

Martin Schoemann, M.Sc.

EDUCATION

M. Sc. (1.4), Psychology, University of Erfurt, Germany, 2016

Thesis (1.0): *Distinguishing Comparison Strategies in Intertemporal Decision Making: An Eye-tracking Study*

Thesis Advisor: Dr. Frank Renkewitz, and Prof. Dr. Stefan Scherbaum

B. A. (1.5), Psychology (Minor: Philosophy), University of Erfurt, Germany, 2013

Thesis (1.0): *Small Sample Advantage in Complex Environments: On the Detection of Population Parameters in the Iowa Gambling Task*

Thesis Advisor: Prof. Dr. Tilmann Betsch

ACADEMIC EXPERIENCE

Research Associate, TU Dresden, Germany, since 04/2022

Affiliation: Chair of Psychological Research Methods and Cognitive Modelling

Research focus: Examining the dynamics of decision making processes via eye/mouse tracking and computational modeling (DDM, ABM, DFT); Choice Architecture and Behavior Change in climate and health domains

Advisor: Prof. Dr. Stefan Scherbaum

Research Assistant, Aarhus University, Denmark, 12/2019-03/2022

Affiliation: School of Business and Social Sciences, Department of Management

Research focus: Project *Rethinking the Choice Process*, funded by the Independent Research Fund Denmark – Sapere Aude program, in collaboration with Peter Todd (Indiana University, USA), Ray Dolan & Hrvoje Stojic (UCL, UK)

Advisor: Prof. Jacob L. Orquin, Ph.D.

Visiting PhD Student, Aarhus University, Denmark, 09/2019

Affiliation: School of Business and Social Sciences, Department of Management

Research focus: Novel approaches to the analysis of eye-tracking data

Advisor: Prof. Jacob L. Orquin, Ph.D.

PhD Student and Research Associate, TU Dresden, Germany, 07/2016-07/2020

Affiliation: Chair of Psychological Research Methods and Cognitive Modelling / CRC 940 *Volition and Cognitive Control*

Research focus: Analyzing the dynamics of decision making processes via mouse and eye tracking / Advancing mouse and eye tracking as process-tracing methods

Advisor: Prof. Dr. Stefan Scherbaum

Student Research Assistant, TU Dresden, Germany, 12/2015-02/2016

Affiliation: Chair of Psychological Research Methods and Cognitive Modelling

Research focus: Programming of a Matlab framework for computational cognitive modelling
Advisor: Prof. Dr. Stefan Scherbaum

Research Internship, TU Dresden, Germany, 11/2014-10/2015

Affiliation: Chair of Psychological Research Methods and Cognitive Modelling
Research focus: Computational cognitive modeling of intertemporal decision making using the Dynamic Field Theory
Advisor: Prof. Dr. Stefan Scherbaum

Student Research Assistant, University of Erfurt, Germany, 08/2010-10/2014

Affiliation: Chair of Social, Organizational, and Economic Psychology
Research focus: Programming of experimental software
Advisor: Prof. Dr. Tilmann Betsch

TEACHING, SUPERVISION, & MENTORING

TEACHING

Instructor, TU Dresden, since 10/2024 (each winter term)
Course: Data analysis with R (psychology, bachelor & master level)

Instructor, TU Dresden, 04/2023-10/2023 (summer term)
Course: Data analysis with R (psychology, bachelor & master level)

Instructor, TU Dresden, since 10/2022 (each winter term)
Course: Introduction to psychological research methods (psychology, bachelor level)

Instructor, TU Dresden, since 04/2022 (each summer term)
Course: Introduction to statistics (psychology, bachelor level)

Instructor, TU Dresden, 07/2016-07/2020 (each winter term)
Course: Introduction to psychological research methods (psychology, bachelor level)

Instructor, TU Dresden, 07/2016-07/2020 (each summer term)
Course: Experimental design and sample size (psychology, bachelor level)

Instructor, TU Dresden, 2020 (summer term)
Course: Statistics for biologists (biology, bachelor level)

(CO-)SUPERVISION/MENTORING

PhD level: Oliver Grenke, René Dutschke

Master level: Kevin Padrón Escobar, Oliver Grenke, Peggy Wehner, Clemens Steinke, Deborah Löschner, Lena Herchenhahn, Hannah Pongratz

