ordinal constraints in Bayesian hypothesis testing

Leibniz Research Centre for Working Environment and Human Factors	7/2012–11/2013
Perceptual Cybernetics	Dortmund, DE

RESEARCH ASSOCIATE

Education

Ph.D. in Psychology (summa cum laude)	12/2013–1/2021
UNIVERSITY OF COLOGNE	Cologne, DE

- Advisor: Dr. Christoph Stahl
- Title: "Exemplars as least-committed alternative to dual representations in learning and memory"

Diploma in Psychology (1.0)	10/2006–3/2012
HEINRICH-HEINE-UNIVERSITY	Düsseldorf, DE

- Advisor: Dr. Jochen Musch

Competitive grants

Amsterdam Brain and Cognition Talent Grant for *Informative and efficient Bayesian hypothesis tests for lesion studies*; Principle investigators Drs. Eric-Jan Wagenmakers and Edward de Haan	2022 125.000€

Honors and awards

Ig Nobel Prize from Annals of Improbable Research at the Massachusetts Institute of Technology, MA, USA, for the article "Fair coins tend to land on the same side they started: Evidence from 350,757 flips" (Bartoš et al., 2025)	2024
Student teaching award Best Seminar, MSc. Psychology at the Department of Psychology, University of Cologne in 2024 for the seminar "Seminar Multivariate Statistics"	2024

Student teaching award Best Seminar, BSc. Psychology at the Department of Psychology, University of Cologne in 2024 for the seminar "Seminar Statistics 2" with Simone Malejka and Philine Thomasius | 2024

Pineapple Science Award from Zhejiang Science and Technology Museum, Hangzhou, China, for the article "Fair coins tend to land on the same side they started: Evidence from 350,757 flips" (Bartoš et al., 2025) | 2023

SIPS Mission Award from the Society for the Improvement of Psychological Science (SIPS) for `tenzing` | 2023

Dissertation award 1. Prize in the 13th Dissertation Competition of the German Society for Psychology (DGPs) section General and Cognitive Psychology | 2023

SIPS Mission Award from the Society for the Improvement of Psychological Science (SIPS) for the R package `papaja` | 2019 $500

Preregistration Challenge Award from Center for Open Science (COS) for Aust, Haaf, & Stahl (2018) | 2018 $1.000

Travel awards from University of Cologne Graduate School (3) | 2015–2017 3.278€

Travel award from German Society for Psychology's (DGPs) section Methods and Evaluation | 2014 381€

Travel award from Ruhr-University Bochum Graduate School | 2014 1.300€

Service and professional activities

MEMBERSHIP

- Society for Mathematical Psychology
- Psychological Science Accelerator

CONSULTING

Member of the JASP team | 11/2021–present

DEPARTMENTAL AND UNIVERSITY SERVICES

Member of W3 Social Psychology chair appointments committee at the University of Cologne Psychology Department | 2–7/2017

Founding member of the Open Science Working Group at Psychology Department of the University of Cologne | 2/2017–8/2021

Organizer of the doctoral student colloquium at the Psychology Department of the University of Cologne together with Tobias Heycke | 3/2014–9/2016

INTERNATIONAL WORKSHOP AND CONFERENCE ORGANIZATION

Workshop "Preregistration in Psychology" taught by Lisa Spitzer at the Department of Psychology, University of Cologne | 20/10/2025 15 participants

Concluding two-day symposium of the 14th Dissertation Competition of the German Society for Psychology (DGPs) section General and Cognitive Psychology together with Christoph Stahl and Miriam Gade | 16–18/5/2025 10 talks

