

Spring School Jena 2023

“European Philosophy of Science: Current influences on history and philosophy of science and science communication”

History and Philosophy of Science (HPS) and Science Communication (SeC) teaching programs tend to have a focus on research topics, questions and references with a marked anglo speaking dominance. While the field has developed greatly in this region, the longer history of philosophy of science and historical epistemology developed in Europe is usually overlooked. This spring school aims to give a short introduction to authors, questions and debates central to the philosophy of science tradition commonly characterized as “continental”. In this regard, this spring school provides (1) historical and systematic insights in German and French philosophy of science as well as historical epistemology and (2) a comparison to analytic (oriented) philosophies of science in English discourses.

This course aims to

- Acquaint students with insights on the history of philosophy of science in its continental tradition.
- Enable students to integrate these insights to current views on science communication and education.

Learning goals

- To participate and lead an academic discussion.
- To develop a critical view on the relation between history, philosophy, science, and society.

Dates

Start and end date: 17 and 18 April 2023

Location

Friedrich Schiller University Jena
Kleiner Rosensaal, Fürstengraben 27, Jena

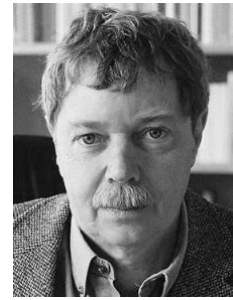
Organization

Julia Gruevska, Friedrich Schiller University Jena, Ernst-Haeckel-Haus
Abigail Nieves Delgado, Utrecht University
Christina Brandt, Friedrich Schiller University Jena, Ernst-Haeckel-Haus

Lecturers

Prof. Dr. Hans-Jörg Rheinberger (Berlin)

Hans-Jörg Rheinberger works in the history and epistemology of experimentation in the life sciences. His work bridges the gap between the study of history and contemporary cutting-edge sciences. He has been a Scientific Member of the Max Planck Society since 1997 and Director at the Max Planck Institute for the History of Science in Berlin.



Dr. Sandra Pravica (TU Berlin)

Sandra Pravica is a philosopher of science. Her work focuses on the role of Gaston Bachelard for the philosophy of science; on philosophical and historical perspectives on data technologies and data-driven methods; and on experimental thinking. She obtained her PhD from the Free University Berlin and was a predoctoral fellow at the Max Planck Institute for the History of Science in Berlin as well as a visiting researcher at the Institut d'Histoire et de Philosophie des Sciences et des Techniques in Paris. Since summer 2022 she is scientific coordinator of the Helmholtz Einstein international Berlin Research School in Data Science at the Einstein Center for Digital Future, TU Berlin.



Dr. Dawid Kasprowicz (RWTH Aachen)

Dawid Kasprowicz is a research assistant at the Institute of Advanced Studies “Cultures of Research” and at the chair for Philosophy of Science and Technology, both at RWTH Aachen. In his habilitation he develops a phenomenological approach to the philosophy of computational sciences based on the concept of experience and a theoretical intersection of phenomenology of philosophy of science.



Daniel Koenig, M.Sc. (Universität Siegen)

Daniel Koenig is a research assistant and PhD student at the Mathematics Department, research group Philosophy and History of Mathematics at the University of Siegen. The main focus of his research is on Ernst Cassirer's Philosophy of Mathematics and his Philosophy of Culture in general. He also works on the philosophy of science and mathematics in Neo-Kantianism.



Program

	Monday 17th April	Tuesday 18th April
8:45 - 9:30	Come together with Coffee and Tea	Come together with Coffee and Tea
9:30 – 11:00	Close chat with Hans-Jörg Rheinberger chaired by Kevin Liggieri	Science as a symbolic form. An insight into Ernst Cassirer's theory of knowledge with Daniel Koenig
11:00-11:30	Break	Break
11:30 – 13:00	Gaston Bachelard and Hans Reichenbach on the philosophical role of physics of the 1920s: The issues of everyday experience and the epistemological obstacle. with Sandra Pravica	Phenomenology and Philosophy of Science? Current problems and older questions with Dawid Kasprovicz
13:00-15:00	Lunch	Lunch
15:00-16:00	Walk through the Botanical Garden with Elisabeth Müller	Visit of the Phyletisches Museum
16:30-18:00	Evening Lecture: Bastienne Karg: An Object History of Ernst Haeckel's Gorilla and its curation in the Museum	Visit of the Ernst-Haeckel-Haus
18:00 -19:00		
19:00 - 21:00	Dinner at Café Stilbruch	

Monday 17th April

Come together 8:45 - 9:30

9:30 – 11:00

Meet Prof. Dr. Hans-Jörg Rheinberger and Historical Epistemology

Activities

Close chat with Prof. Dr. Hans-Jörg Rheinberger

- chaired by Prof. Dr. Kevin Liggieri (TU Darmstadt)

Preparation:

Please read and prepare questions.

1. Rheinberger, H.-J. (2013). My Road to History of Science. *Science in Context*, 26 (4), 639-648.
2. Rheinberger, H.-J. (2012). A Plea for a Historical Epistemology of Research. *Journal for General Philosophy of Science* 43 (1), 105-111.