Bachelor level: Philipp Schake, David Hamann, Jennifer Küpper, Shawaiz Kakra, Ella Hirche, Melchior Reiche

Internships: Eva Sinning, David Hamann, Malte V. Lüken, Anke Richter

PUBLICATIONS

citations: 412, h-index: 11, i11-index: 11 (google scholar)

* equal contribution / shared first authorship

WORKING PAPERS & PREPRINTS

first authorships only

Schoemann, M., Perkovic, S., Stojić, H., Todd, P. M., Larsen, N. M., Dolan, R. J., & Orquin, J. L. (2021). A foraging model of consumer search. *Manuscript in revision*.

Schoemann, M., Stojić, H., Eran, E., Dolan, R. J., & Orquin, J. L. (2021). Real-time pupil tracking in an auditory oddball task. *Manuscript in preparation*.

Schoemann, M., Grenke, O., Wulff, D. U., & Scherbaum, S. (2021). Testing the link between action and decision dynamics. *Manuscript in preparation*.

Schoemann, M., & Scherbaum, S. (2019). Choice History Bias in Intertemporal Choice. <https://doi.org/10.31234/osf.io/7h9zj>. *Manuscript in revision*.

PEER-REVIEWED

Schoemann*, M., van de Mosselaar*, P., Perkovic, S., & Orquin, J. L. (2024). A method for measuring consumer confusion due to lookalike labels. *International Journal of Research in Marketing*. *In press*.

Maguinness, C., Schall, S., Mathias, B., **Schoemann**, M., & von Kriegstein, K. (2024). Prior multisensory learning can facilitate auditory-only voice-identity and speech recognition in noise. *Quarterly Journal of Experimental Psychology*. *In press*.

Senftleben, U., **Schoemann**, M., & Scherbaum, S. (2024). Choice Repetition Bias in Intertemporal Choice: An Eye-Tracking Study. *Journal of Behavioral Decision Making*, 37(3), e2388.

Schaerer, M., Du Plessis, C., Nguyen, M. H. B., Van Aert, R. C., Tiokhin, L., Lakens, D., ... & **Gender Audits Forecasting Collaboration**. (2023). On the trajectory of discrimination: A meta-analysis and forecasting survey capturing 44 years of field experiments on gender and hiring decisions. *Organizational Behavior and Human Decision Processes*, 179, 104280.

Bernardoni, F., King, J. A., Hellerhoff, I., **Schoemann**, M., Seidel, M., Geisler, D., ... & Ehrlich, S. (2023). Mouse-cursor trajectories reveal reduced contextual influence on decision conflict during delay discounting in anorexia nervosa. *International Journal of Eating Disorders*, 56(10), 1898-1908.

Scheffel, C., Korb, F., Dörfel, D., Eder, J., Möschl, M., **Schoemann**, M., & Scherbaum, S. (2023). Gute wissenschaftliche Praxis und Open Science im Empiriepraktikum: Wissenschaftlicher Kompetenzerwerb durch Replikationsstudien. *Psychologische Rundschau*. 74(4), 241-243.

Perkovic*, S., **Schoemann***, M., Lagerkvist, C. J., & Orquin, J. L. (2023). Covert attention leads to fast and accurate decision making. *Journal of Experimental Psychology: Applied*, 29(1), 78-94.

Schoemann, M., O'Hora, D., Dale, R., & Scherbaum, S. (2021). Using mouse cursor tracking to investigate online cognition: Preserving methodological ingenuity while moving toward reproducible science, *Psychonomic Bulletin & Review*, 28(3), 766-787.

Senftleben, U., **Schoemann**, M., Rudolf, M., & Scherbaum, S. (2021). To stay or not to stay: The stability of choice perseveration in value-based decision making. *Quarterly Journal of Experimental Psychology*, 74(1), 199-217.

Schoemann, M., & Scherbaum, S. (2020). From high- to one-dimensional dynamics of decision making: Testing simplifications in attractor models. *Cognitive Processing*, 21(2), 303-313.

Kieslich, P. J., **Schoemann**, M., Grage, T., Hepp, J., & Scherbaum, S. (2020). Design factors in mouse-tracking: What makes a difference? *Behavior Research Methods*, 52(1), 317-341.

