Dr. Mikhail S. Spektor

Assistant professor, Department of Economics and Business, Universitat Pompeu Fabra

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RESEARCH INTERESTS

- **Decisions under risk and uncertainty**
- **Learning and decision making**
- **Context-dependent preferences**
- **Cognitive modeling**

EDUCATION

Dr. phil.
Faculty of Psychology, University of Basel

🗓 Basel, Switzerland   ⚲ Oct 2014–Apr 2018

- Ph.D. program "Social, Economic, and Decision Psychology".
- Thesis: *Determinants of the context dependency of choices*
- Thesis upervisors: Jörg Rieskamp and Sebastian Gluth
- Thesis committee: Sebastian Gluth, David Kellen, and Jörg Rieskamp (Chair)
- Final grade: *Summa cum laude* (corresponds to a 6 on a 1–6 scale; 6 = best)

M.Sc. Psychology
Heidelberg University

🗓 Heidelberg, Germany   ⚲ Aug 2012–Sep 2014

- Thesis: *The effect of credibility on donation behavior*
- Thesis supervisors: Andreas Voss and Israel Waichman
- Final grade: 1.0 (on a 1–6 scale; 1 = best)

B.Sc. Psychology
Heidelberg University

🗓 Heidelberg, Germany   ⚲ Aug 2009–Jul 2012

- Thesis: *Measuring intelligence and its components using stochastic diffusion models*
- Thesis supervisors: Andreas Voss and Dirk Hagemann
- Final grade: 1.1 (on a 1–6 scale; 1 = best)

PROFESSIONAL POSITIONS

Assistant professor
Department of Economics and Business, Universitat Pompeu Fabra

Barcelona, Spain   since Sep 2019

Affiliated professor
Barcelona Graduate School of Economics

Barcelona, Spain   since Sep 2019

Visiting lecturer
Faculty of Psychology, University of Basel

Basel, Switzerland   Aug 2018–Jan 2019

Research fellow
Center for Social Psychology and Methodology, University of Freiburg

Freiburg, Germany   Jan 2018–Sep 2019

Research assistant
Center for Economic Psychology, University of Basel

Basel, Switzerland   Oct 2014–Dec 2017

TEACHING

Behavioral decision making I: Attention, experience, and influence
Universitat Pompeu Fabra

Barcelona, Spain   Jan 2020–Mar 2020

Seminar for graduate students (M.Sc. and M.Res. level; 6 ECTS; Taught 50/50 with Gaël Le Mens).

Learning objectives: basic understanding and application of behavioral decision-making theories and models.

Topics covered: information search in decisions under uncertainty, experience-based decisions in changing environments, multi-attribute multi-alternative context effects, decision making as a sequential-sampling process, attentional processes involved in decision making.

Click here for the syllabus

Data collection, evaluation, and modeling
University of Freiburg

Freiburg, Germany   Apr 2019–Aug 2019

Seminar for graduate students (M.Sc. level; 4 ECTS).

Learning objectives: basic understanding and application of statistical and cognitive modeling.

Topics covered: probability theory, likelihood principle, parameter estimation, model comparison, evidence-accumulation models, signal detection theory, multinomial processing trees, decision-making models, reinforcement learning, Bayesian hypothesis testing and parameter estimation, basics of `Stan`.

Click here for more information on the course-description website

Cognitive modeling: Concepts and applications

University of Basel

📅 Basel, Switzerland   📍 Aug 2018–Jan 2019

Seminar for graduate students (M.Sc. and Ph.D. level; 2 ECTS).

Learning objectives: basic understanding and application of cognitive modeling.

Topics covered: probability theory, statistical vs. cognitive models, model development, parameter estimation, model comparison, decision-making models, reinforcement learning, Bayesian parameter estimation.

Click here for more information on the course-description website

Experimental project seminar

University of Basel

📅 Basel, Switzerland   📍 Feb 2015–Jan 2017

Supervision of small, one-year long research projects in groups of four students (B.Sc. level; 8 ECTS)

Learning objectives: conducting literature research, developing hypotheses, collecting and analyzing data, writing research papers, and presenting the results as a scientific talk or poster.

Topics covered: emotions and decision making, learning and decision making, domain-specific risk taking, context-dependent preferences, social learning.

