

## Interview

### HOW DOES PHILOSOPHY OF SCIENCE MAKE A DIFFERENCE IN THE WORLD WE LIVE IN? A CONVERSATION WITH STEPHAN HARTMANN, STATHIS PSILLOS, AND ROMAN FRIGG

In the Autumn of 2015, a small group of members of the European Philosophy of Science Association (EPSA) decided to found what is known today as the East European Network for Philosophy of Science (EENPS).<sup>1</sup> The Inaugural conference of EENPS was held in Sofia on June 24–26, 2016, and was hosted by New Bulgarian University. The conference was a great success: about 70 scholars from 22 different countries took part, and three of the founders of the EPSA accepted invitations to give keynote talks. The keynote speakers Stephan Hartmann,<sup>2</sup> Stathis Psillos,<sup>3</sup> and Roman Frigg<sup>4</sup> also agreed to answer some awkward questions about the mission of philosophy of science in the present world, the role of networking among philosophers for the completion of their mission, and the value which professional organizations such as EPSA and EENPS add to the lives of those who are committed to the mission of philosophy of science. The questions were asked by Lilia Gurova, who chaired the Local Organizing Committee of the Inaugural con-

ference of EENPS;<sup>5</sup> the answers of Hartmann, Psillos, and Frigg follow.

**Lilia Gurova:** We, the founders of the East European Network for Philosophy of Science, greatly appreciate your taking part in our inaugural conference as keynote speakers. Your participation in the conference is recognized as support for our network and its aims and mission, an important part of which is to promote research and research collaboration in philosophy of science in East, South-East, and Central Europe. Many people in this region still doubt whether there are any good reasons for pursuing or supporting research in philosophy of science. I hope your answers to the following questions will help them to take an informed stance.

**Q1: Philosophy of science, broadly construed, aims at a better understanding of science—of its foundations and methods, as well as of its implications for society and culture. Although many would agree that these are questions which are interesting in themselves, the majority, including some people in academia, seem to lack a clear idea of why these questions should be taken seriously. What would you tell these people?**

**Stathis Psillos:** This kind of question is expected, especially nowadays when academic disciplines and academics themselves are “measured” by their cash-value, their short-term impact, or their “usefulness” to society at large.

But imagine asking this question to Einstein, or to Jean Perrin, or to Helmholtz, or to Henri Poincaré—and before them to Newton and to Leibniz (to name but a few). If they bothered to make a case for philosophy of science, as opposed to showing by

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<sup>1</sup> More details about the East European Network for Philosophy of Science (about its history, mission and current activities) could be found on its website: <https://sites.google.com/site/eastnetworkphilsci/home>

<sup>2</sup> Stephan Hartmann is Professor of philosophy of science at Ludwig Maximilian University (LMU) of Munich. He is Co-Director of the Munich Center for Mathematical Philosophy (MCMP), President of the European Philosophy of Science Association, and President of the European Society for Analytic Philosophy.

<sup>3</sup> Stathis Psillos is Professor in the Department of Philosophy and History of Science at the University of Athens.

<sup>4</sup> Roman Frigg is Professor in the Department of Philosophy, Logic and Scientific Method at the London School of Economics and Political Science (LSE). He is Director of the Centre for Philosophy of Natural and Social Science and Co-Director of the Centre for the Analysis of Time Series at LSE.

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<sup>5</sup> Lilia Gurova is Associate Professor of philosophy of science in the Department of Cognitive Science and Psychology at New Bulgarian University.

their own examples its importance to, and fertility for, their own work, they would certainly start by saying that philosophy needs science as much as science needs philosophy.

This relationship of mutual dependence is constitutive of both cognitive areas and has always been so—from ancient Greek philosophy and science to fairly recent times. Science grows through conceptual changes, and philosophy—whether practiced by philosophers or scientists (or both)—is the discipline that delineates the conceptual landscape of new theories. Philosophy grows through the re-drawing of the scientific image of the world, and science is the terrain in which the scientific image of the world is developed. Philosophy of science synthesizes the scientific image of the world; at the same time, it explores its limits and its epistemological presuppositions.

Take the perennial question that I have spent some time on: can and should we trust the current scientific image of the world? Is science in the truth-business, or should it be viewed as a collection of fairy tales, soon to be replaced by others? Is science in the business of discovering what the world is like, or is it in the business of constructing reality? One might treat these questions as esoteric ones which only excite the interest of professional philosophers of science. I beg to differ. Addressing these kinds of questions is imperative for society as a whole, especially in light of the fact that science has been the driving force of the cognitive achievements of humanity as a whole. It is also equally imperative for educators and policy-makers, since what kind of curricula are designed and what kind of research projects are fostered and encouraged might well depend on how seriously we take science as a cognitive endeavor, and why.

