

Dr. Stefan Herzog

Senior Research Scientist and
Head of Research Area "Boosting Decision Making" at
Center for Adaptive Rationality (ARC)
Max Planck Institute for Human Development
Lentzeallee 94, 14195 Berlin, Germany

herzog@mpib-berlin.mpg.de
stefanherzog.org

twitter: @stefanmherzog

orcid.org/0000-0003-2329-6433

open science framework (OSF): <https://osf.io/gv3ka>

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Research statement & short bio

I study how to boost human judgment and decision making (scienceofboosting.org) by understanding human and machine behavior and how humans themselves understand machines. I combine insights and methods from cognitive science, collective intelligence ("wisdom of crowds"), heuristics, and algorithms. I also work on applications in digital environments (sks.to/rao), medical decision making, and meteorology. Furthermore, I am co-leading an initiative on reconfiguring behavioral science for crisis knowledge management in response to COVID-19 and other, future disruptive events (scibeh.org).

I am the head of the research area "boosting decision making" (scienceofboosting.org) and senior researcher at the Center for Adaptive Rationality at the Max Planck Institute for Human Development in Berlin. In 2010 I received the Hillel Einhorn New Investigator Award of the Society for Judgment and Decision Making. My research has been covered in the popular press (e.g., *Scientific American*) and appears in academic and popular science books (incl. Tetlock and Garner's "Superforecasting"). I studied psychology, management, and computer science, and received my psychology doctorate in 2009 from the University of Basel.

Five selected recent, peer-reviewed publications

* equal contribution / shared authorship | \$ senior authorship

Litvinova*, A., Kurvers, R. H. J. M., Hertwig, R., & **Herzog*\$**, S. M. (2022). How experts' own inconsistency relates to their confidence and between-expert disagreement. *Scientific Reports*, 12, 9273. <https://doi.org/10.1038/s41598-022-12847-5>

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, 15541. <https://doi.org/10.1038/s41598-021-94796-z>

Kurvers, R. H. J. M., **Herzog**, S. M., Hertwig, R., Krause, J., & Wolf, M. (2021). Pooling decisions decreases variation in response bias and accuracy. *iScience*, 102740. <https://doi.org/10.1016/j.isci.2021.102740>

Kozyreva*, A., Lorenz-Spreen, P., Hertwig, R., Lewandowsky, S., & **Herzog*\$**, S. M. (2021). Public attitudes towards algorithmic personalization and use of personal data online: Evidence from Germany, Great Britain, and the US. *Humanities & Social Sciences Communications*, 8(117). <https://doi.org/10.1057/s41599-021-00787-w>

Analytis, P. P., Barkoczi, D., Lorenz-Spreen, P., & **Herzog***, S. M. (2020). The structure of social influence in recommender networks. In WWW '20: *Proceedings of the 2020 International World Wide Web Conference*. Taipei, Taiwan - April 20-24, 2020. <https://doi.org/10.1145/3366423.3380020>

Ten selected all-time, peer-reviewed publications

* equal contribution / shared authorship | * senior authorship

Litvinova*, A., Kurvers, R. H. J. M., Hertwig, R., & **Herzog***, S. M. (2022). How experts' own inconsistency relates to their confidence and between-expert disagreement. *Scientific Reports*, 12, 9273. <https://doi.org/10.1038/s41598-022-12847-5>

Kozyreva*, A., Lorenz-Spreen, P., Hertwig, R., Lewandowsky, S., & **Herzog***, S. M. (2021). Public attitudes towards algorithmic personalization and use of personal data online: Evidence from Germany, Great Britain, and the US. *Humanities & Social Sciences Communications*, 8. <https://doi.org/10.1057/s41599-021-00787-w>

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, 15541. <https://doi.org/10.1038/s41598-021-94796-z>

Kurvers, R. H. J. M., **Herzog**, S. M., Hertwig, R., Krause, J., Moussaid, M., Argenziano, G., ... Wolf, M. (2019). How to detect high-performing individuals and groups: Decision similarity predicts accuracy. *Science Advances*, 5, eaaw9011. <https://doi.org/10.1126/sciadv.aaw9011>

Analytis*, P. P., Barkoczi*, D., & **Herzog***, S. M. (2018). Social learning strategies for matters of taste. *Nature Human Behavior*, 2, 415–424. <https://doi.org/10.1038/s41562-018-0343-2>

Herzog, S. M., & von Helversen, B. (2018). Strategy selection versus strategy blending: A predictive perspective on single- and multi-strategy accounts in multiple-cue estimation. *Journal of Behavioral Decision Making*, 31, 233–249. <https://doi.org/10.1002/bdm.1958>

Moussaïd, M., **Herzog**, S. M., Kämmer, J. E., & Hertwig, R. (2017). Reach and speed of judgment propagation in the laboratory. *Proceedings of the National Academy of Sciences of the United States of America*, 114(16), 4117–4122. <https://doi.org/10.1073/pnas.1611998114>

Kurvers, R. H. J. M., **Herzog**, S. M., Hertwig, R., Krause, J., Carney, P. A., Bogart, A., et al. (2016). Boosting medical diagnostics by pooling independent judgments. *Proceedings of the National Academy of Sciences of the United States of America*, 113, 8777–8782. <https://doi.org/10.1073/pnas.1601827113>

Herzog, S. M., & Hertwig, R. (2014). Harnessing the wisdom of the inner crowd. *Trends in Cognitive Sciences*, 18, 504–506. <https://doi.org/10.1016/j.tics.2014.06.009>

Herzog, S. M., & Hertwig, R. (2009). The wisdom of many in one mind: Improving individual judgments with dialectical bootstrapping. *Psychological Science*, 20, 231–237. <https://doi.org/10.1111/j.1467-9280.2009.02271.x>

Academic Qualifications

Dr. phil. (*summa cum laude*/with highest praise), dissertation: „The power of fluency and aggregation: Two case studies in the cognitive science of human judgment“, Department of Psychology, University of Basel, 2005–2009

Master of Science in Psychology (*summa cum laude*/with highest praise); major in social psychology, consumer and organizational behavior, Department of Psychology, University of Basel, Switzerland, 2003–2005

Subsidiary degree in managerial economics, studies in computer sciences, Wirtschaftswissenschaftliches Zentrum (WWZ), University of Basel, Switzerland, 2001–2005

Bachelor of Science in Psychology (*magna cum laude*/with great praise), Department of Psychology, University of Basel, Switzerland, 2000–2003

Managerial economics and computer sciences, Wirtschaftswissenschaftliches Zentrum (WWZ), University of Basel, Switzerland, 1999–2000

Positions

Senior Research Scientist and Head of Research Area “Boosting Decision Making”, Center for Adaptive Rationality (ARC), Max Planck Institute for Human Development, Berlin, 2021–...

Researcher, Center for Adaptive Rationality (ARC), Max Planck Institute for Human Development, Berlin, 2012–2021; since 2019: Head of Research Area “Boosting Decision Making”

Researcher, Cognitive and Decision Sciences, Department of Psychology, University of Basel, 2009–2012

Graduate student, Cognitive and Decision Sciences, Department of Psychology, University of Basel, Switzerland, 2005–2009

Grants

HORIZON grant (HORIZON-CL2-2022-DEMOCRACY-01-07, GA 101094752). Social media for democracy – understanding the causal mechanisms of digital citizenship (SoMe4Dem). Max Planck Institute for Mathematics in the Sciences (Olbrich, E.), Max Planck Institute for Human Development (Kozyreva, A., Lorenz-Spreen, P., **Herzog**, S. M., Hertwig, R.), Ca' Foscari University of Venice (Cruciani, C., Warglien, M., Santagiustina, C. R. M. A.), University of Leipzig (Karolewski, I. R., Lorenz, A., Zech, N.), University of Amsterdam (Rogers, R., Peeters, S.), Free University of Brussels (Meyer, T., Willaert, T., Picone, I.), Karlsruhe Institute of Technology (Banisch, S.), Fondation Nationale des Sciences Politiques (Cointet, J.-P., Morales, L., Ramaciotti Morales, P.), University of Bristol (Lewandowsky, S.); 3.0 Mio €; 2023-2025.

