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Contents

Editorial

Dear Reasoners,

The *Joseph B. Gittler Award* was established by the *American Philosophical Association* and is given for "an outstanding scholarly contribution in the field of the philosophy of one or more of the social sciences". The 2018 winner was Francesco Guala for his (2016: *Understanding Institutions: The Science and Philosophy of Living Together*, Princeton University Press).

A philosopher of science by training, Francesco is professor of Political Economy at the Department of Philosophy at the University of Milan. He was kind enough to make time to talk about the main idea behind the book, and to share his very interesting take on the articulated relation between conomic theory, science and philosophy.

Hykel Hosni
University of Milan

Features

Interview with Francesco Guala

Hykel Hosni: Can you please tell us something about your background?

Francesco Guala: I grew up in a rather obscure city in the North of Italy, called Alessandria. In high school I studied classics, which I didn't particularly like, but I had a good teacher that got me interested in philosophy. After high school, I was unsure whether to apply to an economics or a philosophy degree (as we shall see, this has been a recurrent problem in my career!). In the end the decision was made irrationally: while I was on holiday my dad called me to say that the selection test of my preferred economics programme was scheduled for the following week. Since interrupting my vacation was out of question, I told him that I had decided to do philosophy. That's how I arrived at the University of Milan, where I graduated in 1994.

HH: How did you get into the philosophy of economics?

FG: As an undergraduate I was exposed to many styles of philosophy, but I was particularly attracted by the philosophy of science because of the entertaining lectures given by Giulio Giorello, who held the chair of Philosophy of Science back then. With hindsight, I realize that he gave us a very skewed and unrealistic picture of what the philosophy of science is

about – he was more interested in the history of ideas, broadly conceived. But that was probably a good thing: had he been lecturing about the Ravens Paradox or Reichenbach's Principle of the Common Cause, I would have run away as fast as possible! Anyway, a PhD student and TA in philosophy of science called Matteo Motterlini suggested that I should write my final dissertation on the philosophy of economics. (Matteo and I then became friends, colleagues, and even co-authors.) To find some material – there were no pdf's at the time – I went to the library of the London School of Economics and I decided that I wanted to apply to an MSc in History and Philosophy of Science (run jointly by King's College and the LSE). During that first year in London I was lucky to meet Philippe Mongin, Mary Morgan, Nancy Cartwright, Dan Hausman, among others, who convinced me that there were many interesting philosophical problems in economics. In 1995 I applied to the PhD programme at the LSE, with a project on the methodology of experimental economics. John Worrall would be my main supervisor for the next four years.

HH: What was your thesis all about?

FG: In my MSc dissertation I tried to interpret the development of contemporary decision theory using Lakatos' philosophy of mathematics. That dissertation became my first published article a few years later, and also the starting point for my PhD. Soon, however, I realised that the most important methodological problem in experimental economics is the so-called 'problem of parallelism' or 'external validity': How can experimental results obtained in highly peculiar circumstances be applied to situations that are quite different from those of the lab? This is a crucial question for every experimental branch of science, but for various reasons physicists, chemists and biologists have worried about it a lot less than social scientists and psychologists. Moreover, because of the perceived authority of natural science, philosophers have largely ignored it too. So here was a chance to tackle a key methodological issue about which very little had been done until then. I wouldn't say that I cracked the problem, but in my PhD dissertation and in the book that followed (*The Methodology of Experimental Economics*, Cambridge, 2005) there is a conceptual framework and (I hope) some hints at possible solutions. The work on models, causation and experiments done by Nancy Cartwright and the 'Stanford School' (Ian Hacking, Pat Suppes, John Dupré) was a major source of inspiration.

HH: And then?

FG: In 1999 I moved to the University of Exeter, where John Dupré and others were resuscitating philosophy teaching and research, a decade after the department had been shut down following Thatcher's cuts. I ended up staying nine years, and it was a tremendous experience, professionally and intellectually. John was a wonderful mentor, but I also learned a lot from Barry Barnes – one of the founders of the Strong Programme in sociology of science, and an extremely sophisticated philosopher – Nigel Pleasants, Massimo Mazzotti, and more generally from the interdisciplinary environment of the School of History, Politics and Sociology at Exeter.

HH: You seem to have predicted BREXIT . . .