Atiya*, N. A. A., Zgonnikov*, A., O'Hora, D., **Schoemann**, M., Scherbaum, S., Wong-Lin, K.-F. (2020). Changes-of-mind in the absence of new post-decision evidence. *PLoS Computational Biology*, 16(2), e1007149.

Grage, T., **Schoemann**, M., Kieslich, P. J., & Scherbaum, S. (2019). Lost to translation: How design factors of the mouse-tracking procedure impact the inference from action to cognition. *Attention, Perception, and Psychophysics*, 81(7), 2358-2557.

Senftleben*, U., **Schoemann***, M., Schwenke, D., Richter, S., Dshemuchadse, M., & Scherbaum, S. (2019). Choice perseveration in value-based decision making: The impact of inter-trial interval and mood. *Acta Psychologica*, 198, 102876.

Schoemann, M., Schulte-Mecklenbeck, M., Renkewitz, F., & Scherbaum, S. (2019). Forward in risky choice: Mapping gaze and decision processes. *Journal of Behavioral Decision Making*, 32(5), 521-535.

Schoemann, M., Lüken, M., Grage, T., Kieslich, P. J., & Scherbaum, S. (2019). Validating mouse-tracking: How design factors influence action dynamics in intertemporal decision making. *Behavior Research Methods*, 51(5), 2356-2377.

Schoemann, M., & Scherbaum, S. (2017). Attractor dynamics in delay discounting: A call for complexity. In G. Gunzelmann, A. Howes, T. Tenbrink, & E. J. Davelaar (Eds.), *Proceedings of the 39th Annual Conference of the Cognitive Science Society* (pp. 1041-1046). Austin, TX: Cognitive Science Society

Betsch, T., Lehmann, A., Lindow, S., Lang, A., & **Schoemann**, M. (2016). Lost in search: (Mal-)adaptation to probabilistic decision environments in children and adults. *Developmental Psychology*, 52(2), 311-325.

INVITED TALKS, COURSES, & WORKSHOPS

Lecture (2024); Lecture on *Mouse cursor tracking: Foundations and applications in digital marketing* at School of Business and Economics, University of Galway, Galway, Ireland.

Course (2023); Course on *Tracking the embodied dynamics of cognition using computer mouse tracking* at Spring School Interdisciplinary College (IK), with Stefan Scherbaum, Günne, Germany.

CONFERENCE CONTRIBUTIONS

only talks and posters as presenter are listed

Schoemann, M., & Schultemecklenbeck, M. (2024). (*Communication of*) *Open Science Practices at Conferences*. Poster presented at the Society for Judgment and Decision Making (SJDM) Annual Conference 2024, New York City (NY), USA.

Schoemann, M., van de Mosselaar, P., Perkovic, S., & Orquin, J. L. (2023). *A method for measuring consumer confusion due to copycat product label*. Poster presented at the Society for Judgment and Decision Making (SJDM) Annual Conference 2023, San Francisco (CA), USA.

Schoemann, M., van de Mosselaar, P., Perkovic, S., & Orquin, J. L. (2023). *Copycat product labels cause consumer confusion*. Talk presented at the 29th Biennial Meeting of the European Association for Decision Making (SPUDM29), Vienna, Austria.

Schoemann, M. (2019). *Back to the future: Toward a gold-standard for mouse-tracking research*. Talk presented at the 27th Biennial Meeting of the European Association for Decision Making (SPUDM27), Amsterdam, Netherlands.

Schoemann, M., O'Hora, D., Dale, R., & Scherbaum, S. (2019). *Mouse-tracking revisited: Methodological implementations from the beginning*. Talk presented at the 38th Annual Meeting of the European Group of Process Tracing Studies, Dresden, Germany.

Schoemann, M., Lüken M., Grage, T., Kieslich, P. J., & Scherbaum, S. (2018). *Validate mouse tracking: How design factors influence action dynamics*. Talk presented at the 37th Annual Meeting of the European Group of Process Tracing Studies, Aarhus, Denmark.

Schoemann, M., Lüken M., Grage, T., Kieslich, P. J., & Scherbaum, S. (2018). *Validate mouse tracking: How design factors influence action dynamics in intertemporal choice*. Poster presented at 60th Tagung experimentell arbeitender Psychologen (Conference of Experimental Psychologists), Marburg, Germany.

