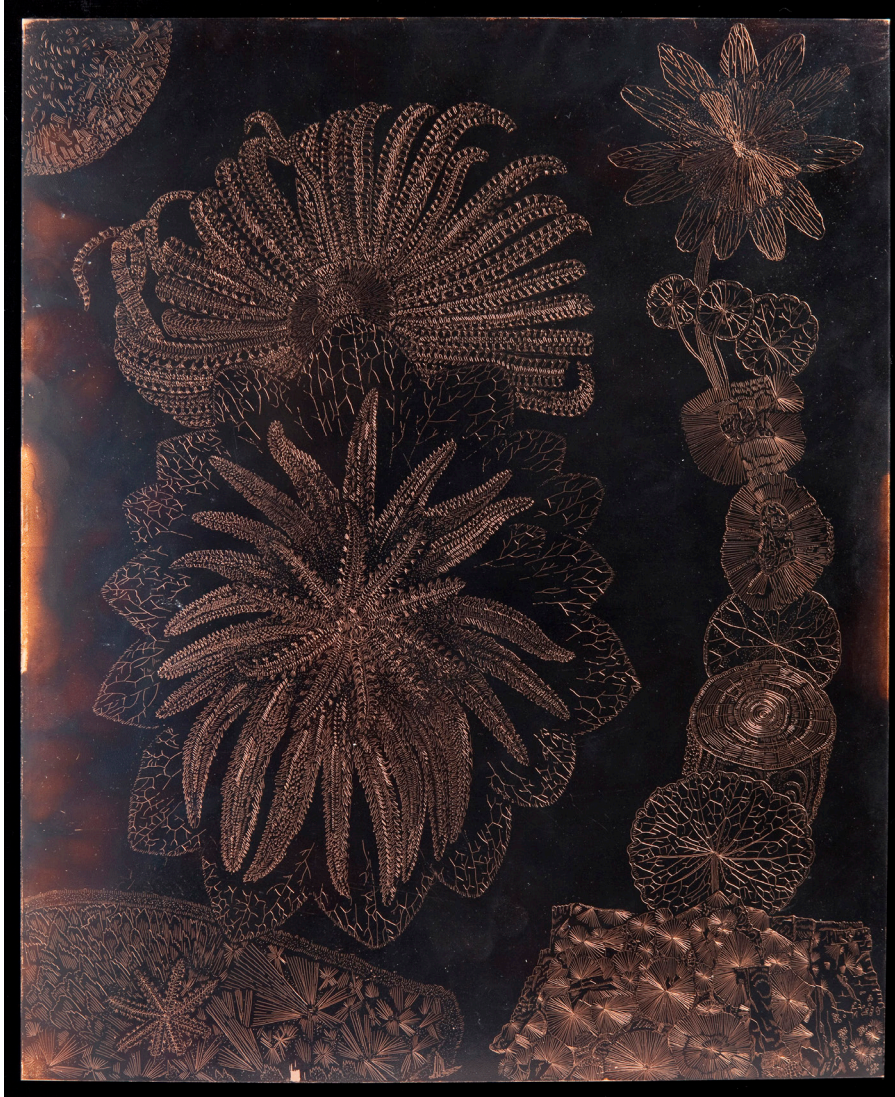


Philosophy of Science in Practice Newsletter

Nº 12 ∞



Artistic research: A field where art, science and philosophy meet?
SPSP Crossword

The "practice turn": An interview with Nora Boyd

The greatest challenge in philosophy of science: Interview with Nicolas Zutra

Graduate students speak out: Stefano Canali

Chiara Ambrosio takes the Proust Questionnaire

Solution to the SPSP crossword puzzle vol. 11

From the Editor:

We are pleased to have compiled a rich volume of SPSP-related articles and a SPSP crossword puzzle for you to enjoy over the summer break.

The beautiful image on the frontpage of this volume is drawn by Gemma Anderson, artist and university lecturer at University of Exeter. In this volume Sophia Efstathiou talks to Gemma about her interesting projects that establish connections between art, science, and philosophy.

Inspired by the pre-SPSP workshop and sessions at the SPSP in Ghent, we have decided to initiate a new thematic section on the implications of the "practice turn" in philosophy of science. In this volume, Martin Zach interviews Nora Boyd from Sienna College, and more will follow in the upcoming volumes. We also talk to Nicholas Zautra, from Indiana University Bloomington, about his interview-based exploration of the greatest challenges in philosophy of science.

Focusing on the "practice turn" and its associated challenges also brings attention to the importance of discussing how we might best prepare students and junior researchers for this type of work. Sophia van Baalen has interviewed Stefano Canali, PhD candidate at Hannover, about his experiences as part of the DFG research training group. The Proust Questionnaire is in this volume answered by Chiara Ambrosio.

We hope to see many of you at conferences and workshops this summer – please send us pictures and share your experiences with us for the fall volume! We also invite contributions that inform about new research projects within philosophy of science in practice, as this will help SPSPers stay updated on interesting projects and potentials for collaborations/research visits.

On behalf of the SPSP newsletter team,

Sara Green

Contributors



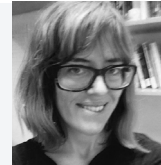
Sara Green
University of Copenhagen



Sophie van Baalen
University of Twente



Saana Jukola
University of Bielefeld



Sophia Efstathiou
Norwegian University of
Science & Technology



Vlasta Sikimić
University of Belgrade



Martin Zach
Charles University
and the Czech
Academy of Sciences



Barton Moffatt
Mississippi State
University

Artistic research: A field where art, science and philosophy meet?