Organizing committee member of the joint gathering of the 56th Annual Meeting of the Society for Mathematical Psychology (MathPsych), the 21st International Conference on Cognitive Modeling (ICCM), and the 52nd Meeting of the European Mathematical Psychology Group (EMPG) at the University of Amsterdam, the Netherlands	18–21/7/2023 200 talks 7 workshops 3 keynotes
Ninth annual two-day JASP workshop "Theory and Practice of Bayesian Hypothesis Testing" at the University of Amsterdam, the Netherlands, and online together with František Bartoš, Catherine Guazzone, Šimon Kucharský, Johnny van Doorn, Eric-Jan Wagenmakers, and Richard Morey	15–16/7/2023 55 participants
One-week workshop "Eleventh Annual JAGS and Stan Workshop: Bayesian Modeling for Cognitive Science" at the University of Amsterdam, the Netherlands, together with František Bartoš, Frederik Aust, Catherine Guazzone, Manuel Villarreal, Lauren Montgomery, Šimon Kucharský, Don van den Bergh, Johnny van Doorn, Eric-Jan Wagenmakers, and Michael Lee	10–14/7/2023 37 participants
Eighth annual two-day JASP workshop "Theory and Practice of Bayesian Hypothesis Testing" at the University of Amsterdam, the Netherlands, and online together with František Bartoš, Lukas Lengersdorff, Alexandra Sarafoglou, Jonas Petter, Šimon Kucharskýý, Angelika Stefan, Don van den Bergh, Eric-Jan Wagenmakers, and Richard Morey	29–30/8/2022 55 participants
One–week workshop "Tenth Annual JAGS and Stan Workshop: Bayesian Modeling for Cognitive Science" at the University of Amsterdam, the Netherlands together with František Bartwš, Lukas Lengersdorff, Alexandra Sarafoglou, Manuel Villarreal, Lauren Montgomery, Jonas Petter, Šimon Kucharský, Angelika Stefan, Johnny van Doorn, Eric-Jan Wagenmakers, and Michael Lee	22–26/8/2022 25 participants
Seventh annual two–day JASP online workshop "Theory and Practice of Bayesian Hypothesis Testing" together with Angelika Stefan, Richard Morey, and Eric-Jan Wagenmakers	26–27/8/2021 73 participants
One-day workshop "An Introduction to Bayesian Statistics: The Philosophy, Bayesian Linear Models, and Practical Data Analysis" taught by Richard D. Morey at the graduate school at University of Cologne Faculty of Human Sciences together with Tobias Heycke	23/10/2015 25 participants

Reviewing and editorial services

EDITORIAL SERVICES

Statistics, Transparency, and Rigor (STAR) editor for *Psychological Science*	1/2024–present
Editorial assistant for *Experimental Psychology*	4/2014–6/2018

AD HOC REVIEWING

- Advances in Methods and Practices in Psychological Science (1)
- Behavior Research Methods (7)
- Cognition & Emotion (3)
- Collabra Psychology (2)
- Computational Brain & Behavior (2)
- Experimental Psychology (2)
- Journal of Cognitive Psychology (1)
- Journal of Experimental Psychology: General (2)
- Journal of Experimental Psychology: Human Perception and Performance (2)
- Journal of Experimental Psychology: Learning Memory and Cognition (9)
- Journal of Individual Differences (1)
- Journal of Mathematical Psychology (1)
- Nature Communications (3)
- Nature Human Behaviour (2)
- Neuroscience & Biobehavioral Reviews (2)
- PeerJ Computer Science (2)
- Perspectives on Psychological Science (1)
- Proceedings of the Human Factors and Ergonomics Society Annual Meeting (1)

- Psychological Methods (7)
- Psychological Science (7)
- Psychonomic Bulletin & Review (2)
- Social Psychological Bulletin (1)

Invited presentations

Aust, F. (2025, January). *An introduction to hierarchical regression modelling model building, estimation, and selection for experimental reserach* [Invited talk at the Social Cognition Center Cologne, University of Cologne, Cologne, Germany].

Aust, F. (2024, March). *Pretty good bayes factors* [Invited talk at Bayes Statistics Discussion Forum at the Institute of Psychology, University of Zurich, Zurich, Switzerland].

Aust, F. (2023a, December). *Friends don't let friends copy-paste: Computationally reproducible apa-style manuscripts with the R package papaja* [Invited talk at Banco de Portugal Microdata Research Laboratory (BPLIM) workshop: Automation of the Research Process, Porto, Portugal]. https://github.com/BPLIM/Workshops/tree/master/BPLIM2023

Aust, F. (2023b, June). *Exemplars as a least-committed alternative to dual-representations in learning and memory* [Invited talk at Abschlusssymposium of the 13. Dissertation Competition of the German Society for Psychology's (DGPs) section General and Cognitive Psychology, University of Siegen, Germany].

Aust, F. (2022, December). *Friends don't let friends copy-paste: Computationally reproducible apa-style manuscripts with the R package papaja* [Invited talk at Faculty of Psychology, University of Basel, Basel, Switzerland].

