Philosophy of Science in Practice

Newsletter

№ 6

New (Academic) Year's Resolutions

Interview:
L.O.B.S.T.E.R
(*Limits and Objectivity of Scientific Foreknowledge: The Case of Energy Outlooks*)

Summer Conference Reports

Ethical, Legal, & Social Aspects of Science
and how Philosophy of Science fits in

Also Featuring:
James Griesemer

From the Editor

Dear SPSPers,

As some of you will (or hopefully will not) realize this edition of our newsletter is late to arrive at your inbox. And this is almost entirely my fault. There is simply too much to do. As I write this (from the lobby of the PSA between sessions upstairs and a trip to the Lego store) I am struck by how easy it is to loose oneself in the seemingly endless tasks that need to be accomplished—tasks that do no more than simply keep things on track. I know this theme will be familiar to some of you. My hope is that belated or not the arrival of our beautiful newsletter will serve as a break from these tasks. May it provide an excuse to take a break, learn something new and reflect on where SPSPer are and what we have accomplished by ticking things off those to-do lists. Here is some of what you will find inside:

- Mini History of Science lessons on the Tangent Galvanometer and Resistance Box
- Research at the Karlsruhe Institute of Technology: LOBSTER—LOVE the acronym
- Academic Resolutions for Graduate Students
- Our own Sabina Leonelli discusses her star worthy ERC grant
- Philosophy of Science and Ethical, Legal and Social Apects
- The Proust Questionnaire or All you ever wanted to know about James Griesemer
- **Information about the 5th SPSP conference in Aarhus over midsummer.**
  Organizers encourage the submission of symposia proposals!

Best Wishes,
Leah

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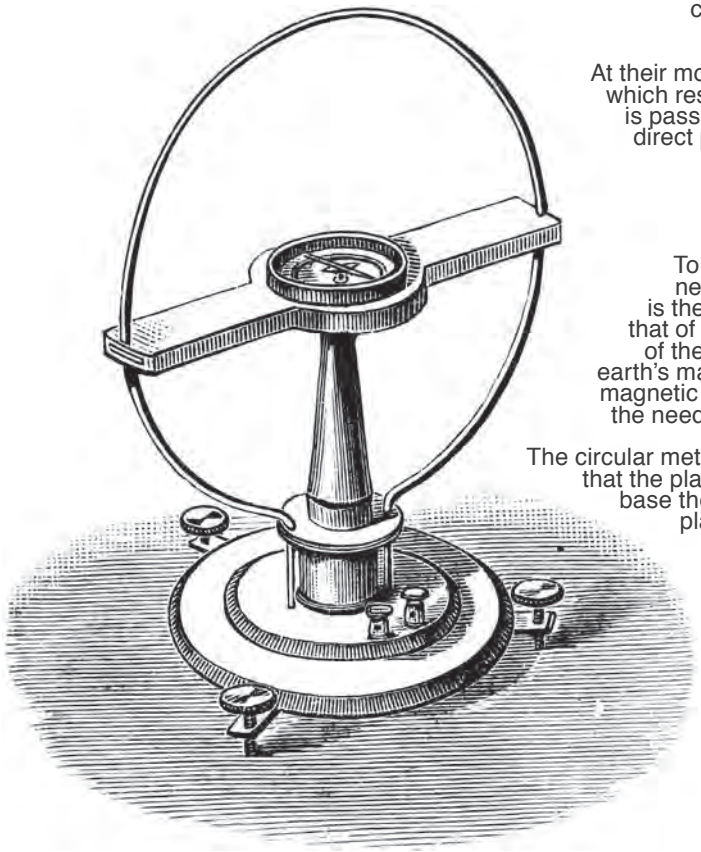
On the Cover: ***Tangent Galvanometer***



A galvanometer is an instrument used to detect and measure electric currents. Developed in the 1820s, they were named after Luigi Galvani, the 18th century Italian physician who pioneered studies in the role of 'Galvanism' – what we would now call bioelectricity – in organic bodies.

At their most basic, galvanometers consist of a coil adjacent to a magnetic needle, which rests on a pivot and is free to move along a calibrated scale. When current is passed through the coil it creates its own magnetic field, whose strength is in direct proportion to the current, and this interacts with, and moves, the needle. Tangent galvanometers were an early form of this type of instrument. In these, the current is carried through a coil that winds through a non-magnetic copper pipe, encircling the device perpendicular to the ground, with the rotating needle sitting in the middle.

To operate, the plane of the coil must first be aligned to be parallel with the needle, both in the plane of the earth's magnetic field. An unknown current is then allowed to flow through the coil, creating a magnetic field horizontal to that of the earth's. This creates an interaction between the two fields at the site of the compass needle, and the diffraction of the needle from the plane of the earth's magnetic field is proportional to the difference in strength between the two magnetic fields. This diffraction is measured as the *tangent* of the angle between the needle and the plane of earth's magnetic field, hence the instrument's name.

The circular metal feet below the base of the device are levelling screws, used to ensure that the plane of the coil is perpendicular to the ground. Where the stem meets the base there is a metal track, allowing the device to be rotated, aligning it with the plane of the magnetic field of the earth. Combined, these align the device to the horizontal and vertical components of earth's magnetic field, placing it at the local magnetic meridian. Many galvanometers were later made with a fixed permanent magnet, creating the second field and obviating the need to first align with the earth's magnetic field. The copper circle at the centre of the device is a compass with a needle, where the interaction between the fields will be observed. The compass must be in the direct centre of a perfectly spherical coil, in order to accurately measure the proportional strength of the field.

The device on the cover was made by Elliott Brothers,a London based instrument maker, ca. 1890. It was design for classroom demonstration.

The illustration on the left comes from a textbook from that same period. *Elroy M. Avery School Physics (New York: Sheldon & Co., 1895) 525.*

The Resistance Box

Like the galvanometer [cover], resistance boxes such as this would have once formed a standard part of the set up in physics laboratories. As a consequence, they are now very well represented in historical science collections.

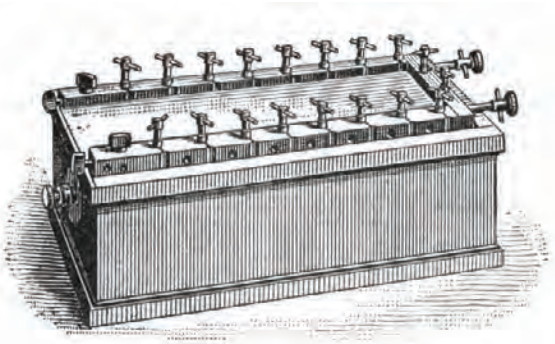
These devices allowed operators to add resistance into an electrical circuit in specific, discrete amounts, by the removal or insertion of the various plugs sticking out of the top.

Hidden inside the box is series of wire coils made of alloyed metal, wound so as to produce a specific resistance. Each coil, hanging underneath, spanned a gap between brass pieces embedded in the top of the box. When a plug was inserted in the gap, current flowed normally; but when the plug was removed, current flowed through the resistance coil. By different combinations, in steps of 1 ohm, any resistance from 0 to several hundred can be created by the box.