Sophia Efstathiou

Sophia Efstathiou talks to Gemma Anderson, who is an artist, researcher and university lecturer. Gemma is currently a research fellow and co-investigator on the Arts and Humanities Research Council project "Representing Biology as Process" at Egenis and Living Systems Institute, University of Exeter.



Gemma a giving a talk about isomorphology

Can you tell us a bit about your trajectory as a scholar? What drew you to philosophy of science?

The amusing thing is that I did not set out to be a scholar. It might sound a bit romantic, but since I can remember I always wanted to be an artist and I put more energy into art at school than into anything else. I am also dyslexic and this might be why I have always preferred visual means of learning over language based approaches.

I studied BA fine art (2002-2005) followed by MA Printmaking (2005-2007) at the Royal College of Art in London. This was when my interaction with scientific culture and practice at the Natural History Museum in London began. My practice had always been based in drawing and I was very interested in morphological relationships across species. Drawing directly from the specimen collections (behind the scenes) at the NHM and other London collections provided the opportu-

nity to develop questions about morphological resemblance and classification through drawing practice. After a few years of working in London as a self-employed artist on various art/science projects (e.g. a Wellcome Trust Project 'Portraits: Patients and Psychiatrists', a Jerwood Foundation residency about the role of drawing in natural science and a Leverhulme Artist in Residence collaboration with mathematicians at Imperial College 'A periodic table of shapes'), I decided to put my questions of drawing, morphology and classification into a practice-based PhD proposal. This led to the Isomorphology project (www.isomorphology.com) and to meeting philosophers of science Chiara Ambrosio and John Dupré who later became co-supervisors on my PhD project 'Drawing as epistemology for morphology'.

What are some key insights that you have come to, using your methods that you think could not have been delivered otherwise?

I think the Isomorphology project provides a good example. Isomorphology is a comparative, drawing based method of enquiry into the shared forms of animal, mineral and vegetable morphologies. In Isomorphology, drawing generates and addresses questions of form and the development of form and resemblance: capturing morphological resemblances of form across species through drawing invites the viewer to ask what is animal mineral and vegetable in the image which naturally leads to questioning the normative boundaries that the Linnaean system places on the natural world. Isomorphology offers an alternative and visual order which is complementary to the Linnaean system.

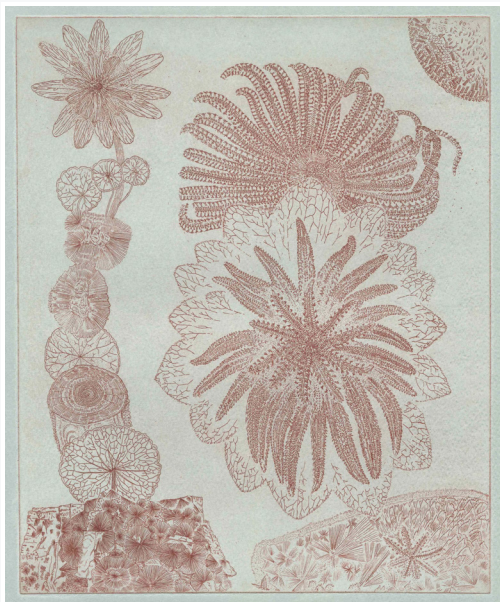


Figure 1: Isomorphology etching plate - radial symmetry—by Gemma Anderson

As a method, drawing is a reflective exercise, where the drawer needs to make all kinds of decisions, to choose salient features, perspective, and how to 'synthesize' with another specimen. Drawing can reveal the shared forms of conventionally unrelated species, for example, through symmetries they share (see figure 1). The insights and possibilities opened up and explored in the drawing process are intrinsic to the epistemological value of Isomorphology.

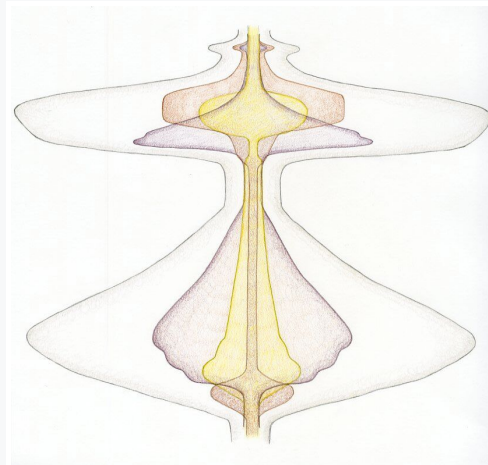
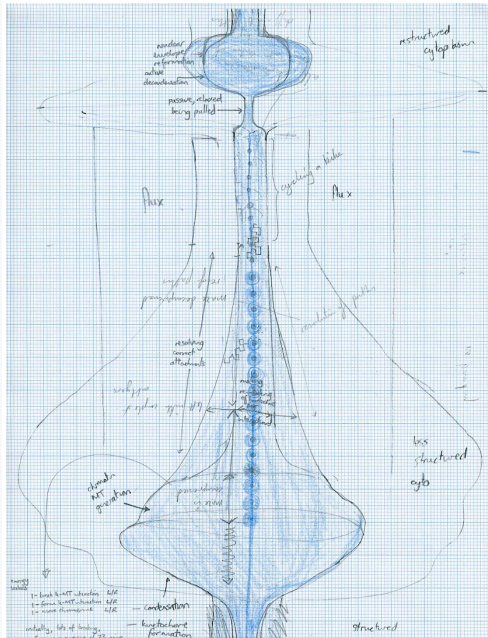
In our recently published article 'Drawing and the dynamic nature of living systems' ([eLIFE](#)), we discuss how drawing provides the opportunity to explore and develop ideas, and how the intellectual decisions about what to include and what

