

Ruben Lukas Bach
Curriculum Vitae

Chair of Statistics and Methodology & Collaborative Research Center SFB 884 "Political Economy of Reforms"
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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
- 09/2012 **B.A.** (*Social Sciences*). Heinrich-Heine University Düsseldorf, Germany.
Erasmus Student. Université de Franche-Comté, Besançon, France. (09 - 12/2010)

AFFILIATIONS

- since 2020 **Adjunct Assistant Research Professor.** Joint Program in Survey Methodology, University of Maryland, College Park, MD
- since 2020 **Project Director.** Mannheim Centre for European Social Research (MZES).
- since 2018 **Postdoctoral Researcher.** Chair of Statistics and Methodology, School of Social Sciences, University of Mannheim, Germany and Collaborative Research Center SFB 884 "Political Economy of Reforms", University of Mannheim, Germany
- 2015-2017 **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

- 2020 Altmann, S., Milsom, L., Zillesen, H., Blasone, R., Gerdon, F., **Bach, R.**, Kreuter, F., Nosenzo, D., Toussaert, S., and Abeler, J. (2020) Acceptability of app-based contact tracing for COVID-19: Cross-country survey evidence. *JMIR mHealth and uHealth*, 8(8), e19857. (<https://doi.org/10.2196/19857>)
- Bach, R.** and Eckman, S. 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.**, Eckman, S., and Daikeler, J. Misreporting Among Reluctant Respondents. *Journal of Survey Statistics and Methodology*, 8(3), 566–588. (<https://doi.org/10.1093/jssam/smz013>)
- Bach, R.** and Wenz, A. Studying health-related internet and mobile device use using web logs and smartphone records. *PLOS One*, 15(6), e0234663. (<https://doi.org/10.1371/journal.pone.0234663>)
- 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>)
- Eckman, S. and **Bach, R.** Panel Conditioning in the U.S. Consumer Expenditure Survey. *Journal of Official Statistics*. (forthcoming)
- Gummer, T., **Bach, R.**, Daikeler, J., and Eckman, S. The relationship between response propensities and data quality in grid questions. *Survey Research Methods*. (forthcoming)

- 2019 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.** and Eckman, S. 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>)
- 2018 **Bach, R.** and Eckman, S. 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. (2020). Measuring Attitude Strength in Social Media Data. In Hill, C.A., et al. (Eds.) *Big Data Meets Survey Science*. Hoboken, NJ: Wiley, 163–192. <https://doi.org/10.1002/9781118976357.ch5>
- Bach, R.** (in press). A Methodological Framework for the Analysis of Panel Conditioning Effects. In Cernat, A. and Sakshaug, J. (Eds.). *Measurement Error in Longitudinal Data*. Oxford University Press.

Manuscripts in Submission

- Gerdon, F., Nissenbaum, H., **Bach, R.**, and Kreuter, F. Individual Acceptance of Using Health Data for Private and Public Benefit: Changes During the COVID-19 Pandemic.
- Haas, G.-C., Eckman, S., **Bach, R.**, and Kreuter, F. Effects of Paper and Web Modes on Response Burden in Establishment Surveys. (R&R, Journal of Official Statistics)

Manuscripts in Preparation

- Bach, R.**, Kern, C., and Bonnay, D. What You Read is Who You Support? Online News Consumption and Political Preferences.
- Gerdon, F., **Bach, R.**, and Kern, C. Impacts of Algorithmic Decision-Making on Social Inequality – Avenues for Social Scientists.
- Müller, P. and **Bach, R.** "Alternative" News Use in Germany: Evidence from Two Web-Tracking Studies.