Schoemann, M., Scherbaum, S., & Renkewitz, F. (2017). *The Needleman-Wunsch algorithm: Fixation sequences as an indicator of decision strategies*. Talk presented at the 26th Biennial Meeting of the European Association for Decision Making (SPUDM26), Haifa, Israel.

Schoemann, M., & Scherbaum, S. (2017). *Attractor dynamics in delay discounting: A call for complexity*. Talk presented at the 39th Annual Conference of the Cognitive Science Society, London, UK.

Schoemann, M., Scherbaum, S., & Renkewitz, F. (2017). *Forward inference and scanpath analysis: An approach to improved process tracing*. Poster presented at the 36th Annual Meeting of the European Group of Process Tracing Studies, Galway, Ireland.

Schoemann, M., & Scherbaum, S. (2017). The continuity between choice and preference: Augmenting a drift-diffusion analysis of delay discounting with eye-tracking measures. Talk presented at the 59th Tagung experimentell arbeitender Psychologen (Conference of Experimental Psychologists), Dresden, Germany.

Schoemann, M., Renkewitz, F., & Scherbaum, S. (2016). *Distinguishing comparison strategies in intertemporal decision making*. Talk presented at the 35th Annual Meeting of the European Group of Process Tracing Studies, Bonn, Germany.

GRANTS, AWARDS, & SCHOLARSHIPS

Grant (2023); start-up financing for the Project “Trial-level signal detection parameters” granted by TU Dresden, Germany.

Award (2017); Student Travel Award granted by the Cognitive Science Society (sponsored by the Robert J. Glushko and Pamela Samuelson Foundation), Austin (TX), USA.

Grant (2016); start-up financing for the Project “Die Anwendbarkeit der Scanpathanalyse zur Messung kognitiver Prozesse in Entscheidungsparadigmen” (The feasibility of scanpath analysis for the measurement of cognitive processes) granted by TU Dresden, Germany.

Scholarship (2011-2016); granted by the Friedrich Naumann Foundation for Freedom, Potsdam, Germany.

SERVICE TO THE FIELD

OPEN SCIENCE

Open Science Initiative of the Department of Psychology at the TU Dresden (OSIP; since 2018).

ORGANIZER

38th Annual Meeting of the European Group of Process Tracing Studies in Judgment and Decision Making (EGPROC; 2019), Dresden, Germany; co-organized with Tobias Grage, and Stefan Scherbaum.

PROFESSIONAL MEMBER

European Association of Decision Making (EADM).
Society for Judgment and Decision Making (SJDM)

REVIEWING

Ad-hoc reviewer: Behavior Research Methods, BMC Psychology, Computers in Human Behavior, Emotion, Intelligence, Journal of Behavioral Decision Making, Journal of Experimental Psychology: Applied, Journal of Experimental Psychology: Learning, Memory, and Cognition, Nature Human Behavior, Scientific Reports, SoftwareX.

CONTINUING EDUCATION

Certificate (04/2022-10/2024); Certification programme for Teaching and Learning in Higher Education Saxony (240 units of instruction), Leipzig, Germany.

Course (2023); Course (Train the Trainer) on Research Data Management at University of Leipzig, Dr. Sven Paßmann, Leipzig, Germany.

Online course (2020); Web-based course “Protecting Human Research Participants Online Training”.

Lecture (2018); Lecture on Good Scientific Practice at Technische Universität Dresden, Dr. Michael Höfler, Dresden, Germany.

Summer School (2017); Summer school on the Dynamic Field Theory at the institute of neuroinformatics, Prof. Dr. Gregor Schöner, Ruhr-Universität, Bochum, Germany.

RELEVANT SKILLS

Designing and conducting experiments (behavioral, mouse tracking, eye tracking)

Data analysis (behavioral, mouse tracking, eye tracking)

Computational cognitive modelling

Teaching and training

Administration of online recruiting server (ORSEE)

TECHNOLOGIES

Matlab | R | LaTeX | Git | Java | ORSEE | OSF | Quarto

REFEREES

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Prof. Dr. Stefan Scherbaum

Chair of Psychological Research Methods and Cognitive Modelling

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