

Simon M. Huttegger

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ACADEMIC POSITIONS

University of California, Irvine:

Chair, Department of Logic and Philosophy of Science	<i>2018 - present</i>
Professor of Logic and Philosophy of Science	<i>2015 - present</i>
Director, M.A. Program in Philosophy, Political Science, and Economics (PPE)	<i>2013 - 2018</i>
Associate Professor of Logic and Philosophy of Science	<i>2010 - 2015</i>
Assistant Professor of Logic and Philosophy of Science	<i>2008 - 2010</i>

Konrad Lorenz Institute for Evolution and Cognition Research, Altenberg/Austria:

Postdoctoral Research Fellow	<i>2006 - 2008</i>
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Visiting Positions:

Visiting Fellow, Department of Philosophy, Australian National University	<i>2020 (planned)</i>
Visitor, Department of Philosophy, University of Groningen	<i>September 2019</i>
Visitor, Munich Center for Mathematical Philosophy, LMU Munich	<i>2013-2014</i>
Visitor, Department of Philosophy, University of Salzburg	<i>2013-2014</i>

EDUCATION

Doctorate in Philosophy, Universität Salzburg	<i>2006</i>
MA in Philosophy, Universität Salzburg	<i>2002</i>

RESEARCH INTERESTS

Philosophy of Science, Probability Theory, Game and Decision Theory, Philosophy of Biology

HONORS AND AWARDS

UCI Chancellor's Fellow	<i>2013 - 2016</i>
Member of the Institute for Mathematical Behavioral Sciences, UCI	<i>2009 -</i>
Winner of the Philosophy of Science Association award for an outstanding article published in Philosophy of Science by a recent Ph.D. for the essay, "Evolution and the Explanation of Meaning"	<i>2006</i>

GRANTS

UCI Graduate Growth Incentive Award, \$ 30,000	<i>2010 - 2011</i>
PI of NSF project "Collaborative Research: Dynamic Perspectives on Costs and Conflicts in Signaling Interactions", \$ 275,000. Co-Pi's are Kevin Zollman (Carnegie Mellon University) and Carl Bergstrom (University of Washington) (grant totaling \$ 730,000)	<i>2010 - 2014</i>

PUBLICATIONS

Books:

- B1 Simon M. Huttegger (2017). *The Probabilistic Foundations of Rational Learning*. Cambridge University Press.

Articles:

- A42 Greg Lauro and Simon M. Huttegger (2020). Structural Stability in Causal Decision Theory. Forthcoming in *Erkenntnis*.
- A41 Simon M. Huttegger and Michael Nielsen (2019). Conditional Expectation and Generalized Learning. Forthcoming in *Philosophy of Science*.
- A40 Jeffrey A. Barrett and Simon M. Huttegger (2019). Quantum Randomness and Underdetermination. Forthcoming in *Philosophy of Science*.
- A39 Simon M. Huttegger, Hannah Rubin, and Kevin J. S. Zollman (2019). Invariance and Symmetry in Evolutionary Dynamics. Forthcoming in *American Philosophical Quarterly*.
- A38 Simon M. Huttegger (2019). Analogical Predictive Probabilities. *Mind* 128:1–37.
- A37 Justin B. Bruner, Cailin O’Connor, Hannah Rubin, Simon M. Huttegger (2018). David Lewis in the Lab: Experimental Results on the Emergence of Meaning. *Synthese* 195: 603–621.
- A36 Simon M. Huttegger (2017). Inductive Learning in Small and Large Worlds. *Philosophy and Phenomenological Research* 95: 90–116.
- A35 Jeffrey A. Barrett, Calvin T. Cochrane, Simon M. Huttegger, and Naoki Fujiwara (2017). Hybrid Learning in Signaling Games. *Journal of Experimental and Theoretical Artificial Intelligence* 29:119–1127.
- A34 Philipp Mitteroecker, Simon M. Huttegger, Barbara Fischer, and Mihaela Pavlicev (2017). Reply to Grossman: The Role of Natural Selection for the Increase of Caesarean Section Rates. *Proceedings of the National Academy of Sciences* 114: E1305.
- A33 Philipp Mitteroecker, Simon M. Huttegger, Barbara Fischer, and Mihaela Pavlicev (2016). Cliff-Edge Model of Obstetric Selection in Humans. *Proceedings of the National Academy of Sciences* 113: 14680–14685.
- A32 Simon M. Huttegger and Kevin J. S. Zollman (2016). The Robustness of Hybrid Equilibria in Costly Signaling Games. *Dynamic Games and Applications*, 6: 347–358.
- A31 Simon M. Huttegger (2015). Merging of Opinions and Probability Kinematics. *The Review of Symbolic Logic* 8: 611–648.
- A30 Simon M. Huttegger (2015). Bayesian Convergence to the Truth and the Metaphysics of Possible Worlds. *Philosophy of Science* 82: 587–601.
- A29 Simon M. Huttegger (2015). The Problem of Analogical Inference in Inductive Logic. *Proceedings of the 15th conference on Theoretical Aspects of Rationality and Knowledge*: 3–9.
- A28 Josef Hofbauer and Simon M. Huttegger (2015). Selection-Mutation Dynamics of Signaling Games. *Games* 6: 2–31.
- A27 Simon M. Huttegger, Justin B. Bruner, Kevin J. S. Zollman (2015). The Handicap Principle is an Artifact. *Philosophy of Science* 82:997–1009.
- A26 Simon M. Huttegger (2014). Learning Experiences and the Value of Knowledge. *Philosophical Studies* 171:279–288.
- A25 Simon M. Huttegger, Brian Skyrms, Pierre Tarrès, and Elliott E. Wagner (2014). Some Dynamics of Signaling Games. *Proceedings of the National Academy of Sciences USA* 111:10873–10880.