to leave out of the image, give drawing its unique value as a way of knowing. Through our current AHRC project 'Representing Biology as Process' with John Dupré and James Wakefield we are finding that drawing in the context of contemporary bioscience (as an iterative loop between the artist and the scientists) creates space for exploratory imagination – and, therefore, a source of new ideas and hypotheses that then inform the scientific process.

What have been some hurdles that you found when approaching biological concepts with philosophers and biologists, through your practice?

I have been working with scientists since 2006 and during this time I have encountered similar hurdles, to start with, getting their initial interest in an 'extra-scientific' approach is normally challenging at the beginning and it takes a while to build trust and to convince each collaborator of the seriousness of the project. This is the 'changing minds' part of the work that is central to this kind of art/science research in order to eventually bring to some kind of cultural change. Even when a collaborating scientist is fully on board with a project, the time pressures of their science (lab work, funding proposals, travel etc.) mean that they struggle to prioritise their own art/science activity and this often leaves me in the position of having to prompt and inspire them in order to achieve what we need to achieve. At times this can be frustrating as I know we could achieve more if they could only give more time.

Saying this, when we do have time, working with biologists like James Wakefield and JJ Phillips (LSI, Exeter) is great because we can share the practice of drawing together but unfortunately this is not the case with all biologists. In practice, another hurdle is the hesitation and lack of familiarity and confidence that the current generation of scientists have with drawing. In a way, this is also what the project is about, a kind of cultural intervention. In order to make things work in our project 'Representing Biology as Process', I have to do a lot of 'repair' work to fix the cultural biases that have pushed drawing out of standard practice and lowered its place in the hierarchy of epistemic practices. Related to this is the challenge of integrating drawing into primary scientific research (e.g. lab protocol) rather than just exploring the representation of already



Left: Mitosis sketch; Right: Drawing of the relational energy landscape of mitosis
– both sketches by Gemma Anderson with James Wakefield

established results. The main hurdle in working with philosophers on biological concepts is that philosophers (in comparison to biologists or geometers) tend to be less visual in expressing their ideas and often work without making any images at all. This is reflected in the lack of familiarity and confidence that philosophers also tend to have with drawing and this can make it more difficult to construct image concepts and analogies to think with together.

Do you consider your research as artistic research, or as philosophical research? Does the distinction matter to you?

In associating myself to 'artistic research' I am relating to a specific community of researchers in an emerging field (The Society for Artistic Research, SAR). All artists do some kind of research which should always be considered part of the culture of making art but SAR as a community of artists and scholars have taken the relationship between research and artistic creation further, through the Journal for Artistic Research and the SAR annual conference.

Although many of the members of SAR are artists with PhDs, this does not mean that the philosophical research we do is articulated through

text. Artistic research does not privilege text and language based argument as the main output for philosophical research, even if it still plays a part. Images are often used as arguments or to propose relations.

It has also been incredibly stimulating for me to be a member of SPSP and ISHPSSB, and to present our research to these audiences as, like many philosophers of science, our main philosophical interest is both ontological (e.g. what is the nature of a particular living process?) and epistemological (how can we know about this nature?).

How do you see the relationship of artistic practice, and philosophy of science in practice?

Although art/science culture is now widespread, it is still fairly unusual to see artists and philosophers of science collaborate. I would much rather art/science was art/science/philosophy as I think it is essential for any artist working with scientists to understand scientific culture to some extent; its dogmas, practices, the danger of reductionism etc. In practice, an artist and a philosopher of science may share the approaches of observing and engaging in scientific practice, interviewing scientists and entering into discussions and debates about scientific culture with a view to intervening

in some way.

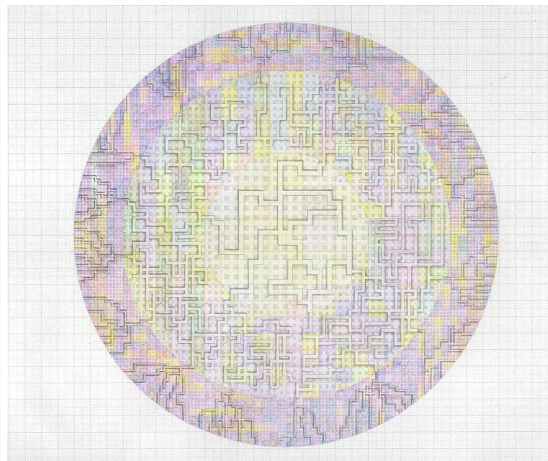
Do you have advice for people who want to work with artistic approaches as part of philosophy of science in practice?

