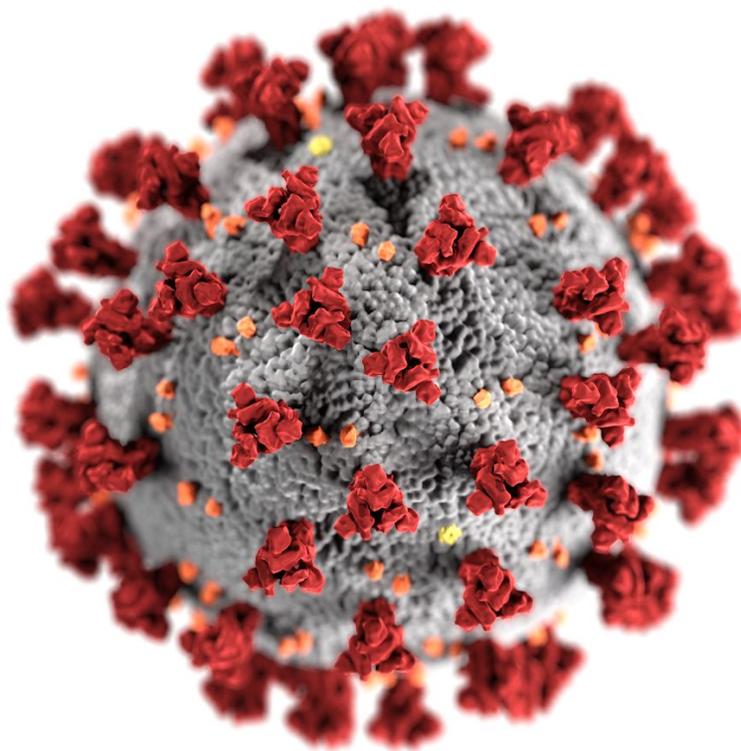


Society for Philosophy of Science in Practice

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NEWSLETTER #14



From the editor

The picture on the front page requires no introduction, as most readers will be familiar with the illustration of SARS-Cov-2 created by the [Centers for Disease Control and Prevention](#). Yet, it calls for reflection on how the pandemic is understood through science in specific societal contexts. The intertwining of science and politics has become even clearer with COVID-19, which underscores the relevance of philosophical engagement in science and society. To explore what philosophy of science in practice has to offer in pandemic times, this volume includes an interview with Jonathan Fuller and a list of resources and opportunities for philosophical contributions on COVID-19.

We continue the discussion of the significance of practice-oriented work with an article by Evelyn Brister and Robert Frodeman on *field philosophy*, followed by a report by Martin Zach on his own experience in a science lab. We also have exciting news to share, including the launching of the Research Center for Responsible Science in Tübingen, the Bioengineering Collaboratory (BEC), and the Possible Life project in Vienna. Finally, Angela Potochnik has given us an opportunity to get to know her better through the Proust Questionnaire.

On behalf of the SPSP newsletter team,
Sara Green

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BETTER DAYS ARE COMING, BETTER DAYS ARE COMING,
BETTER DAYS ARE COMING, BETTER DAYS ARE COMING,

PSP in pandemic times

COVID-19 has changed our conditions for working and socializing, and the pandemic has also become a research topic for some practice-oriented philosophers. To explore what philosophy of science has to offer science and society in the time of the COVID-19 pandemic, we have talked to Jonathan Fuller about his own work in philosophy of medicine and recent initiatives in the community.



[Jonathan Fuller](#) is Assistant Professor in the Department of History and Philosophy of Science at the University of Pittsburgh. He draws on his dual training in philosophy and medicine to answer questions about disease, medical evidence, and reasoning in the health sciences and healthcare. He is also Deputy Editor of a new open-access journal, [Philosophy of Medicine](#), and host of the podcast series [Philosophers on Medicine](#).

To start off, perhaps you can say a bit about your own research and how COVID-19 relates to your work?

My main research interests lie in the metaphysics and epistemology of medicine. In particular, I have thought about contemporary epidemic diseases (including infectious diseases, but especially noncommunicable and chronic diseases, the ‘new epidemics’) as well as medical evidence. My larger project is currently a book in philosophy of medicine, tentatively titled *The New Modern Medicine*, about the conceptual and epistemic features of today’s medicine that are distinctive compared to medicine of 100 years ago.

In mid-to-late March, I looked around and wondered who among philosophers of science could lend important insights from their work that might in some small measure help scientists, the public and the profession make sense of the pandemic. Infectious disease

epidemiology is a narrow field of expertise even with epidemiology, and it has not been a major area of focus for very many philosophers of science. Those like myself who study epidemiology have more often examined clinical epidemiology and evidence-based medicine, causal inference in epidemiology, or epidemiological methods and measures. However, I believe that the range of expertise that philosophers of science can offer in this crisis is nonetheless broad.