Aust, F. (2019a, December). *An alternative to copy-paste reporting: Create dynamic, submission-ready, APA-style manuscripts in R with papaja* [Invited talk at Psychological Methods Lab, Ruhr-University, Bochum, Germany].

Aust, F. (2017b, February). *A global-matching account of verbatim and gist processes in false recognition* [Invited talk at Quantitative Colloquim, Department of Psychological Sciences, University of Missouri, Columbia, MO].

Aust, F. (2015, May). *Incremental validity of Useful Field of View subtests for the prediction of instrumental activities of daily living* [Invited talk at Psychological Assessment and Differential Psychology Colloquim, Department of Experimental Psychology, Heinrich-Heine-University, Düsseldorf, Germany].

Publications

† indicates shared first authorship, ∗ indicates supervised Master student

Forthcoming

Aust, **F.**, Araujo, R. F. J. W., & Stahl, C. (under review). An exemplar-familiarity interpretation of verbatim and gist memory in false recognition.

Aust, **F.**, Pawel, S., & Wagenmakers, E.-J. (in prep). Extracting evidence from p values.

Preprints

Oberauer, K., **Aust**, **F.**, & Musfeld, P. (2025). Variance, bias, and computational cost of estimating the bayes factor using bridge sampling and the savage-dickey density ratio. https://doi.org/10.31234/osf.io/37xnb_v2

Pfadt, J. M., Bartoš, F., Godmann, H. R., Waaijers, M., Groot, L., Heo, I., Mensink, L., Nak, J., De Ruiter, J. P., Sarafoglou, A., Siepe, B. S., Arena, G., Akrong, E., **Aust**, **F.**, van den Bergh, D., Brenner, W., Doekemeijer, R. A., Donzallaz, M. C., van Doorn, J., … Wagenmakers, E.-J. (2025). A methodological metamorphosis: The rapid rise of bayesian inference and open science practices in psychology. https://doi.org/10.31234/osf.io/ck3js_v1

Heycke†, T., **Aust**†, **F.**, Banaji, M. R., Cone, J., Dessel, P. V., Ferguson, M., Hu, X., Jiang, E. C., Kurdi, B., Rydell, R., Spitzer, L., Stahl, C., Vitiello, C., & Houwer, J. D. (2020). Of two minds: A registered replication [Accepted in principle at *Psychological Science*]. https://doi.org/10.31234/osf.io/v674w

Stahl, C., & **Aust**, **F.** (2016). False memory for perceptually similar but conceptually distinct line drawings. https://doi.org/10.31234/osf.io/zr7m8

Journal articles

Bartoš, F., Sarafoglou, A., Godmann, H. R., Sahrani, A., Leunk, D. K., Gui, P. Y., Voss, D., Ullah, K., Zoubek, M. J., Nippold, F., **Aust**, **F.**, Vieira, F. F., Islam, C.-G., Zoubek, A. J., Shabani, S., Petter, J., Roos, I. B., Finnemann, A., Lob, A. B., … 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*. https://doi.org/10.1080/01621459.2025.2516210

Marsh, J. E., Hurlstone, M. J., Marois, A., Ball, L. J., Moore, S. B., Vachon, F., Schlittmeier, S. J., Röer, J. P., Buchner, A., **Aust**, **F.**, & Bell, R. (2024). Changing-state irrelevant speech disrupts visual-verbal but not visual-spatial serial recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *50*(11), 1772–1790. https://doi.org/10.1037/xlm0001360

Sarafoglou, A., Kuhlmann, B. G., **Aust**, **F.**, & Haaf, J. M. (2024). Refining bayesian hierarchical mpt modeling: Integrating prior knowledge and ordinal expectations. *Behavior Research Methods*, *56*. https://doi.org/10.3758/s13428-024-02370-y

Singmann, H., Heck, D. W., Barth, M., Erdfelder, E., Arnold, N. R., **Aust**, **F.**, Calanchini, J., Gümüsdagli, F. E., Horn, S. S., Kellen, D., Klauer, K. C., Matzke, D., Meissner, F., Michalkiewicz, M., Schaper, M. L., Stahl, C., Kuhlmann, B. G., & Groß, J. (2024). Evaluating the robustness of parameter estimates in cognitive models: A meta-analytic review of multinomial processing tree models across the multiverse of estimation methods. *Psychological Bulletin*, *150*(8), 965–1003. https://doi.org/10.1037/bul0000434

