



SPSP Newsletter # 20

December 2023

From the editor

Dear SPSPers,

Philosophy of science in practice is evolving rapidly, venturing into new scientific domains and expanding the scope of questions that philosophers of science engage with. We are happy to share another set of great pieces, illustrating how practice-oriented philosophy can be socially, politically, as well as ethically engaging.

In this volume, Hernán Bobadilla interviews Guido Caniglia (KLI, Vienna) about doing philosophy *in* and *for* sustainability science. Guido explores epistemic and ethical problems in inter- and transdisciplinary research, including how tensions between integration and pluralism can be managed and negotiated in practice.

Rose Trappes and Emma Cavazzoni introduce the PHIL_OS project, headed by Sabina Leonelli, which studies how Open Science is transforming research. While Open Science for most has positive connotations, the project also raises important questions about the relationship between open and good science, and about the potential risk of marginalizing low-resourced research and research environments.

Next, in a wide-ranging interview, Stefano Canali talks to Sophia Efstathio (NTNU, Trondheim) about conducting philosophy and ethics of scientific and food practices – through both writing, reflection, and artistic performances. We are also invited to reflect on the implications on the *meatigation* of our diets in modern time, and how philosophy of science might be part of the toolbox for shifting from meat and back to a *plantified* diet.

The Proust Questionnaire is this time answered by Leah McClimans, who co-founded the SPSP newsletter (with Sophia Efstathiou). Leah is one of the organizers of – and keynote speaker at – the upcoming SPSP2024 meeting.

Just to remind you, the [10th SPSP meeting](#) will be held at the Ann Johnson Institute for Science Technology & Society, University of South Carolina, USA, 16–18 May 2024 (with a pre-SPSP workshop on May 15). We hope that many of you can make it to this anniversary edition of SPSP!

The best holiday greetings on behalf of the editorial team,

Sara Green

This volume's editorial team



1 - Sara Green, University of Copenhagen



2 - Saana Jukola, Ruhr University Bochum



3 - Maria Serban, University of East Anglia



4 - Rose Trappes, University of Exeter



5 - Héran Felipe Bobadilla Rodriguez, University of Vienna



6 - Stefano Canali, Politecnico di Milano

Philosophy *in* and *for* sustainability science



Hernán Bobadilla talks to Guido Caniglia, Scientific Director at the Konrad Lorenz Institute for Evolution and Cognition Research, Vienna, Austria.



7 - [Guido Caniglia](#)

Guido Caniglia is a researcher who defies straightforward classification. With a doctorate in philosophy and another in biology, he has worked in multiple scientific fields, adopting inter- and transdisciplinary approaches to research. In this interview, Guido tells us – among other things – about his views on the philosophy of science in practice and its role in sustainability sciences, compelling philosophers to be like “salt in a dish”!

I wanted to begin this interview by introducing you, Guido, to our readers. However, this is quite challenging given your versatility as a researcher. For this reason, I would like to give you the opportunity to introduce yourself and describe your profile as a researcher.

Guido: First of all, thanks a lot for the invitation. It is a pleasure and an honour for me to be talking to you today. And thanks for throwing the ball at me right away! I might start by saying that I have an issue with identities in general. I don't give much value to them unless they are interesting or transgressive. But if I have to constrain what I am, I would say I'm a philosopher working in and for inter- and transdisciplinary sustainability science. This is how I often describe myself, but some people might get intimidated by a “philosopher”. Then, I explain that I am an interdisciplinary scholar who uses (maybe) philosophical tools to address the issues that emerge in inter- and transdisciplinary research.

Given your inter- and transdisciplinary approach to research, I wonder how in practice you relate to disciplines in your research. Does it make sense for you to talk about allocating time and resources to one or another discipline in your research? Does the idea of expertise in a discipline play a role in how you manage an inter- or transdisciplinary project?

Guido: Working in interdisciplinary sustainability science means mixing different disciplines from the social and natural sciences to (try to) understand and generate knowledge to address complex sustainability problems. You often find yourself confronted with the need to mobilize different tools to address these issues. In this sense, the allocation of time and resources to specific disciplines may vary depending on the project and the particular issues that are being addressed. For example, I have

been lately diving into the ethical problems that emerge when doing inter- and transdisciplinary research at the intersection of methodologies. For this, I've had to go back to the classic texts on ethics, re-read them, engage with them, and figure out how I can be of help with those tools. Other times, my role revolves around moderating and facilitating research in inter- or transdisciplinary groups in a way that is (maybe) less directly engaged with those philosophical tools. So, it really depends. The important thing is to have that toolbox at hand and be able to use what you need depending on what you're working on or with whom you're working.



But how are you able to identify, from your position, what the interdisciplinary research project needs? How do you decide in which moments you play the role of the expert philosopher or the role of a facilitator?

Guido: I think attention and listening are extremely important for this. I don't enter a research group as a philosopher with my own questions. I enter with my tools, expertise, and knowledge. And then the matter is being able to see what is going on, what needs attention, and assess with the others whether or not I am getting it right (because most of the time what I think is important is not really what most people in a project are interested in). And so, I calibrate what my interests and expertise might be with what is needed. This is a fundamental phase of an inter- and transdisciplinary project, one that is often totally overlooked. This calibration should occur early on, in preparation for the research, conducted with an exploratory attitude, in order to develop the project together.