11:30 – 13:00

Gaston Bachelard and Hans Reichenbach on the philosophical role of physics of the 1920s: The issues of everyday experience and the epistemological obstacle.

Dr. Sandra Pravica (TU Berlin)

Activities

1. Questions on the text to be discussed in small groups will be provided in advance. Short presentation of each group on interesting aspects of the discussion.
2. Discussion and quiz on quotes from the prepared texts.

Preparation

Please read the texts 1 and 2.

Possible questions to guide your reading (Bachelard: *The Formation ...*; Reichenbach: “The significance ...”). Choose three or more:

- What did you find inspiring or interesting in either or both texts? A sentence, paragraph, concept or idea – whatever: What do you remember? What appealed to you personally?
- Can you identify thematic overlaps and/or common problems in the two texts? What concepts are used to address these in each case?
- The role of everyday life and the world of experience: Differences between the everyday world and the “scientific world” play a central role in both texts – how and with which terms is the difference grasped in each case?
- Why do both authors resort to psychology, or psychological explanations, in their philosophical approach to the new concepts and theories of physics in the first half of the 20th century?
- What is the role of scientific experiments, technologies and instruments in both approaches?
- Do statements of the two authors apply to current scientific fields that you know?

References

1. Bachelard, Gaston: “Chapter One. The idea of the epistemological obstacle”, in *The Formation of the Scientific Mind. A Contribution to a Psychoanalysis of Objective Knowledge* [1938] (transl. by Mary McAllester Jones), Manchester, 2002, pp. 24-32.
2. Reichenbach, Hans: “The Philosophical Significance of Modern Physics” [1930], in: Reichenbach, M., Cohen, R.S. (eds.): *Hans Reichenbach Selected Writings 1909–1953* (Vol. I), Dordrecht, 1978, pp. 304–323. → section V can be neglected
3. Optional reading, and basis for the quiz: Bachelard, Gaston: “Introduction: The Essential Complexity of the Philosophy of Science: An Outline”, in *The New Scientific Spirit* [1934] (transl. by Arthur Goldhammer), Boston, 1985, pp. 1-18. → section III can be neglected

13:00 Lunch in the City Centre

15:00 Walk Through the Botanical Garden with Elisabeth Müller (FSU Jena) (Entrance fee: 4,00EUR/2,50 EUR)

16:30-18:00 Evening Lecture

Bastienne Karg (FSU Jena): An Object History of Ernst Haeckel’s Gorilla and its curation in the Museum

19:00 Dinner at Café Stilbruch, Wagnergasse 1-3, 07743 Jena (please note: Card payment is possible from 20 euros)

Tuesday 18th April

Get together 8:45 - 9:30

09:30 - 11:00

Science as a symbolic form. An insight into Ernst Cassirer’s theory of knowledge

Daniel Koenig, M.Sc. (Universität Siegen)

Activities

This course offers an insight into Ernst Cassirer’s theory of knowledge, which he developed in his Philosophy of symbolic forms. Originally rooted in Marburg Neo-Kantianism, Cassirer extended Kantian epistemology into a comprehensive philosophy of culture in which science is seen as only one possible way of objectively experiencing reality amongst others (e.g. myth, language, art). On the basis of text excerpts from Cassirer’s late work, we will discuss what constitutes science as a symbolic form.

Preparation

In preparation, it is requested to read two excerpts of Cassirer’s late work *An Essay on Man*: one from the published edition and one from the longer version published posthumously. In addition, a short introduction to Cassirer’s life and work is provided.

References

1. Ernst Cassirer: *An Essay on Man. A Philosophical Anthropology* (New Haven 1942/1943), in: Ernst Cassirer *Nachgelassene Manuskripte und Texte*, vol. 6, Hamburg 2005, Book II, Chapter II: The Critical Solution, p. 421-429.
2. Ernst Cassirer: *An Essay on Man. An Introduction to a Philosophy of Human Culture* (1944). In: Ernst Cassirer *Werke*, vol. 23, Hamburg 2006, Chapter XI: Science.
3. Samantha Matherne: *Cassirer*, New York 2021, Chapter One: Cassirer's life and works.

11:30 - 13:00

Phenomenology and Philosophy of Science? Current problems and older questions

Dr. Dawid Kasprowicz (RWTH Aachen)

Activities

Presentation: *Phenomenology and Philosophy of Science? A short introduction*

Discussion of the distributed text and guiding questions.

Preparation

Please read the text of John J. Compton and sketch - with the help of the text - answers to the following questions:

- How do scientific perception and experimentation relate to each other?
- How would you distinguish – if at all – scientific experience from scientific observation?
- How can phenomenology help to understand and justify scientific knowledge?

References

1. John J. Compton: Contributions of Existential Phenomenology to the Philosophy of Science. In: *American Philosophical Quarterly*, 25(2), 1988: 99-113.

13:00 Lunch in the City Centre

15:00 Visit of the **Phyletisches Museum**, Erbertstraße 1, 07743 Jena (Entrance fee 2,50 EUR)

16:30 Visit of the **Ernst-Haeckel-Haus**, Berggasse 7, 07743 Jena (Entrance free)

FYI:

Hostel: Lassallestraße 8, 07743 Jena