Diedenhofen, B., Hoffmann, A., **Aust**, **F.**, & Müller, S. (2023). Detecting applicant faking with a context-specific overclaiming questionnaire. *Journal of Individual Differences*. https://doi.org/10.1027/1614-0001/a000411

Pawel, S., **Aust**, **F.**, Held, L., & Wagenmakers, E. J. (2023a). Power priors for replication studies. *TEST*. https://doi.org/10.1007/s11749-023-00888-5

Pawel, S., **Aust**, **F.**, Held, L., & Wagenmakers, E. J. (2023b). Normalized power priors always discount historical data. *Stat*, *12*, e591. https://doi.org/10.1002/sta4.591

Sarafoglou, A., **Aust**, **F.**, Marsman, M., Bartoš, F., Wagenmakers, E. J., & Haaf, J. M. (2023). Multibridge: An R package to evaluate informed hypotheses in binomial and multinomial models. *Behavior Research Methods*. https://doi.org/10.3758/s13428-022-02020-1

Stahl, C., Bena, J., **Aust**, **F.**, Mierop, A., & Corneille, O. (2023). A conditional judgment procedure for probing evaluative conditioning effects in the absence of feelings of remembering. *Behavior Research Methods*, *55*, 4343–4368. https://doi.org/10.3758/s13428-023-02081-w

Van Den Bergh, D., Wagenmakers, E. J., & **Aust**, **F.** (2023). Bayesian repeated-measures analysis of variance: An updated methodology implemented in JASP. *Advances in Methods and Practices in Psychological Science*, *6*(2). https://doi.org/10.1177/25152459231168024

Van Doorn, J., **Aust**, **F.**, Haaf, J. M., Stefan, A. M., & Wagenmakers, E. J. (2023). Bayes factors for mixed models. *Computational Brain & Behavior*, *6*, 1–13. https://doi.org/10.1007/s42113-021-00113-2

van Doorn, J., Haaf, J. M., Stefan, A. M., Wagenmakers, E., Cox, G. E., Davis-Stober, C. P., Heathcote, A., Heck, D. W., Kalish, M., Kellen, D., Matzke, D., Morey, R. D., Nicenboim, B., van Ravenzwaaij, D., Rouder, J. N., Schad, D. J., Shiffrin, R. M., Singmann, H., Vasishth, S., … **Aust**, **F.** (2023). Bayes factors for mixed models: A discussion. *Computational Brain & Behavior*, *6*, 140–158. https://doi.org/10.1007/s42113-022-00160-3

Van Doorn[†], J., **Aust**[†], **F.**, Haaf, J. M., Stefan, A., & Wagenmakers, E. J. (2023). Bayes factors for mixed models: Perspective on responses. *Computational Brain & Behavior*, *6*, 127–139. https://doi.org/10.1007/s42113-022-00158-x

Yun-Hong, W., van den Bergh, D., **Aust**, **F.**, Ly, A., Wagenmakers, E.-J., & Chuan-Peng, H. (2023). 胡传鹏. 贝叶斯方差分析在 JASP 中的实现 [The implementation of Bayesian ANOVA in JASP: A practical primer]. 心理技术与应用 [*Psychology: Techniques and Application*], *11*(9), 528–541. http://www.xljsyyy.com/CN/Y2023/V11/I9/528

Bartoš*, F., **Aust**, **F.**, & Haaf, J. M. (2022). Informed bayesian survival analysis. *BMC Medical Research Methodology*, *22*(1), 1–22. https://doi.org/10.1186/s12874-022-01676-9

Kovacs, M., Holcombe, A., **Aust**, **F.**, & Aczel, B. (2021). Tenzing and the importance of tool development for research efficiency. *Information Services & Use*, *1*, 1–9. https://doi.org/10.3233/ISU-210109

Aust, **F.**, & Stahl, C. (2020). The enhancing effect of 200 mg caffeine on mnemonic discrimination is at best small. *Memory*, *28*(7), 858–869. https://doi.org/10.1080/09658211.2020.1781899

Holcombe, A. O., Kovacs, M., **Aust**, **F.**, & Aczel, B. (2020). Documenting contributions to scholarly articles using CRediT and tenzing. *PLOS ONE*, *15*(12). https://doi.org/10.1371/journal.pone.0244611