So, I asked myself what lessons my own research on epidemiology could offer, and I wrote a few pieces for a general audience about the meaning of pandemic death counts and other figures (for [The Conversation](#)), the limitations of epidemic modelling (for [Nautilus](#)), and the distinct intellectual traditions in epidemiology that have sometimes seemed at odds in the pandemic: clinical epidemiology and public health epidemiology (for [Boston Review](#)). The latter article led to an interesting exchange in *Boston Review* with epidemiologists [Marc Lipsitch](#) and [John Ioannidis](#) (I responded to them [here](#)). I have also shifted some of my research in recent months to explore epidemic modelling, especially the population perspective represented by compartment models.

Why is philosophy of science relevant to science and society during a pandemic?

There has been no shortage of scientific controversies throughout the pandemic. Philosophers of science can help us understand them if not help with their resolution because these controversies concern many topics philosophers have thought hard about: modelling and forecasting; decision-making under uncertainty; standards of evidence in science and healthcare; science, values and policy; the roles of scientific dissent and consensus; scientific misinformation and disinformation; and peer review and scrutiny of science; among other topics.

Beyond doing research relevant to the pandemic, philosophers of science can also engage in public philosophy. This can mean doing different things that each serve a different function. Philosophers of science often have a thorough understanding of the science they study, and they can draw on this understanding to write or record an 'explainer' (like this [video series](#) by Alexander Bird on epidemic modelling). Philosophers of science are also good at laying out an argument, and can wield this ability to write persuasive opinion pieces (like those by [Alex Broadbent](#) and [Benjamin Smart](#) about lockdowns in Africa). Finally, they can provide a deeper or more nuanced analysis of topical problems in the shape of a long-form essay (like some of my articles mentioned above as well as pieces co-authored by Cailin O'Connor and James Weatherall about [information zombies](#) and the [political polarization of science](#)). This is just to mention a few of the ways that philosophers can contribute and a few of the philosophers of science who have done so. Finally, just as scientists have done online rapid peer reviews of the science in COVID-19 research articles, philosophers of science can do online rapid peer reviews of the

arguments in COVID-19 op eds and viewpoints, either on Twitter or through this [rapid review website](#).

What do you view as the largest challenges for making such contributions?

A blog post by [Jacob Stegenga](#) that surveyed some philosophers of science about fast science, COVID-19 and philosophy of science offers insightful answers to this question.

Firstly, the pandemic has burdened many academics with increased responsibilities at home and at work, and in some cases with personal tragedy. Thus, some philosophers of science are not in an ideal position to contribute. Moreover, keeping up with fast-moving science and discussion requires a significant amount of time – time perhaps better spent on other activities that are more widely recognized in performance evaluations and promotion. So, the reward structure of academia is perhaps another barrier.

Philosophy is slow and careful, while public commentary requires speed and shedding the inhibitions normally used to qualify an argument with three footnotes and with responses to four hypothetical objections. Public conversation has moved at a frenetic pace since the pandemic began, and there is no time to let a highly topical point simmer for even a few days. Similarly, philosophy prizes original and enduring ideas, while sometimes in public discourse it is more important to shout an unoriginal point that may nonetheless be highly relevant in that moment, though old news by next week. Not all philosophers of science (including myself) are used to commenting on science-in-progress as opposed to settled science and historical case studies. Finally, the highly politicized and polemical nature of the discussion and high stakes mean that one could benefit from a thick skin and an ounce of courage, particularly if taking a controversial stance.

Do you think the pandemic will have long-term consequences for work in philosophy of science?

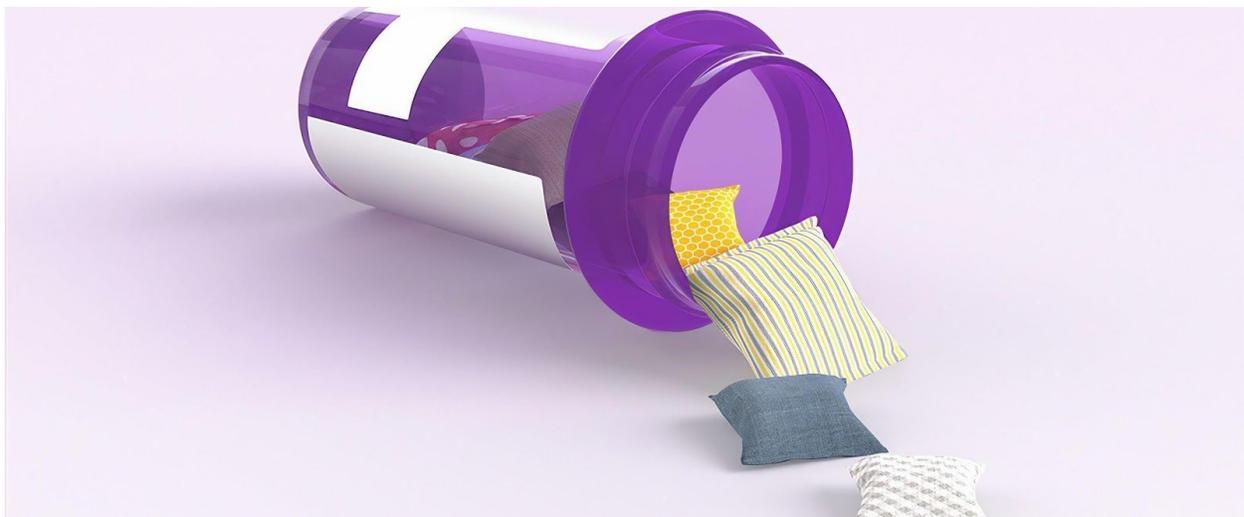
Like many of our colleagues, I worry about the ongoing financial impact on jobs and programs, and especially the impact on more vulnerable populations like graduate students and untenured or part-time faculty. However, one positive consequence that I hope to see is more engagement with and work on medicine, especially epidemiology and public health, which are not only philosophically interesting but are also interdisciplinary fields open to conversation and collaboration with philosophers.