I am curious about how you became interested in these inter- and trans-disciplinary approaches to research. Could you tell us what brought you to engage in these endeavours?

Guido: Well, I guess there is a level of serendipity in everything. In my case, it definitely played an important role going to Arizona State University in Phoenix. There, I was confronted with two things that I had never really been confronted with. The first one was experiencing a city that was totally absurd to my standards. This was a huge metropolis, in the middle of a desert, which kept growing and growing, with an increasing lack of resources, and a very fragmented social fabric. Basically, the pinnacle of unsustainability on all fronts. The second one was experiencing Arizona State University. This is a very special university, one that actually tries to figure out how to contribute to a better understanding of what is going on in the city, starting with the problems. The university also changed its own structures and processes, focusing on sustainability, with an emphasis on problems rather than disciplines. As an illustration, there are no departments at Arizona State University. Some

centres address specific topics, but these topics change regularly depending on what the problems are.

At that time, I just had finished my PhD in philosophy. I went to Arizona State University to embark on a PhD in biology with a program that would allow me to learn more about the science while doing philosophical and historical research. Being in this environment, I realized that it was important to me to learn and do things that were relevant to address the problems that I would see around and that would increasingly affect everybody's lives. This is how I entered the sustainability science world, an extremely varied one. One thing that caught my interest in sustainability science was how people were feeling the need to bring together different sorts of expertise and competences in order to understand and address problems. And there was also the need to get better at doing that, to realize what would be needed, and how I could contribute to these processes as a philosopher with my background. I almost become a sort of philosophical therapist in these interdisciplinary collaborative groups: I start by figuring out what people are asking, what the difficulties are, and from there I would start developing ways for dealing with the issues that hopefully are useful to those involved.

Well, this is a great transition to start discussing the notion of philosophy of science in practice. I would like to have a first approach to your opinion on the work done in the field.

Guido: In general, I'm a big fan of the philosophy of science in practice. I think the community is doing an incredible job at creating ways of doing philosophy of science differently. This is especially the case when I look into what the younger generations are doing; it is incredibly inspiring and mind-blowing. They really deviate and transgress the disciplinary norms that constrain their creativity and their potential to contribute. This leads to a very interesting mix of different approaches, all with a strong philosophical component.

How do you conceive the notion of philosophy of science in practice and what do you think is its role in dealing with problems in sustainability science?

Guido: I like to use a metaphor to explain how I interpret being a good philosopher of science in practice: It is like being salt in a dish. This basically means that the best thing that I can do is to disappear. Salt is perfect in a dish when you don't notice it, when there's not too little nor too much, and it's just good! I see my contributions as a philosopher of science in practice in the same way. This is almost paradoxical: It goes against the intuition of having to make your philosophical point. Instead, you rather listen to what is needed in a group and contribute accordingly. In this sense, it is crucial to understand that you are working for a higher goal. For instance, let's say that you want to create a more sustainable land use, across biodiversity, with climate change, and considering human well-being. In this case, the point is not to identify what philosophical questions emerge from this project. Rather, the point is to find the philosophical tools that may help you achieve the goal in acceptable terms, typically by assessing the political, epistemological, and ethical dimensions of the problem.



Could you give us some more specific tips on how to become “salt” in these interdisciplinary collaborative groups? I find it difficult to balance your own expertise with that of your collaborators in a way that is not biased.

Guido: In the process of working things out together with your collaborators, one technique that I use is to try to engage with the philosopher that is in every person. In my experience, most of my collaborators have been incredible philosophical thinkers. They just don't have the kind of background according to which they would define themselves as philosophers. In this sense, part of my work is also to bring out the incredible knowledge and wisdom that my collaborators already have. Then, we initiate a conversation through the tools that I have, and we try to spiral up to something that it's useful. I find this process very enriching; I learn a lot.

Could you share with us some of the projects that you are working on that, in your opinion, deserve more attention and may be of interest to the community of philosophers of science in practice?

Guido: Of course. For example, I am working on a big EU network project from Horizon Europe on land use change. We are trying to figure out how to engage in more sustainable land use change, addressing biodiversity, climate adaptation, human well-being, and their trade-offs. There are two big challenges in this project which are quite philosophical. The first one is to balance pluralism and integration in terms of how we conceptualize and deal with this complex issue. In practice, this means figuring out how to give voice to everybody, to different perspectives, while having the need to bring things together somehow to do something. This is a huge philosophical issue, a tension that

is always embedded in these sorts of processes, and it is not yet resolved (maybe is not even resolvable). I think philosophers have already done a lot in terms of clarifying, defining, and dealing with *pluralism and integration*. But there could be more and deeper engagement with these processes in order to both refine our ideas of integration and pluralism and contribute to these processes.

The second philosophical tension is tied to how we understand sustainability transformations and pursue them in ways that are just. Philosophers have always talked about justice, what it is, and what it's not. And yet, in sustainability contexts, there's something that emerges which is the need to balance *justice and care*. These tend to be opposing paradigms, coming from different traditions. So, the question is how we could acknowledge the need to take care of relationships and foster certain kinds of environments with care, while at the same time striving for justice.

In dealing with these two philosophical tensions in sustainability contexts, have you arrived at some philosophical innovations? Or is it mostly about applying existing philosophical frameworks?