Moran, T., Hughes, S., Hussey, I., Vadillo, M. A., Olson, M. A., **Aust**, **F.**, & Bading, K. (2020). Incidental attitude formation via the surveillance task: A preregistered replication of the Olson and Fazio (2001) study. *Psychological Science*, *0956797620968526*. https://doi.org/10.1177/0956797620968526

Aust, **F.**, Haaf, J. M., & Stahl, C. (2019). A memory-based judgment account of expectancy-liking dissociations in evaluative conditioning. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *45*(3). https://doi.org/10.1037/xlm0000600

Klein, O., Hardwicke, T. E., **Aust**, **F.**, Breuer, J., Danielsson, H., & Mohr, A. H. (2018). A practical guide for transparency in psychological science. *Collabra: Psychology*, *4*(1). https://doi.org/10.1525/collabra.158

Silberzahn, R., Uhlmann, E. L., Martin, D., Anselmi, P., **Aust**, **F.**, & Awtrey, E. C. (2018). Many analysts, one data set: Making transparent how variations in analytic choices affect results. *Advances in Methods and Practices in Psychological Science*, *1*(3), 337–356. https://doi.org/10.1177/2515245917747646

Stahl, C., & **Aust**, **F.** (2018). Evaluative conditioning as memory-based judgment. *Social Psychological Bulletin*, *13*(3), 1–30. https://doi.org/10.5964/spb.v13i3.28589

Heycke, T., **Aust**, **F.**, & Stahl, C. (2017). Subliminal influence on preferences? A test of evaluative conditioning for brief visual conditioned stimuli using auditory unconditioned stimuli. *Royal Society Open Science*, *4*(9). https://doi.org/10.1098/rsos.160935

Rouder, J. N., Haaf, J. M., & **Aust**, **F.** (2017). From theories to models to predictions: A bayesian model comparison approach. *Communication Monographs*, *1*, 1–16. https://doi.org/10.1080/03637751.2017.1394581

Aust, **F.**, & Edwards, J. D. (2016). Incremental validity of Useful Field of View subtests for the prediction of instrumental activities of daily living. *Journal of clinical and experimental neuropsychology*, *38*(5), 497–515. https://doi.org/10.1080/13803395.2015.1125453

Aust[†], **F.**, Diedenhofen[†], B., Ullrich, S., & Musch, J. (2013). Seriousness checks are useful to improve data validity in online research. *Behavior research methods*, *45*(2), 527–535. https://doi.org/10.3758/s13428-012-0265-2

Aust, **F.**, Moehlenbrink, C., & Jipp, M. (2011a). Operationalization of learned carelessness an experimental approach. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, *55*. https://doi.org/10.1177/1071181311551360

Books and book chapters

Wagenmakers, E.-J., & **Aust**, **F.** (2024a). The strength of evidence. In E.-J. Wagenmakers & D. Matzke (Eds.), *Bayesian inference from the ground up* (Vol. 1). JASP Publishing.

Wagenmakers, E.-J., & **Aust**, **F.** (2024b). The second simplicity postulate: Evidence and predictive performance. In E.-J. Wagenmakers & D. Matzke (Eds.), *Bayesian inference from the ground up* (Vol. 1). JASP Publishing.

Wagenmakers, E.-J., **Aust**, **F.**, & Gronau, Q. F. (2024). Senn's stubborn mule. In E.-J. Wagenmakers & D. Matzke (Eds.), *Bayesian inference from the ground up* (Vol. 1). JASP Publishing.

Aust, **F.** (2023c, January). *Exemplars as a least-committed alternative to dual-representations in learning and memory* [Doctoral dissertation, University of Cologne]. https://kups.ub.uni-koeln.de/64657/

Caldwell, A. R., Lakens, D., Parlett-Pelleriti, C. M., Prochilo, G., & **Aust**, **F.** (2022). *Power analysis with Superpower*. Retrieved November 12, 2022, from https://aaroncaldwell.us/SuperpowerBook/

Public outreach

Hönig, L. (Host), Krautter, K. (Host), **Aust**, **F.**, & Barth, M. (2023, June). Programmieren in RStudio (4.06) [Audio podcast episode]. In *Positiv korreliert*. https://podcasters.spotify.com/pod/show/luise-hnig/episodes/4-06-Programmieren-in-RStudio-e25q3de

Aust, **F.** (2017a, August 28). *A conceptual introduction to mathematical modeling of cognition*. JEPS Bulletin. Retrieved November 9, 2022, from https://blog.efpsa.org/2017/08/28/a-conceptual-introduction-to-mathematical-modelling-of-cognition/

Aust, **F.** (2014). *Gorillas auf der autobahn* [Talk presented at 6 Science Slams in Germany. Awarded 1st place at *Science Slam Duisburg* and *Weitblick Science Slam Münster* 2014]. Retrieved November 1, 2025, from https://www.youtube.com/watch?v=Ude5EdZyHas

R packages (selected)

afex   Analysis of Factorial Experiments

Singmann, H., Bolker, B., Westfall, J., **Aust, F.**, & Ben-Shachar, M. S.