- A24 Simon M. Huttegger (2014). How Much Rationality do we Need to Explain Conventions? *Philosophy Compass* 9:11–21.
- A23 Simon M. Huttegger, Brian Skyrms and Kevin J. S. Zollman (2014). Probe and Adjust in Information Transfer Games. *Erkenntnis* 79: 835–853.
- A22 Simon M. Huttegger (2013). In Defense of Reflection. *Philosophy of Science* 80: 413–433.
- A21 Kevin J. S. Zollman, Carl T. Bergstrom, and Simon M. Huttegger (2013). Between Cheap and Costly Signals: The Evolution of Partially Honest Communication. *Proceedings of the Royal Society London B* 280: 20121878.
- A20 Simon M. Huttegger (2013). Probe and Adjust. *Biological Theory* 8:195–200.
- A19 Simon M. Huttegger and Kevin J. S. Zollman (2013). Methodology in Biological Game Theory. *The British Journal for the Philosophy of Science* 64:637–658.
- A18 Brian Skyrms and Simon M. Huttegger (2013). Emergence of a Signaling Network with “Probe and Adjust”. In *Signaling, Commitment, and Emotion*, edited by Brett Calcott, Richard Joyce and Kim Sterelny, MIT Press, Cambridge, MA, 265–273.
- A17 Simon M. Huttegger and Kevin J. S. Zollman (2012). Evolution, Dynamics, and Rationality: The Limits of ESS Methodology. In: *Evolution and Rationality: Decisions, Co-operation, and Strategic Behaviour*, edited by Ken Binmore and Samir Okasha. Cambridge University Press, Cambridge, 67–83.
- A16 Simon M. Huttegger and Philipp Mitteröcker (2011). Invariance and Meaningfulness in Phenotype Spaces. *Evolutionary Biology* 38: 335–351.
- A15 Simon M. Huttegger and Kevin J. S. Zollman (2011). Signaling Games: Dynamics of Evolution and Learning. In: Anton Benz et al. (eds.): *Language, Games, and Evolution*, Springer, New York, 160–176.
- A14 Simon M. Huttegger and Rory Smead (2011). Efficient Social Contracts and Group Selection. *Biology and Philosophy* 26: 517–531.
- A13 Simon M. Huttegger and Kevin J. S. Zollman (2010). Dynamic Stability and Basins of Attraction in the Sir Philip Sidney Game. *Proceedings of the Royal Society London B* 277: 1915–1922.
- A12 Simon M. Huttegger, Brian Skyrms, Rory Smead and Kevin J. S. Zollman (2010). Evolutionary Dynamics of Lewis Signaling Games. *Synthese* 172: 177–191.
- A11 Simon M. Huttegger (2010). Generic Properties of Evolutionary Games and Adaptationism. *The Journal of Philosophy* 107: 80–102.
- A10 Simon M. Huttegger (2009). On the Relationship Between Games in Extensive Form and Games in Strategic Form. In: A. Hiecke and H. Leitgeb (eds.): *Reduction, Abstraction, Analysis*. Ontos-Verlag, Frankfurt, 375–385.
- A9 Philipp Mitteröcker and Simon M. Huttegger (2009). The Concept of Morphospace in Evolutionary and Developmental Biology. *Biological Theory* 4: 54–67.
- A8 Josef Hofbauer and Simon M. Huttegger (2008). Feasibility of Communication in Binary Signaling Games. *Journal of Theoretical Biology*, 254: 843–849.
- A7 Simon M. Huttegger and Brian Skyrms (2008). Emergence of Information Transfer by Inductive Learning. *Studia Logica*, 89, 237–256.
- A6 Simon M. Huttegger (2007). Zur Evolution von Normen. In: G. Kreuzbauer, N. Gratzl and E. Hiebl (eds.): *Persuasion und Wissenschaft. Aktuelle Fragestellungen von Rhetorik und Argumentationstheorie*. LIT-Verlag, Wien, 267–277.

