# Mikhail S. Spektor

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# **METRICS**

7 peer-reviewed publications

80 citations

h-index: 5i10-index: 4

# **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

**Q** 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**

since Sep 2019

# Research fellow

#### Department of Psychology, University of Freiburg

Freiburg, Germany

**♀** Jan 2018-Sep 2019

# Visiting lecturer

#### Faculty of Psychology, University of Basel

Basel, Switzerland

**♀** Aug 2018-Jan 2019

#### Research assistant

#### Faculty of Psychology, University of Basel

**Basel**, Switzerland

**Q** Oct 2014-Dec 2017

# TEACHING

#### Microeconomics II

#### **Universitat Pompeu Fabra**

Barcelona, Spain

**♀** Mar 2020-Jun 2020

Lecture for undergraduate students (5 ECTS)

Learning objectives: thinking like an economist and application of theoretical concepts

Topics covered: general equilibrium, welfare economics, monopoly, oligopoly, externalities and public goods Click here for the syllabus

# Behavioral decision making I: Attention, experience, and influence

# **Universitat Pompeu Fabra**

Barcelona, Spain

**♀** Jan 2020-Mar 2020

Seminar for graduate students (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 (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 (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 undergraduate students (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

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# SUPERVISION AND ADVISING

# Ph.D. supervision

Evangelia Spantidaki Kyriazi (2020-ongoing; together with Larbi Aloui)

#### Doctoral dissertation defense committee

Daniel Sánchez Moscona (2020)

"Essays on behavioral economics"

Thomas Woiczyk (2020)

"Categories and levels of aggregation: Essays on judgment and decision making"

### **Doctoral dissertation proposal committee**

Sergio Pirla Lopez (2020)

"Emotions and decision making"

#### Master's and bachelor's theses

Hannah Seidler (2019)

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

Vanessa Kaiser (2019)

"Learning strategies in multi-stage decisions"

Ulrich Lösener (2019)

"Do purely spatial, non-visual relations exist?"

# ADMINISTRATION, SERVICE TO PROFESSION, AND OTHER

# Conference and workshop organization

EADM Summer School: "Learning and decision making" (postponed to 2021 due to Covid-19)

Parcelona, Spain

∰ 08-15 Jul 2020

#### JDMx meeting for early-career researchers

## 08-11 Jun 2016

#### Invited symposia

#### Cognitive modeling in computer science and psychology: Bridging the gap

**♀** Symposium conducted at the KogWis2018, Darmstadt, Germany

#### Ad-hoc reviewer

Journal of Experimental Psychology: Learning, Memory, and Cognition

**Transportation Research Part B** 

**Computational Brain & Behavior** 

Frontiers in Psychology

PeerJ

**PLOS One** 

# Other

Liaison lecturer for the Friedrich Naumann Foundation for Freedom

Scientific head of the **Digital Study** 

Counsel at legal tech start-up LEX superior GmbH

Data analyst of the interactive web documentary 51 Sprints

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# **GRANTS, AWARDS, AND FELLOWSHIPS**

**Consortium for Advanced Studies Abroad fellowship #** 2021 Fernandes fellowship **#** 2021 Co-applicant of Fundación BBVA 2019: Economía y Sociedad digital grant **1** 73'988 € **2020-2021** Co-applicant of Ministry of Science, Innovation and Universities: Proyectos I+D+i 2019 grant 3 84'700€ **2020-2022** Steven Karger prize (award of the Faculty of Psychology, University of Basel) **2019** Conference travel award of the Society for NeuroEconomics **#** 2019 Conference travel grant of the Swiss Academy of Humanities and Social Sciences **2017** Conference participation award (MathPsych/ICCM) **2017** Conference participation award (International Meeting of the Psychonomic Society) **2016** Conference travel grant of the Swiss Academy of Humanities and Social Sciences

Scholarship for pre-doctoral studies (Friedrich Naumann Foundation for Freedom)

₩ 2015

**2009-2014** 

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# **PUBLICATIONS AND TALKS**

# Peer-reviewed articles

In press

- 7 Kraemer, P., Fontanesi, L., **Spektor, M. S.**, & Gluth, S. Response time models separate single- and dual-process accounts of memory-based decisions. *Psychonomic Bulletin & Review. Preprint available on PsyArXiv*: doi:10.31234/osf.io/4pqyx
- 6 Voormann, A., **Spektor**, **M. S.**, & Klauer, K. C. The simultaneous recognition of multiple words: A process analysis. *Memory & Cognition*.
- 5 Fontanesi, L., Gluth, S., **Spektor, M. S.**, & Rieskamp, J. A reinforcement learning diffusion decision model for value-based decisions. *Psychonomic Bulletin & Review*, *26*(4), 1099–1121. 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(1), 52–88. doi:10.1037/rev0000122
- 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(8), 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(6), 2047–2068. doi:10.3758/s13423-018-1446-5

# Manuscripts in preparation or submitted for publication

Submitted

- 6 **Spektor**, M. S., Kellen, D., & Klauer, K. C. The repulsion effect in preferential choice and its relation to perceptual choice. *Preprint available on PsyArXiv*: doi:10.31234/osf.io/hmzsx
- 5 **Spektor, M. S.**, & Wulff, D. U. Myopia drives reckless behavior in the face of over-taxation. *Preprint available on PsyArXiv*: doi:10.31234/osf.io/34gzp
- 4 **Spektor, M. S.**, & Seidler, H. Irrelevant outcomes lead to violations of economic rationality.

In preparation

- 3 **Spektor**, M. S.\*, Gluth, S.\*, & Rieskamp, J. Saliency distorts reward processing during reinforcement learning.
- 2 **Spektor**, M. S., & Wulff, D. U. Strategic search in decisions from experience.
- 1 Kellen, D.\*, **Spektor**, **M. S.**\*, Rieskamp, J., & Klauer, K. C. Context dependency of loss aversion.

### Other publications

2020 1 **Spektor, M. S.**, & Yuan, T. Digitalisierung in der Juristenausbildung. *Neue Juristische Wochenschrift*, 15, 52–88.

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# Invited talks

- 2020 6 **Spektor, M. S.** & Wulff, D. U. (2020, July). *Strategic information search in decisions from experience*. Virtual lab meeting at the Department of Psychology, University of Warwick, UK.
- 5 Spektor, M. S. (2019, June). Determinants of the context dependency of choices. Dissertation competition of the Cognitive Psychology Division of the German Society for Psychology. Willebadessen, Germany.
- 2018 4 **Spektor**, **M. S.** (2018, December). *Violations of normative decision theory in experience-based decisions*. Research seminar at the Department of Economics.
  - 3 **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.
  - 2 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.
- 2016 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.

#### Conference talks

- 2020 7 Spektor, M. S., Kellen, D. & Klauer, K. C. (2020, October). The repulsion effect in preferential choice. Virtual Process Tracing Conference 2020.
- 2019 6 **Spektor, M. S.\***, Gluth, S.\* & Rieskamp, J. (2019, October). *Violations of economic rationality in reinforcement learning are driven by a saliency-dependent reward-prediction-error signal in the ventral striatum.* Poster spotlight at the Annual Meeting of the Society for NeuroEconomics. Dublin, Ireland.
- 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,
  - 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., Gluth, S., Fontanesi, L. & Rieskamp, J. (2016, August). Independence of Irrelevant Alternatives in Decisions from Experience: A Challengefor Reinforcement Learning Models. Poster spotlight at the Annual Meeting of the Society for NeuroEconomics. Berlin, Germany.
  - 1 **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.