Other Publications

- 2020 Altmann, S., Milsom, L., Zillessen, H., Blasone, R., Gerdon, F., **Bach, R.**, Kreuter, F., Nosenzo, D., Toussaert, S., and Abeler, J. Acceptability of app-based contact tracing for COVID-19: Cross-country survey evidence. *MedRxiv preprint*. (<https://www.medrxiv.org/content/10.1101/2020.05.05.20091587v1>)
- Abeler, J., Altmann, S., **Bach, R.**, Gerdon, F., Kreuter, F., Milsom, L., Toussaert, S., and Zillessen, H. Akzeptanz App-basierter Kontaktnachverfolgung von Covid-19. (<https://osf.io/z6ws4/>)
- 2017 **Bach, R.** and Eckman, S. 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

- 2020 Political Polarization, Fake News and Selective Exposure During Election Times. Department of Computational Social Science, GESIS - Leibniz Institute for the Social Sciences, Cologne, 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-University, 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); GOR, 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

University of Maryland, College Park

2020 *Fundamentals of Computing and Data Display*. (Graduate course), Fall Semester.

University of Mannheim

2020 *Research Practicum II: Big Data in the Social Sciences*. (in German; 10 ECTS undergraduate course), Fall Semester.

Research Practicum I: Big Data in the Social Sciences. (in German; 5 ECTS undergraduate course), Spring Semester.

Introduction to Big Data & Analytics (online). Summer School, Mannheim Business School.

2019 *Research Design: Causal Inference*. (6 ECTS graduate course), Fall Semester.

Introduction to Big Data & Analytics. Summer School, Mannheim Business School.

Master's Thesis Colloquium Sociology. (3 ECTS graduate course), Spring Semester.

2018 *Research Design: Causal Inference*. (6 ECTS graduate course), Fall Semester.

Research Practicum I: Big Data in the Social Sciences. (in German; 6 ECTS undergraduate course), Spring Semester.

University of Erlangen-Nuremberg

2017 *Introduction to Web Surveys*. (in German; 5 ECTS undergraduate course), Winter Semester.

Theses supervision

2020 Dzajchow, D. (M.Sc. Data Science): Prediction of User Traits Based on Web Log Data and Online Content Using Machine Learning and Natural Language Processing.

Stukas, M. (M.A. Political Science): Political Polarization Through Selective Exposure on Social Media and News Portals?

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.

FUNDING

Grants & Scholarships

2020 "Consequences of Artificial Intelligence for Urban Societies – CAIUS". VolkswagenStiftung. Co-PI with Kai Eckert, Christoph Kern, Frauke Kreuter and Heiner Stuckenschmidt. (1,459,000 €)

"Filter Bubbles, Alternative News and Political Polarization". Postdoctoral Fellowship 2020 of the Baden-Württemberg Stiftung. (139,900 €)

"Fairness in Automated Decision Making – FairADM". Baden-Württemberg Stiftung. Co-PI with Frauke Kreuter and Christoph Kern. (203,787 €)

2019 "Regionale KI Labs". Ministerium für Wirtschaft, Arbeit und Wohnungsbau Baden-Württemberg. Co-PI with Christian Bartelt and Frauke Kreuter. (29,968 €)

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. (47,600 €)

Awards

2019 Lorenz-von-Stein Dissertation Award. Mannheim Centre for European Social Research (MZES), Mannheim, Germany. (1,000 €)

Burns "Bud" Roper Fellow Award, American Association for Public Opinion Research 74th Annual Conference, Toronto, Canada. (1,000 \$)

2018 Travel Award, BigSurv18 - Big Data Meets Survey Science Conference, Barcelona, Spain. (1,000 €)

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, American Association for Public Opinion Research 72nd Annual Conference, New Orleans, LA. (800 \$)

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. Fernández-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

BMC Public Health, 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 Session Moderator

AAPOR (2019), GOR (2019)

Conference Session Organizer

2019 Conference of the European Survey Research Association. Session on "Machine Learning in Survey Research".

Conference & Workshop Organization

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 (since 2019), American Association for Public Opinion Research (since 2016), American Statistical Association (since 2015), European Survey Research Association (since 2015)

SOFTWARE

Python, R, SQL, Stata

LANGUAGES

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