

Ruben Lukas Bach

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EDUCATION

- 03/2018 **Dr. rer. soc.** (Sociology). University of Mannheim, Germany.
Thesis: Unintended Behavioral Consequences Due to Repeated Measurement, Committee: Frauke Kreuter, Joseph Sakshaug, Florian Keusch
Visiting PhD Student. Institute for Social Research, University of Michigan-Ann Arbor. (09 - 12/2017)
- 01/2015 **M.Sc.** (Socio-Economics). Friedrich-Alexander University. Erlangen-Nuremberg, Germany
Thesis: Does the Participation in a Panel Study Change Respondents' Behavior? Evidence of Panel Conditioning in PASS, Supervisors: Monika Jungbauer-Gans, Stephanie Eckman
- 09/2012 **B.A.** (Social Sciences). Heinrich-Heine University Düsseldorf, Germany.
Thesis: The Influence of Religious Beliefs on Attitudes Towards Homosexuality in International Comparison: An Analysis with Data from the ISSP 2008, Supervisors: Tilo Beckers, Peter Hartmann
ERASMUS Student. Université de Franche-Comté, Besançon, France. (09 - 12/2010)

AREAS OF INTEREST & EXPERTISE

Societal impact of AI, Big Data & New Data Sources for Social Research (Web Logs, Search Queries, Reddit), Measurement Error, Motivated Misreporting, Online Privacy, Panel Conditioning, Response Propensities.

Statistical Methods: Machine Learning (Tree-based Algorithms), Natural Language Processing (BERT, LDA), Causal Inference (Instrumental Variables, Propensity Scores).

CURRENT AFFILIATIONS

since 2018 **Postdoctoral Researcher**. School of Social Sciences, University of Mannheim, Germany and Collaborative Research Center SFB 884 "Political Economy of Reforms", University of Mannheim, Germany

EMPLOYMENT HISTORY

2015-2018 **Research Associate & PhD Student**. Statistical Methods Department, Institute for Employment Research (IAB), Nuremberg, Germany and Joint Graduate Program of the Institute for Employment Research (IAB) and the School of Business and Economics of the University of Erlangen-Nuremberg, Germany.

PUBLICATIONS

Refereed Journal Articles

Amaya, A., **Bach, R.**, Keusch, F., and Kreuter, F. New Data Sources in Social Science Research: Things to Know Before Working with Reddit Data. *Social Science Computer Review*. Online first. (<https://doi.org/10.1177/0894439319893305>)

Bach, R., Kern, C., Amaya, A., Keusch, F., Kreuter, F., Hecht, J., and Heinemann, J. Predicting Voting Behavior Using Digital Trace Data. *Social Science Computer Review*. Online first. (<https://doi.org/10.1177/0894439319882896>)

Bach, R., Eckman, S., and Daikeler, J. Misreporting Among Reluctant Respondents. *Journal of Survey Statistics and Methodology*. Online first. (<https://doi.org/10.1093/jssam/smz013>)

Daikeler, J., **Bach, R.**, Eckman, S., and Silber, H. Motivated Underreporting in Mobile Phone Surveys. *Social Science Computer Review*. (<https://doi.org/10.1177/0894439319900936>)

Bach, R. and Eckman, S. (2020). Rotation Group Bias in Reporting of Household Purchases in the U.S. Consumer Expenditure Survey. *Economic Letters*, 187. (<https://doi.org/10.1016/j.econlet.2019.108889>)

Bach, R. and Eckman, S. (2019). Participating in a Panel Study Changes Respondents' Labour Market Behaviour. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 182(1), 263–281. (<https://doi.org/10.1111/rssa.12367>)

Bach, R. and Eckman, S. (2018). Motivated Misreporting in Web Panels. *Journal of Survey Statistics and Methodology*, 6(3), 418-430. (<https://doi.org/10.1093/jssam/smx030>)

Book Chapters

Amaya, A., **Bach, R.**, Keusch, F., and Kreuter, F. (in press). Measuring Attitude Strength in Social Media Data. In Hill, C.A., et al. (Eds.) *Big Data Meets Survey Science*. Hoboken, NJ: Wiley.