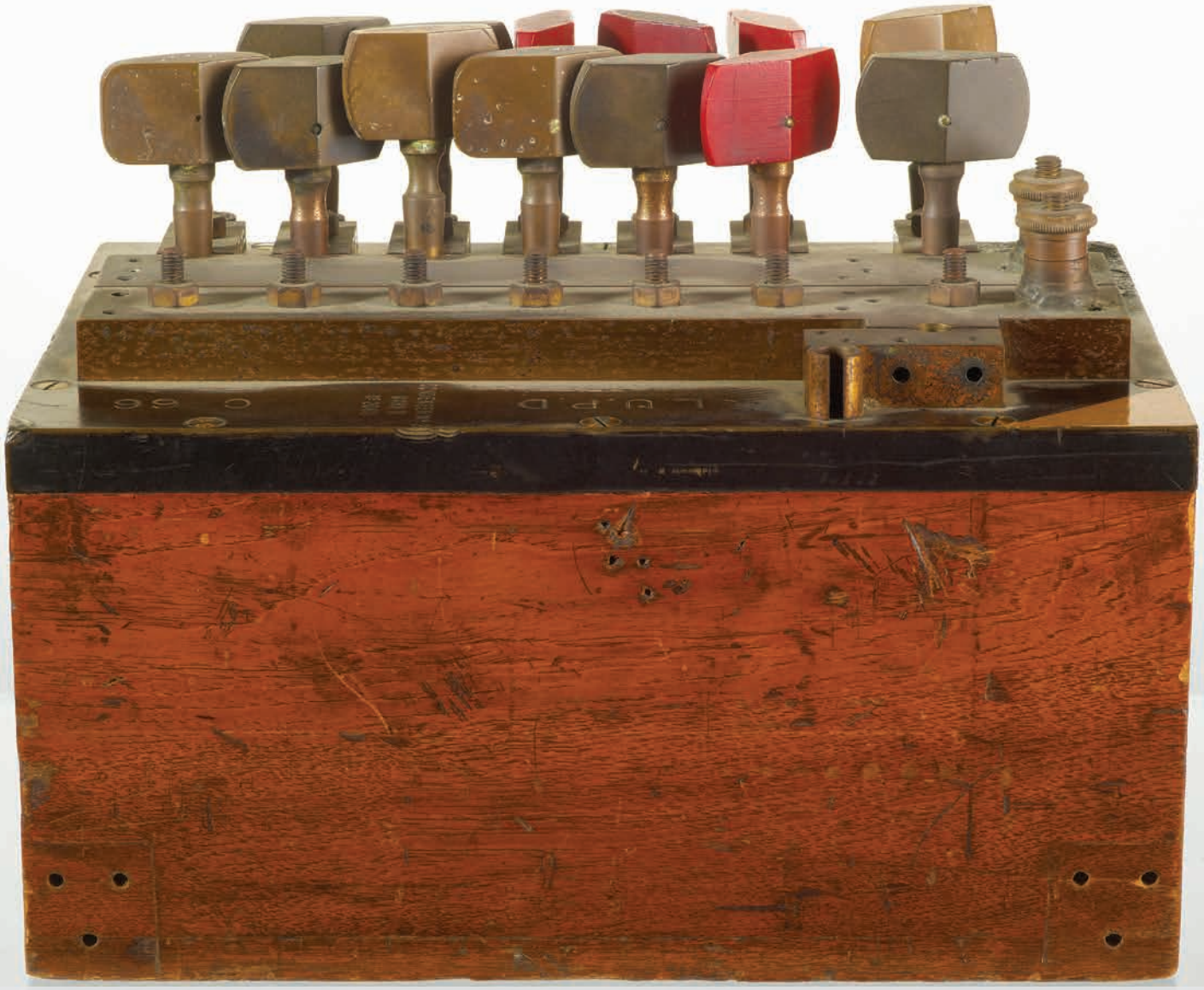
Controlling resistance in an electrical circuit is important, particularly when trying to measure the current or unknown resistance of another object, as in a famous 'Wheatstone Bridge' circuit.

This model, from the early 20th century, was used in teaching physics at the University of Leeds, and its well-worn exterior suggests it was in use well into the second half of the century. Over time this 'plug' type of resistance box was replaced by instruments simpler to use, with movable dials or, eventually, digital controls. Such developments, though, mean the working parts of the instrument become even more 'hidden' inside.

Mike Finn



drawing : Hawkins Electrical Guide (1917), Vol. 2, Theo Audel & Co., p.480



Talk of the Town

From national meetings to intimate workshops, our team has the details on this summer's academic events.

BRITISH SOCIETY FOR THE PHILOSOPHY OF SCIENCE

Fitzwilliam College, Cambridge
10-11 July

The 2014 British Society for the Philosophy of Science Annual Conference brought us to Fitzwilliam College, Cambridge, in early July. This year's BSPS was part of a trio of events for the college. The BSPS was followed by the 88th Joint Session of the Aristotelian Society and the Mind Association, which was itself followed by the annual conference of the British Society for Ethical Theory. An impressive number of philosophers stuck around for the Joint Session and, rumour has it, a few even went for the full triple.

Plenary sessions at the BSPS are always well attended. Paul Griffiths set the pace with a discussion of genetic causation. His ambitious attempt to combine the debate on genetic information with the debate on biological causality was well received, leading to a lively opening discussion. The day was capped by Peter Clark's presidential address, on logic, mathematics, and intuition. After an OUP-sponsored drinks reception, dinner, and an irresponsibly late night at the Fitzwilliam College pub (for some), day two was quickly upon us.

Laura Ruetsche and Christopher Pincock took to the podium for day two's plenary sessions. Ruetsche addressed naturalistic interpretations of quantum mechanics. Attendees of philosophy of science conferences who have not brushed up on their interpretations of quantum mechanics know how difficult these talks can be, but Ruetsche delivered an incredibly accessible yet detailed and careful paper, which was followed by questions from philosophers across sub-fields. Likewise Pincock's talk on inference to the best explanation seemed to interest philosophers of science of all stripes, and was an excellent capstone to the meeting.

The programme itself was an excellent balance. Biology, physics, chemistry, economics, and medicine all received their due, as did topics in the general philosophy of science. There was also a wide variety of approaches, from traditional metaphysics to naturalized metaphysics, from conceptual analysis to methodological analysis. The BSPSs policy of keeping a small selective conference with thorough abstract review continues to deliver a balanced and interesting programme.