FG: Definitely not! The decision to leave the UK resulted from personal and professional coincidences. I felt at home at Exeter, but at the same time I had the feeling that it was time to look for new stimuli elsewhere. Then my kids were beginning primary school, and we realized that within a few years our family would have become basically unmovable. So when the opportunity came up to return to Italy with an 'anti-brain-drain' scholarship, I took it. The department that was happiest to host me was Economics at the University of Milan. It was a fairly drastic and risky career move, but the conditions were also very nice: four years almost entirely devoted to research, with little teaching and no admin. It was like doing another PhD, but when you already know how to do research! With hindsight, it paid off nicely. While working with economists I have developed a better understanding of the strengths and weaknesses of economics as a science. I have also realised that philosophers and other critics often have an unrealistic, uninformed picture of the work done by social scientists. Now I officially hold a chair of Political Economy, which is weird given my training, but I am a member of the Philosophy Department. After many years, I still haven't decided what I want to be.

HH: Now to your latest achievement. You are the recipient of the 2018 Joseph B. Gittler Award for your book *Understanding Institutions: The Science and Philosophy of Living Together*. Can you tell us the story behind it?

FG: This is a more recent interest, which emerged slowly over the years. While working on methodology, in the early 2000s, I started various collaborations with experimental economists, because I wanted to learn how experiments are actually done (you can't get that from reading papers alone). I have done experiments on cooperation and coordination, which have convinced me of the importance of institutions in promoting and sustaining human sociality. There were obvious connections between these experiments and the work of philosophers like Brian Skyrms and Cristina Bicchieri, or game theorists like Bob Sugden and Ken Binmore. Meanwhile, a completely disjoint philosophical literature on institutions had emerged in a new field called "social ontology", mainly thanks to the work of John Searle, Raimo Tuomela, Margaret Gilbert, among others. The fact that these two debates seemed to proceed on completely separate paths puzzled me. It took me a while to realise that the two approaches were in fact complementary: the "eureka" moment was a seminar given by Frank Hindriks in Milan in 2011, in which he explained how Searle's theory could be decomposed into simpler elements which are not unlike those used by David Lewis in his famous theory of conventions. Frank and I started a fruitful collaboration which has led to the theory of institutions as "rules in equilibrium", and to various joint papers that keep coming out.

HH: Do you think the philosophy of the science of living together – to paraphrase the subtitle of your book – has something peculiar to it, or is it just philosophy of science in the singular?

FG: The philosophy of science has become increasingly disunified as a field of research, since it has become clear that we are running out of general truths about science or scientific method. The devil is in the detail, so philosophers must delve deeply in the theories and practices of the special sciences. But there is a sense in which what we do is continuous with what the originators of the discipline started in the first half of the twentieth century. I see my current work as belonging to "scientific

metaphysics", which is definitely a traditional part of philosophy of science. Like physics and biology, the social sciences present us with a picture of the world that is often perplexing, incomplete, incoherent, and which requires a lot of interpretation. Philosophers have an important role to play here. Their job has become particularly important lately, due to the revival of "philosophical" metaphysics inspired by influential thinkers like David Lewis, David Armstrong, or Peter van Inwagen. I am rather critical of this development, which I think is a regressive attempt to insulate philosophy from science. It has licenced a lot of scholastic puzzle-solving that lacks any useful application. And when it has engaged with science, it has done so superficially. This attitude has found a fertile terrain in social ontology, because many philosophers think that the social sciences are not even worth taking seriously. But it's a complacent and mistaken attitude: the work that I have done in the past ten years or so is an attempt to change people's mind about it.

HH: We often read in newspapers and political commentaries that the status of economic theory as a science is very often questioned. How would you react to such a challenge?