Do you have advice for junior scholars who would like to work at the intersection of philosophy of science and philosophy of medicine?

My main advice is to do it! That goes for more senior scholars too. It is an exciting area of research. Philosophy of medicine is especially well integrated with philosophy of science in practice and is very engaged with healthcare research and practice itself.

What role do you envision for the new journal, *Philosophy of Medicine*, that you recently started with Alex Broadbent?

Philosophy of Medicine is a new open access scholarly journal in philosophy of medicine that aims to serve as the flagship journal for the field. I am responsible for a section of the journal called *The Examination Room*, which is its public philosophy forum. More details about the journal can be found [here](#). At the moment, I am putting together a series on ‘pandemic philosophy’ with contributions written for a general audience. Pitches can be sent to: JPF53@pitt.edu.



More PSP resources on COVID-19

For those of you who wish to continue the discussion of covid-19, the editorial team has compiled a short list of resources and open calls and events. We of course cannot do justice to all the ongoing work, and the list is intended only as an “appetizer” to provide a preliminary overview.

Philosophy of Science Journals - Special Issues and Topical collections

Studies in History and Philosophy of Biological and Biomedical Sciences has a page providing an overview of published [Covid-19 related papers](#) in this journal.

History and Philosophy of The Life Sciences has calls for two topical collections.

The first call is for short research papers and will be edited by G. Boniolo and I. Onaga: [Seeing Clearly Through COVID-19: Current and future questions for the history and philosophy of the life sciences](#) (deadline for submissions is December 31).

The second call is for regular-length research papers, edited by D. Teira and S. Leonelli, entitled [Historical and Philosophical Perspectives on COVID-19](#) (deadline for submissions is May 1, 2021). Some papers from these collections have already been [published online](#), but further contributions are welcome.

European Journal of Analytic Philosophy has a call for papers on Philosophy of Medicine, Edited by Anke Bueter, Saana Jukola, and Veli-Pekka Parkkinen. Deadline for submissions is March 31, 2021.

Philosophical Contributions in Scientific and Medical Journals

Aronson, J. K., Auker-Howlett, D., Ghiara, V., Kelly, M. P., & Williamson, J. 2020. [The use of mechanistic reasoning in assessing coronavirus interventions](#), *Journal of Evaluation in Clinical Practice*. Published online.

Aquino, Y. S., & Cabrera, N. 2020. [Hydroxychloroquine and COVID-19: critiquing the impact of disease public profile on policy and clinical decision-making](#). *Journal of Medical Ethics*, 46(9), 574-578.

Maziarz, M., & Zach, M., 2020. [Agent-based modelling for SARS-CoV-2 epidemic prediction and intervention assessment: A methodological appraisal](#). *Journal of Evaluation in Clinical Practice*. Published online.

Magazine articles, blogs, and videos

Cousins T, Leonelli S, Pentacost M, Rajan KS. 2020. [Situating the Biology of COVID-19: A Conversation on Disease and Democracy](#). *The India Forum*, July 3.

Dupre, J. 2020. [“Following the science” in the COVID-19 pandemic](#). Nuffield Council on Bioethics. April 29.

Carusi, A. 2020. [Coronavirus: the three types of vaccine hesitancy authorities need to combat](#). 2020. *The Conversation*. October 1.

Carusi, A. 2020. [Things and Trends: Images of COVID-19](#). *BJM Blog*, April 22.

Howick, J. 2020. [Coronavirus: scientists promoting chloroquine and remdesivir are acting like sports rivals](#). *The Conversation*, May 11.

[Videos in the History ON CALL series](#) at the Max Planck Institute for the History of Science, on how historical perspectives are crucial to the understanding of contemporary crises.

Past and Future Events

[Ethics and Applicability of the Social Distancing Model in the Global South](#), May 6, 2020, *Center for Human Rights and Global Justice*. The workshop page includes links to further resources for discussion.

The [Responsible Life Science Policy between Public and Private Funding Workshop](#) was organized by the Forum Advise, the Weizsäcker Center of the University of Tübingen and the Centre for Philosophy of Science at the University of Geneva on November 14, 2020 via Zoom.

[PSA Webinar: Putting COVID-19 in Its Place. Locating the Scientific, Psychological, and Social Aspects of the Crisis](#), November 20, 2020, 1:00-2:30 pm EST.