HORIZON+UKRI grant (HORIZON-CL4-2021-DIGITAL-EMERGING-01-10, GA 101070588). *Hybrid human artificial collective intelligence in open-ended decision making (HACID)*. National Research Council of Italy (Trianni, V., Nuzzolese, A. G.), Max Planck Institute for Human Development (**Herzog**, S. M., Kurvers, R. H. J. M.), Nesta | UK innovation agency for social good (Berditschevskaia, A., Baek, P.), Met Office UK (Fung, F., Lowe, J.), Human Dx EU, Ltd. (Barabucci, G. & Lin, I.); 2.8 Mio €; 2022-2025.

German Research Foundation (Deutsche Forschungsgemeinschaft, DFG). *Assisting behavioral science and evidence-based policy making using online machine tools (POLTOOLS)*. **Herzog**, S. M.: €381,750; 2021-2024. <https://gepris.dfg.de/gepris/projekt/458366841?language=en>

Volkswagen Foundation (VolkswagenStiftung). *Reclaiming individual autonomy and democratic discourse online: How to rebalance human and algorithmic decision making*. Max Planck Institute for Human Development (Hertwig, R., **Herzog**, S. M.), University of Bristol (Lewandowsky, S., Rashid, A.), Northeastern University (Eliassi-Rad, T.); €1,440,000; 2021-2025. <http://portal.volkswagenstiftung.de/search/projectDetails.do?siteLanguage=en&ref=98515>

Volkswagen Foundation (VolkswagenStiftung). *Controlling the Jekyll and Hyde of artificial-intelligence assisted information architectures: Accepting customization while resisting micro-targeted manipulation*. Max Planck Institute for Human Development (Hertwig, R., **Herzog**, S. M.), University of Bristol (Lewandowsky, S., Rashid, A.), Northeastern University (Eliassi-Rad, T.); €148,000; 2019–2020. <https://portal.volkswagenstiftung.de/search/projectDetails.do?siteLanguage=en&ref=95932>

Swiss National Foundation (SNF). *Dialectical bootstrapping: A new paradigm to improve individual judgment* (project 100014_129572). **Herzog**, S. M. & Hertwig, R.; CHF 270,925; 2011–2017. <http://p3.snf.ch/Project-129572>

Awards & Honors

Fellow of the Psychonomic Society (FPsyS)

Hillel Einhorn New Investigator Award 2010 for the paper Herzog & Hertwig (2009), Society for Judgment and Decision Making; see <http://www.sjdm.org/history.html>

Steven Karger Department of Psychology Award 2009 for dissertation ("The power of fluency and aggregation: Two case studies in the cognitive science of human judgment", Herzog, 2008), CHF 5,000, Department of Psychology, University of Basel.

"*The Wisdom of Crowds*" within and across people. Travelling grant, 2009: Swiss National Foundation („International short research visits“). CHF 3,200.

1st place in *The Technion Prediction Tournament*, Condition E-sampling: Erev et al. (2008)

Preprints

* equal contribution / shared authorship | \$ senior authorship

Kopsacheilis, O., Analytis, P. P., Kaushik, K., **Herzog**, S. M., Bahrami, b., & Deroy, O. (2022). *Crowdsourcing the assessment of wine quality - Evidence from Vivino ratings*. https://kopsacheilis.com/wp-content/uploads/2022/08/Crowdsourcing_the_assessment_of_wine_quality_Kopsacheilis_updated.pdf

Kozyreva, A., **Herzog**, S. M., Lewandowsky, S., Hertwig, R., Lorenz-Spreen, P., Leiser, M., & Reifler, J. (2022, June 18). *Free speech vs. harmful misinformation: Moral dilemmas in online content moderation*. <https://doi.org/10.31234/osf.io/2pc3a>

Sultan, M., Tump, A. N., Geers, M., Lorenz-Spreen, P., **Herzog**, S. M., & Kurvers, R. H. J. M. (2022, May 24). *Time pressure reduces misinformation discrimination ability but not response bias*. <https://doi.org/10.31234/osf.io/brn5s>

Yesilada, M., Holford, D. L., Wulf, M., Hahn, U., Lewandowsky, S., **Herzog**, S. M., ... El-Halaby, G. (2021, May 31). *Who, What, Where: Tracking the development of COVID-19 related PsyArXiv preprints*. <https://doi.org/10.31234/osf.io/evmgs>

Analytis, P. P., Schnabel, T., **Herzog**, S. M., Barkoczi, D., & Joachims, T. (2017, June 27). *A preference elicitation interface for collecting rich recommender datasets*. <https://arxiv.org/abs/1706.08184>

Peer-reviewed publications

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Litvinova*, A., Kurvers, R. H. J. M., Hertwig, R., & **Herzog*\$**, S. M. (2022). How experts' own inconsistency relates to their confidence and between-expert disagreement. *Scientific Reports*, 12, 9273. <https://doi.org/10.1038/s41598-022-12847-5>

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. <http://journal.sjdm.org/22/220228/sjdm220228.pdf>

Kozyreva, A., Lorenz-Spreen, P., Lewandowsky, S., Garrett, P. M., **Herzog**, S. M., Pachur, T., & Hertwig, R. (2021). Psychological factors shaping public responses to COVID-19 digital contact tracing technologies in Germany. *Scientific Reports*, 11, 18716. <https://doi.org/10.1038/s41598-021-98249-5>

Kozyreva*, A., Lorenz-Spreen, P., Hertwig, R., Lewandowsky, S., & **Herzog*\$**, S. M. (2021). Public attitudes towards algorithmic personalization and use of personal data online: Evidence from Germany, Great Britain, and the US. *Humanities & Social Sciences Communications*, 8(117). <https://doi.org/10.1057/s41599-021-00787-w>