FG: I have an old-fashioned view: economists' predictions and interventions sometimes fail because they have to deal with complex systems about which we can only have imperfect information. If you think about it, most of the reliable, predictable technology that we use – like the computer in front of me – is based on causal knowledge that has been gathered in the laboratory, then turned into a machine that works smoothly only as long as it remains isolated from external interferences. (If you don't believe me, take the hard-drive of your PC out of its shell, and leave it in your garden for a week!) When social scientists can work with simple isolated systems, their results are not much worse than those of natural scientists. This is an important lesson of experimental economics, I think, and of so-called "mechanism design" – the area of economics devoted to the creation of new mechanisms for the allocation of services and commodities. In the right conditions, economists' models work, but you cannot expect them to work always and everywhere. The problem is that some tricky forecasts, like the level of GDP growth in Italy next year, are simply unavoidable. And when we get them wrong, the consequences may be dreadful. In contrast, if a physicists fails to estimate the size of a far-away star nobody cares – we don't even get to know about it, in fact. Let me clarify that this does not exculpate economists entirely: there are huge problems of communication between the experts and the general public, exacerbated by the arrogance of some economists when they offer policy advice. Like many other scientists, they are terrible at conveying the nuances of scientific knowledge, or at distinguishing between solid results and controversial ideas. After 2008 this has become a major liability, which the profession should better address, quickly. There is a mature and sophisticated discussion of these issues in Dani Rodrik's nice book, (2015: *Economics Rules* Norton & Co.), which I highly recommend.

HH: What is your advice to postgraduate students with an interest in the philosophy of economics and the social sciences?

FG: First of all, I would say: good choice! This may not be the most prestigious branch of philosophy, but it is one of the few where you deal with important issues, and you can make a difference. Then the advice: make sure that you achieve a proper understanding of the science you are working on. Spend time with social scientists, if possible work for a while in one of their departments, and teach introductory courses to undergraduates. But, at the same time, do not *become* a social scientist or economist: philosophers have useful skills that most scientists lack, beginning with the capacity to ask general questions. Remain curious, read a lot, especially outside your area of expertise. Technical skills are important, but they are a only means to understand the world and how we get to know the world. When scholasticism and technicality become ends in themselves, both in science and in philosophy, it's time to do something else.

HH: Is there a paper of yours which you consider to have received far less attention than it deserved?

FG: I have come to the conclusion that as authors we are least capable to understand the value of our own work. Some papers which I was extremely excited about have flopped miserably, while others that I thought were of average quality have received hundreds of citations. I do believe that research is a trial-and-error process: we come up with ideas, and try to convince others that they are worth taking seriously. But in the end, it's their judgment that counts.

HH: Can you recommend a book to those readers of The Reasoner who want to delve a bit more in the philosophy of economics?

FG: The last book that I have read from cover to cover is Robert Sugden (2018: *The Community of Advantage: A Behavioural Economist's Defence of the Market*, Oxford.). Bob has always been an example for me: trained as a historian, he has become a leading economic theorist, one of the pioneers of experimental economics, and he is an impressive philosopher too. This book is full of surprising ideas, but the most incredible one is that rationality does not matter for normative analysis – you can do welfare economics even if people's preferences are inconsistent. Everybody should read it, especially those who don't believe it.

News

Calls for Papers

Computational Modeling in Philosophy: special issue of *Synthese*, deadline 1 March.

Thought Experiments in the History of Philosophy of Science: special issue of *HOPOS*, deadline 31 March.

HaPoC 2019: 5th International Conference on the History and Philosophy of Computing: , deadline 30 April.

Folk Psychology: Pluralistic Approaches: special issue of *Synthese*, deadline 15 May.

Imprecise Probabilities, Logic and Rationality: special issue of *International Journal of Approximate Reasoning*, deadline 1 June.

Nancy Cartwright's Philosophy of Science: special issue of *Theoria*, deadline 1 November.

What's Hot in ...

Medieval Reasoning

[Continuing...]

Just as with Lady Philosophy – or possibly even more so – several of Logic's more or less committed lovers entertain the notion that their beloved remains eternally beautiful and true, i.e. that there is some unchangeable set of core features that make up Logic. Maybe this common attitude in thinking

about Logic is due, at least in part, to the normative persuasion that Logic has always seemed to have. Or perhaps it's because of the mathematical attire that Logic has put on in her modern incarnation. And certainly the fact that those devoted suitors of Logic often seem to believe her to be a young lady, born around 1879 or a handful of years earlier, reassures them in their belief of her unchanging nature and eternality – no matter how said belief is at odds both with Logic's supposed young age and with the numerous deep changes that she has undeniably gone through during her presumedly short life.