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Taking philosophy into the Field

by Evelyn Brister and Robert Frodeman

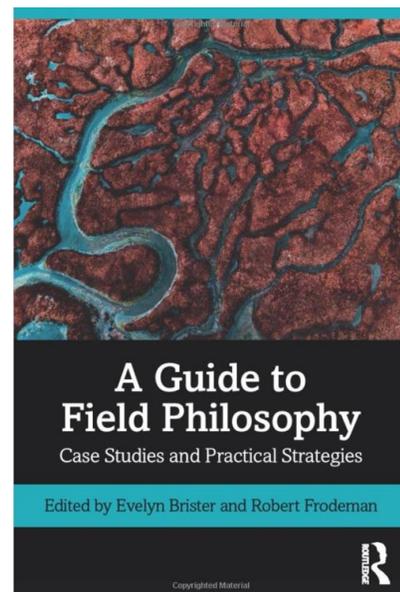


Philosophers rarely attend to where our theorizing takes place. The ideas are what matter, not whether they come to us in the seminar room, in front of the computer, or while jogging. Similarly, while philosophers shape their arguments with great care, they give little thought to how their ideas could be taken up by different audiences. They simply release them into the world. An active or ongoing engagement with a specific audience, other than students, is not a typical part of philosophical practice.

Our edited volume, *A Guide to Field Philosophy: Case Studies and Practical Strategies* (Routledge, 2020), takes a different approach. Its 22 essays chronicle projects where philosophical work has been keyed to the needs of a particular audience in a particular time and place. Simply put, field philosophy consists of research (not ‘outreach’) that occurs in collaboration with non-philosophers, where the collaborators’ interests and goals guide the research agenda, and where the research output is designed from the beginning to have a practical impact.

We think of this research strategy as analogous to two kinds of scientific field research. When ecologists and geologists do fieldwork, they study the world in its complexity, in what are open systems. When anthropologists and sociologists do fieldwork, they must also consider how their subjects make sense of the world they inhabit. Field philosophy draws on both these senses of working “in the field.”

While lab scientists create artificial systems where objects of experimental interest can be controlled, field scientists investigate complex relationships that require interpretation of interacting systems and forces. Philosophers traditionally study ideal conceptual systems and design thought experiments to push our intuitions in ways that allow for explicit, controlled comparisons. Field philosophers, on the other hand, examine how concepts are used in real, complex, unpredictable, and contested situations where concepts and their implications have a direct impact on policy choices. Of course, field philosophers retain a commitment to the truth. But we also frame our



arguments with an eye toward the concerns of our partners.

Philosophers of science have long been familiar with the benefits of working collaboratively with scientists, and so it is not surprising that many field philosophers are philosophers of science. For instance, philosophers of physics have interacted for decades with theoretical physicists, and David Hull's work on evolutionary systematics emerged from his participation in meetings of the Society of Systematic Zoology in the 1970s. Philosophers were further motivated to engage directly with scientists by anthropologists and sociologists of science in the 1980s and 1990s who attended to "Science in Action," as Bruno Latour called it. Similarly, Kenneth Waters' 2016 [Philosophy of Science Association Presidential Address](#) endorsed "an epistemology of scientific practice" to complement our field's traditional emphasis on scientific theories and explanation.

But a philosophy of experimentation, of modeling, and of analyzing actions rather than beliefs is not yet field philosophy. Field philosophy goes further—it starts *and stays* in the field. For philosophers of science who are field philosophers, the goal is not only—or primarily—to theorize *about* what scientists do. Our goal is to theorize *with* scientists and the public, to collaborate on real world projects where philosophical concerns are relevant, and to use our skills to assist scientists as well as others in ways that benefit science, scientific applications, and the public understanding of science.

We advocate for philosophers doing more of this kind of research primarily because of the benefits it brings to the larger academic community and the public but also because we have found it to be intellectually satisfying. Examples in *A Guide to Field Philosophy* show that field philosophers of science have contributed to scientific research, shaped engineering applications to better serve vulnerable populations, improved communication within scientific teams, articulated the relationship between ethics and economics in an IPCC report, analyzed social scientific methods and evidential standards in a World Bank report, contributed to science policy decisions about prioritizing and funding research programs, assisted in identifying ethics questions in STEM research, worked to develop criteria for animal welfare policies in agriculture, and boosted the public understanding of science, often within political or ethically sensitive contexts. While developing field research requires a significant investment of time and effort (clearly beyond what is encompassed by 'outreach'), this investment creates the opportunity for significant impact. In addition, the insights gained by interacting with real-world problems inevitably shape our philosophical concepts and approaches, thus affecting how field philosophers carry out traditional forms of research as well.

Many members of SPSP have projects that are best described as field philosophy—projects that are more involved than outreach typically is, and which result in products other than (or in addition to) traditional philosophical publications. It would benefit the work of these researchers to elevate awareness of field research and its impacts. This means that more

attention is needed to support field philosophy in university evaluations of tenure and promotion. It also means that we should support training graduate students and established researchers to interact effectively both with academics outside of philosophy and with potential collaborators outside of academia. SPSP is well positioned to support these changes in our discipline.