- Kurvers, R. H. J. M., **Herzog**, S. M., Hertwig, R., Krause, J., & Wolf, M. (2021). Pooling decisions decreases variation in response bias and accuracy. *iScience*, 102740. <https://doi.org/10.1016/j.isci.2021.102740>
- 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, 15541. <https://doi.org/10.1038/s41598-021-94796-z>
- Analytis, P. P., Barkoczi, D., Lorenz-Spreen, P., & **Herzog***, S. M. (2020). The structure of social influence in recommender networks. In WWW '20: *Proceedings of the 2020 International World Wide Web Conference*. Taipei, Taiwan - April 20-24, 2020. <https://doi.org/10.1145/3366423.3380020>
- Fleischhut, N., **Herzog**, S. M., & Hertwig, R. (2020). Weather literacy in times of climate change. *Weather, Climate and Society*, 12, 435–452. <https://doi.org/10.1175/WCAS-D-19-0043.1>
- Herzog***, S. M., Jenny*, M. A., Nickel, C. H., Nieves Ortega, R., & Bingisser, R. (2020). Emergency department patients with weakness or fatigue: Can physicians predict their outcomes at the front door? A prospective observational study. *PLOS ONE*, 15, e0239902. <https://doi.org/10.1371/journal.pone.0239902>
- Keller, N., Jenny, M. A., Spies, C. A., & **Herzog**, S. M. (2020). Augmenting decision competence in healthcare using AI-based cognitive models. In *2020 IEEE International Conference on Healthcare Informatics (ICHI)* (pp. 553-556). Piscataway, NJ: IEEE. <https://doi.org/10.1109/ICHI48887.2020.9374376>
- Krockow, E. M., Kurvers, R. H. J. M., **Herzog**, S. M., Kämmer, J. E., Hamilton, R. A., Thilly, N., ... & Pulcini, C. (2020). Harnessing the wisdom of crowds can improve guideline compliance of antibiotic prescribers and support antimicrobial stewardship. *Scientific Reports*, 10, 1-12. <https://doi.org/10.1038/s41598-020-75063-z>
- Litvinova*, A., **Herzog***, S. M., Kall, A. A., Pleskac, T. J., & Hertwig, R. (2020). How the “wisdom of the inner crowd” can boost accuracy of confidence judgments. *Decision*, 7, 183–211. <https://doi.org/10.1037/dec0000119>
- Molleman, L., Tump, A. N., Gradassi, A., **Herzog**, S. M., Jayles, B., Kurvers, R. H. J. M., & van den Bos, W. (2020). Strategies for integrating disparate social information. *Proceedings of the Royal Society B: Biological Sciences*, 287(1939), 20202413. <https://doi.org/10.1098/rspb.2020.2413>
- Zimmerman, S., **Herzog**, S. M., Elsweller, D., Chamberlain, J., & Kruschwitz, U. (2020). Towards a framework for harm prevention in web search. In *BIRDS 2020: Bridging the gap between information science, information retrieval and data science [An interdisciplinary SIGIR 2020 workshop for students, practitioners and researchers in data science, information retrieval and information science]*. https://birds-ws.github.io/birds2020/assets/papers/BIRDS2020_zlmmmerman.pdf
- Fundel*, V. J., Fleischhut*, N., **Herzog***, S. M., Göber, M., & Hagedorn, R. (2019). Promoting the use of probabilistic weather forecasts through a dialogue between scientists, developers, and end-users. *Quarterly Journal of Royal Meteorological Society*, 145 (Suppl. 1), 210–231. <https://doi.org/10.1002/qj.3482>
- Herzog**, S. M., & Hills, T. T. (2019). Mediation centrality in adversarial policy networks. *Complexity*, Article ID 1918504. <https://doi.org/10.1155/2019/1918504>
- Kurvers, R. H. J. M., **Herzog**, S. M., Hertwig, R., Krause, J., Moussaid, M., Argenziano, G., ... Wolf, M. (2019). How to detect high-performing individuals and groups: Decision similarity predicts accuracy. *Science Advances*, 5, eaaw9011. <https://doi.org/10.1126/sciadv.aaw9011>
- Analytis*, P. P., Barkoczi*, D., & **Herzog***, S. M. (2018). Social learning strategies for matters of taste. *Nature Human Behavior*, 2, 415–424. <https://doi.org/10.1038/s41562-018-0343-2>
- Frey, R., **Herzog**, S. M., & Hertwig, R. (2018). Deciding on behalf of others: A population survey on procedural preferences for surrogate decision making. *BMJ Open* 2018;8:e022289. <https://doi.org/10.1136/bmjopen-2018-022289>
- Herzog**, S. M., & von Helversen, B. (2018). Strategy selection versus strategy blending: A predictive perspective on single- and multi-strategy accounts in multiple-cue estimation. *Journal of Behavioral Decision Making*, 31, 233–249. <https://doi.org/10.1002/bdm.1958>

- Herzog**, S. M., Lim, H. W., Williams, M. S., de Maddalena, I. D., Osterwalder, U., & Surber, C. (2017). SPF communication of sunscreen effectiveness: A web-based study of perception of effectiveness by dermatologists. *JAMA Dermatology*, 153, 348–349. <https://doi.org/10.1001/jamadermatol.2016.4924>
- Kämmer, J. E., Hautz, W. E., **Herzog**, S. M., Kunina-Habenicht, O., & Kurvers, R. H. J. M. (2017). The potential of collective intelligence in emergency medicine: Pooling medical students' independent decisions improves diagnostic performance. *Medical Decision Making*, 37, 715–724. <https://doi.org/10.1177/0272989X17696998>
- Moussaïd, M., **Herzog**, S. M., Kämmer, J. E., & Hertwig, R. (2017). Reach and speed of judgment propagation in the laboratory. *Proceedings of the National Academy of Sciences of the United States of America*, 114(16), 4117–4122. <https://doi.org/10.1073/pnas.1611998114>
- Kurvers, R. H. J. M., **Herzog**, S. M., Hertwig, R., Krause, J., Carney, P. A., Bogart, A., et al. (2016). Boosting medical diagnostics by pooling independent judgments. *Proceedings of the National Academy of Sciences of the United States of America*, 113, 8777–8782. <https://doi.org/10.1073/pnas.1601827113>
- Frey, R., Hertwig, R., & **Herzog**, S. M. (2014). Surrogate decision making: Do we have to trade off accuracy and procedural satisfaction? *Medical Decision Making*, 34, 258–269. <https://doi.org/10.1177/0272989X12471729>
- Herzog**, S. M., & Hertwig, R. (2014). Harnessing the wisdom of the inner crowd. *Trends in Cognitive Sciences*, 18, 504–506. <https://doi.org/10.1016/j.tics.2014.06.009>
- Herzog**, S. M., & Hertwig, R. (2014). Think twice and then: Combining or choosing in dialectical bootstrapping? *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 40, 218–232. <https://doi.org/10.1037/a0034054>
- von Helversen, B., **Herzog**, S. M., & Rieskamp, J. (2014). Haunted by a Doppelgänger: Irrelevant facial similarity affects rule-based judgments. *Experimental Psychology*, 61, 12–22. <https://doi.org/10.1027/1618-3169/a000221>
- Herzog**, S. M., & Hertwig, R. (2013). The crowd within and the benefits of dialectical bootstrapping: A reply to White and Antonakis (2013). *Psychological Science*, 24, 117–119. <https://doi.org/10.1177/0956797612457399>
- Herzog**, S. M., & Oswald, D. (2013). Sometimes Bayesian statistics are better [correspondence]. *Nature*, 494, 35. <https://doi.org/10.1038/494035b>
- Herzog**, S. M., & Hertwig, R. (2011). The wisdom of ignorant crowds: Predicting sport outcomes by mere recognition. *Judgment and Decision Making*, 6, 58–72. <http://journal.sjdm.org/11/rh18/rh18.pdf>
- Erev, I., Ert, E., Roth, A. E., Haruvy, E., **Herzog**, S. M., Hau, R., Hertwig, R., Stewart, T., West, R., Lebiere, C. (2010). A choice prediction competition, for choices from experience and from description. *Journal of Behavioral Decision Making*, 23, 15–47. <https://doi.org/10.1002/bdm.683>
- Hertwig, R., & **Herzog**, S. M. (2009). Fast and frugal heuristics: Tools of social rationality. *Social Cognition*, 27, 661–698. <https://doi.org/10.1521/soco.2009.27.5.661>
- Herzog**, S. M., & Hertwig, R. (2009). The wisdom of many in one mind: Improving individual judgments with dialectical bootstrapping. *Psychological Science*, 20, 231–237. <https://doi.org/10.1111/j.1467-9280.2009.02271.x>
- Hertwig, R., **Herzog**, S. M., Schooler, L. J., & Reimer, T. (2008). Fluency heuristic: A model of how the mind exploits a by-product of information retrieval. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 34, 1191–1206. <https://doi.org/10.1037/a0013025>
Reprinted in: Gigerenzer, G., Hertwig, R., & Pachur, T. (Eds.). (2011). *Heuristics: The foundations of adaptive behavior* (pp. 540–560). Oxford University Press.
- Herzog**, S. M., Hansen, J., & Wänke, M. (2007). Temporal distance and ease of retrieval. *Journal of Experimental Social Psychology*, 43, 483–488. <https://doi.org/10.1016/j.jesp.2006.05.008>