Manuscripts in Submission

Bach, R. A Methodological Framework for the Analysis of Panel Conditioning Effects. (Accepted as Chapter in Cernat, A. and Sakshaug, J. (Eds.). *Measurement Error in Longitudinal Data*.)

Bach, R. and Wenz, A. Using Digital Trace Data for Research Into Individuals' Health. (under review)

Haas, G.-C., Eckman, S., **Bach, R.**, and Kreuter, F. Effects of Paper and Web Modes on Response Burden in Establishment Surveys. (R&R)

Manuscripts in Preparation

Bach, R., Kern, C., and Bonnay, D. What you read is who you support? Online news consumption and political preferences.

Bach, R. and Cornesse, C. Equipping Offline Households with Internet Access in an Online Panel. Does It Make a Difference?

Gummer, T., **Bach, R.**, Daikeler, J., and Eckman, S. The Relationship between Response Propensities and Data Quality in a Probability-based Panel Survey.

Haas, G.-C., Eckman, S., **Bach, R.**, and Kreuter, F. Moving Establishment Surveys from Mail to Web: Unit and Item Nonresponse.

Working Papers

Bach, R. and Eckman, S. (2017). Does Participating in a Panel Study Change Respondents' Labour Market Behaviour? *IAB Discussion Paper*, 15/2017. (<http://doku.iab.de/discussionpapers/2017/dp1517.pdf>)

INVITED TALKS

2019 Using Web Logs and Smartphone Records for Social Research. Mannheim Centre for European Social Research (MZES), Mannheim, Germany.

2016 Does Participating in a Panel Survey Change Respondents Labor Market Behavior? U.S. Bureau of Labor Statistics, invited by Washington Statistical Society (Methodology Section), DC AAPOR, and Society of Government Economists, Washington, D.C..

2015 Does the Participation in a Panel Study Change Respondents' Actual Behavior? Evidence of Panel Conditioning in a German Panel Study on Labor Market Outcomes. Department of Sociology, Ludwig-Maximilians-Universität, Munich, Germany.

CONFERENCE PRESENTATIONS (*Poster Presentation)

Equipping Offline Households with Internet Access in an Online Panel. Does It Make a Difference? AAPOR, 2019 (Toronto, Canada); ESRA, 2019 (Zagreb, Croatia).

Predicting Political Behavior and Attitudes Using Digital Trace Data BigSurv18, 2018* (Barcelona, Spain); AAPOR, 2019 (Toronto, Canada); General Online Research Conference, 2019 (Cologne, Germany).

A Methodological Framework for The Analysis of Panel Conditioning Effects
International Total Survey Error Workshop, 2018 (Durham, NC); Methodology of Longitudinal Surveys II Conference, 2018 (University of Essex, UK).

Motivated Misreporting in Web Panels
JSM, 2016 (Chicago, IL); AAPOR, 2017 (New Orleans, LA).

Misreporting Among Reluctant Respondents
AAPOR, 2016 (Austin, TX).

Changes in Labor Market Behavior Due to Panel Survey Participation
ESRA, 2015 (Reykjavik, Iceland), 2017 (Lisbon, Portugal); JSM, 2015 (Seattle, WA); Rational Choice Sociology: Theory and Empirical Applications, 2015* (Venice, Italy); AAPOR, 2016 (Austin, TX); Modern Modeling Methods, 2016 (University of Connecticut, CT).

TEACHING

2019 *Research Design: Causal Inference*

(6 ECTS graduate course), Fall Semester, University of Mannheim, Germany.

Introduction to Big Data & Analytics

Summer School, Mannheim Business School, Germany.

Master's Thesis Colloquium Sociology

(3 ECTS graduate course), Spring Semester, University of Mannheim, Germany.

2018 *Research Design: Causal Inference*

(6 ECTS graduate course), Fall Semester, University of Mannheim, Germany.

Research Practicum: Big Data in the Social Sciences

(in German; 6 ECTS undergraduate course), Spring Semester, University of Mannheim, Germany.