130 GitHub stars[1]
17,177 dl/mo

apathe   American Psychological Association Thesis Templates for R Markdown

Aust, F.

2 GitHub stars[1]
416 dl/mo

citr   RStudio Addin to Insert Markdown Citations

Aust, F.

412 GitHub stars[1]
Not on CRAN

jab   Automagically compute Jeffrey's Approximate Bayes factors

Aust, F.

2 GitHub stars[1]
Not on CRAN

multibridge   Evaluating Multinomial Order Restrictions with Bridge Sampling

Sarafoglou, A., **Aust, F.**, Haaf, J. M., Goosen, J., Gronau, Q. F., & Marsman, M.

0 GitHub stars[1]
367 dl/mo

papaja   Prepare American Psychological Association Journal Articles with R Markdown

Aust, F., & Barth, M.

679 GitHub stars[1]
1,682 dl/mo

prereg   R Markdown Templates to Preregister Scientific Studies

Aust, F., & Spitzer, L.

52 GitHub stars[1]
434 dl/mo

retractcheck   Retraction Scanner

Hartgerink, C., & **Aust, F.**

23 GitHub stars[1]
167 dl/mo

Contributed code to the following packages: `MPTmultiverse`, `Superpower`, `bookdown`, `broom`, `ggeffects`, `indiedown`, `rmarkdown`

Conference contributions

Organized symposia

Haaf, J., & **Aust**, **F.** (2022b, April). *Bayesian advances in cognitive modeling* [Symposium accepted at the 63rd Tagung experimentell arbeitender Psychologen, Cologne, Germany].

Talks and posters (selected)

∗ indicates supervised Bachelor student

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[1]GitHub stars are used to bookmark projects and show appreciation to the maintainer for their work. GitHub stars and monthly downloads (dl/mo) are recommended criteria to judge the impact of software contributions (Gärtner et al., 2022).

Aust, **F.**, Haaf, J., de Haan, E., & Wagenmakers, E.-J. (2022, July). *Informative and efficient bayesian hypothesis tests for lesion studies* [Talk presented at the 56th Annual Meeting of the Society for Mathematical Psychology, Amsterdam, Netherlands. *Cancelled due to illness*].

Aust, **F.**, & Musfeld, P. (2022, April). *Performance of bayes factor approximations for comparing nested hierarchical sdt models* [Talk presented at the 63rd Tagung experimentell arbeitender Psychologen, Cologne, Germany].

Haaf, J., & **Aust**, **F.** (2022a, April). *Bayesian advances for studying individual differences with cognitive models* [Talk presented at the 63rd Tagung experimentell arbeitender Psychologen, Cologne, Germany].

Sarafoglou, A., Haaf, J., **Aust**, **F.**, & Kuhlmann, B. (2022, April). *Bayes factors for disordinal interaction hypotheses in mpt models* [Talk presented at the 63rd Tagung experimentell arbeitender Psychologen, Cologne, Germany].

Haaf, J., Evans, N., & **Aust**, **F.** (2020, April). *A strong test of empirical validity for cognitive process models* [Talk at the 62nd Tagung experimentell arbeitender Psychologen, Jena, Germany. *Cancelled due COVID-19 pandemic*].

Aust, **F.** (2019b, July). *Extending papaja too prepare (even better) APA journal articles with r markdown* [Hackathon at the Society for Improving Psycholgical Science annual meeting, Rotterdam, the Netherlands].

Henninger, F., Horsten, L., & **Aust**, **F.** (2019, July). *Building an open science knowledge base* [Hackathon at the Society for Improving Psycholgical Science annual meeting, Rotterdam, the Netherlands].

