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MICHAEL GEERS

CONTACT INFORMATION

Center for Adaptive Rationality
Max Planck Institute for Human Development
Lentzeallee 94, 14195 Berlin, Germany

Ph +49 30 82406-329 geers@mpib-berlin.mpg.de https://michael-geers.com

EDUCATION

Max Planck Institute for Human Development & HU Berlin Dr. rer. nat. (Ph.D.) in Psychology Dissertation: Rebalancing Human and Algorithmic Decision Making Advisors: Stefan M. Herzog, Ralph Hertwig University of Pennsylvania Master of Behavioral and Decision Sciences Trinity Business School, Trinity College Dublin M.Sc. in Marketing, with Distinction Provadis School of International Management and Technology B.A. in Business Administration

VISITING POSITIONS

Network Science Institute, Northeastern University

Aug-Sep 2022

Visiting Ph.D. Student

Host: Briony Swire-Thompson

RESEARCH INTERESTS

Consumer Psychology of Technology, Digital Marketing, Consumer Empowerment (Boosting)

PUBLICATIONS

Geers, M., Swire-Thompson, B., Lorenz-Spreen, P., Herzog, S.M., Kozyreva, A., & Hertwig, R. (in press). The Online Misinformation Engagement Framework. *Current Opinion in Psychology*.

Geers, M. (2023). Linking lab and field research. Nature Reviews Psychology, 2(8), 458.

Sultan, M., Tump, A.N., **Geers, M.**, Lorenz-Spreen, P., Herzog, S.M., & Kurvers, R.H.J.M. (2022). Time pressure reduces misinformation discrimination ability but does not alter response bias. *Scientific Reports*, 12(1), 1-12.

Roozenbeek, J., Maertens, R., Herzog, S.M., Geers, M., Kurvers, R.H.J.M., Sultan, M., & van der Linden, S. (2022). Susceptibility to misinformation is consistent across question framings and response modes and better explained by myside bias and partisanship than analytical thinking. *Judgment and Decision Making*, 17(3), 547–573.

Lorenz-Spreen, P.*, **Geers, M.**, Pachur, T., Hertwig, R., Lewandowsky, S., & Herzog, S.M.* (2021). Boosting people's ability to detect microtargeted advertising. *Scientific Reports*, 11(1), 1-9. *denotes equal contribution

MANUSCRIPTS UNDER REVIEW

Kozyreva, A., Lorenz-Spreen, P., Herzog, S.M., Ecker, U.K.H., Lewandowsky, S., Hertwig, R., Basol M., Berinsky, A.J., Betsch, C., Cook, J., Fazio, L.K., **Geers, M.**, Guess, A.M., Maertens, R., Panizza, F., Pennycook, G., Rand, D., Rathje, S., Reifler, J., Roozenbeek, J., Schmid, P., Smith, M., Swire-Thomson, B., Szewach, P., van der Linden, S., & Wineburg, S. Toolbox of interventions against online misinformation and manipulation. Revise and resubmit at *Nature Human Behaviour*.

Geers, M., Fischer, H., Lewandowsky, S., & Herzog, S.M. The political (a)symmetry of metacognitive insight into detecting misinformation. Under review at *Journal of Experimental Psychology: General*.

SELECTED RESEARCH IN PROGRESS

Straub, V., Burton, J., Geers, M., & Lorenz-Spreen, P. How to design more ethical social media field experiments. Data collection complete. Finalizing manuscript to submit to Nature Human Behaviour.

Lorenz-Spreen, P., Kozyreva, A., Arslan, R.C., Swire-Thompson, B., **Geers, M.**, Herzog, S.M., & Hertwig, R. Assessing the motives for sharing on Twitter. *Data collection complete. Finalizing manuscript to submit to Nature Human Behaviour*.

Geers, M.*, Fischer, H.*, Lewandowsky, S., & Herzog, S.M. Confidence in detecting misinformation increases with political extremism, not conservatism. *Data analysis. Target: Journal of Experimental Psychology: General.* *denotes equal contribution

Geers, M., Lorenz-Spreen, P., Teich, P.**, Hertwig, R., Lewandowsky, S., & Herzog, S.M. Boosting consumers' resilience against microtargeted advertising. *Early-stage data collection. Target: Journal of Consumer Psychology.* **denotes student mentee

Geers, M. & Lorenz-Spreen, P. Social cues and news persuasiveness. *Conceptualization. Target: Journal of Consumer Research.*

Building a better toolkit (for fighting inaccurate health information): Large collaborative project to compare misinformation interventions. With L. Fazio, D. Rand, S. Lewandowsky, and about 80 others.