Guido: Well, this is really a work in progress. In the case of dealing with the tension between pluralism and integration, we have resorted to some existing frameworks. I am particularly inspired by the work of Sandra Mitchell. Her views on integrative pluralism served as a starting point and I try to bring this attitude to the project. Having said this, I think there is philosophical value in not resolving these tensions but keeping them. They can be creative spaces in which new knowledge is generated. Lately, I have been conceptualizing this as the “accordion” model of integration and pluralism. The idea is that both opening (i.e., pluralism) and closing (i.e., integration) create the “music” and the “music” can only be sustained by keeping the opening and closing all the time.

The justice-care tension is also connected to this in the sense that if we combine a philosophy of justice with a philosophy of care then we develop capacities for pluralism. Without these capacities, we are unable to deal with pluralism. Thus, the justice-care tension bridges back to the epistemological questions. In fact, I think the major philosophical outputs of my current work consist of showing the ethical-political implications of any epistemological discourse together with the epistemological underpinnings of any ethical-political issue. For that, I have to get out of this disciplinary tendency in which I treat issues solely as epistemological, ethical, ontological, and so on. I have to go back to a Philosophy (with capital ‘P’) which connects all these things and is able to travel from one to the other. If philosophers of science acquire this capacity, we could make significant contributions to sustainability science.

To close, I would like to ask you if you could tell us about new or unusual research methods that philosophers of science may need to know about to engage with sustainability science, beyond these attitudes and capacities that we have talked about.

Guido: I'm always very inspired and informed by methods used in other disciplines. For example, I look at ethnographic and autoethnographic methods, together with other tools available in anthropology and sociology. In general, I look for methods that allow me to do two things. One is to keep things together, with a synthetic approach that is not just dividing up things into ethics, politics, ontology, and so on, but focuses on their interconnections and mutual underpinnings. The other is to look for methods that allow you to transgress what you are meant to do and supposed to do. This could mean looking into an unusual topic and giving a voice in the topic to those who have never had

a voice on the matter. This way, we gain totally different perspectives on what sustainability is and what transformations should be like. I may add that, maybe transgression is not merely a method. It is a sort of approach more focused on the people involved than the specific tools you use. By giving voice to different perspectives, everything changes, from the way you conceptualize and theorize, to the way you collect data and model.

May I ask you to shed some light on how to balance the pursuit of transgression with the willingness to respond to tradition and the communities that these traditions represent?

Guido: Let me refer to a paper that I recently co-wrote with a colleague on “orientation”. In the paper, we look at scientists and researchers working in inter- and transdisciplinary contexts. We argue that they could find inspiration about how to do this transgression from people in gender and sexual minorities, who have had to transgress established norms for their whole life. We believe this is a useful way to think about oneself as an intellectual or as a researcher. You should embrace transgression and find relationships around you that can sustain that transgression. That's the essential part. And it is by building relationships and networks that allow you to foster a transgression that you could also contribute to the tradition. This way, you build voices that will not only respond to the tradition but also hopefully improve it in valuable ways.

Well, on that very high note, I would like to thank you, Guido, for this very inspiring conversation.

Guido: Thanks to you, Hernán. It has been my pleasure.

Philosophy of Open Science for Diverse Research Environments



Rose Trappes and Emma Cavazzoni introduce the PHIL_OS project, headed by Sabina Leonelli. PHIL_OS investigates the impact of Open Science in a globally diverse and unequal research landscape.



Open Science (OS) is transforming research. We're all aware of Open Access mandates, but now funders, governments, journals, and researchers themselves are encouraging and implementing a

whole range of OS practices. Think data and code sharing, preregistration and preprints, open educational resources and citizen science. All of these are ways of *opening up* elements of the research process.

OS is celebrated as more transparent, collaborative, efficient, reproducible, impactful, and accountable. But how exactly is OS changing science, and is it changing it for the better? In the ERC-funded project [A Philosophy of Open Science for Diverse Research Environments \(PHIL OS\)](#), Sabina Leonelli leads a team of researchers asking just these sorts of questions.

The Risks of Open Science



The PHIL_OS project is prompted by the risks involved in implementing OS across diverse research settings. Take three examples:

1. With the rise of author-pays model of gold open access, researchers in low-resourced environments risk being excluded from the most effective way to share and receive credit for findings.
2. Open data mandates demand researchers' time and effort to clean and share data. This is already a serious burden for researchers in low-resourced environments. But it is compounded by the fact that only top institutes in wealthy countries have the computing capacity and staff to actually capitalize on open data.
3. Many citizen science projects train members of the public in scientific data collection practices and taxonomies. In the process, they risk devaluing traditional and local knowledges.

Examples like these show that OS risks exacerbating the marginalization of researchers in low-resourced research environments. This raises important questions about the relation between *open* and *good* science.

Innovations in Philosophy of Science in Practice

The PHIL_OS project combines *a philosophical analysis* of the epistemic significance of research environments with *empirical research* of scientists' enactment and conceptualization of OS in

different environments. This empirical research includes participant observation, interviews, focus groups, oral histories and surveys, and co-production methods.

Our inter- and transdisciplinary approach is in line with and extends other recent projects in empirical philosophy of science in practice (PSP). A key innovation is the application of these methods to explore research beyond traditional university laboratory settings. We direct our focus on a broad spectrum of research environments, with a special emphasis on marginalized research contexts.