Jordan Bartol

Fitzwilliam College, Cambridge

PERFORMANCE PHILOSOPHY SCHOOL OF ATHENS

Athens, Greece
15-16 March

Performance Philosophy is a community for people interested in performance arts and philosophy and in how philosophy can be engaged through performance. The workshop was organised by Stefania Mylona in collaboration with Michael Kliën and in association with Performance Philosophy that took place at the space of E.Δ.Ω. in Athens. The workshop started off through conversations between an analytic philosopher (Sophia Efstathiou) and performance philosopher (Stefania Mylona). The workshop invited contributors who mixed performance and philosophy approaches. Michael Kliën started off the event with his piece Personal Cosmolgies, a mix between a socratic elenchus and psychoanalytic process, where audience members asked a volunteer questions designed to elicit their 'personal cosmology' –an interesting process where one could see how different interlocutors' personalities were publicly performed through Q and A, with boundaries drawn so that questions were not of a personal but rather of a philosophical nature. Danae Theodoridou and Konstantina Georgelou used post-it notes posted on people to help us group into teams of like-thinking participants and reflect on what is missing from modern university education. We created a poster and presented it to the rest of the group –our team proposing that we do pop-up Ignorance lectures, where we tell students what we know we do not know... In their workshop later that day John Blamey and Stella Dimitrakopoulou urged participants to perform (and think about) truth: Not easier for dancers to specify than it is for logicians and perhaps tellingly so. Mimicking each other's gestures, for instance, conveyed and undermined what might pass for a 'correspondence' theory of truth at the same time. The main contributions were from theater, dance and performance scholars though quite a few read papers, like Bojana Cvejic and Sophia Lycouris. Sophia Efstathiou instead led an Ideobics routine with audience members following her cues for affirmative exercises –the claim being

that humans live by consuming both air and ideas, and that we need exercises that combine aerobic and ideobic exercise. Owen G. Parry discussed 'fictional realness' arguing that elaborated performances of a fictional race or gender can be seen to perform realness through fictional personas and practices. Finally a centerpiece of the workshop was the sculpture of George Gyparakis 'Take a Position', a bench constructed to make sound depending on how people sitting on it were positioned and whether or not they could reach an equilibrium position.

Sophia Efstathiou

'Take a Position' by Giorgos Gyparakis Occupied by attendees at Performance Philosophy School Athens

PREDICTION IN EPIDEMIOLOGY & HEALTHCARE

King's College London
20 June

Predicting what will happen is a central concern in epidemiology, health policy, public health, and clinical practice. Predictions are made about prognosis, about the benefits and harms of interventions and other exposures, about populations, and about individuals. As such, the principle aim of the workshop was to further develop this important theme in the philosophy of science and the philosophy of medicine.

Jonathan Fuller (University of Toronto), Luis Flores (King's College London), Alex Broadbent (University of Johannesburg), Jacob Stegenga (University of Utah), Elselijn Kingma (University of Southampton), Barbara Osimani (University of Camerino), Maël Lemoine (University of Tours), Federica Russo (University of Ferrara), and Jeremy Howick (Oxford) presented work on topics including: extrapolating from epidemiological studies, measuring effectiveness and harms, values in medical research, and the use of mechanisms in research and practice. The workshop confirmed that medical prediction is of growing philosophical interest, intimately connected to several active areas in the philosophy of science.

Federica Russo

28TH EUROPEAN SOCIETY FOR PHILOSOPHY OF MEDICINE & HEALTHCARE

Debrecen, Hungary
27-30 Auguest

The conference theme was "Bioethics and Biopolitics" with keynote speakers and conference contributions addressing the heritage of the Foucauldian notions biopolitics and biopower in contemporary bioethics and heath care practice. For instance Prof Georgios Papagounos noted the distinction between the concepts of bios and zoe, that in Greek convey a difference between social life and physical or biological life, and how the notions of bioethics and biopolitics ultimately emphasize social life issues. Conference participants came from central, east and south European countries, the UK and Canada. The topics discussed under the perspective of bioethics and biopolitics ranged. A special seminar led by Prof Wendy Austin (Alberta) and Dr Daniel Garros (Stollery Children's Hospital) discussed the film Just Keep Breathing, which was created using Canadian Research Council funds in collaboration with an intensive care pediatric unit to enable reflection on situations of moral distress. Moral distress was defined as the distress experienced by medical practitioners in cases where they have to follow guardians' wishes and regulation and perform (for instance) an operation or other procedure that they think is the 'wrong' action to take. Another special seminar organized by the Research group on the Ethos of Technology (RESET) at the Norwegian University of Science and Technology discussed the Ethos of Pesonalised Medicine touching on questions regarding informed consent, who owns genomic data, designing Randomised Control Trials using race/ethnicity subpopulations, constructing infrastructures for data handling, and ethical issues arising with technological mediation. Of general interest across contributions were issues to do end-of-life decisions, reproductive health issues, as well as the rights and duties to special groups such as illegal immigrants or children.

Federica Russo

NURTURING GENETICS: REFLECTIONS ON A CENTURY OF SCIENTIFIC AND SOCIAL CHANGE

University of Leeds
29 June - 2 July

Genetics - it ain't what it used to be. Nevertheless, what it used to be remains fundamentally important, for biologists, historians, wider society, and even that rare turnip, the philosopher of science in practice.

Recently researchers at the University of Leeds have been attempting a historically and philosophically informed experiment of their own. Dr Annie Jamieson and Professor Gregory Radick, wanted to find out what would happen to biology students if you dropped Mendel and his attractively simple inheritance ratios out of the picture, and instead began your module by focussing on development in all its sticky and context dependent complexity. To mark the completion of this project - the results of which will soon be published - they hosted a three day symposium, at which I attended, and of which this is a brief report.

It was all killer no filler. The symposium began with none other than Professor Evelyn Fox Keller on 'From Gene Action to Reactive Genomes'. You won't have to rely on me to report on the content of her paper, as it (and a good number of the others presented over the next two days) was video recorded, and will soon be made available online. Other speakers included Dr Chris Renwick, Dr James Tabery, Dr Helen Curry, Dr Steve Sturdy, Professor Gholson Lyon, Dr Barbara Potrata, Dr Niklas Gericke and Dr Jamieson herself. The last day was given over to a roundtable and discussion, in which the practical application of philosophy to contemporary political, pedagogical, and social problems, and the value of studying contemporary science - as it is actually practiced - with philosophical tools, featured medium to heavily. If it weren't for the fact that I have now reached my allocated word limit, I would reveal all the most important truths that emerged from these discussions, emphasising the particular lessons for philosophers of science in practice.

Dominic Berry

Performance Philosophy
Emulating the Quacker Circles of Friends

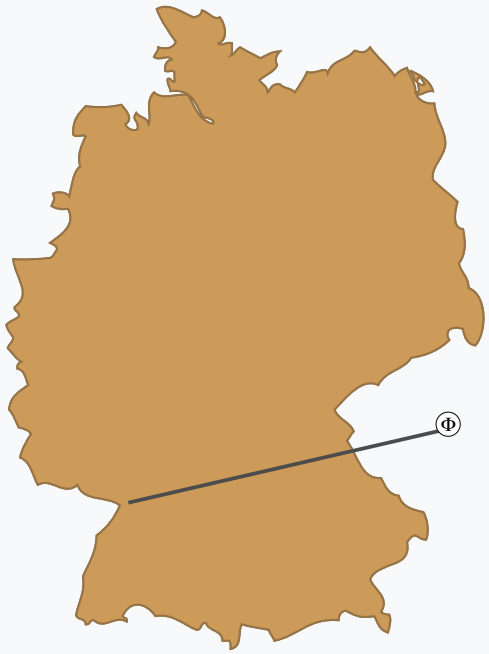
Philosophy of Science, in Practice *or* Philosophy of Science-in-Practice?