Like most disciplines, I think there is room for experimentation with artistic approaches in Philosophy of Science in Practice. If the approach is in collaboration with scientists, I would advise to prepare very well before approaching scientists and be prepared to have to do some convincing that the approach is worthwhile.

I also would recommend reading up on the Society for Artistic Research (SAR) as they have a journal and a conference full of interesting examples of interdisciplinary and experimental approaches to knowledge creation.

Thanks to the Arts and Humanities Research

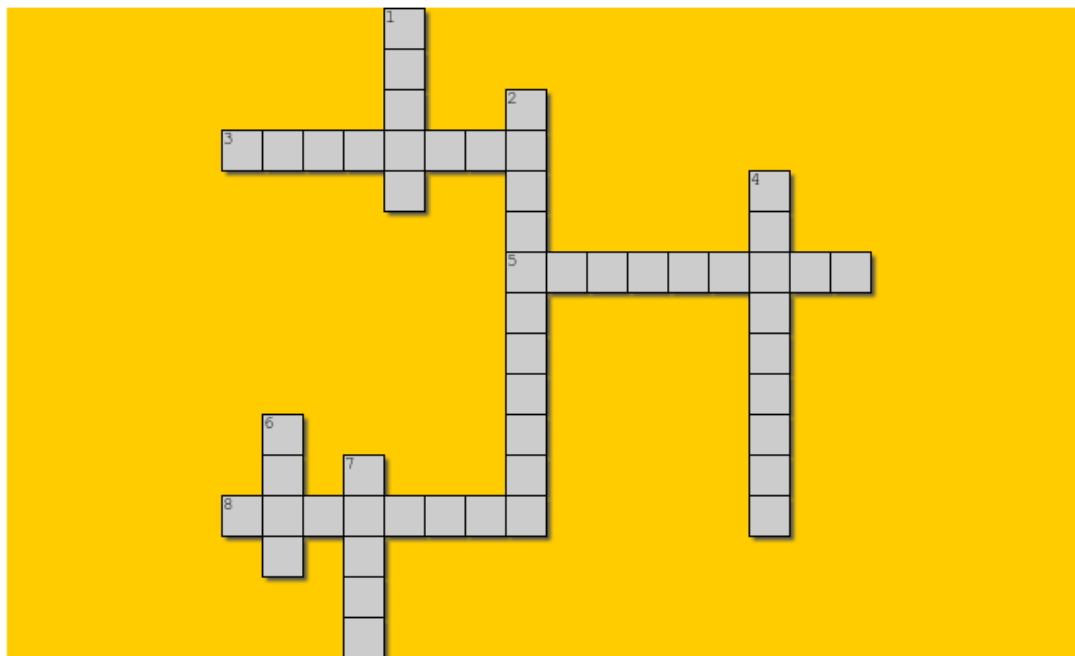
Council for funding the project 'Representing Biology as Process' 2017-2021 at the University of Exeter. More information about the project here www.probioart.uk.



'Protein Maze' by Gemma Anderson 2019

SPSP Puzzle

Complete the crossword puzzle below



Created using the Crossword Maker on TheTeachersCorner.net

Across

- 3. The biases that keep women out of philosophy can be this.
- 5. Models who live in the lab
- 8. Composite word from the Greek for 'being' and 'reason'

Down

- 1. Knowing how often is this.
- 2. Empirical philosophy of science uses this
- 4. Louis Pasteur emphasized the prepared mind, and Guy Debord 'goal-less drifting' as important for what?
- 6. Not a meme
- 7. What comes out of a bell, and a valid argument with true premises

Thematic section: The "practice turn" in philosophy of science

Martin Zach

The "practice turn" in the philosophy of science has emerged mainly as a response to what the founders of the movement perceived as an insufficient attention to scientific practice, broadly construed. The driving force seemed to be the realization that if philosophy of science is to be somehow more relevant to science or to the public in general, it must take seriously how science really works. However, with respect to some of the main tenets of the movement there are many questions that remain unanswered. Some of these questions were addressed at the pre-conference workshop just before the last SPSP meeting in 2018. As the title suggests ("The Use of Case Studies and Examples in the Philosophy of Science"), a central motive of that workshop was to bring together different perspectives on what it means to work on a case study and what the results of a particular case may tell us about a given issue. As important as these methodological debates are, there is one that may in some sense be even more fundamental, namely what exactly is meant by "practice" here.

At least two broad perspectives may be identified: The first concerns drawing philosophical conclusions from detailed analyses of case studies of scientific research practices, ranging from experimental and observational to more theoretical. This may also include more direct contribution to science itself. The second attempts to engage with the kinds of implications scientific research may have for society in large, especially with respect to various policy-decisions. A distinction much like this one, drawn by John Dupré, is to be found in several previous installments of the SPSP Newsletter (e.g., February and October issue, 2012).

These different views on what it means to do philosophy of science in practice also bring forth different ways of arguing for the importance and usefulness of philosophy of science. For instance, in a recent article "Why science needs philosophy" (published in PNAS), a group of philoso-

phers and scientists have shown that some work in the philosophy of science may even further scientific research along various dimensions. Yet, things are, of course, not as straightforward.

Our aim with this thematic section is to ask several philosophers of science who have contributed to these debates to help us to reflect on what it means for them to do philosophy of science in practice and what kind of challenges this presents in their own work. Here, we talk to Nora Boyd from Sienna College.