What is it like to be a philosopher embedded in a lab?

By Martin Zach, Czech Academy of Sciences & Charles University in Prague

Although instances of philosophers' presence in a laboratory environment can be traced back to the previous century, it is not until the last few decades that this trend has really caught up. Much of this practice concerns conducting a qualitative study in which a philosopher temporarily settles down in a lab in order to carefully observe and interview scientists. Alternatively, a philosopher may occasionally meet with one or more scientists at a particular lab. In either case, the philosopher is, to a large extent, a mere visitor. In contrast, it is extremely rare, though there are several notable exceptions (see also previous article), to find a philosopher or a group of philosophers institutionally embedded and fully integrated in a laboratory environment.

Last year I had the opportunity to visit one such exceptional place: I spent a few months as a visitor at the [Conceptual Biology & Medicine Group](#) led by Thomas Pradeu and Maël Lemoine, which forms an integral part of the [ImmunoConcEpT lab](#) in Bordeaux. The ImmunoConcEpT lab, an immunological unit, consists of one philosophical and five scientific groups which specialize in research on issues ranging from autoimmune diseases to cancer immunotherapy.

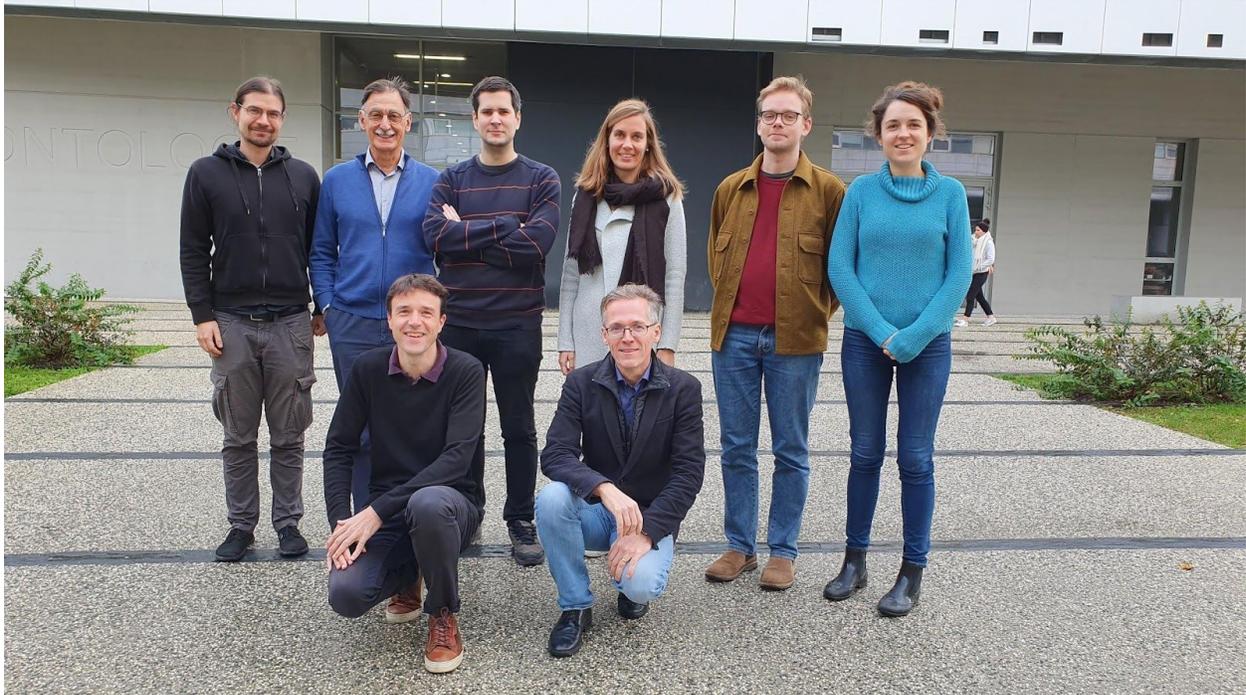


Photo: (back, from left) Gregor Greslehner, Jean-François Moreau, Martin Zach, Wiebke Bretting, Simon Okholm, Elena Rondeau, Thomas Pradeu, and Maël Lemoine.

One may benefit in multiple ways, as I have done, from the fact that there is a philosophical group already well established in the lab. The friendly and generous atmosphere of ImmunoConcEpT is further enriched by the fact that the resident scientists take the presence of philosophers for granted and have a working understanding and appreciation of what it is that some philosophers are doing. Importantly, the recognition of philosophical work extends well beyond the premises of a single lab as the success of the collaborative project has not escaped the attention of other units and research centers in Bordeaux and elsewhere. The perks of such workplace include providing philosophers with unlimited access to laboratories, animal facilities, and, because the laboratory is located on the campus of a large hospital complex and many of the laboratory researchers also work at the hospital, it has also been possible to gain insight into how the work at hospital proceeds on multiple levels of organization.