INTERVIEW:
L.O.B.S.T.E.R.
(Limits and Objectivity of Scientific Foreknowledge: The Case of Energy Outlooks)

Laszlo Kosolosky

The Society for Philosophy of Science in Practice is interested in philosophy of science from a practical perspective. Following John Dupré's presentation at our conference in Exeter (June 22-24, 2011), the study of science in practice tends to make two assumptions, i.e. (1) philosophy of science should be connected to science, and (2) there is more to science than published texts, i.e. practice. Nonetheless, as John discussed there are at least two distinct ways to study science in practice: philosophy-of-science in practice and philosophy of science-in-practice.

We invited the LOBSTER (Limits and Objectivity of Scientific Foreknowledge: The Case of Energy Outlooks), group at the Karlsruhe Institute of Technology (KIT, Karlsruhe`, Germany) to share their thoughts.



Can you give us a brief description of the LOBSTER group?

The LOBSTER group was founded four years ago at KIT with the original mission – reflected in its acronym – to assess ethical and methodological aspects of energy scenarios. Yet, it was clear from the beginning that we are not just interested in energy scenarios but rather want to investigate more general problems at the interface of science and society, which also arise in energy policy making but are clearly not restricted to it. Broadly speaking, we are trying to better understand (a) how to assess and articulate various scientific uncertainties in a policy-relevant way and (b) how to rationally deliberate and argue about policy options in the face of severe uncertainty and ignorance.

While these are the questions which tie the group together, there are various further topics we discuss on a regular basis: So, argument mapping (cf. www.argunet.org) and argumentation theory is something we're pursuing very actively and for quite some time now, Christian Voigt especially is pushing this (we're currently planning to establish a joint Lab with computer scientists on Argumentation Studies and Technologies); Basti Cacean and Gregor Betz are doing formal work in social and veritistic epistemology, including computer simulations; Anna Leuschner carries out and contributes detailed case studies on pluralism and values in science.

How does your work, as a group, fit in the distinction between pos-p v p-osp?

It seems to us that we are both doing Philosophy-of-Science in Practice (applied methodology) and Philosophy of Science-in-Practice (e.g. applied social epistemology and applied ethics of science and technology).

To give an example of pos-p: We're part of a graduate school on energy scenarios, where we mostly engage with scientists who construct and employ energy models. (And one LOBSTER-member, Monika Culka, is a former energy modeler.) Here, we try to improve the science of energy system modeling and the corresponding policy advice by introducing (fairly basic) insights or conceptual distinctions from philosophy of science; e.g. on the interpretation of probability

statements, on the methodology of possibilistic prediction, or on argument analysis.

Another example for a pos-p project is our engagement in a large interdisciplinary project on the German "Energiewende". Christian Dieckhoff is participating in the development of a scheme to evaluate energy scenarios in terms of methodological soundness (e.g. appropriate uncertainty treatment) and political usefulness (e.g. appropriate communication of uncertainties).

Our experience is that applied philosophy-of-science can really make a difference and is typically highly valued (especially by young scientists).

As to p-osp, we're thinking about how assessment reports for scientific policy advice should be written – and about the role scientists should play in this context.

As a matter of fact, we have quite a controversy about these questions, especially about the notorious "value free ideal", even within our small group. Another p-osp project, conducted by Frederike Neuber, assesses the moral controversy about developing and implementing climate engineering technologies.

What are your opinions, as a group, about the distinction itself?

It seems to us that the distinction is sensible and refers to different philosophical questions. However, we'd like to point out that you can (and should) do both pos-p and p-osp in close collaboration with scientists and scientific policy-advisors who struggle with and solve methodological and structural problems in science (and at its interface with policy-making) all the time.

In addition, pos-p can and should inform p-osp. A clear understanding of the methods and limits of a particular discipline or research field (pos-p) must inform an assessment of the role the corresponding experts (should) play in a democratic society. Or, in other words, applied social epistemology needs to be informed by applied methodology. In the same time, and the other way around, p-osp can help pos-p to identify societally significant methodological issues which are worth investigating.

Graduate Students, Speak Out! New (academic) Year's Resolutions

Jordan Bartol

The air is cooling, the days are getting shorter, and the campus is abuzz with parents 'helping' embarrassed 18-year-olds sign in at their dorms, pay their fees, and find the nearest IKEA. This can only mean one thing: It's a new academic year. Whether it's your first year as a graduate student or your fifth, it's time for some resolutions. New (academic) year's resolutions are tough, so here are five to get you started.

1) Work less (and more efficiently). Most grad students, at some point or another, will go through periods where they do not produce enough work. This happens easily enough and stems from a variety of causes, including writer's block, lack of motivation, and life just getting in the way. Yet one thing is absent from this list. Very rarely is a dearth of writing the result of too few hours spent working, thinking about working, or trying to get working.

In the 1950s British bureaucrat Cyril Northcote Parkinson wrote a comical essay in the Economist, in which he argued that the more resources given over to some body of work, the greater the resources demanded by that body. This is now known as Parkinson's law and is thought by many to apply to all manner of labor. Our work seems to demand so much of our time because we give so much of our time to it. Giving less time to the same body of work tends to shrink the body of work, meaning we get the same tasks done sooner, because their scope shrinks. Work less, get more done.

If increasing productivity is not enough motivation, how about improving your health? Overwork has disastrous health effects, as document in a recent WHO report <http://www.who.int/occupational_health/topics/brunpres0307.pdf>. Ill health brought on by too much work will only decrease productivity further, worsening the problem.

Most graduate students cannot get by with a 35 hour work week – or anything like it. But many could spend fewer hours at the desk, more productively. Play around with scheduling, list making, saying 'no', keeping regular hours, or any number of other tricks that are frequently suggested to improve productivity. Find the strategy that works for you.

If you still need convincing, consult Bertrand Russell's In Praise of Idleness

2) Deal with your impostor syndrome. Impostor syndrome is a psychological phenomenon wherein subjects are unable to recognize, internalise, or

otherwise identify with their own success or abilities. Impostor syndrome is widespread among academics and can be psychologically devastating.

Key to imposter syndrome is the maintenance of a feeling of inadequacy in the face of evidence to the contrary. The PhD programme to which you were admitted? They made a mistake, fooled by your application. That paper you published? The referees were lazy. The conference you attended? Your supervisor got you in. The respect of your peers? If they only knew! They are blind to your inadequacy.

The anxiety that comes from feelings of inadequacy is compounded by a fear of being found out. Eventually your supervisors, friends, and colleagues will realize that you do not belong.

To those unfamiliar with the problem, it is tempting to believe that simply recognizing the existence of impostor syndrome is sufficient to treat it. But things are not so simple. Impostor syndrome can also be cognitively impenetrable. Knowing that graduate students are disposed to impostor syndrome does not necessarily help. Suffers know that many others feel like impostors, but believe that they are the only ones who are truly frauds. It is not easy to change beliefs about one's self.