HONORS AND GRANTS

| Society for Personality and Social Psychology Graduate Travel Award (\$500) | 2023 |
|--|-------------|
| Joachim Herz Add-On Fellowship for Interdisciplinary Business Administration (€12,500) | 2022 |
| Psychonomic Society Graduate Student Conference Award (\$1,000) | 2022 |
| Volkswagen Foundation, "AI and the Future of Societies" (€1,440,000; team member) | 2021 – 2025 |
| SSRC/Summer Institutes in Computational Social Science Research Grant (\$1,764) | 2021 |
| Max Planck Ph.D. Fellowship (IMPRS LIFE) | 2020-2023 |
| Trinity Business School Scholarship (€1,000) | 2017 |

INVITED TALKS

| University of Bristol, TeDCog (Technology, Democracy, and Cognition) Group | 2023 |
|--|------|
| Northeastern University, Lazer Lab | 2022 |
| University of Cambridge, Cambridge Social Decision-Making Lab (Virtual) | 2021 |

CONFERENCE PRESENTATIONS

Assessing the motives for sharing on Twitter

• Conference of Experimental Psychologists (TeaP)

2023

The political (a)symmetry of metacognitive insight into detecting misinformation

• Society for Personality and Social Psychology

2019

| • Psychonomic Society, Virtual (Poster) | 2022 |
|--|----------------------|
| • International Society of Political Psychology, Virtual | 2021 |
| • Conference of Experimental Psychologists (TeaP), Virtual (Poster) | 2021 |
| Boosting people's ability to detect microtargeted advertising | |
| \bullet PERITIA International Conference: Trust in Expertise in a Changing Media Landscape, V 2021 | Virtual |
| • Society for Judgment and Decision Making, Virtual (Poster) | 2020 |
| • Psychonomic Society, Virtual (Poster) | 2020 |
| CHAIRED SYMPOSIA | |
| Misinformation Research - Quo Vadis? Conference of Experimental Psychologists (TeaP), Triesmany, 2023. | r, Ger- |
| New Frontiers in Misinformation Research (Symposium Co-Chair: Rakoen Maertens). Sociel Personality and Social Psychology, Atlanta, GA, 2023. | ety for |
| TEACHING EXPERIENCE | |
| Instructor | |
| • Reading Group "Cognition in Online Environments", MPI for Human Development 2020–F | resent |
| Organizer | |
| • Summer Institute on Bounded Rationality, MPI for Human Development | 2022 |
| • Colloquium (weekly seminar), MPI for Human Development 2026 | 0-2021 |
| TEACHING INTERESTS | |
| Consumer Behavior, Judgment and Decision Making, Managerial Decision Making, Computer Social Science, Marketing Analytics, Digital Marketing, Consumer Psychology of Technology, International Persuasion in the Digital Age, Consumer Behavior Research Methods | |
| UNDERGRADUATE ADVISING | |
| Bachelor Thesis Co-Supervision (with Stefan M. Herzog): Madlen Hoffstadt (Humboldt Univ 2021), Eric Neumann (Free University of Berlin, 2020) | versity, |
| Research Assistants and Interns: Amanda Fink (Technical University Berlin, 2022), Paula Teich versity of Potsdam, 2021), Johanna Forbriger (University of Konstanz, 2021) | ı (Uni- |
| ADDITIONAL TRAINING | |
| European Summer School on Computational and Mathematical Modeling of Cognition, ESCoP PhD Workshop on AI/ML Research and Democracy, University of Tübingen Nature Masterclass in Scientific Writing and Publishing, Nature | 2022 2022 2021 |
| Summer Institute in Computational Social Science, UCL School of Management | 2021 2021 |
| Linking Twitter & Survey Data, GESIS Leibniz Institute for the Social Sciences | 2021 |

PROFESSIONAL SERVICE

| $R\epsilon$ | eviewer, Summer | Institute on B | Sounded Ration | ality, MPI for | r Human Deve | elopment | 2022 - 2023 |
|-------------|-----------------|-----------------|-----------------|----------------|---------------|-------------|-------------|
| Pr | ogram Fellow Sp | eaker, Internat | tional Max Plar | nck Research | School on the | Life Course | 2021-2022 |

Summer Institute on Bounded Rationality, Max Planck Institute for Human Development

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PROFESSIONAL MEMBERSHIP

Association for Consumer Research (ACR)

European Association for Decision Making (EADM)

European Marketing Academy (EMAC)

German Psychological Society (DGPs)

Psychonomic Society (PS)

Society for Consumer Psychology (SCP)

Society for Judgment and Decision Making (SJDM)

Society for Personality and Social Psychology (SPSP)

RESEARCH EXPERIENCE PRIOR TO PHD

| Intern | Center for Adaptive Rationality, MPI for Human Development (Stefan M | . Herzog) 2019 |
|--------|--|----------------|
| R.A. | The Wharton School, University of Pennsylvania (Barbara Mellers) | 2018 – 2019 |
| R.A. | Trinity Business School, Trinity College Dublin (Kristian Myrseth) | 2017 - 2018 |

SKILLS

| Computer Skills | R, Git, Qualtrics, formr, LATEX |
|-----------------|-----------------------------------|
| Languages | German (native), English (fluent) |

REFERENCES

Stefan M. Herzog

Ph.D. Co-Advisor
Senior Research Scientist
Center for Adaptive Rationality
Max Planck Institute for Human Development
herzog@mpib-berlin.mpg.de

Kristian Myrseth

MSc Advisor
Professor of Management
School for Business and Society
University of York
kristian.myrseth@york.ac.uk

Ralph Hertwig

Ph.D. Co-Advisor
Director
Center for Adaptive Rationality
Max Planck Institute for Human Development
sekhertwig@mpib-berlin.mpg.de

APPENDIX: SELECTED RESEARCH ABSTRACTS

Geers, M., Fischer, H., Lewandowsky, S., & Herzog, S.M. The political (a)symmetry of metacognitive insight into detecting misinformation. Under review at *Journal of Experimental Psychology: General*.