Philosophy is undeniably a silver fox, or a snake who has shed her skin and reinvented herself a few times too many; but as of now there aren't many radical ongoing disagreements about what Philosophy is or is supposed to be – not so much about Logic, though. Even without committing to a form of logical pluralism – or especially then – many may even agree about Logic being in some sense normative. However, they disagree a lot about what the actual norms are, and overall about what Logic *really* is. At the end of the day, paraphrasing Anandi Hattiangadi, we are not even able to provide an adequate account of what we disagree about when we disagree about logic. (If you are curious about logical disagreement and want to go through a recent overview, go check out her chapter in C. McHugh – J. Way – D. Whiting (eds.), *Metaepistemology*, Oxford 2018). To complicate matters even further, if we look back at those long centuries between roughly Aristotle's time and the publication of Frege's *Begriffsschrift*, we find a bunch of folks claiming to be doing logic and debating about what that is as well as what it's supposed to be. At this point, Logic's fashion sense is on a different wavelength: she appears draped in a regimented version of ordinary language and sometimes she goes a little heavy on the ontology. Yet, she is still mainly about figuring out what follows validly from what, she is conflicted about what counts as *formal*, as well as what she *should* be doing with herself. Overall, traditional Logic is both recognisable enough for a modern reader to perceive her as something very much like a three-for-one deal combining Logic, metalogic and philosophy logic, or as what we would call *reasoning* at the very least. But traditional Logic is also *other* and different enough that sometimes we don't really grasp what's going on and have no idea about what to make of it. Many historians of medieval logic in particular are quite convinced that the object of their studies is not logic at all, but something else entirely that happens to be "logic" in a merely equivocal sense – see, for example, Laurent Cessali's "What is Medieval Logic After All? Towards a Scientific Use of Natural Language" and "Postscript: Medieval Logic as Sprachphilosophie" in *Bulletin de Philosophie Médiévale* 52 (2010), respectively p. 49-53 and 117-132. Personally, I think that there are several historical and philosophical reasons to be weary of this kind of approach – but this is a topic for another issue. Overall, I much prefer Paul Vincent Spade's way of framing the problem (paraphrasing): "They called it logic, and they were there first". Taking the self-proclaimed logicians of the past seriously – at least insofar as they claim to be logicians! – we might actually try to asses whether Logic is neither as young as she is often made out to be nor a series of identity thieves stealing one name to carry on very different lives. Over the course of her long existence, Philosophy has had a few drastic makeovers but has remained – for the most part – recognisable in her evolution, without any harsh breaks in continuity. While it would be unwarranted to claim that Logic has simply put on a fancy new dress embroidered with mathematical symbolism, she might have gone through a more radical and extreme version of the process Philosophy went through, with some breaks in continuity, to the point that she doesn't look like herself anymore, but rather like a distant cousin. Who knows, maybe reconstructing the details of what Logic was and her changes over time could help us deal with our own disagreements and figure out what else Logic could be. It would probably still be better than holding onto the conviction that Logic is eternal: "if logic is eternal, then it can wait" (attributed to Oliver Heaviside), but a lady should never be left waiting!

Graziana Ciola
UCLA

Evidence-Based Medicine

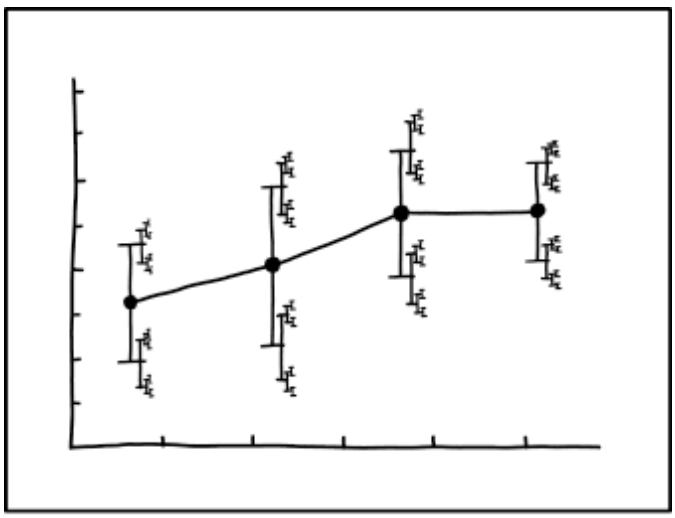
In my first what's hot column exactly a year ago, I wrote about the severe 2017-18 flu season, one which saw a four-fold increase in visits to GPs. I also wrote about the effectiveness of flu vaccines, and the reasons for why we see variable effectiveness year by year. In celebration of my The Reasoner anniversary, I return this month to consider the flu, the severity of the 2018-19 season, and the success of the monitoring and vaccination programme.

