

Gilles Dutilh

Curriculum Vitae

Contact

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Date of birth: 10th of January, 1981
Place of birth: Warnsveld, The Netherlands
Citizenship: Dutch, CH: C-permit



Employment

2020–2025	Senior Statistician at the Department for Clinical Research , University Hospital Basel. Responsible for high-risk projects and development of internal programs. Statistical software development.
2017–2020	Statistician at the Department for Clinical Research , University Hospital Basel. Responsible for statistical planning and analysis of numerous medical research projects. Teaching at master and post-doc level.
2011–2016	Post-Doc at the University of Basel , Department of Psychology, Economic Psychology Group. Substantial: Study of economic decision making. Methodological: methods for increasing scientific integrity and reproducibility. Teaching at Bachelor and Master level, advising students and a PhD candidate.
2007–2011	PhD Researcher at the University of Amsterdam , Department of Psychology, Psychological Methods Group. Testing cognitive models to human choice data (using Bayesian statistics only). Thesis rewarded with a PhD (Summa Cum Laude).
2006–2007	Research assistant at the University of Amsterdam , Department of Psychology, Developmental Psychology Group and Psychological Methods Group. Experimental design and software implementation, data collection, data analysis.

Skills

General

- Precise thinking
- Asking creative questions
- Organizing, involving others

Languages

Dutch	Mother tongue
English	Fully proficient both spoken and written
German	Fully proficient both spoken and written
Swiss German	Proficient
French	Conversational
Ukrainian	Basic

Scientific

- Methodological and statistical advice
- Communication of statistics
- Teaching statistics, programming, and research methods
- Academic writing
- R package development (e.g. powergrid)
- Study design and conduct
 - Planning statistics for meaningful results
 - (Bayesian) Sample size estimation
 - Clinical study protocols
 - Preregistration and blinding protocols
 - Data management
- Statistical data analysis
 - Full general linear model framework
 - Test and survey construction (classical and Item Response Theory)
 - Factor Analysis, Structural Equation Modeling
 - Simulation techniques
 - Non-linear modeling (incl. hidden Markov models)
 - Thorough acquaintanceship with both frequentist and Bayesian implementations
 - Psychological applications:
 - Models of risky choice behavior
 - Decision time modeling
 - Various cognitive models

Software & Programming Languages

Expert

I am a fan of good software and like to understand each piece I work with thoroughly. My greatest expertise is in:

R	My native programming language that I've been using intensively since 2004. I've contributed to a number of packages. My favorite work in R is to create tailor-made graphics that communicate a study's message in a single figure.
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Advanced User

Whenever sensible, I choose free and open source software. A selection of applications I know well, many of which I like to work with:

OSs	Linux (Ubuntu, Ubuntu Server, Fedora, OpenSuse) Microsoft Windows iOS
Version Control	git subversion
Statistics	R BUGS/JAGS Matlab SPSS
Typesetting	L ^A T _E X
Web	HTML, CSS, Java script Wordpress Akkoma social server
Misc	Emacs (for coding and organizing) Python Docker
Multimedia	Various DAWs (incl. Ardour, Reaper) OBS Studio (video streaming) Gimp Stimulus presentation: PsychoPy, Neurobs Presentation
Office	Libre Office (Writer, Calc, Draw, Impress) Microsoft Office (Word, Excel, Powerpoint, Sharepoint)

Skills for fun

Music	Playing piano, organ, synthesizer, percussion and guitar. Arranging, recording, producing, streaming. Reading piano sheet music. Improvisation in many styles on any instrument.
Practical	Carpentry Sewing Driving a car Riding a horse Sailing a sailboat

Teaching Experience

I have always enjoyed teaching, as it greatly improved my understanding of the topic I taught.

2022–2025	Seminar reading and writing statistics in clinical research.
2017–2025	Advising young clinical researchers during their first publications.
2017–2025	Seminar applied statistics in R for (bio-)medical students.
2012–2016	Supervising Bachelor students writing their theses.
2011–2016	Seminar applied statistics in R for master students psychology. (materials of this course are available on my site)
2010	Bayesian modeling using WinBUGS for master students psychology.
2010	R–practicals for master students psychology.
2007–2016	Supervising empirical research practical for Psychology students.

Further Work Experience

Beyond my professional career, many activities formed me, including:

Organizational	Leading: <ul style="list-style-type: none">- Team of PhD Student + interns.- Deputy leader statistics team.- Development team R-package powergrid. Co-organizing: <ul style="list-style-type: none">- Scientific Conferences.- Horse riding tournaments.- Mini-festivals and jam sessions.- Small international club tour of my own band.
Grants	SNF Project Funding (\pm CHF 235,000), for hiring a PhD student and assistants. SCTO Programming Grant (\pm CHF 18,000), for R package development.
On the Web	Building and maintaining a number of websites, using html/css or wordpress, including my own page gillesdutilh.com Hosting my own <i>Akkoma instance</i> (server) in the fediverse, the open social web.
Voluntary	Content moderator of MakerTube, a growing video channel in the fediverse. Supporting music-related events. Advising young researchers, making their first study a success.
Hospitality	As a student, I have worked in some bars and sold pizza.

Education

I'm thankful for the great lessons learned at:

2007–2011	PhD (Summa Cum Laude), University of Amsterdam , Department of Psychology, Psychological Methods Group.
2000–2006	Bachelor and Master Psychology, University of Amsterdam , Department of Psychology, Psychological Methods Group.
1993–2000	Municipal Gymnasium Apeldoorn (preparatory high school)

Publications

For a complete list of my publications, see my my google scholar profile. Here are three publications I particularly like:

Selected Publications

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| 2021 | Dutilh, G., Sarafoglou, A., & Wagenmakers, E.-J. (2021). Flexible yet fair: Blinding analyses in experimental psychology. <i>Synthese</i> , 198(23), 5745-5772 |
| 2019 | Dutilh, G., Annis, J., Brown, S. D., Cassey, P., Evans, N. J., Grasman, R. P. P. P., Hawkins, G. E., Heathcote, A., Holmes, W. R., Kryptos, A.-M., Kupitz, C. N., Leite, F. P., Lerche, V., Lin, Y.-S., Logan, G. D., Palmeri, T. J., Starns, J. J., Trueblood, J. S., van Maanen, L., van Ravenzwaaij, D., Vandekerckhove, J., Visser, I., Voss, A., White C. N., Wiecki T. V., Rieskamp, J., & Donkin, C. (2019) The Quality of Response Time Data Inference: A Blinded, Collaborative Assessment of the Validity of Cognitive Models, <i>Psychonomic bulletin & review</i> , 26:1051–1069 |
| 2017 | Dutilh, G., Vandekerckhove, J., Ly, A., Matzke, D., Pedroni, A., Frey, R., Rieskamp, J. & Wagenmakers, E.-J. (2017). A Confirmatory Test of the Diffusion Model Explanation for the Worst Performance Rule. <i>Attention, Perception & Psychophysics</i> , 79, 713-725 |