8 - Joyce (Subproject 1, see below) assisting farmers in selecting their preferred variety of the Cochorus plant at the Kwadaso field station of CRI.

Exploring OS in the Field

The PHIL_OS project encompasses 8 subprojects. To give a sense for the work we're doing, and to meet some up-and-coming researchers in PSP, we can look at the four subprojects being conducted by our PhD researchers.

Subproject 1: From Food Crop Research to Policy

Joyce Koranteng-Acquah is working with the [Crop Research Institute \(CRI\)](#) in Kumasi, Ghana. Joyce studies the collaboration between Ghanaian crop researchers, farmers, extension officers, government agencies and international partners, and explores the interactions between different sites, processes and institutions. Her goal is to understand cultural, social, political and institutional factors that influence how knowledge is produced, used, and transformed into effective

policymaking. Additionally, Joyce examines the role of OS in these interactions and the type of relationship it stimulates between research and policy.



9 - Joyce and Sabina engaging with the CRI technician to understand the procedures required to produce pure seeds via tissue culture techniques.

Subproject 2: Using Data to Grow Plant Science

In this research strand, Emma Cavazzoni investigates data-intensive methods and their impact on plant science research. She grounds her reflections on a collaboration with the [Haly Id](#) project in Northern Italy, which generates and deploys a high volume of data to limit the damage inflicted by the stink bug *Halyomorpha halys* to fruit production. Emma explores topics such as the journey that data collection technologies undertake to become global and get reutilized, the types of data and communities that emerge as a result from using and sharing such technologies, and the role data collection technologies play in determining what model systems are developed and used in specific plant science projects.



10 - Emma and Sabina placing inclusion cages around some pears to keep them isolated from biotic and abiotic adversities.



11 - Emma placing a stink bug on a camera trap and taking a picture of the process.

Subproject 3: Coordination in Crop Science

For his subproject, Fotis Tsiroukis is investigating the coordination of scientific practices in crop science in Greece. His main field site is the Institute of Olive Tree, Subtropical Crops and Viticulture (IOSV) in Chania, Crete. What makes IOSV particularly interesting for Fotis is its extensive network of stakeholders, which goes beyond researchers and includes farmers, local businesses, supply chains, industrial manufacturing, national policymakers, conservation practitioners, and environmental organizations. This diversity of stakeholders offers the opportunity to cross-compare and gain a deeper insight into how coordination occurs beyond the dynamics of researchers within a local research environment.

Subproject 4: Tracking the SARS-Cov2 Virus

Finally, Nathanael Sheehan delves into the intersection of OS practices and global health inequalities, particularly as they relate to the dissemination of SARS-CoV-2 genetic data. By focusing on two different frameworks of data governance, one being partially open (GISAID) and the other being fully open (International Nucleotide Sequence Database Collaboration), Nathanael asks questions such as: what routes has this data taken, impacting specific communities? What are the implications of openly accessible SARS-CoV-2 genetic data regarding access, inequity, and sovereignty? How do stewards of such data understand and enact responsible data management?

Feeding Back to Policy

Our investigation is accompanied by constant reflection on the implications for scientific practice and science policy, and active interventions in the rapidly changing policy arena around OS. This includes contributions to the CODATA Working Group on Data Ethics, Coalition S strategies, and the UNESCO Recommendation on Open Science; participation in meetings at the European Commission; consultations with national governments and advisory bodies implementing OS policies; and [development of policy reports](#). By collaborating with scientists and policymakers, we aim to develop a conceptualisation of OS that reframes its key principles by outlining how exchanges across environments can boost research excellence.



To find out more about the PHIL_OS project, please visit the project's website: opensciencestudies.eu.

“I have always wondered – what is the work of philosophy?”



A conversation with Sophia Efstathiou on the art of conducting philosophy and ethics of scientific and food practices, by Stefano Canali



12 - [Sophia Efstathiou](#) is a philosopher of many sciences and scientific practices, from complexity science to systems biology and biotechnology, and her work combines approaches from philosophy, science and technology studies, ethics, and the arts. She is Senior Researcher at the Department of Philosophy and Religious Studies of the Norwegian University of Science and Technology, in Trondheim (Norway). In this wide-ranging interview, Sophia covers topics including found science, meat

reduction and related food and scientific practices, art performances and cookbooks, tensions between analytical approaches and political agenda, and more.

Most readers will already know you and your work through your contributions to the literature, conferences, and your work as a member of the newsletter in the past. But can you tell us something about yourself and particularly your background and interdisciplinary interests?

Sophia: Not unlike several philosophers of science I have a background in science. I studied mathematics and physics in the UK (Warwick) and was offered a PhD in applied mathematics there, which I started but quit. I was increasingly feeling that doing science was more restrictive, too 'applied'... At some point, I identified as a "math addict" – back in the 90s when my fellow students were doing all sorts of party drugs! I had a sense that I was good at science, but was it good for me? So I switched, going to sunny California to study Philosophy and Science Studies at UCSD, where I studied with Nancy Cartwright as my supervisor and many other excellent teachers.