Nora Boyd, assistant professor at Siena College

How would you describe your own work in terms of its relation to "practice"?

I am constantly drawing on and inspired by the experiences that I had working in physics. When I think about scientific methodologies, instruments, or scientific personas, I have particulars in mind. To take one example, I recall a discussion during a graduate seminar course about the role of human perception in contemporary scientific research. Old-school empiricism maintains a central and foundational role for observation (paradigmatically by the unaided

human eyeball), but sophisticated and intricate instrumentation and protocols are ubiquitous in contemporary scientific practice. Are there any instances of useful observation-by-eye in (say) contemporary physics research? For me, this question called to mind aspects of the training and experiences that I had working at the Center for Experimental Nuclear Physics and Astrophysics at the University of Washington over the course of several years. I remembered how my mentor Greg Harper had instructed me to listen carefully whenever I entered the giant tunnel containing our particle accelerator and all its attending vacuum pumps. After decades working at the lab, Greg's ears were habituated to the characteristic chorus of well-functioning vacuum pumps, such that when a pump had failed and needed attention, Greg would know instantly upon entering the tunnel by the way that the soundscape had been disrupted. I thought also of the technique I learned for locating problem areas in the beamline that would cause the accelerator to discharge in thunderous bang: climb on top of the tank body surrounding the multi-megavolt charged heart of the accelerator, lay on your belly and peer through a porthole with the tunnel lights off, waiting to spot a flash of light in the pitch dark during a discharge. This is just to say that I am grateful for my experience in physics, not just because it yields a reservoir of case studies and technical friends to call upon for sanity-checks, but because it afforded me a visceral sense of a kind of laboratory life, with all of its grime, artifacts, hazards, mentorship, education, frustrations, creativity, victories, materiality, history, hierarchy, community, generosity, solitude, and play. With such memories, it is difficult and uncomfortable to think of scientific methodologies and epistemology very abstractly.

What kind of "practice" do you think philosophers should pay more attention to and why?

Data processing. I strongly believe that philosophers have underappreciated the impact of data processing on the epistemic utility of empirical results. Philosophers of science are aware that auxiliary hypotheses and background information are important. However, I think that the implications have not been sufficiently incorporated into mainstream epistemology of science. It is data

processing that transforms empirical data into empirical constraints on theorizing, i.e., allows the natural world to "push back" on our theories. To accomplish that feat however, processing often introduces specific theoretical and practical pre-suppositions that limit the applicability of the processed result. It is not generally possible to import an empirical result to a new epistemic context without understanding in significant detail how that result was generated. This dependence is unfortunately hidden in philosophical discourse when evidence is referred to abstractly as "evidence E" or when we speak as though a proposition, or perhaps even a number, is an instance of the sort of empirical evidence with respect to which our theories ought to be consistent.

A legitimate worry may be that, notwithstanding an effort to master a scientific field, philosophers simply are not scientists and the perspectives they bring are thus doomed to be shallow. Does a middle way exist?

I don't think our perspectives on science in practice are doomed to be shallow, even though (or when) we are not practicing scientists. One can guard against shallowness by being realistic about one's limits and by speaking to practicing scientists. For instance, I recently had the opportunity to give a commentary on a talk delivered by cosmologists Ofer Lahav and Pablo Lemos from the Dark Energy Survey, at the University of Edinburgh in a fantastic workshop that Michela Massimi organized about cross-disciplinary perspectives on model-independent searches. The conversation that ensued was fascinating and productive. In the course of conducting multi-probe research on dark energy, these physicists are interrogating and developing norms for combining conflicting data. In this case, philosophically rich questions are arising out of the ordinary course of science in practice, and having recognized them as such, I think it is totally appropriate and hopefully helpful for philosophers to weigh in on them.

What kind of challenges do you find most difficult to overcome when engaging in the philosophy of science in practice?

I find it difficult to resist science reporting, at

least initially in a new project. It is hard not to get sucked into the details and to want to subject everyone else to them too. But I actually don't think this tendency is a bad thing. Enthusiastic and nuanced science reporting is valuable, especially in our current bizzaro alt-fact social and political climate. I think that we philosophers of

science, myself included, could do a better job of channeling our science-reporting impulses to actual public-facing science communication even while we are more selective about what details regarding scientific practice we incorporate into our philosophical projects so as to allow our philosophical contributions their due emphasis.

What is the greatest challenge facing philosophy of science today?

Sara Green

In a previous newsletter (no. 9), the founders of SPSP reflected upon the history of the society and the challenges that lie ahead. We continue this discussion with an interview with Nicholas Zautra, who is a doctoral candidate in History and Philosophy of Science at Indiana University Bloomington. Nicholas has conducted a qualitative study exploring "What is the greatest challenge facing philosophy of science today?". We have asked Nicholas about the background of the study, the findings, and what he - as a young career scholar - views as the greatest challenge in philosophy of science.



Nicholas Zautra, Indiana University

Nicholas, can you first tell us a bit about the project and how it started?