Click here for more information on the course-description website

SUPERVISION AND ADVISING

Master's thesis

Hannah Seidler   **"Does information search affect the decision process?
An investigation of the accentuation effect"**

Vanessa Kaiser   **"Learning strategies in multi-stage decisions"**

Bachelor's thesis

Ulrich Lösener   **"Do purely spatial, non-visual relations exist?"**

SOFTWARE AND PROGRAMMING SKILLS

- **Python**   Proficient
- **R**   Proficient
- **LaTeX**   Proficient
- **Stan**   Proficient
- **Matlab**   Basic

ADMINISTRATION, SERVICE TO PROFESSION, AND OTHER

Conference and workshop organization

EADM Summer School: "Learning and decision making"

 Barcelona, Spain   08–15 Jul 2020

JDMx meeting for early-career researchers

 Basel, Switzerland   08–11 Jun 2016

Invited symposia

Cognitive modeling in computer science and psychology: Bridging the gap

 Symposium conducted at the KogWis2018, Darmstadt, Germany   05 Sep 2018

Ad-hoc reviewer

Journal of Experimental Psychology: Learning, Memory, and Cognition

Computational Brain & Behavior

Frontiers in Psychology

PeerJ

PLOS One

Other

Counsel at legal tech start-up **LEX superior GmbH**

Data analyst of the interactive web documentary **51 Sprints**

GRANTS, AWARDS, AND FELLOWSHIPS

Conference travel award of the *Society for NeuroEconomics*

 Oct 2019

Conference travel grant of the *Swiss Academy of Humanities and Social Sciences*

 Aug 2017

Conference participation award (*MathPsych/ICCM 2017*)

 Jul 2017

Conference participation award (*International Meeting of the Psychonomic Society 2016*)

 May 2016

Conference travel grant of the *Swiss Academy of Humanities and Social Sciences*

 Nov 2015

Full scholarship for undergraduate studies

 Aug 2009–Sep 2014

PUBLICATIONS AND TALKS

📄 Peer-reviewed articles

2019 5 Fontanesi, L., Gluth, S., **Spektor, M. S.**, & Rieskamp, J. A reinforcement learning diffusion decision model for value-based decisions. *Psychonomic Bulletin & Review*. doi:10.3758/s13423-018-1554-2

4 **Spektor, M. S.**, Gluth, S., Fontanesi, L., & Rieskamp, J. How similarity between choice options affects decisions from experience: The accentuation of differences model. *Psychological Review*, *126*, 52–88. doi:10.1037/rev0000122

2018 3 Gluth, S.*, **Spektor, M. S.***, & Rieskamp, J. Value-based attentional capture affects multi-alternative decision making. *eLife*, *7*, 1–36. doi:10.7554/eLife.39659

2 **Spektor, M. S.**, Kellen, D., & Hotaling, J. M. When the good looks bad: An experimental exploration of the repulsion effect. *Psychological Science*, *29*, 1309–1320. doi:10.1177/0956797618779041

1 **Spektor, M. S.**, & Kellen, D. The relative merit of empirical priors in non-identifiable and sloppy models: Applications to models of learning and decision making. *Psychonomic Bulletin & Review*, *25*, 2047–2068. doi:10.3758/s13423-018-1446-5

👥 Invited talks

2018 1 **Spektor, M. S.** (2018, December). *Violations of normative decision theory in experience-based decisions*. Research seminar at the Department of Economics and Business, Universitat Pompeu Fabra. Barcelona, Spain.

👤 Conference talks

2018 7 **Spektor, M. S.***, Gluth, S.* & Rieskamp, J. (2018, September). Implementing value-based attentional capture in a computational process model of cognition. In R. Albrecht & M. S. Spektor (Chairs), *Cognitive Modeling in Computer Science and Psychology: Bridging the Gap*. Symposium conducted at the KogWis 2018. Darmstadt, Germany.

6 **Spektor, M. S.** & Wulff, D. U. (2018, March). Information search in decisions from experience. In H. Singmann & T. Pachur (Chairs), *Cognitive Models in Judgment and Decision Making*. Symposium conducted at the Tagung experimentell arbeitender Psychologen. Marburg, Germany.

2017 5 **Spektor, M. S.**, Kellen, D. & Hotaling, J. M. (2017, August). *When the good looks bad: First experimental evidence for the repulsion effect*. Subjective Probability, Utility, and Decision Making Conference. Haifa, Israel.

4 **Spektor, M. S.** & Kellen, D. (2017, July). *You can't make a silk purse of a sow's ear: On the relative merit of empirical priors in reinforcement learning models*. Annual Meeting of the Society for Mathematical Psychology. Coventry, U.K.

3 **Spektor, M. S.***, Gluth, S.* & Rieskamp, J. (2017, March). *Value-based attentional capture impairs trinary choice*. Tagung experimentell arbeitender Psychologen. Dresden, Germany.

2016 2 **Spektor, M. S.***, Kellen, D.* & Rieskamp, J. (2016, April). *Context dependency of loss aversion in choice*. The Nature of Preferences and their Relation to Choice. Potsdam, Germany.

1 **Spektor, M. S.**, Gluth, S., Fontanesi, L. & Rieskamp, J. (2016, March). Independence of irrelevant alternatives in decisions from experience: A challenge for reinforcement learning models. In D. Kellen, H. Singmann & T. Pachur (Chairs), *Cognitive Modeling in Memory and Decision Making*. Symposium conducted at the Tagung experimentell arbeitender Psychologen. Heidelberg, Germany.

*Equal contribution