Various forms of therapy and peer support are effective techniques. Ultimately, the sufferer must come to internalize their own success and believe in their own abilities. This is not easy, but it is immensely important.

3) Get passionate about something else – anything else. Many graduate students give up their hobbies during graduate school, believing this will free them up to work longer and work harder. That's probably not true (see 1). It's also probably a bad idea.

Perhaps the belief is that one's hobbies will re-emerge after graduate school. If so, grads are probably not paying attention to the workloads of their supervisors. If you do not have time for your hobbies while writing a thesis, you will not have time for them when saddled with the burdens of an academic job.

If your hobby is physical activity, there is evidence that the hormone rush will do wonders for your creativity and focus. If your hobby is more artistic, there is evidence that the change in brain activity will benefit your work in the long-run. Whatever it is that you like to do, shifting neural gears every once and awhile will be beneficial.

Non-academic passions can also help get through those times when you lose interest in your academic work, or when there is an unexpected break in your academic work.

4) Check out a new area of philosophy or history or whatever it is that you do. What do you know about aesthetics, or medieval philosophy, or ethics, or critical theory, or Thomistic philosophy? There might be something interesting there.

You'll have covered a lot of ground during your undergrad. Perhaps you were a wunderkind, and still remember all that you learned in your survey courses. Even still, there will be areas of philosophy that you did not cover, areas that you deliberately avoided, or areas that you covered only superficially. As you'll now know, what happens in contemporary philosophy looks very little like what we teach to undergraduates. So go see what's up.

Engaging in new areas is easier than you think. Blogs are a great start, but workshops are even better. There is no rule that says you must be an expert to attend an academic event. Be an academic tourist! Philosophy of science in practice is not the only group of friendly academics. Most sub-disciplines are welcoming. You do not need to switch fields (you probably shouldn't) you just need to see some talks and get a feel for what happens on the other sides of the fence. Worst case scenario: You'll realize that other disciplines are not for you, re-affirming your commitment to whatever it is you currently do. Best case scenario: you meet some new academics, pick up some new tools, and expand your horizons.

5) Plan some travel. Nothing helps you get through the academic year like light at the end of the tunnel. They say that Scandinavia is a wonderful place to holiday. Try Denmark; in June. How about Aarhus? While you're there, why not check out the *Society for the Philosophy in Practice* meeting – 24-26 June. If you're attending the meeting, you might as well submit a paper – in between your hobbies, therapy, and horizon-expanding.

'Funding Wanted: A Philosopher Weighs In'

Sabina Leonelli talks to editor Leah McClimans about grant writing and her recent ERC Starting Grant "The Epistemology of Data-Intensive Science".

Grant writing is becoming an increasingly important skill to have, and yet it still isn't integrated into the philosophical post-graduate or early career experience as it is in other disciplines, e.g. natural or social sciences. Can you tell us about your preparation writing this grant?

Being a young(ish!) scholar in contemporary Britain, grant-writing is impossible to avoid - it is part and parcel of our academic evaluations and promotion structures by now. Ever since finishing my PhD and moving back to the UK, I was encouraged to cultivate an awareness of funding schemes that may fit my profile and projects. I was extremely lucky to work as a postdoc first with with Mary Morgan and then with John Dupre and Maureen O'Malley, all three were wonderful mentors who helped me enormously to navigate the chopped waters of applications. Particularly as a researcher at Egenis, which is now the Exeter Centre for the Study of the Life Sciences, it was imperative for me to look for external funding to be able to continue my research, as full-time teaching and lack of travel money would make it impossible to conduct the kind of empirical research and policy-related work that characterizes my work. John and Maureen taught me to start from smaller projects, which were more likely to be allocated to an inexperienced scholar and yet would provide me with a track record, relevant experience and a building block for future applications. They read through my texts and helped me to hone my language so that the projects would be more engaging and focused. One of the first grants I got in this vein was a British Academy small grant, which was immensely helpful as it enabled me to organise a conference and edit a special issue that started off my current project. At the time I was applying, the university did not provide much assistance except in the form of an experienced research administrator who would give me one-to-one feedback, so my training consisted mostly of trial-and-error (many, many trials!); since then, the system has improved and incorporates training classes, which I would certainly advise to attend when preparing one's first application.

What is the most important lesson you learned working on/submitting this grant?

I can think of three keywords to summarise my experience so far:

(1) patience: the percentage of grants that are funded is small and decisions about which 10% to fund out of the top 40% are relatively arbitrary, so do your best but do not expect applications to get through just because they are very good, and likewise do not be discouraged by failure (my ERC project failed on its first submission, and was only accepted after improvements on the second round). Also, patience means waiting for the right time to apply: you do not necessarily have to apply for grants all the time (no matter what your institutions tell you), rather think about what you wish to do in the long term and try to build the kind of track record that will enable you to do it.

(2) discernment: writing applications, particularly for bodies such as NSF or European Research Council, is very time-consuming, and a year can easily pass between submitting an application and starting a project. So do not apply to anything and everything on the spur of the moment, but rather target grants that are right for your career stage and for what you want to do in the long term (of course, once you have written an application that you strongly believe in, you can and should look for ways to improve it and recycle it if it fails on the first attempt). Play to your strengths and what you are enthusiastic about, as this typically shines through your application and is much more likely to convince referees, as well as to fulfill you as a scholar in the long run.

(3) vision: ask yourself what you really want to do and go for it - too often researchers who are desperate to get external funding end up signing up for projects that they later regret, and which do not bring them in the directions they want. Managing a project is also very time-consuming, and I don't think it pays to commit to projects that are far from your own intuitions and interests. Of

course, it can be immensely productive to become part of a relevant project that helps to build one's vision - this happened to me both for Henk de Regt's project on "Understanding Scientific Understanding" and in Mary Morgan's project "How Well Do Facts Travel?".

Since you were awarded the EU Starting Grant how has it or how do you think it will change your career?

Professionally: for better or worse, this kind of award carries prestige particularly within the natural sciences, which makes it easier to involve scientists in my work and discuss related themes with them and with policy-makers. I thus have both better financial means to carry out empirical research, and better access to the laboratories I am interested in. Personally: the absence of heavy teaching commitments makes it easier to look after my newborn daughter and 4-year-old son, though travel can be difficult and the ERC did not grant me maternity leave.

Most importantly for me, having this kind of blue-skies grant makes it possible to do what I love most, and my family enjoys having a happy mother!