- A5 Josef Hofbauer and Simon M. Huttegger (2007). Selection-Mutation Dynamics of Signaling Games With Two Signals. In: *Proceedings of the ESSLLI 2007 Workshop on Language, Games, and Evolution*, 25–32.
- A4 Simon M. Huttegger (2007). Robustness in Signaling Games. *Philosophy of Science*, 74: 839–847.
- A3 Simon M. Huttegger (2007). Evolutionary Explanations of Indicatives and Imperatives. *Erkenntnis*, 66: 409–436.
- A2 Simon M. Huttegger (2007). Evolution and the Explanation of Meaning. *Philosophy of Science* 74: 1–27.
- A1 Simon M. Huttegger and Brian Skyrms (2006). Learning to Transfer Information. In: *Proceedings of the 7th Conference on Logic and the Foundations of Game and Decision Theory*.

Book Reviews:

- R2 Simon M. Huttegger (2011). Review of: B. Skyrms *Signals: Evolution, Learning, and Information*, Oxford, Oxford University Press (2010), in: *Analysis* 71: 597–599.
- R1 Simon M. Huttegger (2007). Review of: S. Okasha *Evolution and the Levels of Selection*, Oxford, Oxford University Press (2006), in: *Biological Theory*, 2: 429–431.

PRESENTATIONS

- TBA, Keynote at FATIL 2020 (First International Conference on Foundations, Applications, and Theory of Inductive Logic), Munich, September 2020
- TBA, Comments on Hun Chung’s paper at Pacific APA, April 2020
- “Thinking Before Acting: Decision Theory and Deliberation”, New Work on Choice and Belief Workshop, Arizona State University, Tempe, November 2019
- “Inductive Logic Without Categories,” 2019 EPSA Meeting, Geneva, September 2019
- “Generalized Learning and Conditional Expectation,” University of Groningen, September 2019
- “Rethinking Convergence to the Truth,” Seminar on Logic Probability, and Games, Columbia University, April 2019
- “Generalized Learning and Conditional Expectation,” Caltech, April 2019
- “Rethinking Convergence to the Truth”, Salzburg-Irvine-Munich Workshop, Munich, March 2019
- “The Problem of Dishonest Signaling”, Workshop on Signaling at NeurIPS, Montreal, December 2018
- “Kolmogorov Conditioning and Radical Probabilism”, 2018 PSA Meeting, Seattle, November 2018
- “Gregory Kavka on Moral Paradoxes of Nuclear Deterrence”, Symposium on The Nuclear Threat in the 21st Century, Center for Global Peace and Conflict Studies, UCI, October 2018
- “Radically Finite Probability”, Philosophy of Probability Workshop, University of Washington, April 2018
- “Response to Critics”, Pacific Meeting of the American Philosophical Association, San Diego, March 2018. This was part of a symposium on the Book B1 *Probabilistic Foundations of Rational Learning*. Commentators: James M. Joyce (Michigan), Tom Sterkenburg (LMU Munich), Sandy Zabell (Northwestern)
- “Learning to Take Turns in Social Interactions”, Second Meeting of the PPE Society, New Orleans, March 2018
- “Schnorr Randomness and the Lévy Martingale Convergence Theorem”, Workshop on Learning and Probability, Columbia University, April 2017
- “The Probabilistic Foundations of Rational Learning” Department of Philosophy, University of Michigan, March 2017
- “Schnorr Randomness and the Lévy Martingale Convergence Theorem”, Second Salzburg-Irvine-Munich (SIM) Workshop in Scientific Philosophy, UC Irvine, March 2017
- “The Probabilistic Foundations of Rational Learning” Munich Center for Mathematical Philosophy, LMU Munich, February 2017