In contrast to last year, the UK flu season has not seen as many cases. Visits to GPs are down on last year. However, hospitalisations due to the flu have hit similar levels, meaning a greater proportion of those who do contract the flu are getting very sick. This has been confirmed by observations of clinicians in intensive care units - this year the flu itself seems to be very severe. As a reminder, the reason why we see limited effectiveness of vaccines, and differences in severity of outbreaks year on year is that different strains of influenza virus are circulating and doing so in different proportions year on year. These strains differ in the version of Haemagluttinin (H) or Neuroaminidase (N) protein it has on it's surface, hence the familiar description of a yearly flu virus as H1N1, H2N2, H3N2 etc. Vaccines must match the composition of the virus for it to be effective. To achieve this matching the WHO maintains year long monitoring of what strains are prevalent. As the northern and southern hemisphere experience flu season at different times of the year, if a new strain becomes prevalent during one hemisphere's season it can be predicted whether it will become prevalent in the other hemisphere. This monitoring programme also uses evidence from virology and genetics to help predict what sort of changes in strain composition can be expected. This synthesis of different kinds of evidence is vital to secure the success of vaccination programmes, but is not always successful. Last year, the severity of the outbreak was partly attributed to not completely matching the strains present during the outbreak.

Is that the case this year? It does not appear to be so. The influenza strains predicted to be present in the greatest proportions were H1N1pdm09 and H2N3, which have been observed

in 72% and 28% of cases, respectively. Those who have been vaccinated have a high likelihood of beating the flu. Of course, vaccination is not recommended for everyone, rather it is reocmmended for those most vulnerable to infection - the old and young, the immunocompromised, and health workers. But if the vaccination is successful for those people, then it is less likely that the virus will enter into the wider population. This predictive success may explain why less people are visiting the GP for the flu. So why has the outbreak been so severe for those who have caught the virus? This can be explained by the particular kinds of strains that have been predominant. H1N1pdm09 is more commonly known as swine flu - anyone old enough to remember all the way back to 2009 will remember what sort of scare this kind of flu caused. H2N3 is a kind of avian flu. Both swine and avian flu are dangerous as they are recent zoonotic transfers - the virus has mutated sufficiently to be able to cross over from its typical host animal into humans. Such transfers are typically associated with an increase in virulence over the strains that exist normally in humans. It should be noted that the kind of avian flu presently circulating is not what has been termed 'bird flu' in the popular press. Bird flu is H1N5 and presents a kind of influenza strain not present yet in humans, but comes with promises of extreme virulence if it does cross over. So even though the strains in the vaccines match those in the population quite well, if one is unlucky enough to catch the flu it will be a particularly virulent strain. Flu vaccines, even when well matched are never completely effective for a number of reasons. But the nuances of this years flu season do highlight quite well the importance of both continuing to vaccinate the most vulnerable, and to use all the evidential resources available to us to predict what the next season's strain will be. If we had not matched the vaccines this year, a lot more people would be exposed to these virulent viruses, and we would have observed an increase in number of cases alongside the severity of each case - a mix of epidemic proportions.

D.J. Auker-Howlett
Philosophy, Kent



Events

March

IQM: Interpreting Quantum Mechanics: Old and New Philosophical Problems, Politecnico di Milano, Italy, 11 March.
PhiMet: Workshop on Philosophical Methodology, Barcelona, 14–15 March.
ArgMap: Argument Mapping, Nova University of Lisbon, 15–18 March.
BCF: Beyond Curve Fitting: Causation, Counterfactuals, and Imagination-based AI, Stanford, California, 25–27 March.
PTS3: Proof-Theoretic Semantics: Assessment and Future Perspectives, Tbingen, Germany, 27–30 March.
M-S PoS: Mid-South Philosophy of Science Network, Lexington, Kentucky, 29–30 March.