Aust, **F.**, Heycke, T., & Stahl, C. (2018, September). *Does it replicate? Using Bayesian model comparisons to evaluate replication attempts of specific 2×2-interaction patterns* [Talk presented at DGPs Congress, Frankfurt, Germany]. https://frederikaust.com/ml-otm-dgps-slides/

Aust, **F.**, Haaf, J., & Stahl, C. (2017, March). *Reversed dissociation between CS evaluation and US expectancy through explicit reference to learning contexts* [Talk presented at the Tagung Experimentell Arbeitender Psychologen, Dresden, Germany].

Musfeld*, P., **Aust**, **F.**, & Stahl, C. (2017, March). *False recognition in short-term memory may be due to encoding errors* [Poster presented at the Tagung Experimentell Arbeitender Psychologen, Dresden, Germany].

Aust, **F.**, & Stahl, C. (2016b, November). *A global-matching account of verbatim and gist processes in conjoint recognition* [Poster presented at the Computational Approaches to Cognition Symposium 2016, Boston, MA.].

Aust, **F.**, & Stahl, C. (2016c, July). *Effects of explicit reference to learning contexts on the extinction of evaluative conditioning and expectancies* [Talk presented at 5th European Meeting on the Psychology of Attitudes, Cologne, Germany].

Teaching and mentoring

SUPERVISION

Research internships   4 students
Martin Papenberg (B.Sc, 2012), Philipp Musfeld (B.Sc, 2015), Axel Gehlen (B.Sc, 2018), Sebastiaan de Vries (M.Sc, 2021)

B.Sc. theses psychology   5 students
Philipp Musfeld (2017), Amelie Jörgensen (2023), Eeva Hökkä (2023), Sacha van de Hoef (2023), Sam Semegne (2023)

M.Sc. theses psychology   2 student
František Bartoš (2021), Julia Timmke (2025)

UNIVERSITY COURSES

Multivariate Statistics Seminar, coordinator and lecturer M.Sc. Psychology, University of Cologne, 134 students	2025–2026 2×2 hrs/wk
First-Year Psychology Orientation Week, lecturer B.Sc. Psychology, University of Cologne, 150 students with Heiko Westerburg	2025 2 hrs/wk equivalent
Statistics 2 Seminar, lecturer B.Sc. Psychology, University of Cologne, 135 students with Simone Malejka and Philine Thomasius	2025 2 hrs/wk
Multivariate Statistics Seminar, coordinator and lecturer M.Sc. Psychology, University of Cologne, 135 students	2024–2025 2×2 hrs/wk
First-Year Psychology Orientation Week, lecturer B.Sc. Psychology, University of Cologne, 150 students with Anne Gast	2024 2 hrs/wk equivalent
Statistics 2 Seminar, lecturer B.Sc. Psychology, University of Cologne, 132 students with Simone Malejka and Philine Thomasius	2024 2 hrs/wk
Multivariate Statistics Seminar, coordinator and lecturer M.Sc. Psychology, University of Cologne, 116 students	2023–2024 2×2 hrs/wk
First-Year Psychology Orientation Week, lecturer B.Sc. Psychology, University of Cologne, 150 students with Anne Gast	2023 2 hrs/wk equivalent
Bayesian Statistics, practical lecturer B.Sc. Psychology, University of Amsterdam, 8 students, with Julia M. Haaf and Michael D. Nunez	2022 2×2 hrs/wk

- Average teaching evaluation: 7.9 ([Dutch grading system](#))

Computational reproducibility: A minimum necessary condition for credibility Guest lecture in *Good Research Practices* course at University of Amsterdam	17/11/2020 2 hrs
Mathematical Modeling in Psychology, senior lecturer B.Sc. Psychology, University of Amsterdam, 14 students, with Julia M. Haaf	6/2020 4 hrs/wk

- Average teaching evaluation: 6.9 ([Dutch grading system](#))

Statistics 2 Practical, coordinator and lecturer B.Sc. Psychology, University of Cologne, 69 students	2020 2×2 hrs/wk
Statistics 2 Practical, coordinator and lecturer B.Sc. Psychology, University of Cologne, 62 students	2019 2×2 hrs/wk
Multivariate Statistics Practical, coordinator and lecturer M.Sc. Psychology, University of Cologne, 36 students	2017–2018 2×2 hrs/wk
Statistics 2 Practical, coordinator and lecturer B.Sc. Psychology, University of Cologne, 67 students	2017 2×2 hrs/wk
Multivariate Statistics Practical, coordinator and lecturer M.Sc. Psychology, University of Cologne, 47 students	2016–2017 2×2 hrs/wk