Other publications

* equal contribution / shared authorship | § senior authorship

Holford, D., Fasce, A., Tapper, K., Demko, M., Lewandowsky, S., Hahn, U., Al-Rawi, A., Alladin, A., Boender, T. S., Bruns, H., Fischer, F., Gilde, C., Hanel, P. H. P., **Herzog**, S. M., Kause, A., Lehmann, S., Nurse, M. S., Orr, C., Pescetelli, N., Petrescu, M., Sah, S., Schmid, P., Sirota, M., & Wulf, M. (2022). *A manifesto for science communication as collective intelligence*. <https://doi.org/10.17605/OSF.IO/TZUFW>

Holford, D., Jenny, M. A., Hahn, U., Koylyu, A., Scherzer, M., Lewandowsky, S., **Herzog**, S. M., Fasce, A., & Wulf, M. (2022). *Written evidence submitted by SciBeh for the Scottish Government's COVID-19 Recovery Committee 15th Meeting, 2022 (Session 6), Thursday 26 May 2022: COVID-19: communication of public health information (CVDR/S6/22/15/1)*. <https://www.parliament.scot/~media/committ/3435#page=3>

Herzog, S. M., & Hertwig, R. (2022). Kompetenzen mit “Boosts” stärken: Verhaltenswissenschaftliche Erkenntnisse jenseits jenseits von “Nudging” [Strengthening competencies with boosts: Behavioral insights beyond nudging]. *Report Psychologie*, 4, 18–21. <http://hdl.handle.net/21.11116/0000-000A-5C99-3> PDF: https://pure.mpg.de/rest/items/item_3378896_9/component/file_3399461/content#page=3

Lewandowsky, S., Cook, J., Schmid, P., Holford, D. L., Finn, A., Leask, J., Thomson, A., Lombardi, D., Al-Rawi, A. K., Amazeen, M. A., Anderson, E. C., Armaos, K. D., Betsch, C., Bruns, H. H. B., Ecker, U. K. H., Gavaruzzi, T., Hahn, U., **Herzog**, S. M., Juanchich, M., Kendeou, P., Newman, E. J., Pennycook, G., Rapp, D. N., Sah, S., Sinatra, G. M., Tapper, K., Vraga, E. K (2021). *The COVID-19 vaccine communication handbook. A practical guide for improving vaccine communication and fighting misinformation*. Available at: <https://sks.to/c19vax>

Fleischhut, N., **Herzog**, S. M., & Hertwig, R. (2020). Public weather literacy in times of climate change. *Bulletin of the American Meteorological Society*. Print edition only.

Kozyreva, A., **Herzog**, S. M., Lorenz-Spreen, P., Hertwig, R., & Lewandowsky, S. (2020). *Artificial intelligence in online environments: Representative survey of public attitudes in Germany*. Max Planck Institute for Human Development. <https://doi.org/10.17617/2.3188061>

Kozyreva, A., **Herzog**, S. M., Lorenz-Spreen, P., Hertwig, R., & Lewandowsky, S. (2020). *Künstliche Intelligenz in Online-Umgebungen: Repräsentative Umfrage zur öffentlichen Meinung in Deutschland*. Max-Planck-Institut für Bildungsforschung. <https://doi.org/10.17617/2.3190264>

Fleischhut, N. & **Herzog**, S. M. (2019). Wie lässt sich die Unsicherheit von Vorhersagen sinnvoll kommunizieren? [How can forecast uncertainty be usefully communicated?] In Thomas Kox & Lars Gerhold (Eds.) *Wetterwarnungen: Von der Extremereignisinformation zu Kommunikation und Handlung. Beiträge aus dem Forschungsprojekt WEXICOM [Weather warnings: From extreme event information to communication and action. Contribution from the research project WEXICOM]* (Schriftenreihe Sicherheit, 25). Forschungsforum Öffentliche Sicherheit, Freie Universität Berlin, 63–81.

Herzog, S. M., & Hertwig, R. (2019). Kompetenzen mit “Boosts” stärken: Verhaltenswissenschaftliche Erkenntnisse jenseits jenseits von “Nudging” [Strengthening competencies with boosts: Behavioral insights beyond nudging]. In C. Bala, M. Buddensiek, P. Maier, & W. Schuldzinski (Eds.), *Verbraucherbildung: Ein weiter Weg zum mündigen Verbraucher [Consumer education: A long way to the mature consumer]* (pp. 19-40). Verbraucherzentrale. https://doi.org/10.15501/978-3-86336-924-8_2

Herzog, S. M., Litvinova, A., Yahosseini, K. S., Tump, A. N., & Kurvers, R. H. J. M. (2019). The ecological rationality of the wisdom of crowds. In R. Hertwig, T. J. Pleskac, T. Pachur, & The Center for Adaptive Rationality, *Taming uncertainty* (pp. 245-262). MIT Press. <https://doi.org/10.7551/mitpress/11114.003.0019>

Skatova, A., Lorenz-Spreen, P., Lewandowsky S., Leiser M.R. & **Herzog** S. M. (2019), *[Consultation] Response to the Centre for Data Ethics and Innovation: [call for a] review of online targeting*. <http://hdl.handle.net/1887/83089>

Analytis, P. P., Barkoczi, D., & **Herzog**§, S. M. (2015). You're special, but it doesn't matter if you're a greenhorn: Social recommender strategies for mere mortals. In R. Dale, C. Jennings, P. Maglio, T. Matlock, D. Noelle, A. Warlaumont, & J. Yoshimi. (Eds.), *Proceedings of the 37th Annual Conference of the Cognitive Science Society*

(pp. 1799–1804). Cognitive Science Society. <https://cogsci.mindmodeling.org/2015/papers/0312/paper0312.pdf>

Herzog, S. M., & Hertwig, R. (2013). The ecological validity of fluency. In C. Unkelbach & R. Greifeneder (Eds.), *The experience of thinking: How feelings from mental processes influences cognition and behavior* (pp. 190–219). Psychology Press.

Herzog, S. M., & von Helversen, B. (2013). Blending and choosing within one mind: Should judgments be based on exemplars, rules or both? In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.) *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 2536-2541). Cognitive Science Society. <http://mindmodeling.org/cogsci2013/papers/0459/paper0459.pdf>

Schooler, L. J., Hertwig, R., & **Herzog**, S. M. (2012). How smart forgetting helps heuristic inference. In P. M. Todd, Gigerenzer, G. & the ABC Research Group, *Ecological rationality: Intelligence in the world* (pp. 144–166). Oxford University Press.

Organized workshops, symposia and conferences

LIFE Seminar Winter 2021/2022 "Seminar on decision-making": Session "Boosting judgment and decision-making", November 25th 2021.

SciBeh 2021 Virtual Workshop on "Science communication as collective intelligence" (co-organizer), November 18th-19th 2020, <https://www.scibeh.org/events/workshop2021>

Workshop *"How to create a boost? Using behavioral sciences to help people make better decisions by themselves"* held at Summer Institute on Bounded Rationality 2021: Rethinking Behavioral Economics, June 11th–23th 2021, Max-Planck-Institute for Human Development, Berlin, Germany.

SciBeh 2020 Virtual Workshop on "Building an online information environment for policy relevant science" (co-organizer), November 9th-10th 2020, <https://www.scibeh.org/events/workshop2020>

Workshop *"How to make good predictions"* held at Summer Institute on Bounded Rationality 2019: Bounded Rationality in a Digital World, June 11th–19th 2019, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *"How to make good predictions"* held at Summer Institute on Bounded Rationality 2018: Strategies X Environment, June 19th–27th 2018, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *"Fitting vs. predicting"* held at Summer Institute on Bounded Rationality 2017: Predictions under uncertainty, June 6th–14th 2017, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *Prediction contest: How well can you predict what you don't yet know?* held at Summer Institute on Bounded Rationality 2016: Better decisions in a complex world, June 27th–July 5th 2016, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *How well can you predict what you don't yet know?* held at 2016 JDMx Meeting for early career researcher, June 8th–11th 2016, University of Basel, Basel, Switzerland.