SUMMARY OF 'THE EPISTEMOLOGY OF DATA-INTENSIVE SCIENCE'

The scale of scientific data production has massively increased over the last decades, raising urgent questions about how scientists are to transform the resulting masses of data into useful knowledge. A technical solution to this problem is offered by technologies for the storage, dissemination and handling of data over the internet, including online databases that enable scientists to retrieve and analyze vast amounts of data of potential relevance to their research. These technologies are having a profound effect on what counts as scientific knowledge and on how that knowledge is obtained and used. This is a step change in scientific methods, which scientists refer to as 'data-intensive' research. The characteristics and philosophical implications of this emerging way of doing science have not yet been extensively and systematically analyzed. This is partly due to the relative scarcity of empirical, qualitative research on how data disseminated online are actually used across scientific fields; and partly to the lack of scholarship bringing results from social and historical studies of data-intensive research to bear on philosophical accounts of scientific methods, practices and knowledge. This project aims to fill this gap by combining the analytic apparatus developed by philosophers of science with empirical, qualitative methods used by social scientists to investigate cutting-edge scientific practices. Building on the PI's previous work, we want to develop a philosophy of data-intensive science that clarifies how research practices are changing in the digital age, and examines how this affects current understandings of scientific epistemology within the philosophy of science and beyond. To this aim, we examine data practices, travels and uses across a variety of disciplines, including plant science, biomedicine, particle physics, climate science, environmental science, archeology and economics. In particular, we focus on the impact that the increasing reliance on online databases has on the travel and re-use of scientific data. While the overarching goal of the project is philosophical, we ground philosophical analysis on historical and social scientific methods and findings, and conduct research in collaboration with leading scholars in philosophy, history, sociology and anthropology of science. A more detailed description of this and related projects, as well as a lit of associated staff and outcomes, can be found on our website www.datastudies.eu .

AUXILLIARY HYPOTHESES FROM THE BJPS

The British Journal for the Philosophy of Science has had a new blog 'Auxilliary Hypotheses' since March, with a series of high calibre posts. From Beth Hannon, one of the editors:

"The philosophy of science is in rude health: new subdisciplines have been created, new questions are being asked, new relationships with the sciences are being formed. As editors for the British Journal of the Philosophy of Science, we get to read the very best of this new work. But not every philosophical concern is most appropriately dealt with in a journal article, and there are issues for the working lives of philosophers of science that are not the stuff of academic philosophy papers at all. Auxiliary Hypotheses is the BJPS blog where these topics can find a home. We are happy to publish on trends in (subfields of) philosophy of science, current news/science stories that link up with issues in the philosophy of science, informal philosophy of science conference reports, teaching philosophy of science, stories from the world of academic philosophy from a philosophy of science angle, and anything else that might take our fancy."

Many of the posts so far will be of interest to SPSP members, and include John Dupre on process ontology, Anna Alexandrova and Robert Northcott on modeling, Daniel Weiskopf on philosophy of psychology and cognitive science, and Jonathan Birch on defining 'organism'. Perhaps of particular interest to those interested in the methodology of interdisciplinary work, Ellen Clarke has written on her experiences as a philosopher of biology, the importance of getting lab experience, and how to read scientific papers. She also comments on a very interesting paper by Till Grüne-Yanoff on teaching philosophy of science to scientists that may also be of wide interest.

Philosophy of Science in Practice & the E.L.S.A. of Science

Sophia Efstathiou

An evolving body of work on Ethical Legal and Social Aspects of Science stands to benefit from philosophers of of science in practice.

SPSP has since its inception envisioned philosophy of science as coming close to practice –science practice, and practical application. One of the domains of work where social scientists and humanists are called to contribute to practical questions is ELSA or ELSI that stands for Ethical Legal and Social Aspects/Issues. Having been working in this area as a philosopher of science I wanted to share with you some of my impressions of the field and to consider specifically how a philosopher of science interested in practice might be able to contribute here.

The first so-called ELSI project was conceived as a part of the Human Genome Project (1990- circa 2003): the ELSI component got a small percentage of the total funding to examine the Ethical Legal and Social Issues arising with HGP research. Laying the groundwork for such an involvement was the rise of bioethics and applied ethics, institutionalized as part of biomedical research with the creation of Institutional Review Boards already in the 1980s.

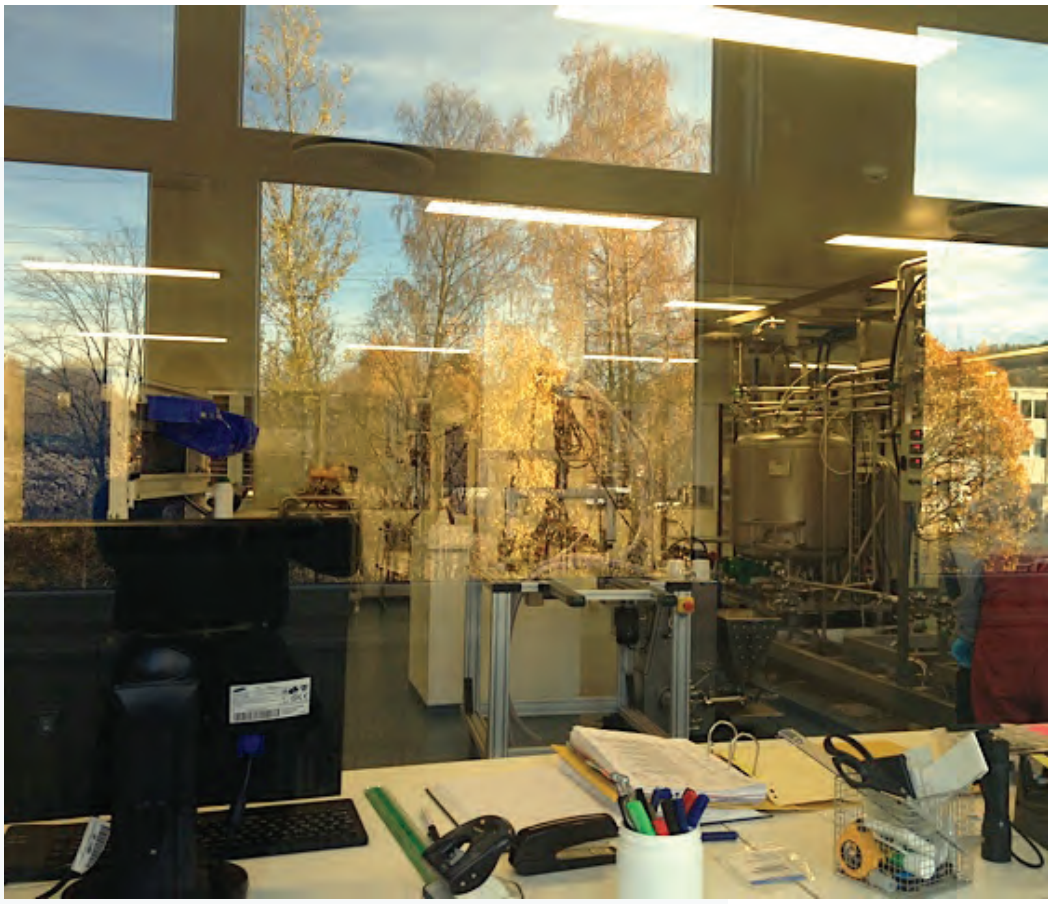
The organization of the original ELSI project has been criticized for a lack of power to enforce inputs in program planning. Still arguably, the perceived need for ELSI research boosted academic programs linking Science and Society with programs specifically on Science, Society and Genomics springing up in the EU and the US, for example the UK Genomics Network comprising Egenis; Innogen and Cesagen research centers in UK higher education institutions (http://www.genomicsnetwork.ac.uk/). General rationales for such work could be found in the works of Sheila Jasanoff , Helga Nowotny and Michael Gibbons, besides several philosophers of science who emphasize the importance of values and context for scientific development.