Already from then I had these tendencies to study new things. I was expected to do philosophy of physics, but ended up writing a PhD in philosophy of medicine, on how race concepts can become usable as scientific variables in biomedicine (population genetics, social epidemiology, etc.). I proposed a theory I call *found science*, by analogy to found art, which posits that everyday ideas can become 'found' and 'founded' in scientific contexts/practices thereby becoming scientific ideas. This process of founding was inspired by how in quantum physics measurement collapses a wavefunction into particle/wave; it was as if these thick, complex everyday ideas floating about in our culture become picked up within different sciences, and become – often tacitly – founded in the different disciplines, their meanings transfigured (often narrowed or sharpened in particular directions) so as to fit the ontologies and tools and methods of science disciplines. These founded concepts often keep their everyday names, like race, or wellbeing, or knowledge, but they are actually not everyday ideas but found science. Now people would probably call this conceptual engineering, but for me founding is a tacit process, coming with one's enculturation into science, and the education of the 'gaze' to see things as already scientific – subsequently allowing for a deliberate/d operationalisation, measurement, etc.

Already from those ideas, you can tell that I find art practices inspiring. I was living with an artist when I was doing my PhD, the composer Marianthi Papalexandri-Alexandri, now a professor at Cornell and a collaborator of mine. And she did found music, creating sound and art out of everyday things – so yes, I am one of these people who myself finds and "founds" things from my environment and makes them fit my purposes – in this case, doing (found) philosophy and STS!

My research post PhD followed through with this interest in interdisciplinarity and creativity while opening up to consider more of the ethical implications of scientific work. I worked as an embedded humanist, doing ELSA/ELSI type of work, on the Ethical, Legal, and Social Aspects/Issues of science research, also later articulated as Responsible Research and Innovation (RRI), and using empirical methods like ethnography and interviews.

Currently, you're working on a four-year project called "MEATigation: Towards sustainable meat-use in Norwegian food practices for climate mitigation" (<https://meatigation.no/>). Can you tell us more about the motivation and structure of the project, which combines different disciplines and interests, also beyond philosophy and academia?

Sophia: Indeed, I am leading the project *MEATigation* which is a transdisciplinary research project funded by the Norwegian Research Council's programme for Climate Research (KLIMAFORSK). MEATigation was one of the few Social Sciences, Humanities, and Arts projects to get support under climate research, and we got about 1.5 million euros over 4 years (2020-2024). The project is what is called a 'collaboration' project, so besides researchers from the social sciences (organisation psychology, environmental psychology, social geography), humanities (history, STS, indigenous studies, philosophy), and arts (music, performance, visual arts, bioart) we are collaborating with industry partners - from farming, retail, and restaurants as well as cultural institutions in Norway.

The project explores how to reduce meat use in Norway, starting from the premise that meat is not just calories but also culture. Hence the relevance of the Social Sciences, Humanities, and Arts, as we are experts in studying culture. Transitioning towards meat reduction is especially difficult in nations of the global North and West, like Norway, as meat is considered part of traditional food practices and food cultures, including Sámi and Kven, Indigenous People's practices.

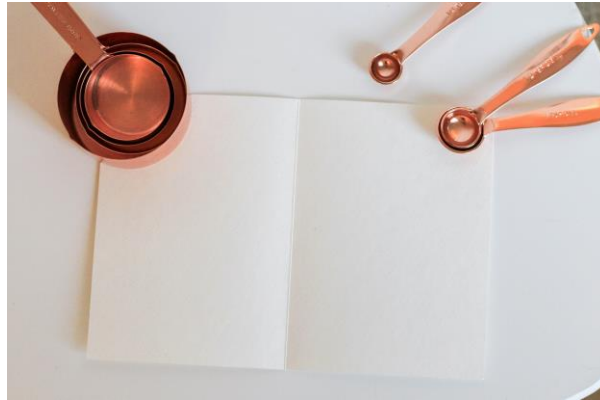
The project proposes three principles, 3Rs, for shifting culture towards sustainable meat use and it investigates these empirically: R1 Recognising animals and people involved in making meat, R2 Replacing animal-based with plant-based or other lower climate impact proteins, and R3 Refining how we use meat to reduce waste, loss, and malnutrition (e.g. obesity). We are preparing several publications now discussing these principles including a book coming out with Routledge Earthscan which I am editing, *Rethinking Sustainable Meat: Recognise, Replace and Refine*, and one authored by us called *Eat Like your Grandparents: Sustainable meat lessons from Norway*. You can find more information at www.meatigation.no.

As part of this project, you are studying how meat production and consumption are entangled in various social, cultural, economic, technological structures and practices. The first question I'd like to ask is: what is the role of animal science and biology in this context? Do you think our relationship with animals in food consumption is related to the role of animals in science?

Sophia: Good question. The development of agricultural animal breeds, such as Ross chicken, is a topic that has attracted philosophical, historical, and STS interest. I personally was inspired to think of 3R principles as guiding (the use of animals in) meat production by the 3Rs in place for regulating the use of animals in research – which in the case of animal research recommend Replacing the use of 'higher' with 'lower' organisms, Reducing the number of animal used, and Refining the experimental setting to cause less pain and discomfort to the animals used. So I do think there is a connection here between using animals in scientific research and in agriculture, especially in technologically intensified agriculture.