Workshop *Prediction contest: How well can you predict what you don't yet know?* held at Summer Institute on Bounded Rationality 2015: Homo Heuristicus in the Economy, June 4th–11th 2015, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *Introduction to statistical analyses using R—Tips & tricks*. October 29th & November 12th 2014, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *Expertise, popularity, and the wisdom of crowds* (with Mehdi Moussaïd). Summer Institute on Bounded Rationality: Simple solutions for a complex world, June 10th-17th 2014, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *Data analysis beyond p-values: A practical introduction to Bayesian statistics*. International Max Planck Research School LIFE, June 3rd 2014, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *Psychologists are open to change and should adopt Bayesian statistics* (with Mirjam Jenny). 6th JDM Workshop for Young Researchers, July 17th-19th 2013, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop *Data analysis beyond p-values*. Summer Institute on Bounded Rationality: Decision making in a social world, June 17th-25th 2013, Max-Planck-Institute for Human Development, Berlin, Germany.

Workshop scientific writing (with Bettina von Helversen). 4th Workshop for Judgment and Decision making, Max Planck Institute for Research on Collective Goods, Bonn, Germany (August 2011).

Co-organizer 3rd Workshop for Judgment and Decision making, University of Basel, Switzerland (September 2010).

Co-organizer symposium: Herzog, S. M., & Lee, L. (2009). *Are crowds always wiser?* Symposium at the 30th Annual Meeting of the Society for Judgment and Decision Making, Boston, Massachusetts, USA.

Workshop robust statistics. 2nd Workshop for Judgment and Decision making, University of Mannheim, Germany (July 2009).

Co-organizer symposium: Herzog, S. M., & Hilbig, B. (2009). *Simple prediction strategies: Recognition and "The Wisdom of Crowds"*. Symposium at the 51st Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Jena, Germany.

Workshop robust statistics, with Robin Hau. University of Basel, Basel, Switzerland (September 2008).

Co-organizer European Social Cognition Network Transfer of Knowledge Conference 2005, Vitznau, Switzerland.

Workshop introduction to web technologies: HTML, PHP & MySQL, University of Basel, Basel, Switzerland (2005).

Teaching, supervision, and mentoring

Training in teaching skills for higher education

Certificates in higher education [Zertifikate Hochschuldidaktik] at the University of Basel (20.11.2011; 2010-2011; total of 66 hours):

- *Introduction to higher education didactics* [Einführungsmodul Hochschuldidaktik] (2010)
- *How to grade* [Fair prüfen] (2011)
- *Planning, teaching and evaluating courses* [Lehrveranstaltungen planen, durchführen und evaluieren] (2010)
- *Running meetings and discussions* [Diskussionsleitung in der Lehre] (2010)
- *Problem-based learning* [Problemorientiertes Lernen] (2010)
- *Rhetoric* [Rhetorische Kommunikation] (2010)
- *Rhetoric: Explication and narration* [Explikation und Narration] (2011)

Graduate and undergraduate courses/lectures taught

The psychology and cognitive science of artificial intelligence

(master seminar; winter semester 2021/22 at Department of Psychology, Humboldt University of Berlin)

Improving judgment and decision making

(master seminar: 2014 at Department of Psychology, University of Basel, Switzerland)

Psychology of forecasting

(master seminar: 2007, 2009, 2010, 2011 at Department of Psychology, University of Basel, Switzerland)

Applied forecasting

(applied master seminar: 2010, 2011, 2012 at Department of Psychology, University of Basel, Switzerland)

Introduction to psychology, economics and neuroscience

(master seminar: 2005, 2006, 2007, 2008 at Department of Psychology, University of Basel, Switzerland)

Negotiation

(applied master seminar: 2008 at Department of Psychology, University of Basel, Switzerland)

Drawing inferences from memory

(with Lael Schooler; master seminar: 2006 at Department of Psychology, University of Basel, Switzerland)

Decision analysis and decision technology

(master seminar: 2006 at Department of Psychology, University of Basel, Switzerland)

Evolutionary psychology: Emotion, motivation and evolution

(bachelor lecture: 2011, 2012 at Department of Psychology, University of Basel, Switzerland)

Managerial decision making

(bachelor seminar: 2007 at Department of Psychology, University of Basel, Switzerland)

How to write a bachelor thesis

(bachelor seminar: 2010, 2011 at Department of Psychology, University of Basel, Switzerland)

Supervision/mentoring history

Current supervisees/mentees are marked in bold. Past supervisees/mentees are mentioned with their latest role.

Postdocs: Philipp Lorenz-Spreen, Ying Li

Ph.D. students: **Michael Geers**, Aleksandra Litvinova, **Ezequiel López López**, Nathaniel Phillips

Master theses: Alice Atanasiu, Basil Blum, Andrea Hajmer, Greta Kellermann, Isa de Maddelena, Pietro Nickl, Zsofia Oroszlan, Yuliya Romanyuk, Ruxandra Teodoreanu, **Marlene Wulf**

Master course theses/essays: Gerlinde Amschl, Anaïs Arnoux, Raffaella Arcuri-Tortola, Carola Binder, Lorena Boss, Monica Caprio, Florence Ettlin, Dominic Fischer, Chantal Grüter, Kirsten Hardt, Christina Jans, Sarah Kupper, Andrea Rid, Yuliya Romanyuk, Sabrina Stefanelli, Elena Stolz, Milena Ulrich, Stephanie Zell

Bachelor theses: Béla Ackermann, David Allemann, Alice-Alexandra Atanasiu, Cécile Bucher, Emina Canic, Kim Casagrande, Romain Cottens, Loris Criscione, Sibylle Fluri, Madlen Hoffstadt, Marietta Jäggi, Carmen Kaiser, Miriam Kaufmann, Lea Kilchling, Nadia Kohler, Selina Langenegger, Claudia Lombris, Samir Meier, Eric Neumann, Yuliya Romanyuk, Oliver Schürmann, Alice Seiler, Ariane Senn, Tom Siebenaler, Petra Vonmoos, Sylvia Walukiewicz

Internships/lab rotations: Stephan Bedenk, Eleanor Brewer, Johanna Forbriger, Michael Geers, Christine Heni, Madlen Hoffstadt, Moritz Ketzer, Pietro Nickl, Marlene Wulf, Alexander zur Bonsen

Research assistants: 20+ (not listed individually)

Professional services

Reviewing papers

Behavior Research Methods

Cognitive Psychology

Cognitive Research: Principles and Implications

Cognitive Science

Computational Brain & Behavior

Decision

Decision Analysis
European Journal of Social Psychology
Experimental Psychology
IEEE Transactions on Human-Machine Systems
Journal of Applied Research in Memory and Cognition
Journal of Behavioral Decision Making
Journal of Business, Economics and Finance
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception & Performance
Journal of Experimental Psychology: Learning, Memory, and Cognition
Journal of Mathematical Psychology
Journal of Personality and Social Psychology
Judgment and Decision Making
Management Science
Medical Decision Making
Memory & Cognition
Minds and Machines
Nature Human Behavior
Organizational Behavior and Human Decision Processes
Personality and Social Psychology Review
PLOS ONE
Proceedings of the National Academy of Sciences of the United States of America (PNAS)
Psychological Science
Psychonomic Bulletin & Review
Social Cognition
Synthese
Topics in Cognitive Science

Reviewing grant applications

German Science Foundation (Deutsche Forschungsgemeinschaft, DFG)
German-Israeli Foundation for Scientific Research and Development (GIF)
ETH Zürich Research Commission
Israel Science Foundation (ISF)
National Science Foundation (NSF)
United States-Israel Binational Science Foundation (BSF)

Reviewing conference submissions

COGSCI annual meeting of the Cognitive Science Society
SJDM annual conference (Society for Judgment and Decision Making)
Diagnostic Error in Medicine conference (Society to Improve Diagnosis in Medicine)
SPUDM conference (subjective probability, utility, and decision making conference; European Association for Decision Making, EADM)

Consulting and training activities

Berlin University Alliance
International Society for Human Rights (Switzerland)
Swisstransplant (Swiss National Foundation for Organ Donation and Transplantation)
Robert Koch Institute (Berlin)
swiss re
VolkswagenStiftung

Committee member

Graduate student and post-doc representative, Department of Psychology, University of Basel, Switzerland, 2007–2012

Student representative, Department of Psychology, University of Basel, Switzerland, 2000–2003.