Political misinformation poses a major threat to democracies worldwide, often inciting intense disputes between opposing political groups. Despite its central role for informed electorates and political decision making, little is known about how aware people are of whether they are right or wrong when distinguishing accurate political information from falsehood. Here, we investigate people's metacognitive insight into their own ability to detect political misinformation. We use data from a unique longitudinal study spanning 12 waves over 6 months that surveyed a representative U.S. sample (N = 1,191) on the most widely circulating political (mis)information online. Harnessing signal detection theory methods to model metacognition, we found that people's knowledge accuracy and confidence accuracy were closely aligned: People were equally adept at reasoning about the accuracy of political information as they were at reasoning about the accuracy of their own evaluation of the information. This level of metacognitive insight was symmetrical across the political and ideological spectrum, with one exception: Levels of metacognitive insight were considerably lower for Republicans and conservatives for incongruent news—that is, when the information in question challenged their ideological commitments. These results reveal the intricate and systematic ways in which political preferences are linked to the accuracy with which people assess their own truth discernment. More broadly, by identifying a specific political asymmetry—for incongruent relative to congruent news—our findings highlight the role of metacognition in the persistence and aggravation of ideological divides.

Geers, M., Swire-Thompson, B., Lorenz-Spreen, P., Herzog, S.M., Kozyreva, A., & Hertwig, R. (in press). The Online Misinformation Engagement Framework. *Current Opinion in Psychology*.

Research on online misinformation has evolved rapidly, but organizing its results and identifying open research questions is difficult without a systematic approach. We present the Online Misinformation Engagement Framework, which classifies people's engagement with online misinformation into four stages: selecting information sources, choosing what information to consume or ignore, evaluating the accuracy of the information and/or the credibility of the source, and judging whether and how to react to the information (e.g., liking or sharing). We outline entry points for interventions at each stage and pinpoint the two early stages—source and information selection—as relatively neglected processes that should be addressed to further improve people's ability to contend with misinformation.

Kozyreva, A., Lorenz-Spreen, P., Herzog, S.M., Ecker, U.K.H., Lewandowsky, S., Hertwig, R., Basol M., Berinsky, A.J., Betsch, C., Cook, J., Fazio, L.K., **Geers, M.**, Guess, A.M., Maertens, R., Panizza, F., Pennycook, G., Rand, D., Rathje, S., Reifler, J., Roozenbeek, J., Schmid, P., Smith, M., Swire-Thomson, B., Szewach, P., van der Linden, S., & Wineburg, S. Toolbox of interventions against online misinformation and manipulation. Revise and resubmit at *Nature Human Behaviour*.

The spread of misinformation through media and social networks threatens many aspects of society, including public health and the state of democracies. A wide range of individual-focused interventions aimed at reducing harm from online misinformation have been developed in the behavioral and cognitive sciences. We, an international group of 26 experts, introduce and analyze our toolbox of interventions against misinformation, which includes an up-to-date account of the interventions featured in 42 scientific papers. A resource for scientists, policy makers, and the public, the toolbox delivers both a conceptual overview of the breadth of interventions, including their target and scope, and a summary of the empirical evidence supporting the interventions, including the methods and experimental paradigms used to test them. The toolbox covers 10 types of interventions: accuracy prompts, debunking, friction, inoculation, lateral

reading, media-literacy tips, rebuttals of science denialism, self-reflection tools, social norms, and warning and fact-checking labels.

Lorenz-Spreen, P.*, **Geers, M.**, Pachur, T., Hertwig, R., Lewandowsky, S., & Herzog, S.M.* (2021). Boosting people's ability to detect microtargeted advertising. *Scientific Reports*, 11(1), 1-9. *denotes equal contribution

Online platforms' data give advertisers the ability to "microtarget" recipients' personal vulnerabilities by tailoring different messages for the same thing, such as a product or political candidate. One possible response is to raise awareness for and resilience against such manipulative strategies through psychological inoculation. Two online experiments (total N=828; female UK residents) demonstrated that a short, simple intervention prompting participants to reflect on an attribute of their own personality—by completing a short personality questionnaire—boosted their ability to accurately identify ads that were targeted at them by up to 26 percentage points. Accuracy increased even without personalized feedback, but merely providing a description of the targeted personality dimension did not improve accuracy. We argue that such a "boosting approach," which here aims to improve people's competence to detect manipulative strategies themselves, should be part of a policy mix aiming to increase platforms' transparency and user autonomy.