In one of my previous projects, I investigated how animals become models in biomedical research, and I became interested in the difficulty of this work for the researchers from an ethical/emotional perspective, besides the epistemic ones. I developed an account of how technologies like architectures and built environments, entry and exit rules and routines, personal protective equipment like masks, gloves, or hairnets, experimental protocols, and identification/naming techniques all operate to block humans and animals from facing each other as unique, secret and morally significant beings, thereby transforming human-animal encounters in the lab, into encounters of science – I called these technologies of effacement. (The account builds on Emmanuel Levinas' phenomenological approach to ethics as an experience: the experience of pausing one's spontaneity, the kind of awkwardness we feel, when one does not know how to behave with another

being. This pause is, for Levinas, the productive space of ethics.) I have argued that similar technologies of effacement operate to structure human-animal encounters also in the intensified farm.



Recipes are very interesting objects for philosophers to study. They are like experimental protocols or algorithms. They are processes for creating outcomes which are then possible to classify as entities of the same type.

Another aspect of MEATigation that I find extremely interesting is that – besides the production of various publications such as those you've just mentioned – you are also doing art exhibitions (more on this below), a webinar series, as well as diets and recipes. Can you tell us more about recipes as one of the areas of focus and outputs of the project? What would you say is the role of science, particularly biomedical sciences, in recipes today and do you think this is something to investigate more in philosophy of science?

Sophia: Indeed, we are writing a cookbook, and developed a diet we call the 'ELG' diet – short for Eat Like your Grandparents ('elg' means 'elk' in Norwegian). Our inspiration for this is the fact that globally, on average, we are per capita eating twice as much meat as our grandparents used to eat – in the last 50 years the world's meat consumption doubled. In the same period, the planet's population also doubled, making for a four-fold increase in the meat people consume, with corresponding increasing pressures on landscapes and ecosystems that have to deal with the often monoculture-grown protein-rich feeds that intensively farmed animals are fed. This development results in deforestation, land conversion, and pollution from fertilisers on air and water, besides the impacts of the animal farms themselves. The geographer Tony Weis has identified the phenomenon whereby meat moved to the center of our plates, from the periphery, as a *meatification* of our diets. The aim of the project is to investigate tools for shifting meat back to the periphery, or getting plants, grains and pulses, back to the center, what we call *plantifying* our diets.

Recipes are very interesting objects for philosophers to study. They are like experimental protocols or algorithms. They are processes for creating outcomes that are then possible to classify as entities of the same type – the same 'dish'; but then in their ingredients and steps offer all kinds of scope for creativity, for mixing and creating new categories. Check out the work of Andrea Borghini for example (<https://sites.unimi.it/borghini/>).

What we saw through historical research is that several traditional recipes can be 'upcycled' and 'repackaged' in fact as meat-reducing recipes. The ELG cookbook does that by presenting a historical analysis of Norwegian food practices together with recipes as tools for addressing climate urgency.

One further interest I have had is the creation of novel meat replacements – and certainly, biological science and biotechnology enter here as part of food science and technology to create processes and products, that can cater to different palates and practices around cooking meat. This is not only about the taste or texture of meat (as stringy or fibrous), but also about its cooking behaviors, like whether it bleeds, how it smells, what mouthfeel it has, and so on – properties that are defined relationally to the eater. I think food science is quite fascinating, philosophically, because it has all these aspects of connecting directly to the felt, the private, the homely, the visceral, and the feminised, if you will, of the mother’s kitchen, which represent a lot of traditional knowledge and practices that are brought into the domain of science and innovation. And we see in our historical research in MEATigation that this is similar with animal farming: caring for animals has been a part of women’s work, that in the last century has become industrialised, technologically intensified, and run in its majority by men. Philosophers like to talk about emotions, the body, or aesthetics as surprising or unexpected aspects of science, but food science targets just these on some level (and of course health, toxicity, and safety). Maybe it is a found science hence its interest to me.

Annemarie Mol has written a great book titled *Eating in Theory* where she asks, how would philosophy be different if we were to think, not of the thinking subject, but of the eating subject, as our focus? I think this is a fun and provocative question and aligns with my interests in flattening distinctions between humans and animals – other eating subjects. (That being said, Hegel in *The Phenomenology of Spirit* does start with eating and desire... but keeps going!). In his book *The Lives of Animals*, Coetzee has this great provocation to the animal experimenters, who test their animals pretty much by giving them food or not. He says that these methods cannot test for other kinds of thinking in animals – how would we know about their existential thoughts if all we do is speak the language of food with them?



13 - Part of the MEATigation research team at work in the kitchen (from left to right): Marius Korsnes, Sophia Efstathiou, Martin Loeng, and Emilio Capo.

As part of all your work to answer these questions you’ve presented, you engage with a very high level of interdisciplinarity. What I find particularly interesting is that your interdisciplinarity also includes artists – for instance, earlier this year you’ve opened the [#MOREMEATLESSMEAT](#) exhibition at the Trondheim Kunstmuseum. Can you tell us more about the role of art in your work and in the project?

Sophia: I have been, as mentioned already, very inspired by artistic practices in my work. Thinking about found science was inspired by found art, and the idea of bringing the everyday also into philosophy has been of interest to me for many years.

I developed what my colleague and theatre scholar ended up characterising as *gameformances* - mixing the rules of games and open-endedness of performance. These are exercises I call the [SHAKE](#), the Science Humanities and Arts Knowledge Exercises. A set of these was recently awarded by the 4S with a Making and Doing prize.



