

# Curriculum Vitae

Marie I. Kaiser

Prof. Dr.

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## Personal Information

Date of birth: March 16<sup>th</sup>, 1981  
Place of birth: Schleswig  
Nationality: German

## Current Position

since 06/2018

**Full Professor for Philosophy of Science**, Department of Philosophy, Bielefeld University, Germany

since 11/2019

**Vice-Rector for Personnel Development and Gender Equality**, Bielefeld University, Germany

## Areas of Specialization

**General Philosophy of Science:** explanation, reductionism, causality, complexity, methodology of philosophy of science, interdisciplinarity, normativity, science & society

**Philosophy of Biology:** reductive explanation, causal modeling, mechanistic explanation, biological individuality, ecological niche, animal personality

**Metaphysics:** mechanisms, phenomena, part-whole relations, biological dispositions, individuality/uniqueness

## Work Experience

10/2018 – 10/2019

**Parental leave**, part-time work

02/2018

**Offer from the University of Mainz** as a full professor and director of the *Studium generale*

10/2016 – 05/2018

**Junior Professor for Philosophy of Science**, Department of Philosophy, Bielefeld University, Germany

08 – 09/2016

**Visiting Fellow**, University of Calgary, Canada

09/2013 – 09/2016

**Postdoctoral Research Fellow**, DFG Research Group “Causation and Explanation”, University of Cologne, Germany

09/2012 – 08/2013

**Postdoctoral Research Fellow**, Department of Philosophy, University of Geneva, Switzerland

11/2009 – 08/2012

**Research Fellow**, DFG Research Group “Causation and Explanation”, Department of Philosophy, University of Cologne (since 04/2010) and University of Muenster, Germany

01 – 05/2010 + 04/2013	<b>Visiting Scholar</b> , Minnesota Center for Philosophy of Science, University of Minnesota, USA
04/2008 – 09/2009	<b>Research Assistant</b> , Center for Philosophy of Science, University of Muenster, Germany
05/2007 – 09/2010	<b>Research Assistant</b> , Department of Philosophy, University of Muenster, Germany
10/2003 – 04/2007	<b>Student Assistant and Tutor</b> , University of Muenster, Germany

## Education

10/2007 – 07/2012	<b>PhD studies, University of Cologne</b> (since 10/2010) and <b>University of Muenster, Germany</b> PhD examination in philosophy (Dr. phil.); PhD thesis on “An Ontic Account of Explanatory Reduction in Biology”; supervisors: Prof. Dr. Andreas Hüttemann (Cologne), Prof. Dr. Marcel Weber (Geneva); final grade: <i>summa cum laude (excellent)</i>
04/2005 – 04/2007	<b>Master studies, University of Muenster, Germany</b> Master of Arts in philosophy, biology (minor), and educational science (minor); interdisciplinary Master thesis on “Pluralistic Approaches in the Units of Selection Debate”; final grade: <i>1,05 (excellent)</i>
10/2001 – 07/2007	<b>Teaching profession, University of Muenster, Germany</b> State examination in philosophy and biology (certification as secondary teacher); final grade: <i>1,2/1,0 (excellent)</i>

## Other Academic Activities

since 05/2018	<b>TRR-SFB 212, Bielefeld University, Germany</b> Gender equality representative
since 10/2016	<b>Leibniz Center for Science and Society, Leibniz University of Hannover, Germany</b> Member of the Scientific Advisory Board
09/2015 – 08/2018	<b>Research project “From Biological Practice to Scientific Metaphysics”, Templeton Foundation, University of Calgary, Canada</b> Co-investigator
09/2012 – 08/2014	<b>Journal <i>dialectica</i>, University of Geneva, Switzerland</b> Member of the Editorial Board
10/2011 – 09/2015	<b>DFG-network “Philosophy of the Life Sciences in Germany”</b> Founding member, <a href="http://www.philbio.de/">http://www.philbio.de/</a>
01/2008 – 08/2010	<b>Center for Philosophy of Science, University of Muenster, Germany</b> Member of the management

10/2007 – 09/2008

**Department of Philosophy, University of Muenster, Germany**  
Assistant to the Head of Department

01/2007 – 01/2008

**Center for Philosophy of Science, University of Muenster, Germany**  
Member of the Managing Board

### Third Party Funding & Prizes

469.700 EUR

Research project “**Complex Biological Dispositions: A Case Study in the Metaphysics of Biological Practice**” (2020-2023, No. 288923097), project in the research group “Inductive Metaphysics” (FOR 2495/2), funded by the German Research Foundation (DFG)

3.770.745 EUR

Graduate school „**Integrating Ethics and Epistemology of Scientific Research**“ (2020-2024, GRK 2073/2), PIs: Willholt T., Carrier M., Feest U., Frisch M., Hübner D., Kaiser M. I., Reydon T., Stöcker R., funded by the German Research Foundation (DFG)

