


# Florence Bockting



## Contact

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 [florence-bockting.github.io](https://github.com/florence-bockting)

## Languages

German (mother language)  
English (fluent)  
French (basics)

## Programming

R, Python, TensorFlow, STAN  
RShiny Apps, RMarkdown,  
Jupyternotebook  
HTML, CSS, JS

## Further skills

MS Office, LaTeX  
Gimp  
Zotero  
Git, GitHub, GitHub Pages  
Quarto, Sphinx  
HPC, Linux

## Education

Research assistant in the working group „[Computational statistics](#)“ (Prof. Dr. Paul-Christian Bürkner)

since June 2023 | Statistics Faculty | TU Dortmund University  
Aug 2022 – May 2023 | SC SimTech | University of Stuttgart

Research assistant in the working group „[Psychological methods & statistics](#)“ (Prof. Dr. Daniel W. Heck)

Oct 2020 – July 2022 | Psychology Department | Philipps-University of Marburg

Master studies in Cognitive Science with majors in artificial intelligence and cognitive psychology

Graduated with distinction | Sept 2018 – Sept 2020 | University of Osnabrück

Bachelor studies in Business Psychology with majors in market research and consumer behavior

Graduated with distinction | Aug 2014 – Aug 2018 | University of applied Science Harz, Wernigerode

Vocational training as marketing communications specialist

Aug 2012 – July 2014 | Dresden Informatik GmbH

## Experiences

Tutor & student assistant (2015 – 2020)

for various lectures and seminars in data ethics, statistics, computational data analysis, Bayesian data analysis, general psychology, experimental psychology

Research assistant (2018/2019)

Qualitative and quantitative market research in the health care sector, Produkt+Markt GmbH, Osnabrück

Project member (2018)

Project: Development of a Matching Platform for Student Skills. My primary responsibility was conducting a needs analysis and conceptualizing the design of the matching platform.

Internships

2017 | qualitative market research in the health care sector, Ipsos GmbH, Hamburg

2016 | Chair of general psychology and methodology, Prof. Dr. Claus-Christian Carbon, University of Bamberg

## Teaching

Master Seminar on Multilevel Modelling (2023/24)

The target audience consists of students in Data Science, Statistics, and Econometrics. The course provides an introduction to the theory and analysis of multilevel models using R, with an exploration of these models

from both Bayesian and frequentist perspectives. The language of instruction is English.

#### Programming course: Introduction into Python (2023 – 2025)

Students will learn the fundamentals of the Python programming language, as well as tools for documentation with Sphinx, testing with pytest, and version control with Git and GitHub. The language of instruction is English and German.

#### Supervision of theses (2024/25)

Analysis of different initialization approaches for hyperparameter optimization with mini-batch stochastic gradient descent: A simulation study | Bachelor Thesis | TU Dortmund

Sensitivity analysis and performance evaluation of varying upper thresholds for discrete likelihoods using the softmax-gumbel trick | Master Thesis | TU Dortmund

#### Supervision of theses (2021/22)

The influence of response scales on the knowledge gain of underlying cognitive mechanisms: The role of uncertainty and truth perception in the Truth Effect | Bachelor Thesis | Philipps-University of Marburg

Empirical test of core assumptions of the Referential Theory: Influence of repetition on perceived coherence | Bachelor Thesis | Philipps-University of Marburg

Identification and testing of relevant psychological factors on truth judgments and the truth effect according to the Referential Theory | Bachelor Thesis | Philipps-University of Marburg

#### Supervision of theses (2020/21)

Truth Effect — The role of the response scale in truth effect designs with short delay | Bachelor Thesis | Philipps-University of Marburg

### Publications & Talks

**Bockting, F., Radev S. T., & Bürkner P. C. (2024)** Expert-elicitation method for non-parametric joint priors using normalizing flows. Preprint at <https://arxiv.org/abs/2411.15826>