ELSI or ELSA add-ons to science projects are more typical of US funding structures. In Europe this kind of work is often undertaken by independent Technology Assessment (TA) institutes, like for example the Rathenau Institute in the Netherlands. There have been different methodologies proposed for Technology Assessment, both in Europe and in the US. For instance Constructive TA (Arie Rip), and Real-Time TA (David Guston) respectively propose that TA should be pursued during the construction of technology, or in real time alongside scientific work. One of the variants of the latter is Midstream Modulation that suggests a method for reflecting on choices made in the construction of technology roughly modeled after the Socratic elenchus (cf Eric Fisher's work).

ELSI/ELSA and TA approaches often see humanists and social scientists (hereby socio-humanists) as mediators between stakeholders or other societal actors and techno-scientists or technology actors.

The aim of the work is to build science and technology that are 'socially robust', and to anticipate –to the extent that this is possible– potential backlashes to developed technologies. A typical example used here is the development and introduction of genetically modified organisms in our agricultural and food markets and the losses that followed the bans that ensued. So one dimension of this work is picking up on and examining potential issues in scientific research that might be ethically or otherwise problematic for the application of a technology or scientific innovation before this has made it to play.

What about philosophy of science questions? As Nancy Tuana argues in a Synthese issue that followed the APA conference on Making Philosophy of Science More Socially Relevant, philosophy of science can be ideal for tackling the 'intrinsic ethics' of a science project. Tuana distinguishes between a. extrinsic ethics, b. procedural ethics and c. intrinsic ethics, as examining respectively a. ethical issues concerning societal impact or uptake, b. whether the design and research procedures of a project follow ethical guidelines and last c. the ethical implications of epistemic choices



The inside (and outside) of .....

made in a project.

It would be the latter that philosophers of science are good at picking out. As philosophers of science we are able to think about arguments and assumptions that bolster epistemic claims of scientific research and to reflect on their 'intrinsic' legitimacy. Further, with some empirical training and proclivity we can also work with issues surrounding the social context that the work takes place in, interviewing participants or engaging in ethnographic work on site, or also reading up on the legislation and procedures involved in research protocols. Besides multi-disciplinary training, what is key to undertaking such work is developing one's communication skills. A main target for one's outputs in ELSA work is local and project-specific, disseminating and discussing work with collaborators who are often coming from a different disciplinary backgrounds, besides publishing in one's own domain.

Of course questions concerning the need for/efficacy of ELSA persist. Norway is one of the few countries where ELSA work has been mandated for biotechnology projects getting public science funding. The latest BIOTEK2021 bioscience funding mandates all applicants to have an ELSA component, while NANO2021 the nanotechnology funding program expects applicants to have ELSA components or to argue that their project does not require one. In these schemes the ELSA component is part of the project, envisioned as a parallel work-package with its own research questions; managing possible tensions and competing interests that may arise within a project setting is left to the researchers to manage.

Our work as part of the Research group on the Ethos of Technology (RESET) takes as an entry point to considering science ethics the notion of ethos: scientific work is engaged in by participants who are (at least in part) motivated by methods, aims and results they deem 'good' or 'worth working with/for', while also considering risks and aspects of the work they do as problematic or in need of improvement. Exploring these dimensions of scientific work helps investigate its ethos. We employ empirical methods, like interviews, being 'embedded' in science work spaces or participating in meetings in order to understand and reflect on the ethos of the work, following up on issues that arise through real-time discussion and interaction –an approach which is different from participant observation and resembles action research more. This kind of process is often creative but it can also be confusing and frustrating, as one is dependent on others and working with others in a more integrated fashion than is usual in philosophy.

Whether it is worth it for us philosophers of science to engage in that work will surely be a highly contextual matter, depending on particular skills and interests of the philosopher, the availability and willingness of science collaborators to engage with our questions and critiques and the scope and resources available to the project. I for one am finding an area where philosophy of science could come to meet science practice, and engage scientists on issues we all find compelling: how to do good science and put it to use.

James Griesemer
TAKES OUR PROUST QUESTIONNAIRE

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'.

James Griesemer is Professor and former Chair of the Department of Philosophy at the University of California, Davis. He is a member of the UC Davis Science and Technology Studies Program and the Center for Population Biology. He is also Past-President of the International Society for History, Philosophy and Social Studies of Biology and a member of the Konrad Lorenz Institute for Evolution and Cognition Research in Altenberg Austria.

Who are your favorite heroes/ heroines of fiction?

Tough question. I would have to say one of them is Orlando in Virginia Woolf's novel: Orlando: A Biography. S/he is a true hero/heroine, starting out in the novel as a young man and lover of Elisabeth I in the 17th century and waking up later as a woman who lives, in various guises, through the 18th, 19th and into the 20th century to become a successful poet.

What is your favorite cuddle word?

I don't know a word for it.

What is your favorite music?

Even tougher question. Genres I like: jazz, rock, opera. I'm rather fond of Dave Brubeck's "Take Five," even though it is so frequently played. Traffic's "Feelin' Alright" as covered by Joe Cocker. And "Sweet Jane" by Lou Reed.

What profession would you like to attempt besides your own?

Hmm. I've thought of running a café or coffee roastery, though my brother is a coffee roaster and that's truly hard labor. I've also thought of bicycle repair, which used to bring on catharsis for me, but now I'm not sure I'd really want to try it as a profession. Maybe junk art sculpture. I made my first one last month and it was a lot of fun.

What sound or noise do you hate?

The sound of a one-sided cell phone conversation at the table next to me in a café.

What is your favorite food?

Coffee. Is that food? Food for thought, surely.

What was the most critical academic feedback you ever recieved?

Probably when Bill Wimsatt told me he didn't think my stuff on material models and Grinnell would go very far. I'm sure he doesn't remember that, but it stung at the time because I was staking my tenure case on it (as my post-dissertation direction) and there isn't anyone whose work or opinion I respect more than Bill's.

Where do you write your best work?

Hmm. I have my best ideas (in my opinion) right at the end of a shower, but I don't "write" there. I think I do my best typing at my little laptop table in the corner of my dining room early in the morning before anyone else in the house is awake.

What is your favourite entertainment?

Drinking coffee – no wait, that's part of working. Walking and people watching in distant places. Closely followed by watching videos or TV that require absolutely no thought whatsoever.

What is your favorite curse word?

Favorite, as opposed to most frequently uttered: balderdash. Most frequently uttered, as opposed to favorite: Scheisse.

If heaven exists, what would you like to hear god say to you at the pearly gates?

Books, coffee and friends are to your left, restrooms are down the hall to your right, garden is out the back door. Or maybe I'd like to hear the question for which the answer is: 42.