“Foundations of (Boundedly) Rational Learning”, Center for Mathematical Economics, University of Bielefeld, January 2017

“Cheaper Than Costly Signals: Experimental Evidence on the Emergence of Signaling”, Eastern APA, Washington DC, January 2016

“Invariance and Symmetry in Evolutionary Dynamics”, ISHPSSB meeting in Montreal, July 2015

“Analogical Inference in Inductive Logic”, TARK 2015 at CMU Pittsburgh, June 2015

“Analogical Inference in Inductive Logic”, IMBS Irvine, June 2015

“Inductive Learning in Small and Large Worlds”, University of Salzburg, April 2015

“Cheaper Than Costly Signals: Experimental Evidence on Signaling Games”, UC Merced, April 2015

“Analogical Predictive Probabilities” Workshop on Perspectives in Inductive Logic, UC Irvine, March 2015

“Convergence to the Truth and the Metaphysics of Possible Worlds”, Kansas State University, March 2015

“How to Measure Phenotypic Variation”, PSA meeting in Chicago, November 2014

“The Handicap Principle is an Artifact”, PSA meeting in Chicago, November 2014

“An Analogical Inductive Logic for Partially Exchangeable Families of Attributes” Munich Center for Mathematical Philosophy, LMU Munich, May 2014

“Ein allgemeines Prinzip rationalen Lernens” Department of Philosophy, University of Salzburg, May 2014

“Learning Experiences, Expected Inaccuracy, and the Value of Knowledge” Munich Center for Mathematical Philosophy, LMU Munich, May 2014

“Foundations for Boundedly Rational Learning” Department of Philosophy, University of Groningen, April 2014

“Learning Experiences, Expected Inaccuracy, and the Value of Knowledge” Department of Philosophy, University of Düsseldorf, April 2014

“Hybrid Equilibria in Costly Signaling Games”, Arbeitsgemeinschaft Biomathematik, University of Vienna, March 2014

“Rational Foundations of Boundedly Rational Learning”, keynote lecture at SOPhiA 2013, Salzburg, September 2013

“Meinungsverschiedenheiten und die Konvergenz von Wahrscheinlichkeiten”, Department of Philosophy, University of Salzburg, March 2013

“Some Measurement-Theoretic Problems of Phenotype Spaces”, Symposium on *The Foundations of Quantification and Measurement in the Biological Sciences* sponsored by the John Templeton Foundation, New York, February 2013

“Pattern Learning in Games”, Institute for Mathematical Behavioral Sciences, UC Irvine, February 2013

“How to Learn in Strategic Interactions”, Philosophy & Economics, University of Bayreuth, January 2013

“Probe and Adjust”, PSA meeting San Diego, November, 2012

“The Evolution of Social Norms in Structured Populations”, Formal Ethics 2012, Conference at the Munich Center for Mathematical Philosophy, October 2012

“Pattern Learning in Games”, Department of Philosophy, Carnegie Mellon University, October 2012

“Probe and Adjust”, Workshop on *Evolution, Learning, and Games*, Center for Formal Epistemology, Carnegie Mellon University, October 2012

“Learning in Games: Are Socially Desirable States Reachable?”, Frontiers of Rationality and Decision, Workshop at the University of Groningen, August 2012

“Invariance and Meaningfulness”, Keynote Address at the Workshop on Measure Theoretic Issues in Biology, The Research Institute at Nationwide Children’s Hospital in Columbus, Ohio, June 2012

“Probe and Adjust”, First CSLI Workshop on Logic, Rationality, and Intelligent Interaction, Stanford University, June 2012