As a visitor, I fully took advantage of the opportunities presented by working in a lab and briefly sketched above, which also included my regular attendance at weekly laboratory

meetings of the gamma-delta T cells group led by Julie Déchanet-Merville. In addition to casual discussions, I also conducted several structured interviews. In this sense, I followed in the footsteps of the empirical philosophy of science movement.

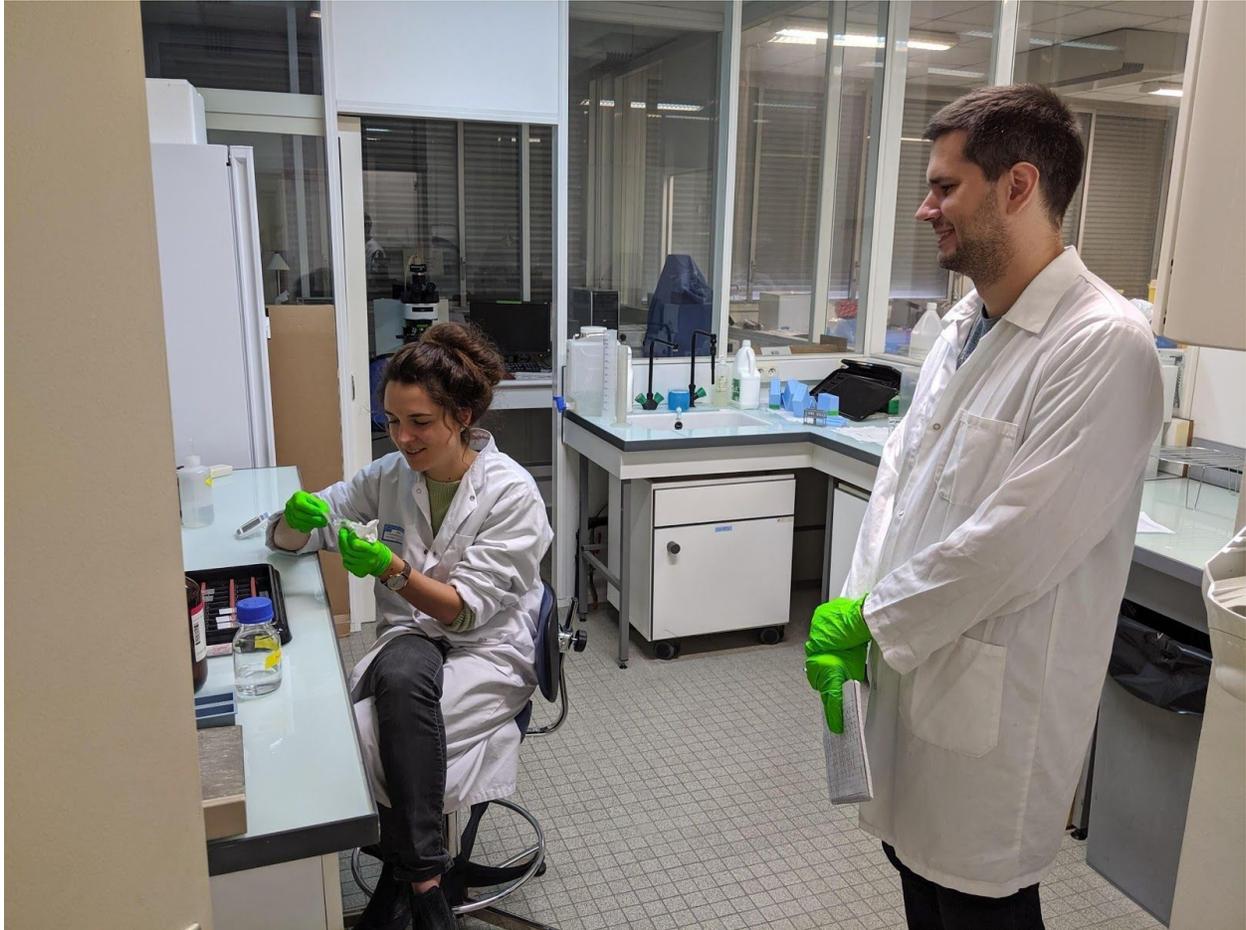


Photo: Martin Zach and Elena Rondeau

However, the Conceptual Biology & Medicine group is not only characteristic for its embeddedness in a lab but also for its approach to philosophy called philosophy *in science* (PinS). PinS is a specific kind of philosophy of science where both the starting and end points of inquiry concern a scientific problem which is addressed by drawing on the philosophical toolbox. Thus, rather than drawing on a case study in order to address a question or a problem about science, PinS' contribution lies in providing answers to a scientific problem. In practice, this effort proceeds in close collaboration with scientists and often results in publications in science journals. Such collaboration is never a one-off deal where philosophers would simply exchange ideas with scientists and cook up a paper in this way. Rather, it is a conscious and continuous process which takes on many forms: scheduling numerous meetings on pretty much a daily basis, often in a larger group, to examine ideas or to discuss published papers; hosting small internal workshops to discuss joint grant proposals; and, finally, jointly writing papers. The appreciation and recognition

of philosophical contribution is also reflected in (i) the organization of seminars where both philosophers and scientists present their work to each other, and (ii) teaching medical or scientific students and (co-)supervising their PhD projects.

