

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 Assistant, Aarhus University, Denmark, since 12/2019

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, since 2016

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 2016 (each winter term)

Course: Introduction to psychological research methods (bachelor level)

Instructor, TU Dresden, since 2016 (each summer term)

Course: Experimental design and sample size (bachelor level)

SUPERVISION/MENTORING

Master theses: Kevin Padrón Escobar, Oliver Grenke, Peggy Wehner

Bachelor theses: Philipp Schake, David Hamann

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

PUBLICATIONS

* equal contribution / shared first authorship

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

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.

CONFERENCE CONTRIBUTIONS

only talks and posters as presenter are listed

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 (SPUDM26), 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

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).

REVIEWING

Ad-hoc reviewer: Intelligence, SoftwareX

CONTINUING EDUCATION

Summer School (2017); Summerschool 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 | Java | ORSEE

REFEREES

Prof. Dr. Tilmann Betsch

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D-99089 Erfurt, Germany
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Prof. Dr. Stefan Scherbaum

Chair of Psychological Research Methods and Cognitive Modelling
Department of Psychology
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D-01062, Dresden Germany
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