Professional member

- Psychonomic Society (FPsyS), Fellow (named by Governing Board in Spring 2018)
- European Association for Decision Making (EADM)
- German Psychological Society (Deutsche Gesellschaft für Psychologie, DGPs)
(Fachgruppen: Allgemeine Psychologie; Arbeits-, Organisations- und Wirtschaftspsychologie; Medienpsychologie; Methoden und Evaluation)
- International Behavioural Public Policy Association
- Society for Judgment and Decision Making (SJDM)

Continuing education

Statistical training after PhD

- *Data Science* specialization, Johns Hopkins University on [Coursera](#)
 - *Reproducible Research*. Certificate earned on [August 2nd, 2015](#)
 - *Exploratory Data Analysis*. Certificate earned on [February 2nd, 2015](#)
 - *Getting and Cleaning Data*. Certificate earned on [December 28th, 2014](#)
 - *R Programming*. Certificate earned on [November 4th, 2014](#)
 - *The Data Scientist's Toolbox*. Certificate earned on [November 4th, 2014](#)
- *Machine learning*, Stanford University on [Coursera](#). Certificate earned on [June 4th, 2014](#)
- *Bayesian modeling for cognitive science: A WinBUGS workshop*, 2011, University of Amsterdam, Netherlands.
- *Summer School in Computational and Mathematical Modeling of Cognition*, European Society for Cognitive Psychology, Mallnitz, 2010, Austria.

Presentation skills

- Presenting at international scientific conferences. 3 day course (30h/1 ECTS) by TRESS&TRESS

Talks and posters

only talks and posters as presenter are listed; no institute or group internal talks are listed

Herzog, S. M. (2022). *Boosting: Using behavioral sciences to help people make better decisions by and for themselves*. Invited talk at the Summer Institute on Bounded Rationality 2022: Search and learning in an uncertain world, June 14th–22th 2022, Max-Planck-Institute for Human Development, Berlin, Germany.

Herzog, S. M. (2022). *A simple intervention to inoculate citizens against microtargeting*. Invited talk presented at the PERITIA workshop “How to address an infodemic: Experiments on (dis)Information”. London School of Economics, London.

Herzog, S. M. (2021). *Risikokompetenz mit Boosts stärken [Boosting risk literacy]*. Invited talk presented at Verbraucherforschungsforum “Boosting”: Potenziale und Grenzen als Instrument der Verbraucherpolitik [Consumer Research Forum “Boosting”: Potentials and limitations of boosting as an instrument of consumer policy], Max Planck Institute for Human Development, Berlin, Germany.

Herzog, S. M., & López López, E. (2021). *Assisting behavioral science and evidence-based policy making using online machine tools*. Poster presented at the DFG virtual Research Conference “Preparedness for future pandemics from a global perspective”, Bonn, Germany.

Herzog, S. M., Hahn, U., Lewandowsky, S., & Porciello, J. (2021). *Assisting behavioral science and evidence-based policy making using online machine tools*. Talk presented at the 6th International Conference Data for Policy 2021: Lessons for policy-data interactions after Covid-19.

- Lorenz-Spreen, P., Geers, M., Pachur, T., Hertwig, R., Lewandowsky, S., & Herzog, S. M. (2021). *Boosting people's ability to detect microtargeted advertising [A simple self-reflection intervention boosts the detection of microtargeted advertising]*. Poster presented at the 28th Subjective Probability, Utility, and Decision Making (SPUDM) Conference, Warwick, UK.
- Herzog, S. M. (2021). *A simple self-reflection intervention boosts the detection of targeted advertising*. Invited talk at the Marketing Research Workshop, The University of Chicago Booth School of Business.
- Kurvers, R. H. J. M., Herzog, S. M., Hertwig, R., Krause, J., Moussaïd, M., Argenziano, G., ... Wolf, M. (2019). How to detect high-performing individuals and groups: Decision similarity predicts accuracy. Talk presented at the 14th Annual Tinbergen Institute Conference ("Bayesian Crowd"), Erasmus University Rotterdam, Rotterdam, Netherlands.
- Herzog, S. M., Analytis, P. P., & Barkoczi, D. (2018). *Social learning strategies for matters of taste*. Talk presented at the Collective Intelligence 2018 Conference of the Association for Computing Machinery (ACM), Zürich, Switzerland.
- Herzog, S. M. (2018). *The wisdom of the inner crowd*. Invited talk, presented at the Collective Opinion and Belief Aggregation workshop at the Ecole Normale Supérieure, Paris, France.
- Herzog, S. M., Analytis, P. P., & Barkoczi, D. (2018). *Social learning strategies for matters of taste*. Talk presented at the Psychonomics International Conference 2018 of the Psychonomic Society, Amsterdam, Netherlands.
- Herzog, S. M. (2017). *Boosting: Behavioral insights beyond nudging*. Invited talk, presented at the Behavioural Insights Summer School, University of Erfurt, Erfurt, Germany.
- Moussaïd, M., Herzog, S. M., Kämmer, J. E., & Hertwig, R. (2017). *Reach and speed of judgment propagation in the laboratory*. Talk presented at the 26th Subjective Probability, Utility, and Decision Making (SPUDM) Conference, Haifa, Israel.
- Herzog, S. M. (2017). *Misses vs. false alarms in high-stakes decisions: Quantifying benefits-harms ratios for policy analysis*. Invited talk, presented at the Research Colloquium on Psychology of Decision Making, University of Konstanz, Konstanz, Germany.
- Herzog, S. M., Huber, R., Horn, S., Klucharev, V., & Rieskamp, J. (2016). *Why does social influence increase with group size? A sequential-sampling model analysis of rapid perceptual decisions*. Poster presented at the 57th Annual Meeting of the Psychonomic Society, Boston, Massachusetts, USA.
- Moussaïd, M., Herzog, S. M., Kämmer, J. E., & Hertwig, R. (2016). *How far can opinions travel in social networks? The spatio-temporal dynamics of judgment propagation in the laboratory*. Poster presented at the 37th Annual Meeting of the Society for Judgment and Decision Making, Boston, Massachusetts, USA.
- Herzog, S. M., & Luan, S. (2016). *Around nine: The wisdom of small crowds*. Invited talk, presented at the Exeter Prize 2016 Workshop "Information aggregation and the wisdom of the crowds", University of Exeter, Exeter, UK.
- Herzog, S. M. (2016). *Misses vs. false alarms in high-stakes decisions: Quantifying benefits-harms ratios for policy analysis in medical decision making*. Talk presented at the 50th Kongress der deutschen Gesellschaft für Psychologie (DGPs) [50th Congress of the German Psychological Society], University of Leipzig, Leipzig, Germany.
- Moussaïd, M., Herzog, S. M., Kämmer, J. E., & Hertwig, R. (2016). *How far can opinions travel in social networks? The spatio-temporal dynamics of judgment propagation in the laboratory*. Invited talk, presented at the research colloquium at the Max Planck Institute for Research on Collective Goods, Bonn, Germany.
- Herzog, S. M. (2016). *Misses vs. false alarms in high-stakes decisions: Quantifying benefits-harms ratios for policy analysis in medical decision making*. Poster presented at the 16th Biennial Society for Medical Decision Making-European Conference, London, UK.
- Herzog, S. M. (2015). *Why and when often-heard things tend to be true: An ecological analysis of the truth effect*. Poster presented at the 56th Annual Meeting of the Psychonomic Society, Chicago, Illinois, USA.
- Herzog, S. M. (2015). *Misses vs. false alarms in probabilistic forecasts: Quantifying error tradeoffs in high-stakes judgments*. Poster presented at the 36th Annual Meeting of the Society for Judgment and Decision Making, Chicago, Illinois, USA.