Thus, rather than simply observing the daily business of working scientists as an outsider, the research visit to ImmunoConcEpT was about crossing the philosophy/science divide and immersing into the environment which is distinguished for its joint effort in addressing scientific problems. The success of this project gives hope to groups or individuals (such as myself) who have the same ambition and who would like to translate this experience to the context of their country.

Last but not least, working as a philosopher in a lab brings challenges normally encountered only rarely, if at all, in our usual philosophical environment. When was it the last time your facility had to be evacuated and closed down for a week due to the leakage of a chemical?



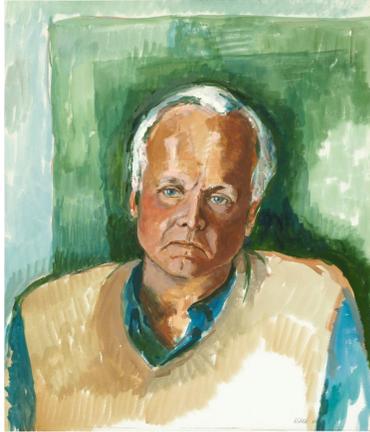
from the SPSP community

Research Center for Responsible Science in Tübingen

By Vlasta Sikimić

The newly funded [Carl Friedrich von Weizsäcker Center](#) at the University of Tübingen is dedicated to foundational research on responsible science. Currently, it employs

philosophers – in particular, logicians and philosophers of science – as well as computer scientists, and experts in social studies of science. The research goal of the Center is to provide an interdisciplinary perspective on topics of responsibility in a digital society (with the emphasis on challenges of the new AI), responsibility of scientists in general, and theoretical foundations underlying these themes. The Center was founded as part of the German excellence initiative for the Universities and is supported by the [Udo Keller Stiftung Forum Humanum](#).



Portrait of Carl Friedrich von Weizsäcker
by Christine Wille



University of Tübingen (Picture: Friedhelm
Albrecht/University of Tübingen)

Research topics in responsible science

Common first associations to the topic of irresponsible science may be the creation of weapons of mass destruction or unsafe uses of nuclear energy. However, the digital society raises new questions about responsible scientific decisions. For instance, topics such as responsible AI, algorithmic fairness, and biased data are prominent in the discussions regarding new technologies. Algorithms that run on biased data can lead to results that discriminate against minority groups or contain gender stereotypes. Equally important are the foundational questions about the limits of AI. Cryptographic methods are used to protect personal and sensitive data. Whether they are *in principle* safe from an attack of an AI that could potentially be developed is a theoretical question about the limits of AI with serious practical consequences. Finally, there is the big research question of how humans react to AI and what our intuitions about it are, e.g., in which cases humans are prone to blame AI or assign it responsibility. This is a vividly discussed topic in the context of autonomous driving, because it is not yet clear who should be responsible for an accident caused by an automated vehicle. For instance, it is debatable how algorithms should be

trained to minimize accidents and whether the producer is liable for the damages caused by a self-driving car.

From the perspective of science policy and social epistemology of science, decisions of researchers play an important role in human knowledge acquisition on a general level. Apart from intentional scientific misconduct, researchers might unintentionally make epistemically suboptimal decisions, as they are also prone to biases. Their irresponsible decisions can also be a consequence of existential and financial pressure, such as job insecurity or the commercialization of science. Thus, in order to tackle the issues of epistemic decisions of researchers one also has to put efforts into improving the work conditions of scientists and into nurturing a supportive and inclusive environment for researchers, e.g., through mentoring programs and support groups.

If you are interested in such questions, the Center is open for collaborations and will grow further in the next years. You can get updated about the activities and events at the Center's [website](#) and [YouTube Channel](#).



Welcome to the Biological Engineering Collaboratory

By Janella Baxter, Rob Smith, and Dominic Berry

Hello SPSP! It is particularly exciting for us to feature in the newsletter, because the philosophy of science in practice forms part of the backdrop to our network's formation. Indeed, if something like SPSP did not exist, then the Biological Engineering Collaboratory (BEC), as we have fashioned it, would be unthinkable. The BEC is an interdisciplinary

network which was established at the end of 2019 by [Janella Baxter](#), [Rob Smith](#), and [Dominic Berry](#). It is intended to bring together historians, philosophers, and social scientists studying intersections of biology and engineering, with a particular emphasis on knowledge. You can learn more about our motivations and goals through the Introduction on our website: <https://www.bioengcoll.org/introduction.html>



The network has as many origins as it does members. Nevertheless, two key factors lie behind its formation *at this time*. The first was recognition that historians, philosophers, and social scientists have in recent years begun to rediscover ways in which the bringing of biology and engineering together generates very significant questions for their respective fields. These can concern each of biology and engineering independently, boundaries between them which may be in play at their intersections, epistemic challenges which various biological engineers encounter, and so on. That these questions can be rendered in historical, philosophical, and social scientific terms invites thinking across and between these communities, though the decision to actually do so might often seem daunting. The BEC recognises and celebrates these efforts, and so hopefully feeds into interdisciplinary agendas elsewhere. The second factor was the organisation of a very successful [ISH panel](#), featuring Janella, Rob, and Dominic, chaired by [Lisa Onaga](#). The feedback and interest we received at this meeting, where we were also included in the shortlist for the

Interdisciplinary Panel Prize, convinced us that the time was right to formalise the informal network which had already begun to emerge.