5.000 EUR

Teaching project “**Training Basic Philosophical Skills: Structural Reading, Analyzing Arguments, Searching Literature, and Quoting**” (2018-2019), funded by the Qualitätsfond für die Lehre, Bielefeld University

167.200 EUR

Research project “**The Ontological Status of Individualised Niches**” (2018-2021, No. 396781820), project in the Collaborative Research Center “A Novel Synthesis of Individualisation across Behaviour, Ecology and Evolution” (TRR-SFB 212); funded by the German Research Foundation (DFG)

5.000 EUR

Teaching project “**Using Video Tutorials in Teaching Basic Philosophical Skills**” (2017-2018), funded by the Qualitätsfond für die Lehre, Bielefeld University

5.000 EUR

**Offermann-Hergarten Award** from the University of Cologne for the book “Reductive Explanation in the Biological Sciences” (2016)

### Publications

#### Authored Books

Kaiser M. I. (2015): *Reductive Explanation in the Biological Sciences* (History, Philosophy and Theory of the Life Sciences; Vol. 16). Cham: Springer. [360 pages]

Kaiser M. I. (2008): *Die Debatte um die Einheiten der natürlichen Selektion*. Pluralistische Lösungsansätze. Saarbrücken: VDM. [131 pages]

#### Edited Books

Kaiser M. I., Scholz O., Plenge D., Hüttemann A. (2014) (eds.): *Explanation in the Special Sciences – The Case of Biology and History* (Synthese Library; Vol. 367). Dordrecht: Springer. [366 pages]

Kaiser M. I., Seide A. (2013) (eds.): *Philip Kitcher – Pragmatic Naturalism*. Frankfurt/Main: ontos. [205 pages]

#### Journal Papers

Kaiser M. I., Müller C. (2021): What Is an Animal Personality? *Biology & Philosophy* 36(1), <https://doi.org/10.1007/s10539-020-09776-w>.

- Kaiser M. I., Trappes R. (2021): Broadening the Problem Agenda of Biological Individuality: Individual Differences, Uniqueness, and Temporality. *Biology & Philosophy* 36, <https://doi.org/10.1007/s10539-021-09791-5>.
- Kaiser M. I. (2019): Interdisziplinarität und die Philosophie. Stellungnahmen von Marie I. Kaiser und Albert Newen, *Information Philosophie* 2: 50-55.
- Kaiser M. I. (2019): Normativity in the Philosophy of Science, *Metaphilosophy* 50 (1-2): 36-62.
- Kaiser M. I. (2018): ENCODE and the Parts of the Human Genome, *Studies in History and Philosophy of Biological and Biomedical Sciences* 72: 28-37.
- Kaiser M. I., Krickel B. (2017): The Metaphysics of Constitutive Mechanistic Phenomena, *The British Journal for the Philosophy of Science* 68(3): 745-779.
- Kaiser M. I. (2016): On the Limits of Causal Modeling: Spatially-Structurally Complex Biological Phenomena, *Philosophy of Science* 83: 921-933.
- Kaiser M. I., Meunier R., Kronfeldner M. (2016): Problems and Prospects of Interdisciplinarity: The Case of Philosophy of Science, *Interdisciplinary Science Reviews* 41(1): 61-70.
- Kaiser M. I., Meunier R., Kronfeldner M. (2015): Problems and Prospects of Interdisciplinary Philosophy of Science: A Report from the Workbench, *Briefe zur Interdisziplinarität* 15, 32-41.
- Kaiser M. I., Meunier R., Kronfeldner M. (2014): Interdisciplinarity in Philosophy of Science, *Journal for General Philosophy of Science* 45: 59-70.
- Netzwerk für Philosophie der Lebenswissenschaften in Deutschland (2013): Philosophie der Lebenswissenschaften. Entwicklungen und Tendenzen, *Information Philosophie* 4: 14-27.
- Kaiser M. I. (2011): Limits of Reductionism in the Life Sciences, *History and Philosophy of the Life Sciences* 33: 453-476.
- Kaiser M. I., Trappes R. (forthcoming): Ecological-Evolutionary Mechanisms and Individualized Niches, in: Bausman W., Baxter J., Lean O. (eds.): *From Biological Practice to Scientific Metaphysics*. University of Minnesota Press.
- Kaiser M. I. (2021): Explanation in Evo-Devo, in: de la Rosa L. N., Müller G. B. (eds.): *Evolutionary Developmental Biology - A Reference Guide*. Cham: Springer.
- Kaiser M. I. (2020): Was ist gute Wissenschaft? Philip Kitcher, in: Müller-Salo J. (ed.): *Analytische Philosophie. Eine Einführung in 16 Fragen und Antworten*. Paderborn: Wilhelm Fink, 111-123.
- Kaiser M. I. (2018): Individuating Part-whole Relations in the Biological World, in: Bueno O., Chen R.-L., Fagan M. B. (eds.): *Individuation, Process and Scientific Practices*. Oxford: Oxford University Press, 63-87.
- Hüttemann A., Kaiser M. I. (2018): Potentiality in Biology, in: Engelhard K., Quante M. (eds.): *Handbook of Potentiality*. Dordrecht: Springer, 401-427.