Statistics 1 Practical, coordinator and lecturer — 2015–2016
B.Sc. Psychology, University of Cologne, 53 students — 2×2 hrs/wk

Statistics 1 Practical, coordinator and lecturer — 2014–2015
B.Sc. Psychology, University of Cologne, 95 students — 3×2 hrs/wk

Practical Experimenting, lecturer — 2014
B.Sc. Psychology, University of Cologne, 10 students — 2 hrs/wk

Statistics 2 Practical, coordinator and lecturer — 2014
B.Sc. Psychology, University of Cologne, 85 students — 3×2 hrs/wk

Statistics 1 Practical, coordinator and lecturer — 2013–2014
B.Sc. Psychology, University of Cologne, 32 students — 2 hrs/wk

INTERNATIONAL WORKSHOPS

Getting started with R — 21/02/2024
University of Siegen, Siegen, Germany. — 1 day

Friends don't let friends copy-paste: How to create computationally reproducible APA-style manuscripts with the R package papaja — 10/04/2022
Dresden University of Technology, Dresden, Germany, Open material. — 1 day

Friends don't let friends copy-paste: How to create computationally reproducible APA-style manuscripts with the R package papaja — 16/11/2022
As part of the lecture series *Practices and Tools of Open Science*, Leibniz Institute of Psychology, Trier, Germany, Open material. — 3 hrs

Friends don't let friends copy-paste: How to create computationally reproducible APA-style manuscripts with the R package papaja — 4/11/2022
University of Hagen, Hagen, Germany, Open material. — 1 day

Friends don't let friends copy-paste: How to create computationally reproducible APA-style manuscripts with the R package papaja — 24–26/10/2022
Linköping University, Linköping, Sweden, Open material. — 3 days

Reproducible research practices for psychologists — 27–28/4/2022
KU Leuven, Leuven, Belgium, with Johannes Breuer, Open material. — 2 days

An alternative to copy-paste reporting: Create computationally reproducible, submission-ready, APA-style manuscripts in R with papaja — 19/3/2022
Conference of Experimental Psychologists (TeaP) 2022, Cologne, Germany, with Marius Barth, Open material. — 3 hrs

A fully reproducible publication workflow: Analysis, report, and revision — 9–10/11/2021
Linköping University, Linköping, Sweden — 3 days

An alternative to copy-paste reporting: Create computationally reproducible, submission-ready, APA-style manuscripts in R with papaja — 5/6/2020
Laboratoire Inter-universitaire de Psychologie, France, Open material. — 1 day

An alternative to copy-paste reporting: Create computationally reproducible, submission-ready, APA-style manuscripts in R with papaja — 17/1/2020
Max Planck School of Cognition Academy, Berlin, Germany, Open material. — 1 day

An alternative to copy-paste reporting: Create computationally reproducible, submission-ready, APA-style manuscripts in R with papaja
European Conference on Visual Perception, Leuven, Belgium, with Marius Barth, Open material.

25/8/2019
1 day

Developing a personal workflow for transparent and reproducible research
Society for Improving Psychological Science 2019 conference, Rotterdam, Netherlands, with Johannes Breuer, Open material.

9/7/2019
5 hrs

papaja: Prepare APA journal articles reproducibly with R Markdown
Behavioral Science Institute, Radboud University, Nijmegen, The Netherlands, Open material.

19–20/11/2018
2 days

A practical primer on transparent research workflows
EASP Solid Science Training Workshop, Bordeaux, France, Open material.

7/9/2018
5 hrs

A practical primer on transparent research workflows
ESCON Transfer of Knowledge Conference, Cologne, Germany, with Johannes Breuer, Open material.

4/9/2018
5 hrs

papaja: Prepare APA journal articles reproducibly with R Markdown
Linköping University, Linköping, Sweden, Open material.

13–14/8/2018
2 days

papaja: Prepare APA journal articles reproducibly with R Markdown
Peer Mentoring Project Methods and Statistics, University of Zürich, Zürich, Switzerland, Open material.

30/11–1/12/2017
2 days

Data Visualization in R
Society for Personality and Social Psychology's Annual Convention 2017, San Antonio, TX, with Maike Luhmann

20/1/2017
3 hrs