14 - 4S President Emma Kowal, and Sophia Efstathiou accepting a Making & Doing 2022 prize for her workshop 'Found STS: Doing STS through performance'. More info here https://4sonline.org/2022_multiple_winners.php.

The idea with the exercises is to create situations and experiences through which relevant philosophical/science studies concepts can become felt and explored, together in a group. I currently have exercises around mind-body connectedness (ideobics), privacy (sharing secrets), kinds (facing identity), technological/other scripts (virtuous designs), responsibility, and social emergence (the response-able walk), but working to expand/work with these into different disciplines, and different concepts. For example, together with composer Marianthi Papalexandri-Alexandri, we developed the 'sharing secrets exercise' into a compositional/music piece we call sounding secrets (we could be dancing secrets, or...). There is a whole stream of work in Art Science and Technology Studies led by Cornell graduates, Hannah Rogers, Megan Halpern, Kathryn Vignone, and a Routledge Handbook that came out in 2022 that is opening up these fields to philosophers too.

Artistic practices, the body, and performance I think are very interesting for challenging the medium we are working with in philosophy. I have always wondered – what is the work of philosophy? We know academic philosophy forms are very much based on writing and publishing articles. But, writing to/via journals is ultimately just a means of communication – what other ways do we have/can we cultivate to communicate philosophical ideas/insights and/or to do philosophy? – To put this otherwise: What does it mean to do philosophy? Is it really the writing? I don't think so. It's the thinking, the insights. How do you give people these ideas? We tend to give them things to read, or tell them what to think about these things they read. But could we do this otherwise? The medium is the message in many ways, but for me, a lot of artistic outcomes can be as, or even more, astute and precise at communicating a deep idea as text/language. And I am interested in that – in the modes of argumentation, and communication – and the different formats we develop for philosophy (or for what I understand as philosophy!).

This is why our work in MEATigation has brought together humanities, social science, and artistic research in modes that have been very fun and also at times challenging. We worked with the bioart

collective the Center for Genomic Gastronomy (Cat Kramer, Zack Denfeld, Emma Conley) and the pop/art group Chicks on Speed (Alex Murray Leslie and Melissa Logan) and Collaborators. The groups along with academics contributed to the exhibition MORE MEAT LESS MEAT, which we opened in Trondheim's art museum earlier this year (15 February to 1st of May 2023) (www.moremeatlessmeat.com; you can see some of the performance pieces also in our YouTube channel).



15 - Stills from the music video Meat & Drag by Chicks on Speed, Unnur Andrea, and Collaborators. Drag artist Kangela Tromokratisch in make-up and costume by herself, and Sophia Efstathiou in costume by Kathi Glass and makeup by Kangela Tromokratisch voguing and performing in front of the Greek Academy in Athens. Images by Theofilos Ieropoulos.



To give you an example of a collaborative outcome: One of the pieces we did together with Chicks on Speed and collaborators was the song, and video clip, Meat & Drag. This was based on a paper I wrote thinking of meat replacement by analogy to drag; the claim was that meat replacement practices show that meat is fluid and that it need not 'belong' to animal bodies, but that it can be performed otherwise (e.g. by vegetables). The Chicks were inspired by this and we ended up making it into a song and working with drag queen Kangela Tromokratisch and filming parts of the videos with Kangela and me outside of the Athens Academy dressed in meat drag. For me, it was challenging to see people eating a lot of meat in the video, and I was worried we were celebrating meat in the video – maybe we are? It was certainly a loss of control for my part, but then also an interesting process in terms of how an idea I offered can mutate and speak to different people.



To conclude I'd like to come back to the motivation behind the MEATigation project and ask you about working on topics with significant and contested political and social implications, as more and more philosophers in our community do and you have been doing since your PhD dissertation on race as a variable in biomedical research. When working on these topics I think that some people might see a tension between the analytical approach that is typical of philosophy of science, with the goal of trying to understand how the sciences work and produce knowledge, and moral and political 'agenda', with the goal of making philosophy and science a force for good and steering them in that direction. Do you see this tension in your work? How do you go about it?

Sophia: Thanks for this question too Stefano. It is a very important one for me, personally, and I think for us SPSP folk as a community too. I will tell you this: For many years I was very resistant, as many philosophers of science are, I think, to any notions of me doing ethics. My PhD was about race concepts and racial health disparities, but it was not a critical race theory PhD – it was a PhD about the *science* of race, but not race, per se. Of course my motivation to choose this topic was that I did think this was an important societal problem; but I navigated clear of 'politics', if only to say there are politics in knowledge formation within different disciplines vying for authority. Within philosophy, ethics is a subdiscipline with its own rules and expertise, and a lot of us outside that discipline may think we are incompetent to discuss ethics. But we are not, and we cannot think that way.

Ethics is not just a philosophical discipline, that a selected minority is trained to handle – and if that is the aim of philosophy, then we are in trouble. Ethics is part of our everyday experiences, as researchers, as friends, as partners, and so on. Yes, it might be that the discipline of ethics has good ways of elucidating some of these experiences, but then again, it might be that it distorts them into studyable problems (founds them) to a degree that they become alienating and alienated from everyday life. We always need to work on the boundaries – of this, as with other types of knowledge production. And this is not just because of questions of what is good and what is right: we need to look at/beyond boundaries, to see the full picture, to describe a reality which is political; and science cannot but be political, because people are political animals.