**Bockting, F., Radev S. T., & Bürkner P. C. (2024)** Contributed talk: Normalizing Flows for Simulation Based Expert Prior Elicitation. Presented at MathPsych (Society for Mathematical Psychology)

**Bockting, F., Radev S. T., & Bürkner P. C. (2024).** Contributed talk: Simulation-Based Prior Knowledge Elicitation for Parametric Bayesian Models. Presented at ISBA (International Society for Bayesian Analysis)

**Bockting, F., Radev, S. T., & Bürkner, P. C. (2024).** Invited talk: Simulation-Based Prior Knowledge Elicitation for Parametric Bayesian Models. First presented at Bayes@Lund.

**Bockting, F., Radev, S. T. & Bürkner, P. C. (2024).** Simulation-based prior knowledge elicitation for parametric Bayesian models. *Scientific Reports* 14, 17330 (2024). <https://doi.org/10.1038/s41598-024-68090-7>

Heck, D. W., & **Bockting, F. (2023).** Benefits of Bayesian model averaging for mixed-effects modeling. *Computational Brain & Behavior*, 6(1), 35-49. <https://doi.org/10.1007/s42113-021-00118-x>

van Doorn, J., Haaf, J. M., Stefan, A. M., Wagenmakers, E. J., Cox, G. E., Davis-Stober, C. P., ..., **Bockting, F.** & Aust, F. (2023). Bayes factors for mixed models: A discussion. *Computational Brain & Behavior*, 6(1), 140-158. <https://doi.org/10.1007/s42113-022-00160-3>

**Bockting, F.** & Heck, D. W. (2021). Measuring Individual Differences in the Truth Effect: A formal analysis. Fast Talk at MathPsych

Stephan, A., Walter, S., Anton, T., Barkmann, M., **Bockting, F.**, Dielen, G., Dziomba, L., Lang, A., Ruland, M., & Schütze, P. (2021). *Nachwort*. In *Turing A. M. Computing Machinery and Intelligence. Können Maschinen Denken?* (pp. 131-201). English/German. Reclam.

## Workshops

- Nov 2024 Copyright for Computer Programs & Software, TU Dortmund University
- Sept 2024 Research Software Engineering Summer School at Karlsruhe Institute of Technology (KIT)
- Oct 2022 Theory of Science, Prof. Dr. Zoglauer, University of Stuttgart
- Oct 2022 Foundations of Deep Learning for the Social Sciences, University of Tübingen
- Sept 2022 The Statistics Wars and Their Casualties (online seminar series), Prof. Dr. Deborah Mayo, Prof. Dr. Roman Frigg, & Prof. Dr. Margherita Harris
- Sept 2022 Summer School on Advanced Bayesian Data Analysis with STAN, Dr. Bruno Nicenboim, University of Potsdam
- Feb 2022 Interval Hypothesis Testing, Prof. Dr. Daniël Lakens, University of Eindhoven
- Dec 2021 Robuste Cognitive Bayesian Analysis, Prof. Dr. Jeffrey N. Rouder, University of California
- Oct 2021 Bayesian Evaluation of (informative) Hypotheses, Prof. Dr. Herbert Hoijtink, University of Utrecht
- June 2021 Multinomial-Processing-Tree Modeling – Foundations and Recent Advances, Prof. Dr. Edgar Erdfelder & Prof. Dr. Daniel Heck, University of Mannheim
- May 2021 Single- vs. Dual-Process Theories, Prof. Dr. Mandy Hütter, University of Tübingen
- Feb 2021 Introduction into Bayesian Statistics, Prof. Dr. Daniel Heck, Philipps-University of Marburg

## Other Experiences

Volunteer work at a soup kitchen; KANA Dortmund

Volunteer work at a children's home for mentally disabled children and adolescents, Lebenshilfe e.V.

Fellow of the “Studienstiftung des deutschen Volkes” from 2015 to 2020.

This CV was last updated on 2024/11/28