

Thom Benjamin Volker

Utrecht, The Netherlands

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EDUCATION

MSc Methodology and Statistics

2019 - 2022

Utrecht University, Netherlands

Cum laude (GPA 8.9/10)

- Thesis - Combining support for hypotheses over heterogeneous studies with Bayesian Evidence Synthesis: A simulation study (supervised by [Prof. Dr. Irene Klugkist](#)).

MSc Sociology and Social Research

2019 - 2022

Utrecht University, Netherlands

Cum laude (GPA 8.7/10)

- Thesis - The future is made today: Concerns for reputation foster trust and cooperation (supervised by [Prof. Dr. Ir. Vincent Buskens](#) & [Prof. Dr. Werner Raub](#)).

BA Liberal Arts & Sciences

2016 - 2019

Utrecht University, Netherlands

- Major in Pedagogical Sciences; minor in Sociology and Social Research

EXPERIENCE

PhD candidate Synthetic data

2022 - Current

Utrecht University

- Supervisor: Dr. Erik-Jan van Kesteren
- I investigate how to optimize the creation of synthetic data in terms of the risk-utility trade-off.

Internship MICE Group

2020 - 2022

Utrecht University

- With [Dr. Gerko Vink](#) I established a framework on how to generate synthetic data with the R-package `mice` to preserve privacy and confidentiality.

Research Assistant

2019 - 2022

Utrecht University

- For [Dr. Peter Lugtig](#), I worked on research and teaching related topics, (e.g., creating content for the research master level course 'Survey Data Analysis', by developing a [Shiny App](#), creating data visualizations and creating the webpage <https://www.peterlugtig.com>).
- For [Dr. Rebecca Kuiper](#), I created data visualizations and assisted PhD students by revising text.

Teaching assistant

2018 - 2022

Utrecht University

- Thesis co-supervision:
 - Multiply imputed synthetic datasets - assessing validity of multiply imputed synthetic datasets with the R-package `mice` (Master's thesis, with [Dr. Gerko Vink](#)).
 - Comparing multiple methods of research synthesis (Bachelor's thesis, with [Prof. Dr. Irene Klugkist](#)).
- Post-graduate level courses:
 - Multiple Imputation in Practice (MIMP; Utrecht Summer School 2019-2021) - supervision of practicals and providing R assistance.
 - Statistical Programming with R (Utrecht Summer School 2021) - supervision of practicals.
 - Advanced Survey Design - supervision of practicals.
- Master's level courses:
 - Network Analysis (2020-2021) - developing practical assignments and supervising the practicals.
 - Methodological and Statistical Aspects of Social Science Research - teaching working groups of about 20 persons on topics ranging from multiple regression to moderation and mediation analysis.
- Bachelor's level courses:

- Theory Construction and Statistical Modeling - teaching practicals on structural equation modeling using `lavaan`.
- Various undergraduate courses on standard statistical methods.

ASReview

2021

Utrecht University

- Researcher at [ASReview](#) - an open-source project that helps researchers to screen (tens of) thousands of papers automatically for inclusion in systematic reviews, meta-analyses, medical guidelines, or overviews.

Other

Debuut

2019 - 2020

Utrecht University

- Buddy programme at Utrecht University to match potential first generation university student with actual students to get a flavour of what studying at a university entails.

IOPS

2022 - Current

PhD Representative

- Represent PhD candidates in the Interuniversity Graduate School of Psychometrics and Sociometrics.

Received funding

SynthEval

2023-2024

Project lead

- An R package for evaluating and improving the quality of synthetic data sets. For €15.000.

Statistical software proficiency

- R
- MPlus
- SPSS
- HLM
- JAGS
- Learning python
- Learning C++

Invited presentations / workshops

- Fake it 'till you make it: Generating synthetic data with high utility in R [with Erik-Jan van Kesteren], Tübingen Open Science Winter School, 13 February 2023, Tübingen, Germany.
- Creating synthetic data with `mice` in R [with Gerko Vink], UMCU, 4 November 2022, Utrecht, the Netherlands.

Publications

- **Volker, T. B.** & Klugkist, I. (*Submitted*). Combining support for hypotheses over heterogeneous studies with Bayesian Evidence Synthesis: A simulation study. [Paper](#).
- Klugkist, I. & **Volker, T. B.** (*Submitted*). Bayesian Evidence Synthesis for Informative Hypotheses: An introduction. [Paper](#).
- Van Leeuwen, A., Bagheri, A., **Volker, T. B.** & Van Brakel, Charlotte (*In press*). Verkenning van de inzet van topic modelling bij het analyseren van schrijfoopdrachten in de context van de flipped classroom. [Exploring the use of topic modelling for the analysis of written assignments in a flipped classroom context.] *Tijdschrift voor Hoger Onderwijs*.
- **Volker, T. B.** & Vink, G. (2021). Anonymiced Shareable Data: Using `mice` to Create and Analyze

Multiply Imputed Synthetic Datasets. *psych*, 3, 703-716. [Paper](#).

- **Volker, T. B.**, Buskens, V. & Raub, W. (In preparation). The future is made today: Concerns for reputation foster trust and cooperation. [Paper](#).

Software Vignettes

- **Volker, T. B.** & Vink, G. (2022). `futuremice`: The future starts today. https://www.gerkovink.com/futuremice/Vignette_futuremice.html

Software development

- `mice` [ctb] - Developed functionality to pool inferences from synthetic data and implemented `futuremice` to speed up imputation by using user-friendly parallel processing.
- `ggmice` [ctb] - Adjusted functionality to allow for visualization of synthetic data.