It basically grew out of curiosity. Back in 2016 I started a social engagement project in the form

of an interview-based podcast featuring philosophers of science who engage with scientists in interesting ways. The goal was to create an outreach platform to gain a better understanding of the landscape of the field. By talking to different philosophers of science about their projects and collaborations, I realized that there are many different ways of doing philosophy of science. I was curious about the different kinds of approaches and methods, and about the different ways of thinking and doing philosophy of science around the world. With almost 60 interviews conducted and more to come, exploring the challenges has become a project on its own. I'll continue to do the interviews and the podcasts, but as a long-term goal I would like to write a book that describes the kinds of challenges in more detail. The style will be similar to Werner Callebaut's book "Taking the Naturalistic Turn, Or How Real Philosophy of Science is Done" that explored the implications of a naturalistic turn towards the sciences. The idea for my project is to use the interviews to get a better sense of what philosophers see as the big challenges and analyze these in more detail.

How did the interviews proceed? And how did you decide on whom to invite?

We typically started with a conversation about their own history – how they became philosophers of science. After they have had time to tell their story, we discussed their past, current, and future research. As a final question, I asked them what they see as the greatest challenge facing philosophy of science today. Based on their responses, they were invited to elaborate on the



Some of the the people interviewed for the project

challenges and I would ask whether they have suggestions for solutions to the challenge identified.

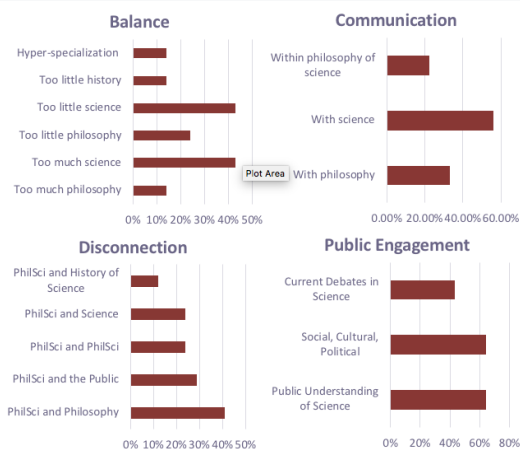
In the beginning, I invited people who were considered prominent in the field or who had written about topics I was personally interested in. But it eventually evolved into an attempt to better represent different approaches in the field. This involved speaking to philosophers of science from different subspecialties, from different countries, and at different stages of their career.

What would you highlight as the most significant finding in the study?

Most of the people interviewed emphasized what we can call a "balance" challenge. This is about how to balance different aims and connections to other fields, such as general philosophy, science, history of science, or social science. Many see it as a personal challenge to get close enough to science, while still being able to say something philosophically interesting about it.

This is a balance between being close enough to accurately describe what is going on, while being able to step back and reflect upon the practice.

There were different opinions about recent developments in the field, such as practice-orientation. Some felt that we need to return to more general philosophy of science – that we are getting too close to science and fail to connect to our philosophical peers. Others felt that we are still not close enough to science.

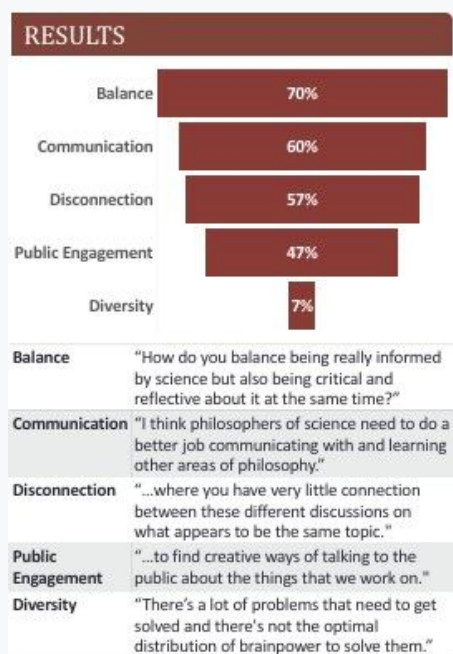


There appears to be consensus on the importance of public or social engagement, but not on what kind of social engagement philosophy of science should be involved in. This is an area where I think philosophy of science could benefit from more reflection and discussion.

Do the interviews give an impression of a development in the field? Is philosophy of science becoming more streamlined – or more diverse?

My impression is that we are drifting towards a state of hyper-specialization and more towards an in-practice approach. Some are encouraged by the increasing practice-orientation and want to see more of that kind of work. Some are more skeptical about what they describe as “science journalism” and are concerned about a trade-off between practice-orientation and rigorous philosophical reflection. But both are responding to a similar trend and are aware of recent developments.

What can philosophers of science learn from a project like yours?



My hope is that it can help people become more reflective about the social role of philosophy of science and also about issues of interdisciplinarity within philosophy of science. What I've

observed is that there often is a disconnect between different approaches where people just go their own ways. It is practically impossible for one person to do it all, and it is important to take a network approach in a broad sense to dealing with different issues. I hope that by building up a knowledge-base of different methods and approaches, it will be easier to communicate and connect to other specializations.

What do you experience as the greatest challenge in your own research project or in the field?

The biggest challenge for me has been to understand the science well enough to say something useful. In my research I explore the limitations of integrative efforts in the psychological and brain sciences to understand the causes and effects of mental disorders. This means that I not only have to learn about one science, but many scientific approaches and how they connect to one another. A related challenge is to keep focused, because many issues in science link to a variety of philosophical discussions. Focusing on integration can for instance easily get you into the pluralism debate or the vast literature on modeling, explanation, etc. The literature is often very helpful, but it may also distract you from new questions arising in the scientific practice.