## Book Chapters

- Kaiser M. I. (2018): The Components and Boundaries of Mechanisms, in: Glennan S., Illari P. (eds.): *The Routledge Handbook of Mechanisms and Mechanical Philosophy*. New York: Routledge, 116-130.
- Kaiser M. I. (2017): Biological Parts, in: Burkhardt H., Seibt J., Imaguire G., Gerogiorgakis S. (eds.): *Handbook of Mereology*. München: Philosophia, 97-100.
- Kaiser M. I. (2017): Themen aus den Lebenswissenschaften, in: Schrenk M. (ed.): *Handbuch Metaphysik*. Stuttgart: Metzler, 325-330.
- Gebharder A., Kaiser M. I. (2014): Causal Graphs and Biological Mechanisms, in: Kaiser M. I., Scholz O., Plenge D., Hüttemann A. (eds.): *Explanation in the Special Sciences – The Case of Biology and History*. Dordrecht: Springer, 55-86.
- Kaiser M. I., Plenge D. (2014): Introduction: Points of Contact between Biology and History, in: Kaiser, M. I., Scholz O., Plenge D., Hüttemann A. (eds.): *Explanation in the Special Sciences – The Case of Biology and History*. Dordrecht: Springer, 1-23.
- Kaiser M. I. (2014): L'explication en biologie, in: Merlin F., Hoquet T. (eds.): *Précis de Philosophie de la biologie*. Paris: Vuibert Press, 143-155.
- Kaiser M. I., Craver C. F. (2013): Mechanisms and Laws: Clarifying the Debate, in: Chao H.-K., Chen S.-T., Millstein R. (eds.): *Mechanism and Causality in Biology and Economics*. Dordrecht: Springer, 125-145.
- Jung E.-M., Kaiser M. I., Seide A. (2013): Well-Ordered Philosophy? Reflections on Kitcher's Proposal for a Renewal of Philosophy, in: Kaiser M. I., Seide A. (eds.): *Philip Kitcher – Pragmatic Naturalism*. Frankfurt/Main: ontos, 161-174.
- Kaiser M. I. (2013): Complexity, in: Dubitzky W., Wolkenhauer O., Cho K.-H., Yokota H. (eds.): *Encyclopedia of Systems Biology*, Vol. X. New York: Springer, 456-460.
- Kaiser M. I. (2013): Reduction, in: Dubitzky W., Wolkenhauer O., Cho K.-H., Yokota H. (eds.): *Encyclopedia of Systems Biology*, Vol. X. New York: Springer, 1827-1830.
- Hüttemann A., Kaiser M. I. (2013): Disposition, in: Dubitzky W., Wolkenhauer O., Cho K.-H., Yokota H. (eds.): *Encyclopedia of Systems Biology*, Vol. X. New York: Springer, 594-597.
- Kaiser M. I. (2012): Why It Is Time to Move Beyond Nagelian Reduction, in: Dieks D., Gonzalez W. J., Hartmann S., Stöltzner M., Weber M. (eds.): *Probabilities, Laws, and Structures. The Philosophy of Science in a European Perspective*, Vol. 3. Heidelberg: Springer, 255-272.
- Kaiser M. I. (2010): Der evolutionäre Naturalismus in der Ethik, in: Oehler J. (ed.): *Der Mensch - Evolution, Natur und Kultur: Beiträge zu unserem heutigen Menschenbild*. Berlin: Springer, 261-283.
- Göhner J., Kaiser M. I., Suhm C. (2008): Is Simplicity an Adequate Criterion of Theory Choice?, in: Mößner N., Schmoranzer S., Weidemann C. (eds.): *Richard Swinburne*. Frankfurt/Main: ontos, 33-45.
- Kaiser M. I., Rosenhagen R., Suhm C. (2006): Experience Becoming Fully Literate. Van Fraassen on the Verge of Constructivism, in: Berg-Hildebrand A., Suhm C. (eds.): *The Philosophy of Bas C. van Fraassen*. Frankfurt/Main: ontos, 69-79.