I have always wondered – what is the work of philosophy? We know academic philosophy forms are very much based on writing and publishing articles. But, writing to/via journals is ultimately just a means of communication – what other ways do we have/can we cultivate to communicate philosophical ideas/insights and/or to do philosophy?

Maybe what changed in practice for me was that I became an activist, starting, together with a former colleague Marit Hovdal Moan, the #metooakademia campaign for protesting sexual harassment in Norwegian academia. This was in 2017-2018, during which we collected and published

women academics' testimonies of sexual harassment in the newspaper [Morgenbladet](#). We also both reported the man who had harassed us. I think speaking up about a systematic/systemic injustice, and then being invited to hold talks, interviews, etc. from a perspective I had not previously considered as part of my expertise gave me a sense of both empowerment and community. And though it was part of a traumatic experience it also affirmed what feminist pedagogy says – as Paolo Freire puts it, that it is from the oppressed, and the kindness of the oppressed to go beyond becoming oppressors themselves, that change can happen.

So yes, to answer in another way – I do think our knowledge is situated in the way that Haraway describes. This does not mean being lazy and not looking outside one's own position to others' experiences and views. But it does mean giving up an ideal of analytic study, description and representation of how science 'really' works that escapes normative implications. Found science argues that the very choice of disciplinary framing or founding is contingent, and can be driven by all kinds of interests. And well, if you accept that, following Max Weber, we choose what we study, and following the found science approach the way we study it is also contingent, and both are value-dependent, then why not go for a 'why' and 'how' that you think matters. I like the idea of making philosophy and science a force for good.

Though of course what that good is is debatable! For example, the MEATigation project is about reducing meat-use. That can be seen as problematic; even as deleterious to animal liberation as it's condoning eating animals while providing some assurances about the ethics of this way of eating. Like green growth types of approaches to climate mitigation, such projects could be seen as 'false friends'; offering an impression of progress while perpetuating existing issues. But my point is that these questions are important for us to consider in SPSP as we will be faced with them in practice. To consider them in tension with practice is to have a very limited view of what practice means, in the long run and in context.

The Proust Questionnaire



Saana Jukola talks to Leah McClimans



16 - [Leah McClimans](#) is a professor at the University of South Carolina. Her work focuses on philosophy of medicine, feminist philosophy, and medical ethics.

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

In fifth grade, at the scholastic book fair, I bought a copy of Anne of Green Gables and was introduced to the world of L. M. Montgomery. I lived inside her books for decades. Emily (of New Moon) is my favourite. She wanted to write, and dream and live, and so did I.

Which words or phrases do you overuse?

This one requires explanation. I grew up in an evangelical family. We didn't swear, or drink, or watch PG-13 movies. In College I started dating a guy in band. He showed me the art of swearing (thank you Curtis Tankersley). It turns out that done well, swearing isn't blasphemy, but an exquisite form of self-expression. So, I think, if you asked my children, they would say I overuse (or use appropriately!) F*#@# or one of its many expressive derivatives 😊

What is your favourite food?

Spaghetti with tomato sauce, no dead animals. I'd happily eat it every night of the week.

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

Thankfully I've repressed the worst of the critical feedback. Recently (still too fresh for repression) I was in a meeting and we were reviewing some drafts each of us had written for a common project. Someone I admire started off the meeting by saying (and I summarize here) "I don't know who wrote

this one on measurement but I can't make sense of it. What does this word mean and how does this sentence make sense..." In my memory, it went on like this for an hour while my face burned (it was probably more like 2 minutes). It has been a long time since something I thought was well-written and articulated, got panned so thoroughly. Humility, it turns out, is a life-long lesson.

Where do you write your best work?

Depending on the weather: in a pub by a fire with a glass of wine, or outside in the sunshine surrounded by nature. Either way, I need to be warm.

What is your favourite entertainment?

Galloping my horse on a long stretch of unspoiled beach.

What profession would you like to attempt besides your own?

I love what I do a lot, but if I could do something else as well, I'd be a groom for a fancy eventing yard.

What is your greatest achievement?

A few years ago I bought a five-year old horse. He was green, I was green. There were many, *many* times when I was riding him (or falling off him) that I wondered if I was up to the challenge. It was the first time in maybe twenty years that I wanted something very badly, but deep down didn't know if I could do it. I just didn't know if I was brave enough or able enough or just enough. I was haunted by this question. But this summer and now into the autumn, we're jumping and neither of us is freaking out. It is nothing short of a miracle. When I finish schooling him or having a lesson, I look at the arena, at what we've accomplished, and I am unashamedly delighted with myself.

What is your most treasured possession?

My great-aunt died when I was 9 years old. I inherited her writing desk. I've taken it to every country, every house I've ever lived. I wrote my high school term papers on it, I wrote my PhD on it, and I recently finished *Patient-Centered Measurement* on it.

Where were or are you happiest?

I grew up an only child and I love being alone. I wasn't sure what it would be like to have children and, like, have people around all the time. But they are so much fun; I love hanging out with them and doing things. So, it's kind of surprising to be saying this, but I think right now I'm happiest when all three of them are with me and we're embarking on an adventure.

We wish you all a warm Christmas break!



17 - 12 Days of Christmas cookies