As one of our first official activities, between September and December 2020 we organised a series of online seminars featuring some of our members. In some cases, these were recorded, so do get in touch if there were any you missed. Each seminar speaker also filmed a short video introducing the subject of their talk. You can find them all here: <https://www.bioengcoll.org/bec-seminars-2020.html>

Last, we would like to be clear that our membership continues to grow, so if any SPSP readers see aspects of their ongoing research reflected in our aims and ambitions, please get in touch with either Janella, Rob, or Dominic. At present we have just shy of 50 members, ranging from PhD students to Profs. Hope to hear from you soon!

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Possible life

Possible Life – The Philosophical Significance of Extending Biology (2019–2024) is an exciting new project in the philosophy of biology led by professor Tarja Knuuttila. Based at the University of Vienna, the project is funded by the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme.

The project combines empirical work on cutting-edge synthetic biology and astrobiology research practices with conceptually ambitious philosophical analysis. The main question

motivating the project is: How is biology being extended beyond the actual evolved life on Earth – and what is the philosophical significance of the turn to possible life?

Due to the latest technological advances in synthetic genomics, alternative genetic molecules and space technology, scientists have developed strategies to engineer novel biological systems in laboratories, and to study through space telescopes the signs of possible life from other planets and solar systems. These newly discovered biological possibilities may turn out to be epoch-making.

Apart from challenging our notion of life, these emerging fields also have fundamental philosophical implications. So far, the characteristic problems discussed by philosophy of science have focused on the question of how best to represent actual, naturally occurring and historically evolved, systems. Yet, the expanding horizon of various biological possibilities provides an appealing testing ground for more epistemological and metaphysical inquiry on “modal science”, which has an impact beyond biology.

The project involves two levels of inquiry. First, the project examines the emerging fields of synthetic biology and astrobiology. The key themes studied include unnatural biochemical bases and organizational principles of life, synthetic life, evolutionary possibilities and constraints, and the habitability of exoplanets. Empirical studies in leading laboratories in Europe and the US are used to inform the study of these themes. Second, the research on possible life is employed as a resource for the development of philosophical theory. The three philosophical subprojects examine (i) modelling and simulating the possible, (ii) multiple realizability of biological kinds, and (iii) the epistemology and metaphysics of modal notions in biology.



Photo by: Jessica D. Bicking.

Besides PI Tarja Knuuttila, the project includes senior researcher Dr. Andrea Loettgers, postdocs Dr. Natalia Carrillo-Escalera and Dr. Gregor Greshlehner, and doctoral students Rami Koskinen, Moritz Kriegleder and Maximilian Noichl. Rami Koskinen will continue as a post doc in the project once he has defended his PhD thesis in early 2021. During its five-year period, the project organizes numerous workshops and seminars. Stay tuned for some of the most exciting current research in philosophy of biology and beyond!

Find us at:

Website: <http://www.possiblelife.eu/>

Twitter: @PossibleLifeERC

The Proust Questionnaire

Saana Jukola talks to Angela Potochnik



**Who are your favourite heroes or heroines?
In real life or in fiction.**

Two answers, both real life: First, Otto Neurath. He was an unparalleled example of a publicly and politically engaged philosopher of science, shaping modern communication, housing, and education. And he was reportedly jovial and happy. Second, the women who have gone before us in philosophy. I have found it to be a lifelong process to shift from sharing in the sexism

that undervalues their contributions toward appreciating their struggles and strength and smarts.

Which words or phrases do you overuse?

According to my four-year-old, I too often sigh deeply, then say a determined “okay” to myself.

What is your favourite food?

Really amazing baked goods, such as the frangipane croissant at Tartine Bakery in San Francisco.

What is the most critical academic or non-academic feedback you ever received?

A referee for my Idealization and the Aims of Science book expressed the view that the ideas in the book were so derivative the book didn't even count as a primary source. I'll probably carry that one with me forever.

Where do you write your best work?

I can write anywhere and in even brief windows of time; I'm kind of proud of this. The flip side is that I hardly ever bother to formulate a preference about where I am when I sit down to write.

What is your favourite entertainment?

I love working with our little backyard rain barrel, compost, gardening system (soon to feature chickens!) I am a recovering runner, that is, I will always be addicted to running even though I've had to give it up for the sake of my knees.

What profession would you like to attempt besides your own?

Popular nonfiction writing

What is your greatest achievement?

The honest answer is finding myself where I am in life. (To be clear, this is part achievement and part luck and circumstance.) I love being a philosopher; I have been able to bring into that job and my broader life other projects that I believe in deeply; and I have two fascinating daughters.

Where were or are you happiest?

The American southwest is special to me, especially the Colorado River and Grand Canyon.

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