Call for Papers

SOCIETY FOR PHILOSOPHY OF SCIENCE IN PRACTICE (SPSP) FIFTH BIENNIAL CONFERENCE UNIVERSITY OF AARHUS, AARHUS, DENMARK

JUNE 24-26, 2015

Please submit paper or session proposals via spsp2015.au.dk/submission Notification of acceptance: 1 March 2015

Main Contact: Sabina Leonelli, S.Leonelli@exeter.ac.uk

Keynote speakers will include: Marcel Boumans (Eramus University of Rotterdam), Nancy J. Nerssessian (Georgia Institute of Technology), Hans-Jörg Rheinberger (Max Planck Institute for the History of Science), and Léna Soler (University of Paris-I)

The Society for Philosophy of Science in Practice (SPSP) is an interdisciplinary community of scholars who approach the philosophy of science with a focus on scientific practice and the practical uses of scientific knowledge. For further details on our objectives, see our mission statement.

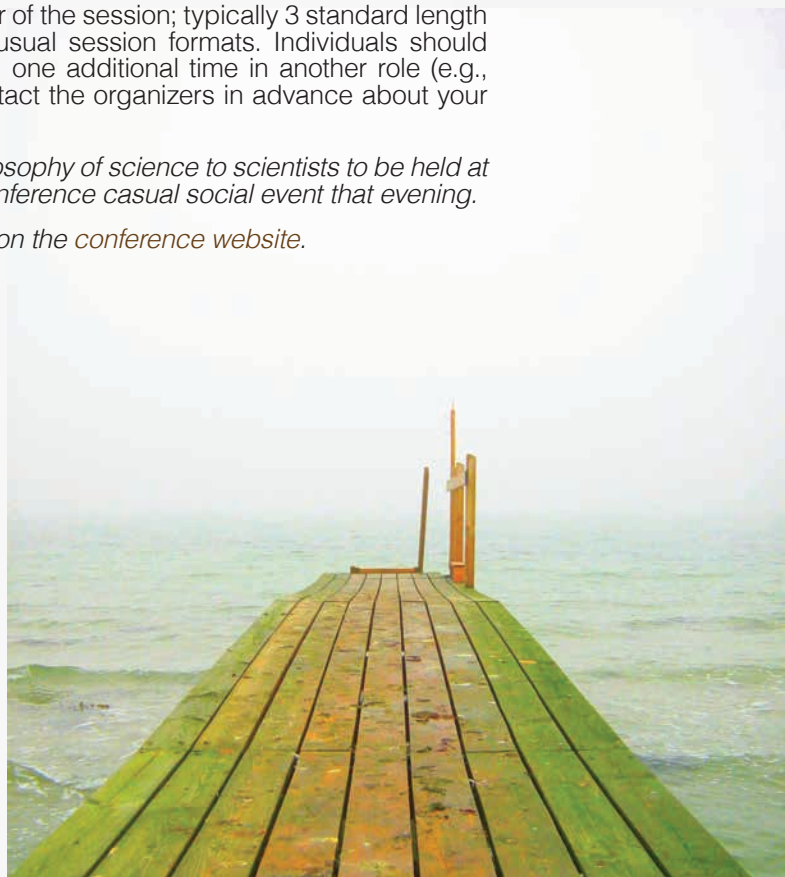
The SPSP conferences provide a broad forum for scholars committed to making detailed and systematic studies of scientific practices — neither dismissing concerns about truth and rationality, nor ignoring contextual and pragmatic factors. The conferences aim at cutting through traditional disciplinary barriers and developing novel approaches. We welcome contributions from not only philosophers of science, but also philosophers working in epistemology and ethics, as well as the philosophy of engineering, technology, medicine, agriculture, and other practical fields. Additionally, we welcome contributions from historians and sociologists of science, pure and applied scientists, and any others with an interest in philosophical questions regarding scientific practice.

We welcome both proposals for individual papers, and also strongly encourage proposals for whole, thematic sessions with coordinated papers, particularly those which include multiple disciplinary perspectives and/or input from scientific practitioners. You may wish to involve other members of SPSP (a listing is available on our website) or post a notice to the SPSP mailing list describing your area of interest and seeking other possible participants for a session proposal. (To post to this list or to receive updates on the conference, please subscribe to our mailing list)

Individual paper proposals must include a title and an abstract of 500 words, and full affiliation details and contact information for the author(s)/speaker(s). Session/symposia proposals must include an overall title for the session, a 250-500 words abstract of the session, and a 500-word abstract for each paper (or an equivalent amount of depth and detail, if the format of the proposed session is a less traditional one), and full affiliation details and contact information for each contributor. Session proposals should be submitted as a group by the organizer of the session; typically 3 standard length or 4 shorter papers can be accommodated within our usual session formats. Individuals should only appear on the programme once as presenters, and one additional time in another role (e.g., commentator, chair, or co-author). If in doubt, please contact the organizers in advance about your anticipated submissions.

There will be a pre-conference workshop on teaching philosophy of science to scientists to be held at Aarhus University, Aarhus on 23 June, as well as a pre-conference casual social event that evening.

For more information on local arrangements and updates on the conference website.



Foggy Day in Aarhus
Bjørn Giesenbauer

PSP Papers Online: Using PhilPapers

Dear SPSP members,

At the general assembly of our last conference in Toronto, many of you expressed the desire to have an online repository of papers that (1) were presented at one of the SPSP conferences and then published, so that you can trace them more easily if you wish to read them and cite them; and (2) are of general relevance to PSP work, so that you can see at a glance who has done this kind of work on themes of interest to you (e.g. who else has worked on experimentation?). To this aim, the SPSP organising committee has liased with PhilPapers, the main online repository for philosophy publications. They have a section called 'Scientific practice', which is now relatively sparsely populated and which we can use to disseminate SPSP-related publications. In order to add your own publications to this resource, please do the following:

(1) register into PhilPapers (which is free) and log in;
(2) add yourself to the list of philosophers whose webpages PhilPapers tracks;
(3) check which publications of yours are already listed, and make sure that you tag the relevant ones as 'Scientific Practice', so that they can be retrieved under that label (note that there are several subcategories under the main term 'scientific practice'; if you find that none of the subcategories matches your work, please alert me or the PhilPapers editors);
(4) add whichever publication may not be listed

A more detailed guide on how to use PhilPapers can be found here: http://philpapers.org/profile/starting.html

I really do hope that you will take an hour of your time to do this. Categorising papers under the right headings is particularly important, both because noone can do that better than the author, and because this is what will enable us to have, within PhilPapers, a reliable repository for all PSP-like work.

Last but not least: Moti Mizrahi has had to step down as editor for the PSP section of PhilPapers. If you would like to volunteer for that position, could you please contact me? It is not an onerous job and it is an opportunity to play a very helpful role in the SPSP community.

Sabina Leonelli (on behalf of the organising committee)

Is That a Philosopher or a Hipster?

Kierkegaard, Kant, Rorty [left]

Feyerabend and Lakatos texting correspondence [right]

Locke [top]

photos: Sophia Efstathiou