I could add more examples in which the questions that occupy the minds of philosophers of science are not esoteric and idiosyncratic ones: for instance, is science value-free, and if not, how can there be objectivity in it? (I am sure that science is not value-free, and yet it is by and large an objective enterprise). Or another example: how should consensus be established among scientific experts, and how should this consensus be based on evidence, especially in light of uncertainty? Answering questions such as these is important in treating pressing issues like anthropogenic climate change. More could be said. Suffice it to say that the history of science teaches us that scientific progress is constitutively linked with philosophical reflection about science as a whole and the various individual sciences and theories.

**Roman Frigg:** There is both an intellectual and

a practical motivation for engaging in philosophy of science. Over the last 300 years, science has changed our lives like no other human activity. Little, if anything, in the way we live would be the way it is without science. But what is science? What are its methods, what are its goals, and what makes it successful? These are pressing questions for everybody who appreciates the achievements of science. But science should also be looked at critically. Like every other activity, it can be done well and it can be done badly, and it is not always clear which is which. It is therefore important that we reflect on how science should be practiced, and on what counts as good and as bad science. This is not merely an academic exercise—in fact, it has direct influence on our lives. How should drugs be tested before they can be prescribed to people suffering from a disease, and how is their effectiveness assessed? Do climate models instruct us truthfully about the nature of climate change? And is the evidence in support of policy interventions sufficient to warrant large scale government programmes? All these are questions in the philosophy of science, and the answers matter to our lives.

**Stephan Hartmann:** Science is a fundamental part of our world and of our culture, and it is important that philosophers of science study it. It is important to learn about the implications of science for the “big questions” concerning our existence, and it is important to know how science works. What are the goals of science, and can science really achieve these goals? Is truth a goal of science, or is it only about its practical applications? Philosophers of science also study the methodology of science and critically evaluate the claim that science is a paradigmatically rational endeavor. But is science really rational? And how does the scientific approach differ from other approaches? What is the status of scientific knowledge, and what, if anything, privileges the scientific approach? These are all so-called meta-questions, i.e., philosophical questions about science. They are important, and are at the heart of our discipline for good reasons. But philosophers of science also increasingly collaborate with scientists, and these interactions have been enormously successful, as demonstrated by important work in the foundations of physics, biology, and cognitive and social science. These achievements would not have been possible without the crucial contributions of philosophers of science.

**Q2:** It seems to be a common belief that networking among philosophers facilitates the

**spread of “news and views,” but has nothing to do with the inception of deep and original ideas. Do you share this belief? Why or why not?**

**Roman Frigg:** Of course not. Professional philosophy has nothing to do with sitting around in a cafe, smoking a filterless Gauloise, and celebrating an existentialist lifestyle. Philosophical conferences are no different from conferences in physics, biology, or geology: people work hard on papers and ideas, and then subject them to the criticism of their colleagues. This is a rigorous and methodical intellectual activity, and it makes crucial contributions to the growth of philosophical understanding.

**Stephan Hartmann:** In my view, there is nothing wrong about learning the “news and views” about our field and the people in it. It is important to get to know new areas of research, interesting problems and questions, funding and job opportunities, conferences and workshops, and new initiatives. The reasons for this are all too obvious. If one is not part of a network, one often misses this information (even in the age of the internet). But of course, networking has many more functions. One gets feedback on one's own work, one gets ideas after a talk from someone else and starts a collaboration, one gets new invitations, makes new friends, and in general one feels to be part of a community of like-minded people. I can say that I have profited greatly from my network in all these respects, and I do my best to help my PhD students and postdocs to build their networks.

**Stathis Psillos:** “Networking” is almost as old as philosophy itself. It just has different forms. In the seventeenth century, for instance, it primarily took the form of correspondence among various philosophers and laypersons, and sometimes the form of dinners in Parisian salons. In the twentieth century it took the form of conferences, congresses, and workshops. In the interwar period, for instance, a number of congresses of scientific philosophy took place in several European and American cities, and this was instrumental for the consolidation of European philosophy of science and the spread of the ideas of logical empiricism on both sides of the Atlantic. Part of the rationale for the post-WWII World Congress of Philosophy was to open up the philosophical world to philosophers from the then socialist countries, and to facilitate the spread of philosophy in them.

I could offer more examples, but the point is that networking is part of the academic world and *sine qua non* for the formation of academic communities which overcome national, cultural, and

doctrinal boundaries. So the dilemma “news and views” vs “deep and original ideas” is false precisely because academic communities need both. Alfred Tarski presented his ground-breaking views about truth in a conference of the Vienna Circle in Paris in 1935—it was both news and views and deep and original ideas! And there are many cases like this. Deep and original ideas need time to mature, and exposure in conferences and similar venues is certainly an excellent way for them to grow and get spread around. Conversely, without being exposed to what's now happening in the community—the intellectual trends, the various lines of investigation, the hot topics—it's hard for someone to acquire and retain the level of creativity that is required for the production of original ideas. In any event, a lot depends on the level of “networking”—smaller and more focused conference and workshops tend to be more productive and profitable, whereas bigger and general conferences tend to promote a culture of communication and getting to know what are the current trends in the profession. In many ways, it's hard to compete for grants and other sources of funding nowadays without forming community networks and without fostering the collaboration of researchers in various countries and even continents.