“Methodology in Biological Game Theory”, Pacific APA meeting, April 5-6, 2012

“Meaning and Information in Signaling Games with Conflicting Interests” Workshop at CUNY on Signaling and Meaning, New York, March 2012

“Concerns and Alternatives to Costly Signaling in Biology”, KLI Workshop on Strategic Interactions in Humans and other Animals, Altenberg (Vienna), September 2-4, 2011

“Low Rationality Learning for Networks”, Episteme conference, Pittsburgh CMU, June 24–26, 2011

“Networks and Information Transfer”, Workshop on Networks, Signaling, and Social Epistemology, London School of Economics, July 14, 2010

“Networks, Signaling, and Social Epistemology”, Tutorial for the master class of the Choice Group at the London School of Economics, July 13, 2010

“Communication and Conflict”, Workshop on Game Theory and Communication, Stanford University, May 28-29, 2010

“Game Theory and Adaptationism”, Department of Philosophy, University of Salzburg, December 2009

“Signals, Drift, Mutation”, Pacific APA meeting, April 8–12, 2009

“Group Selection and the Stag Hunt”, Evolution, Co-operation and Rationality Conference, University of Bristol, UK, September 18-20, 2009

“Selection-Mutation Dynamics of Signaling Games”, Workshop on Evolution, Game Theory and the Social Contract, March 26-29, 2009

“Structural Stability and Signaling Games”, IMBS Irvine, March 5, 2009

“On the Relation Between Strategic-Form Games and Games in Extensive Form”, invited talk at the 31st International Wittgenstein Symposium, August 10–16, 2008

“A Space Odyssey: Morphological Similarity and Closeness” (with Philipp Mitteröcker), Philosophy of Science conference, Dubrovnik, April 14-18, 2008

“Selection-Mutation Dynamics of Signaling Games”, Games and Decisions in Pragmatics, Zentrum für allgemeine Sprachwissenschaft, Berlin, November 24-25, 2007

“Selection-Mutation Dynamics of Signaling Games” Arbeitsgemeinschaft Biomathematik, University of Vienna, October 30, 2007

“Selection-Mutation Dynamics of Signaling Games” ESSLI summer school, invited speaker at the workshop on *Language, Games, and Evolution*, Trinity College, Dublin, August 6–10, 2007

“The Evolution of Simple Communication Systems”, ISHPSSB conference, University of Exeter, July 25-29, 2007

“The Evolution of Simple Communication Systems” KLI for Evolution and Cognition Research, Altenberg, July 19, 2007

“Learning to Transfer Information” Department of Philosophy, University of Salzburg, May 31, 2007

“Evolutionary Dynamics of Signaling Games” Symposium in honor of Werner Leinfellner, KLI for Evolution and Cognition Research, Altenberg, January 31, 2007

“Learning to Transfer Information” Department of Economics, University of Innsbruck, January 11, 2007

“A Simple Game Theoretic Model of Information Transfer” Arbeitsgemeinschaft Biomathematik, University of Vienna, November 27, 2006

“Evolutionary Explanations of Indicatives and Imperatives” Department of Logic and Philosophy of Science, UC Irvine, November 13, 2006

“Game Theoretic Models of Signaling and Information Transfer” Institute for Mathematical Behavioral Sciences, UC Irvine, November 9, 2006

“The Robustness of Signaling” PSA meeting, Vancouver, November 2–5, 2006

“Dynamics of Signaling Games” Institute for Logic, Language and Computation, University of Amsterdam, September 27, 2006

“Probabilistic Reasoning in Games” ESF Exploratory Workshop *Applied Logic in the Methodology of Science*, University of Bristol, September 8-10, 2006

“Learning to Transfer Information” 7th Conference on Logic and the Foundations of Game and Decision Theory, University of Liverpool, July 13-15, 2006

“Evolution von Normen” Salzburger Rhetoriktage, April 21-22, 2006

“Game Theoretic Models of Signaling and Information Transfer” KLI for Evolution and Cognition Research, Altenberg, January 17, 2006

“Efficient Social Contracts and Population Growth” LPS colloquium, UC Irvine, May 20, 2005

“Static and Dynamic Approaches to Decisions in Games” Conference of the European Society for the History of Human Sciences, Salzburg, July 20-24, 2004