	Backmann M., Berg-Hildebrand A., Kaiser M. I., Pohl M., Rosenhagen R., Suhm C. (2005): Pragmatism, Realism, and Science, in: Vieth A. (ed.): <i>Richard Rorty. His Philosophy under Discussion</i> . Frankfurt/Main: ontos, 65-78.
<b>Preprints</b>	Trappes R., Nematipour B., Kaiser M. I., Krohs U., van Benthem K. J., Ernst U., Gadau J., Korsen P., Kurtz J., Schielzeth H., Schmoll T., Takola E. (2021, March 5). How Individualized Niches Arise: Mechanisms of Niche Construction, Niche Choice, and Niche Conformance. <i>EcoEvoRxiv</i> , <a href="https://doi.org/10.32942/osf.io/wahcy">https://doi.org/10.32942/osf.io/wahcy</a>
<b>Book Reviews &amp; Conference Reports</b>	Kaiser M. I. (2019): Scott Lidgard; Lynn K. Nyhart, eds. Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives, in: <i>Isis</i> 110: 146-147. Kaiser M. I. (2015): Philosophy of Microbiology, in: <i>International Studies in the Philosophy of Science</i> 29: 224-228. Kaiser M. I. (2014): Causality in the Biological Sciences, 17 January, in: <i>The Reasoner</i> 8(3): 28-29.
<b>Dissertation</b>	Kaiser M. I. (2012): "An Ontic Account of Explanatory Reduction in Biology"; PhD thesis, University of Cologne (published online via KUPS; <a href="http://kups.uni-koeln.de/6021/">http://kups.uni-koeln.de/6021/</a> ).
	All papers are available on my website ( <a href="http://marie-kaiser.de/">http://marie-kaiser.de/</a> ).

## List of Courses Taught

If not indicated otherwise, the language of the course was German.

### Bielefeld University

<b>Summer term 2021</b>	PhilBio Team Meeting (in English)
<b>Winter term 2020/21</b>	Colloquium Practical and Theoretical Philosophy PhilBio Team Meeting (in English)
<b>Summer term 2020</b>	PhilBio Team Meeting (in English)
<b>Winter term 2019/20</b>	Transformative Experiences PhilBio Team Meeting (in English)
<b>Summer term 2019</b>	Colloquium Practical and Theoretical Philosophy Object Disciplines & Colloquium Science Studies (in English) I <sup>2</sup> SoS Colloquium (in English/German)
<b>Winter term 2018/19</b>	Science and Ethics I <sup>2</sup> SoS Colloquium (in English/German)
<b>Summer term 2018</b>	Colloquium Science Studies (in English) I <sup>2</sup> SoS Colloquium (in English/German)
<b>Winter term 2017/18</b>	Classical Texts in Epistemology Colloquium Practical and Theoretical Philosophy
<b>Summer term 2017</b>	Philosophical Writing: Explanation and Understanding The Boundaries of Science

<b>Winter term 2016/17</b>	Do Electrons and Genes Really Exist? The Debate about Scientific Realism Philosophy of Biology  <a href="#">University of Duesseldorf</a>
<b>Summer term 2015</b>	Metaphysics of Science  <a href="#">University of Cologne</a>
<b>Summer term 2015</b>	Introduction to Metaphysics
<b>Winter term 2013/14</b>	Descartes' Meditations  <a href="#">University of Lausanne</a>
<b>Summer term 2013</b>	Philosophy of the Life Sciences (in English)  <a href="#">University of Geneva</a>
<b>Summer term 2013</b>	Realism, Representation, and Structuralism (in English, with M. Weber) Biological Interest Group (in English, with M. Weber)
<b>Winter term 2012/13</b>	Biological Interest Group (in English, with M. Weber)  <a href="#">University of Cologne</a>
<b>Winter term 2011/12</b>	Philosophy of Biology  <a href="#">University of Muenster</a>
<b>Summer term 2011</b>	The Philosophy Philip Kitcher's (with A. Seide)
<b>Summer term 2010</b>	How Scientists Explain the World
<b>Winter term 2009/10</b>	Why it is so Hard to Be a Reductionist (with A. Hüttemann)
<b>Summer term 2009</b>	The Mechanistic Philosophy from the Beginning to Modern Day Evolution under Discussion
<b>Winter term 2008/09</b>	Introduction to Philosophy of Science What Characterizes Science?
<b>Summer term 2008</b>	The Question of Realism in Biology (with C. Suhm) Introduction to the Debate about Reductionism Is Darwin Right? The Theory of Evolution in the Social and Scientific Discourse
<b>Winter term 2007/08</b>	Introduction to Philosophy of Biology Problems in Medical Ethics (with C. Runtenberg)
<b>Summer term 2007</b>	Theoryladenness of Observation

Bielefeld, March 21st, 2021