2017 *Introduction to Web Surveys*

(in German; 5 ECTS undergraduate course), Winter Semester, University of Erlangen-Nuremberg, Germany.

2016 *Causal Inference Using Propensity Scores.*

Short Course. Institute for Employment Research (IAB), Nuremberg, Germany.

Theses supervision

2019 Gerdon, F. (M.A. Sociology): Should I Share? Normative Foundations of Privacy Behavior and an Empirical Investigation of Contextual Determinants of Sharing Norms.

Kennedy, A. C. G. (M.Sc. Business Informatics): Machine Learning for Survey Design and Survey Imputation.

Schwerdtfeger, M. (M.A. Sociology): Broadband Internet Access and Nonresponse in Online Panels.

GRANTS & AWARDS

2019 Lorenz-von-Stein Dissertation Award. Mannheim Centre for European Social Research (MZES), Mannheim, Germany.

Burns "Bud" Roper Fellow Award, AAPOR 74th Annual Conference, Toronto, Canada.

2018 Travel Award, BigSurv18 - Big Data Meets Survey Science Conference, Barcelona, Spain.

Student Paper Award, Methodology of Longitudinal Surveys II Conference, University of Essex, UK. ("A Methodological Framework for the Analysis of Panel Conditioning Effects")

2017 Student Travel Award, AAPOR 72nd Annual Conference, New Orleans, LA.

2015 Fully-funded Three-year Scholarship, Joint Graduate Program of the Institute for Employment Research (IAB) and the School of Business and Economics of the Friedrich-Alexander University Erlangen-Nuremberg, Germany.

PROFESSIONAL DEVELOPMENT

- 2018 Big Data Processing for Social Sciences: An Introduction to Apache Spark (I. Thomas). BigSurv18 - Big Data Meets Survey Science Conference, Barcelona, Spain, October.
- 2016 Advanced Survey Methods (J. Sakshaug). Institute for Employment Research (IAB), Nuremberg, Germany, November.
- Mathematical Tools for Social Scientists (M. Elff). GESIS Summer School, Cologne, Germany, August.
- Bayesian Modeling (X. Fernàndez-i-Marín). Barcelona Summer School in Survey Methodology, Pompeu Fabra University, Barcelona, Spain, July.
- 2015 Structural Equation Modeling (D. Oberski). Institute for Employment Research (IAB), Nuremberg, Germany, November.
- Causal Inference (D.B. Rubin). University of Bamberg, Germany, October.
- Machine Learning for Social Scientists (M. Schonlau). Conference of the European Survey Research Association, Reykjavik, Iceland, July.
- Advanced Statistics and Econometrics (J. Ludsteck and S. Eckman). Institute for Employment Research (IAB), Nuremberg, Germany, June.

SERVICE TO THE PROFESSION

Article Reviewer

BMJ Global Health, Journal for Labour Market Research, Journal of Official Statistics, Journal of Survey Statistics and Methodology, Public Opinion Quarterly

Conference Paper Reviewer

AAPOR (2019, 2020), GOR (2018, 2019, 2020)

Conference & Workshop Organization

- 2020 Member of the Organizing Committee of the International Total Survey Error Workshop, University of Manchester, UK, June.
- 2019 Member of the Organizing Committee of the International Total Survey Error Workshop, University of Bergamo, Italy, June.
- 2018 Member of the Organizing Committee of the International Total Survey Error Workshop, Duke University and University of North Carolina, Chapel Hill, June.)
- 2017 Organizer of the International Total Survey Error Workshop, Institute for Employment Research (IAB), Nuremberg, Germany, June.
- 2015 Member of the Organizing Committee of the IAB Graduate School's 8th Interdisciplinary Ph.D. Workshop on "Perspectives on (Un-)Employment", Institute for Employment Research (IAB), Nuremberg, Germany, December.

Membership in Professional Associations

Akademie für Soziologie, American Association for Public Opinion Research, American Statistical Association, European Survey Research Association

SOFTWARE

Python, R, SQL, Stata

LANGUAGES

German (Native), English (Fluent), French (Fluent)