I also think that many early-career scholars struggle to navigate between their interest in exploring science and meeting the disciplinary demands in philosophy of science. There are so many interesting scientific developments and new epistemological questions may just arise naturally. This creates an opportunity to do something new that has not yet been analyzed in philosophy of science. But it is also a challenge because we have to justify our work in relation to existing philosophical work. We have to face the question: "Where is the philosophy in this?", which is a real concern if you aim to get a job in a philosophy department or publish in a particular journal. Making sure that your work aligns with existing philosophical work sometimes feels like putting artificial boundaries around your analysis – which makes it feel less authentic. Many have to compromise between what they want to do and what they have to do. This is unfortunate because it can put a damper on the creative spirit

Graduate students speak out: Stefano Canali

Sophie van Baalen



Stefano Canali is a PhD student at the University of Hannover in the [DFG research training group co- chaired by Torsten Wilholt \(Leibniz Universität Hannover\) and Martin Carrier \(Bielefeld University\)](#).

Could you tell me about your PhD project?

My project is on the epistemic role of data in the biomedical sciences, especially data-intensive research. In my PhD I did a case study on a project in environmental epidemiology on the 'exposome'. I chose this project because it is a relatively new area of research, where researchers are integrating diverse sources of data and at the same time introducing new concepts and new approaches to the understanding of exposure, disease and environment. So it was interesting from a data perspective and from a theoretical perspective. It gave me an idea of scientists' perspective on data but also on the theoretical changes in the sciences, and how they were related. For my PhD I went really into the details of this case study. In a philosophy of science in practice fashion, I did some interviews and participatory observations of meetings. I tied these in with the masters programs I had done, in philosophy of science and STS at University College London, where I learned about philosophical work on data for the first time, Sabina Leonelli's work, and about the exposome. Therefore, the approach that I feel most comfortable with is to give grounding in the sciences to my analysis at the philosophical level.

The wider project in which my PhD was positioned was a German version of a graduate school, which is mostly about training people. It's a shared program between the University of Hannover and Bielefeld, called 'integrating the

ethics and epistemology of scientific research.' Actually, the Germans tell me it's a bit of a weird translation because in Germany they have this idea of 'practical' and 'theoretical' philosophy, and the title is much more about integrating practical and theoretical philosophy. So the practical in English is translated as 'ethics' but it could also be political philosophy. Quite a bit of the PI's have done work on the science and values debate and social epistemology, so that is one of the core ideas of the graduate school. Some PhD students are also doing work on ethics or meta-ethics. I looked more at the integration of practical and theoretical components of science.

At the moment we have 18 PhD students and two postdocs in the graduate school. We don't really have to follow any classes, but we have a 'qualification program.' For this, we meet three times per semester in Hannover or Bielefeld and have mini-workshops of half a day, where usually three PhD students present. And we have 'peer-group meetings' where we have tried out some different things. Sometime one of us presents, or we do some kind of reading group, or we discuss some problems or ideas we have. Once per year we do an overnight trip, somewhere in between Bielefeld and Hannover. And we do one- to-one meetings with PI's who are not our supervisors, which is nice. So this graduate school is nice because doing a PhD can be very lonely and here we had group where we could discuss work and other stuff instead of all having to do it on your own.

What I like and what worked well for me was to have two supervisors, which is a part of the graduate school. I have Thomas Reydon here in Hannover, and Sabina Leonelli (at University of Exeter). I had a few research visits to Sabina and her group, which was also encouraged by the graduate school. It can be difficult to have two supervisors, because you get different kinds of feedback. But to me it made me feel like I was almost in a collaboration with them, a mature relationship. So I felt very lucky with them. And getting slightly different feedback also made me feel that, in the end, I was the one to make the decisions, instead of listening to my supervisor and do what they say.



Stefano giving a talk

Which scientific practices have you studied?

The project was in epidemiology, but it was quite interdisciplinary. I talked to doctors, molecular biologists, statisticians and with managers of the project. They worked on something they would call 'the exposome.' Their idea is that the exposome is complementary to the genome, but for environmental exposure. This involves combining a lot of different information and measurements from many different sources. They used a lot of data from cohort studies. Some of the studies focused on a specific country or a specific type of disease, like cancer or an infectious disease. And then they would do a secondary analysis of the impact of, for example,

air pollution at the molecular level, with '-omics' techniques. At the same time they did analysis of the environmental data, but the problem was that this data was quite messy. Some of it comes from questionnaires, and other data came from monitoring stations. But these monitoring stations are scattered over Europe and don't record data every hour on every day. They integrate all the information they do have into maps of data about air and water pollution, and use regression models to assign concentration of pollution to an individual. For example, they would have a blood sample from person, XY, and they see something interesting at a molecular level, they try to estimate to what concentration of a pollutant they could have been exposed to.

To me, the project was interesting because it was very data intensive, and it was an integration of different sorts of data collected by diverse epistemic communities. At a more philosophical level it was interesting because it showed that the context of data practices has an epistemic role that is very important, in connection to choices and assumptions about, for example, what the data set is evidence of. My claim is that data is an epistemically salient artifact, it's not just there, it's not "raw" and it's not a given.