Herzog, S. M. (2015). *Signal detection in the wild: How to quantify the error tradeoffs of decision makers who are unable or reluctant to reveal them*. Paper presented at the 25th Subjective Probability, Utility, and Decision Making (SPUDM) Conference, Budapest, Hungary.

Herzog, S. M. (2014). *Signal detection theory in the wild: Reverse-engineering error preferences of decision makers who are unable or reluctant to reveal them*. Paper presented at the 35th Annual Meeting of the Society for Judgment and Decision Making, Long Beach, California, USA.

Herzog, S. M. (2014). *Signal detection theory in the wild: Reverse-engineering error preferences in naturalistic settings*. Poster presented at the 55th Annual Meeting of the Psychonomic Society, Long Beach, California, USA.

Herzog, S. M. (2014). *Signal detection in the wild: How to quantify implied cost-benefit tradeoffs of decision makers who are unable or reluctant to reveal them*. Invited talk, presented at the research colloquium at the Department of Psychology, University of Tübingen, Tübingen, Germany.

Herzog, S. M. (2014). *Harnessing the wisdom of the inner crowd*. Invited talk, presented at the Management Seminar series at the Department of Economics and Business, Universitat Pompeu Fabra, Barcelona, Spain.

Jenny, M. A., & Herzog, S. M. (2014). *How changing research practices and using Bayesian statistics benefits the behavioral sciences*. Joint keynote delivered at the 9th Workshop on Clinical Decision Making and Diagnostic Reasoning, Lüneburg, Germany.

Herzog, S. M., Unkelbach, C., & Hertwig, R. (2013). *Why often-heard things tend to be true: The ecological rationality of the truth effect*. Paper presented at the 24th Subjective Probability, Utility, and Decision Making (SPUDM) Conference, Barcelona, Spain.

Herzog, S. M. (2013). *Reverse-engineering decision makers' priorities using signal detection theory and cultural consensus theory*. Paper presented at the 46th Annual Meeting of the Society of Mathematical Psychology (SMP), Potsdam, Germany.

Herzog, S. M., & von Helversen, B. (2013). *Blending and choosing within one mind: Should judgments be based on exemplars, rules or both?* Poster presented at the 35th annual conference of the Cognitive Science Society, Berlin, Germany.

Herzog, S. M., de Maddalena, I. D., & Osterwalder, U. (2013). *Communicating sunscreen effectiveness as "percentage of sunrays blocked" leads laypeople to underestimate the increase in protection when comparing sunscreens*. Paper presented at the Research In Medical Education 2013 conference (RIME 2013), Berlin, Germany.

Herzog, S. M. (2013). *The wisdom of crowds within a single mind*. Invited talk, paper presented at the Wisdom of the Crowd Conference of the Institute for Mathematical Behavioral Sciences, University of California, Irvine, USA.

Herzog, S. M., Unkelbach, C., & Hertwig, R. (2013). *Why often-heard things tend to be true: The ecological rationality of the truth effect*. Paper presented at the 55th Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Vienna, Austria.

Herzog, S. M. (2012). *How to make people underestimate Fukushima: Mismatched rates bias the perception of risk and natural rates eliminate this bias*. Poster presented at the 33rd Annual Meeting of the Society for Judgment and Decision Making, Minneapolis, Minnesota, USA.

Herzog, S. M., Unkelbach, C., & Hertwig, R. (2012). *Why often-heard things tend to be true: The ecological rationality of the truth effect*. Paper presented at the 5th Workshop for Judgment and Decision making, University of Basel, Switzerland.

Herzog, S. M., Unkelbach, C., & Hertwig, R. (2012). *Why often-heard things tend to be true: The ecological rationality of the truth effect*. Poster presented at the Workshop on Testing Theories of Choice Behavior, Max Planck Institute for Human Development, Berlin, Germany.

Herzog, S. M., & Hertwig, R. (2012). *Averaging analytical and intuitive judgment with dialectical bootstrapping: The wisdom of an intuitive-analytical crowd within one mind*. Paper presented at the 54th Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Mannheim, Germany.

Herzog, S. M., & Hertwig, R. (2011). *Averaging analytical and intuitive judgment with dialectical bootstrapping: The wisdom of an intuitive-analytical crowd within one mind*. Paper presented at the 32nd Annual Meeting of the Society for Judgment and Decision Making, Seattle, Washington, USA.

- Herzog, S. M. (2011). The wisdom of crowds within one mind: The benefits of blending opinions and cognitive processes. Invited talk, paper presented at the 2011 International Small-Group Meeting, „What is adaptive cognition and behavior?“, Heidelberg, Germany.
- Herzog, S. M., Türp, J., Romanyuk, Y., & Hertwig, R. (2011). *Modeling biases in medical decision making with Bayesian hierarchical signal detection models*. Poster presented at the 2011 workshop „Bayesian modeling for cognitive science: A WinBUGS workshop“, University of Amsterdam, Netherlands.
- Herzog, S. M., Phillips, N. D., & Hertwig, R. (2011). *How to improve Bayesian inferences by contradicting oneself: Dialectical bootstrapping*. Paper presented at the 4th Workshop for Judgment and Decision making, Max Planck Institute for Research on Collective Goods, Bonn, Germany.
- Herzog, S. M., & von Helversen, B. (2011). *The benefits of blending cognitive processes within one mind*. Paper presented at the 10th Annual Summer Interdisciplinary Conference (ASIC), Caldes de Boi, Pyrenees, Spain.
- Herzog, S. M. (2011). *The "wisdom of crowds" in one mind: Dialectical bootstrapping and the benefits of blending different cognitive processes*. Invited talk, Social and Economic Psychology Colloquium, University of Basel, Basel, Switzerland.
- Herzog, S. M., & von Helversen, B. (2011). *The benefits of blending cognitive processes within one mind*. Paper presented at the 53rd Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Halle, Germany.
- Herzog, S.M. (2010). *Dialectical bootstrapping: The "wisdom of crowds" within one mind*. Invited talk for Hillel Einhorn New Investigator Award 2010, 31st Annual Meeting of the Society for Judgment and Decision Making, St. Louis, Missouri, USA.
- Herzog, S. M., & Hertwig, R. (2010). *The wisdom of many in one mind: When does dialectical bootstrapping improve judgment and do people use it?* Poster presented at the 31st Annual Meeting of the Society for Judgment and Decision Making, St. Louis, Missouri, USA.
- Herzog, S. M. (2010). *The "wisdom of crowds" in one mind: Dialectical bootstrapping and the benefits of combining different cognitive processes*. Invited talk, Colloquium Behavioral Studies (851-0585-01L), ETH Zürich, Zürich, Switzerland.
- Herzog, S. M., & von Helversen, B. (2010). *The benefits of combining cognitive processes within a single mind*. Paper presented at the 3rd Workshop for Judgment and Decision making, University of Basel, Switzerland.
- Herzog, S. M., & Hertwig, R. (2010). *Dialectical bootstrapping: How do people resolve estimation conflict within their own mind?* Poster presented at the 2010 Summer School in Computational and Mathematical Modeling of Cognition (European Society for Cognitive Psychology), Mallnitz, Austria.
- Herzog, S. M., & Hertwig, R. (2010). *Dialectical bootstrapping: Should you trust your „crowd within“ or chase the „expert in your head“?* Paper presented at the 52nd Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Saarbrücken, Germany.
- Herzog, S. M., & von Helversen, B. (2009). *Modelling dialectical bootstrapping: Combining linear and exemplar models within one mind*. Paper presented at the Applied Cognitive Science and Economics workshop, Faculté des Hautes Etudes Commerciales (HEC), University of Lausanne, Switzerland.
- Herzog, S. M., & Hertwig, R. (2009). *Dialectical bootstrapping: When should you trust your “crowd within”?* Paper presented at the 30th Annual Meeting of the Society for Judgment and Decision Making, Boston, Massachusetts, USA.
- Herzog, S. M., & Hertwig, R. (2009). *Dialectical bootstrapping: The wisdom of crowds in one mind*. Paper presented at the 22nd Subjective Probability, Utility, and Decision Making (SPUDM) Conference, Rovereto, Italy.
- Herzog, S. M., & Hertwig, R. (2009). *Dialectical bootstrapping: How and why contradicting yourself can improve your judgment*. Paper presented at the 2nd Workshop for Judgment and Decision making, University of Mannheim, Germany.
- Herzog, S. M., & Hertwig, R. (2009). *The wisdom of many within one mind: Making better judgments with dialectical bootstrapping*. Paper presented at the 51st Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Jena, Germany.
- Erev, I., Haruvy, E., Herzog, S. M., & Stewart, T. (2009). *The Technion Prediction Tournament: Round table discussion with the winners*. 2009 Asia Pacific meeting of the Economic Science Association (APESA09), Haifa, Israel.