**Q3: You are among the founders of the European Philosophy of Science Association (EPSA), which was launched in 2007. What could you say now, almost 10 years later: Did EPSA change the philosophical landscape in Europe? What do you think is the biggest achievement of EPSA? And what has it failed to achieve (so far)?**

**Stephan Hartmann:** One of the main reasons we founded EPSA was that we felt that we needed a venue where all European philosophers of science could meet. Something like this has existed in the US for a long time, but it was missing in Europe. Here we were very successful. EPSA organizes a large conference every other year, and many people from all sorts of countries (even from the US and Australia) attend.

Another reason to found EPSA was to have a truly European Journal for Philosophy of Science which also demonstrated to the wider philosophical world what philosophers of science are doing and why it is important and relevant. We were also successful here. The journal (*EJPS*) is well established, gets excellent submissions, and we are sure that it will not take too long until *EJPS* is on the same level as *Philosophy of Science* and the *British Journal for the Philosophy of Science*.

Another reason for establishing EPSA was to raise the level of work in philosophy of science in Europe. Here it is harder to tell what the relevance of EPSA actually has been, but it is clear that our field developed enormously in Europe (especially in continental Europe; the UK has always been strong) over the last ten years. I think it is fair to say that Europe is now a major player, and that there is no reason for an “inferiority complex” or “minority complex” in comparing ourselves to the US.

One thing that did not work so well is the number of members. People become EPSA members when they attend a conference, but they often do not renew their membership unless they attend the next conference. We were hoping that being a member of EPSA would be a very natural thing for PhD students and researchers in the philosophy of science. This is how it is in others fields, but we are not there yet, and I understand that other societies (even some well-established ones) have a similar problem.

**Stathis Psillos:** A European Philosophy of Science Association was a big dream for a number of us. There were various options available, but a few of us got together in London in 2006 and took the initiative of making the dream a reality. The prevailing thought, I can confidently say, was that philosophy of science in Europe had grown so much in quantity and quality, and that the time was ripe for showing all this to the rest of the world. But it was also an attempt to create opportunities, especially for younger colleagues, or for colleagues who come from communities with less international visibility—opportunities to present their work; to enhance their integration to the world community; to open up space for collaborations. The time was ripe indeed—in no time at all, EPSA grew to be a major international force in philosophy of science. The biennial conference became a “must go” event; the European Journal of Philosophy of Science became a “must publish” venue. The biggest achievement of EPSA is the hundreds of papers by younger researchers from all corners of Europe and around the world that have been presented in the conferences and have been published in the edited volumes that followed them. I don’t think there are any significant failures. But I would wish to foster the development of a distinctive European way to do philosophy of science—in a sense analogous to the distinctively European way of doing philosophy of science in the interwar period, a way which combines formal rigor with deep philosophical sensitivity.

**Roman Frigg:** EPSA has brought philosophers of science in Europe together on European soil. Before EPSA, I would see my European colleagues mainly at the PSA conferences in North America.

Having our own conference in Europe really brought us closer together, engendered more collaborations, and created a community that fosters good academic work. This is very important. We also started a new journal, which is coming along well and publishes good papers.

**Q4: What would you like to see as a main achievement of EENPS after 10 years?**

**Stathis Psillos:** My hope and expectation is for a renaissance of philosophy of science, and for philosophy in general, in the countries and areas represented by the East European Network for Philosophy of Science. Philosophy of science has already had a vocal presence in many of these countries, and I am very optimistic that—with the leadership of the Network—it will keep flourishing. The key is integrating philosophy of science into the students’ education, both in the sciences and in philosophy in general. The Network can certainly be the driving force for bringing the various national communities in close contact, and at the same time for transgressing national boundaries and showing that philosophy is one, and that good philosophy is truly communal and truly international.

**Roman Frigg:** I hope that EENPS will create a support network for philosophers of science in Eastern Europe which helps philosophers from that part of Europe to connect with their other European and international colleagues. In particular, young scholars need a community in which they can work, and which provides a platform for the exchange of thoughts. Good work can only be done in a context that provides continuous intellectual stimulation and feedback, and I hope that EENPS will achieve that. The effect of it would be that we would see more Eastern European philosophers at international conferences, and that more intellectual contact with other parts of the world would be established.

**Stephan Hartmann:** The EENPS is an excellent and important initiative, and I am sure that it will help in (i) connecting different scholars from different (and perhaps even the same) country, (ii) raising the level of research in Eastern Europe, (iii) spurring new research initiatives for the rest of the world to pick up, and (iv) connecting Eastern and Western Europe more closely in terms of research and exchanges of ideas and scholars. Finally, (v) I hope that the EENPS will succeed in attracting more young people to our field, and that philosophy of science (and analytic philosophy in general) become more attractive for the next generation of philosophers. I wish the EENPS all the best in this!