What advice, tips and tricks can you give other SPSPers who want to study scientific projects?

I would first totally advise to do it, if it's possible, it was so interesting to have these discussions with active researchers. It can almost be more rewarding than discussing with other philosophers, because scientists sometimes learn from it too. I think timing empirical research in your PhD is important, although for me it just happened at the end of the first year of my PhD because the group was available at that time. But I think that was good in my case, because around that time I had specified my project a bit more. Empirical work can be a bit overwhelming, because after doing interviews you have a lot of stuff, and you have to figure out what to do with it. So you can't always plan ahead, but you should think about whether it's good that you do it at that time. Ask yourself: Is it good for me? Is it going to be too overwhelming? Do I have to think about this a bit more?

Chiara Ambrosio

TAKES OUR PROUST QUESTIONNAIRE

Saana Jukola

The 'Proust' Questionnaire was a game popularized by Marcel Proust who supposedly believed that by answering questions such as those below one reveals his or her true nature. This questionnaire was modernized more recently by James Lipton and 'In the Actors Studio'.



Chiara Ambrosio is Associate Professor in History and Philosophy of Science at University College London.

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

I love twentieth century takes on ancient Greek literature. The Minotaur in Borges' 'The House of Asterion' and Leopold and Molly Bloom in Joyce's Ulysses are my favourite fictional characters. My real life hero is a bit more obvious: the American pragmatist philosopher Charles S. Peirce (how could I not mention him at least once in this interview?). Peirce taught me history and philosophy of science, and fuelled my passion in the cultural and philosophical context of nineteenth-century science. And he is such a flawed hero, which is what I love the most about him!

What is your favourite food?

This is going to sound incredibly obvious but... pizza. Real, Neapolitan pizza - the only subject over which I am not a pluralist (sorry SPSP!)

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

My first journal submission was a desk rejection, from one of my favourite journals. It was sent to me by post, in a rather beautiful envelope! And it only had one line, saying "your article is not suitable for our journal". I would reject my own paper now (!), but at the time I found the lack of feedback especially painful. That experience taught me to provide at least a paragraph, as a reviewer, motivating my decision when I have to reject a paper.

Which word or phrase do you overuse?

"rrreally", rrolling my r.

Where do you write your best work?

I really like to work from home. My first criterion in choosing a new flat since university has been 'could I work here'?

What is your favourite entertainment?

I love art exhibitions and ballet. And I have started a bit of gardening, which still occasionally goes horribly wrong. But I am coming to terms with the fact that a lot of Mediterranean plants are not very happy in England, no matter how hard I try.

What profession would you like to attempt besides your own?

When I was a child I thought I would be a ballet dancer. Now I am more inclined toward the idea of opening a bakery on a Greek island.

What is your most treasured possession?

A silver cigarette box from my grandmother.

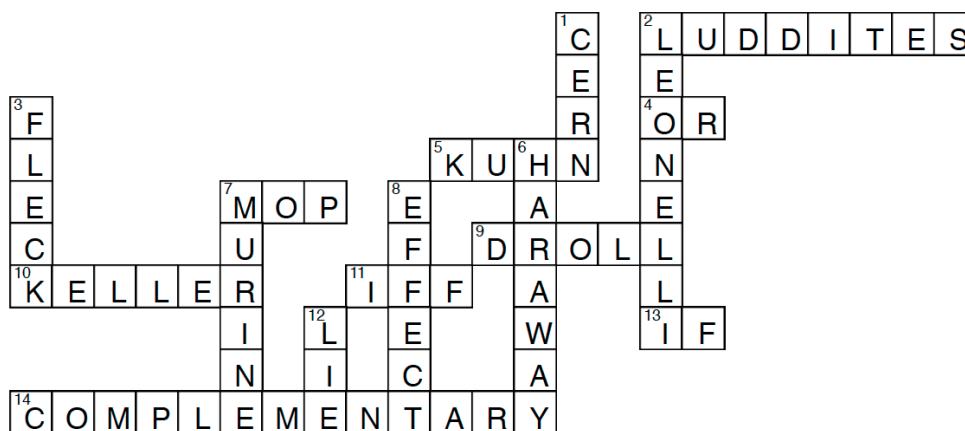
Where were or are you happiest?

In Milos, Greece - a place which has a lovely SPSP connection! Our formidable SPSP member Sophia Efstathiou recommended it to Hasok Chang and Gretchen Siglar, who recommended it to me. Fun fact: the island has a lovely conference centre, right by the beach. SPSP in Milos soon, anyone?

What is your greatest achievement?

Getting my current job, which was and remains the job of my dreams!

Solution to SPSP Crossword Vol. 11



ACROSS

- 2 They protested by destroying textile machinery
 4 Union
 5 Paradigm was a concept borrowed from art history by this man
 7 "--- up" work; this is what happens during 'normal' science
 9 SPSP is by other words fun
 10 She is a Fox of philosophy of biology
 11 Bi-conditional
 13 Conditional
 14 Science, not only medicine, can be this according to Chang

DOWN

- 1 A place for high-energy physics and casework for HPS
 2 She is a lion of philosophy of biology
 3 Famous for his Denktstil concept that paralleled paradigms
 6 A philosopher famous for situating knowledge
 7 Our companion species in lab science
 8 A cause usually has that
 12 We all know by now how the laws of physics do it