- Herzog, S. M., & Hertwig, R. (2009). *The wisdom of many within one mind: Making better judgments with dialectical bootstrapping*. Paper presented at the 2009 Asia Pacific meeting of the Economic Science Association (APESA09), Haifa, Israel.
- Herzog, S. M., & Hertwig, R. (2008). *The wisdom of many within one mind: Making better judgments with dialectical bootstrapping*. Paper presented at the 29th Annual Meeting of the Society for Judgment and Decision Making, Chicago, Illinois, USA.
- Herzog, S. M., & Hertwig, R. (2008). *The wisdom of ignorant crowds: Collective recognition and forecast combination*. Paper presented at the 29th International Congress of Psychology, Berlin, Germany.
- Herzog, S. M., Hertwig, R., & Schooler, L. J. (2008). *Do differences in fluency make us smart? The ecological rationality of retrieval fluency?* Poster presented at the Mannheim Conference on Formal Models of Memory, Judgment, and Decision Making, University of Mannheim, Germany.
- Herzog, S. M. (2008). *Do differences in fluency make us smart? The ecological rationality of retrieval fluency*. Invited talk, Sonderforschungsbereich 504 Seminars, University of Mannheim, Germany.
- Herzog, S. M. (2008) "*The wisdom of the crowd*" *innerhalb von einzelnen Personen: Wie man mit Widersprüchen gute Vorhersagen machen kann*. [*"The wisdom of the crowd" within individuals: How to make good forecasts by contradicting yourself*]. Paper presented at the 50th Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Marburg, Germany.
- Herzog, S. M., Hertwig, R., & Schooler, L. J. (2007). *The psychology of the fluency heuristic: Do differences in fluency make us smart?* Poster presented at the 28th Annual Meeting of the Society for Judgment and Decision Making, Long Beach, California, USA.
- Herzog, S. M., Hertwig, R., & Schooler, L. J. (2007). *Fluency heuristic: A model of how the mind exploits a by-product of information retrieval*. Paper presented at the 10th Congress of the Swiss Society of Psychology, Zürich, Switzerland.
- Herzog, S. M., & Hertwig, R. (2007). *The wisdom of ignorant crowds: Forecasting with collective recognition*. Poster presented at the 21st Subjective Probability, Utility, and Decision Making (SPUDM) Conference, Warsaw, Poland.
- Herzog, S. M., & Hertwig, R. (2007). *Wenn Ignoranz bessere Vorhersagen als die FIFA macht: Kollektive Rekognition und die Vorhersage der WM 2006*. [*When ignorance makes better predictions than the FIFA: Collective recognition and forecasting the Soccer World Cup 2006*]. Paper presented at the 49th Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Trier, Germany.
- Herzog, S. M., & Hertwig, R. (2007). *The wisdom of ignorant crowds: Forecasting with collective recognition*. Paper presented at the 8th Fachtagung der Gesellschaft für Kognitionswissenschaft (KogWis 2007), Saarbrücken, Germany.
- Herzog, S. M., & Hertwig, R. (2006). *The collective wisdom of partially ignorant people: How successful is collective recognition in predicting the FIFA Soccer World Cup 2006?* Poster presented at the 27th Annual Meeting of the Society for Judgment and Decision Making, Houston, Texas, USA.
- Herzog, S. M. (2006). *Fluency heuristic: A model of how the mind exploits a by-product of information retrieval*. Poster presented at the Summer Institute on Bounded Rationality in Psychology and Economics, Berlin, Germany. The poster won the 2nd place in the summer institute's poster awards. Chairs: Gerd Gigerenzer (Center for Adaptive Behavior and Cognition, Max Planck Institute for Human Development, Berlin, Germany) and Werner Güth (Strategic Interaction Group, Max Planck Institute of Economics, Jena, Germany).
- Herzog, S. M., Hertwig, R., & Schooler, L. J. (2006). *The boundedly rational fluency heuristic: Fast and frugal decisions by the use of recognition speed*. Paper presented at the Congress of the International Association for Research in Economic Psychology and the Society for the Advancement of Behavioral Economics, Paris, France.
- Herzog, S. M., Hertwig, R., & Schooler, L. J. (2006). *The boundedly rational fluency heuristic: Recognition speed as an ecological cue in uncertain environments*. Paper presented at the Small-group Meeting on Adaptive Cognition in an Uncertain Environment. Chairs: Klaus Fiedler, Yaakov Kareev, & Peter Freytag, International Science Forum (ISF) of the University of Heidelberg, Heidelberg, Germany.
- Herzog, S. M., Hertwig, R., & Schooler, L. J. (2006). *Die begrenzt rationale fluency heuristic: Wann wird die Rekognitionszeit für Inferenzen genutzt?* [*The boundedly rational fluency heuristic: When is recognition speed*

used for making inferences?] Paper presented at the 48th Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Mainz, Germany.

Herzog, S. M., Hansen, J., & Wänke, M. (2005). *Temporal construal and ease of retrieval*. Paper presented at the European Social Cognition Network Transfer of Knowledge Conference 2005, Vitznau, Switzerland.

Herzog, S. M., Hansen, J., & Wänke, M. (2005). *Temporal construal and ease of retrieval*. Paper presented at the 14th General Meeting of the European Association of Experimental Social Psychology, Würzburg, Germany.

Herzog, S. M., Hertwig, R., & Schooler, L. J. (2005). *Die begrenzt rationale fluency heuristic: Wie ökologisch valide sind subjektive Latenzzeiten? [The boundedly rational fluency heuristic: How ecologically valid is recognition speed?]* Paper presented at the 47th Tagung experimentell arbeitender Psychologen [Conference of Experimental Psychologists], Regensburg, Germany.