COURSES TAUGHT

Rational Choice (Spring 2011, Fall 2014)
Philosophy of Economics (Winter 2011/Spring 2013)
Set Theory (Fall 2010)
Philosophy of Biology (Spring 2010)
Introduction to Evolutionary Game Theory (Winter 2010/11, Spring 2012, Winter 2016)
Formal Methods in Philosophy (Winter 2016)
Learning in Games (Fall 2009)
Introduction to Inductive Logic (Spring 2009/10, Spring 2012/13, Spring 2015-19)
Bayesian epistemology (Winter 2018)
PPE Proseminar I & II (2016-2019)
PPE Proseminar III (2017-18)
Game Theoretic Models of Signaling (Winter 2009/Winter 2012)
Development of Inductive Logic (Fall 2012)
Philosophy of Probability (Fall 2014)
Probability and Randomness (Winter 2016)
Chance (Winter 2019)
Game Theory (Summer School “Philosophical Engineering”, University of Düsseldorf, 2019)

ACADEMIC SERVICE

Referee for *Deutsche Forschungsgemeinschaft*, *European Research Council*, *National Science Foundation*, *Cambridge University Press*, *Oxford University Press*, *Routledge*, *Acta Biotheoretica*, *Analysis*, *American Naturalist*, *American Philosophical Quarterly*, *Biological Theory*, *Cognition*, *Ergo*, *Entropy*, *Erkenntnis*, *Ethics*, *Evolution*, *Games*, *Games and Economic Behavior*, *Grazer Philosophische Studien*, *Journal of Human Evolution*, *Journal of Logic, Language and Information*, *Journal of Mathematical Biology*, *Journal of Philosophical Logic*, *Journal of Theoretical Biology*, *Mind*, *Noûs*, *Pacific Philosophical Quarterly*, *Philosophy of Science*, *Philosophy and Phenomenological Research*, *Philosopher’s Imprint*, *Philosophical Studies*, *PLOS One*, *Politics*, *Philosophy and Economics*, *Proceedings of the National Academy of Sciences USA*, *Proceedings of the Royal Society B*, *Review of Philosophy and Psychology*, *Review of Symbolic Logic*, *Studia Logica*, *Studies in History and Philosophy of Science*, *Studies in History and Philosophy of Science Part C*, *Synthese*, *The British Journal for the Philosophy of Science*, *Topoi*

Editor, *Review of Symbolic Logic*, 2020–present

Editorial Board, *Games*, 2014–present

Program Committee PSA 2014

Program Committee EPSA 2015, 2018

Program Committee FEW 2017

Program Committee FATIL 2020

Nominating Editor, *Philosopher’s Annual*, 2018 - present

Reviewer, *Philosophical Gourmet Report*, 2014, 2017

Panelist for National Science Foundation, Biological Sciences (June 2011)

Director of Graduate Studies, LPS (2011- 2013)

Colloquium Director, LPS (2009-2012)

Strategic Interactions in Humans and other Animals, workshop organized at the KLI, Altenberg (Vienna), September 2-4, 2011

Social Dynamics Conference, workshop at the Arnold and Mabel Beckman Center, Irvine, co-organized with B. Skyrms, March 15-17, 2013

Inductive Logic, workshop at UC Irvine, March 19-20, 2015

Topics in Scientific Philosophy, workshop at UC Irvine, co-organized with Jeff Barrett and Brian Skyrms, February 23-25, 2018

Formal Epistemology Workshop 2020, local organizer with Cailin O’Connor and Jeff Barrett, May 22-24, 2020

DISSERTATION COMMITTEES

Aydin Mohseni (Irvine, Co-Chair)
Gerard Rothfus (Irvine, Co-Chair)
Yuting Zhao (Irvine, Chair)
Calvin Cochran (Irvine IMBS), Summer 2019
Michael Nielsen (Columbia, External Member), Spring 2019
Hannah Rubin (Irvine, Chair), Spring 2017
Marta Sznajder (Groningen), Winter 2017
Justin Bruner (Irvine), Spring 2014
Cailin O'Connor (Irvine), Summer 2013
Roland Mühlenbernd (Tübingen), Summer 2013
Gregory McWhirter (Irvine), Spring 2013
Elliott Wagner (Irvine), Spring 2012
Rory Smead (Irvine), Spring 2009