April

LoE: Workshop on Levels of Explanation, University of Birmingham, 3 April.
ResLog: Reasoning, Argumentation and Logic in Natural Language: Experiments and Models, Ruhr University Bochum, 3–5 April.
Formal Methods and Science in Philosophy III, Dubrovnik, Croatia: 11–13 April,
.MA: Conference on Mathematical Ability, Utrecht University, 17 April.

May

TiPoB: Recent Trends in the Philosophy of Biology, Bilkent University, 17–18 May.
PPoMK: Philosophical Perspectives on Medical Knowledge, University of Genoa, Italy, 28 May.
LogiDis: Workshop on Logical Disagreements, University of Bergen, 28–29 May.

Courses and Programmes

Courses

SSA: Summer School on Argumentation: Computational and Linguistic Perspectives on Argumentation, Warsaw, Poland, 6–10 September.

Programmes

APhil: MA/PhD in Analytic Philosophy, University of Barcelona.
Master Programme: MA in Pure and Applied Logic, University of Barcelona.
Doctoral Programme in Philosophy: Language, Mind and Practice, Department of Philosophy, University of Zurich, Switzerland.
Doctoral Programme in Philosophy: Department of Philosophy, University of Milan, Italy.
LogiCS: Joint doctoral program on Logical Methods in Computer Science, TU Wien, TU Graz, and JKU Linz, Austria.
HPSM: MA in the History and Philosophy of Science and Medicine, Durham University.
Master Programme: in Statistics, University College Dublin.

LoPhiSC: Master in Logic, Philosophy of Science and Epistemology, Pantheon-Sorbonne University (Paris 1) and Paris-Sorbonne University (Paris 4).
Master Programme: in Artificial Intelligence, Radboud University Nijmegen, the Netherlands.
Master Programme: Philosophy and Economics, Institute of Philosophy, University of Bayreuth.
MA in Cognitive Science: School of Politics, International Studies and Philosophy, Queen's University Belfast.
MA in Logic and the Philosophy of Mathematics: Department of Philosophy, University of Bristol.
MA Programmes: in Philosophy of Science, University of Leeds.
MA in Logic and Philosophy of Science: Faculty of Philosophy, Philosophy of Science and Study of Religion, LMU Munich.
MA in Logic and Theory of Science: Department of Logic of the Eotvos Lorand University, Budapest, Hungary.
MA in Metaphysics, Language, and Mind: Department of Philosophy, University of Liverpool.
MA in Mind, Brain and Learning: Westminster Institute of Education, Oxford Brookes University.
MA in Philosophy: by research, Tilburg University.
MA in Philosophy, Science and Society: TiLPS, Tilburg University.
MA in Philosophy of Biological and Cognitive Sciences: Department of Philosophy, University of Bristol.
MA in Rhetoric: School of Journalism, Media and Communication, University of Central Lancashire.
MA programmes: in Philosophy of Language and Linguistics, and Philosophy of Mind and Psychology, University of Birmingham.
MRes in Methods and Practices of Philosophical Research: Northern Institute of Philosophy, University of Aberdeen.
MSc in Applied Statistics: Department of Economics, Mathematics and Statistics, Birkbeck, University of London.
MSc in Applied Statistics and Datamining: School of Mathematics and Statistics, University of St Andrews.
MSc in Artificial Intelligence: Faculty of Engineering, University of Leeds.
MSc in Cognitive & Decision Sciences: Psychology, University College London.
MSc in Cognitive Systems: Language, Learning, and Reasoning, University of Potsdam.
MSc in Cognitive Science: University of Osnabrück, Germany.
MSc in Cognitive Psychology/Neuropsychology: School of Psychology, University of Kent.
MSc in Logic: Institute for Logic, Language and Computation, University of Amsterdam.
MSc in Mind, Language & Embodied Cognition: School of Philosophy, Psychology and Language Sciences, University of Edinburgh.
MSc in Philosophy of Science, Technology and Society: University of Twente, The Netherlands.
MRes in Cognitive Science and Humanities: Language, Communication and Organization: Institute for Logic, Cognition, Language, and Information, University of the Basque Country (Donostia San Sebastián).
Open Mind: International School of Advanced Studies in Cognitive Sciences, University of Bucharest.
Research Master in Philosophy and Economics: Erasmus University Rotterdam, The Netherlands.

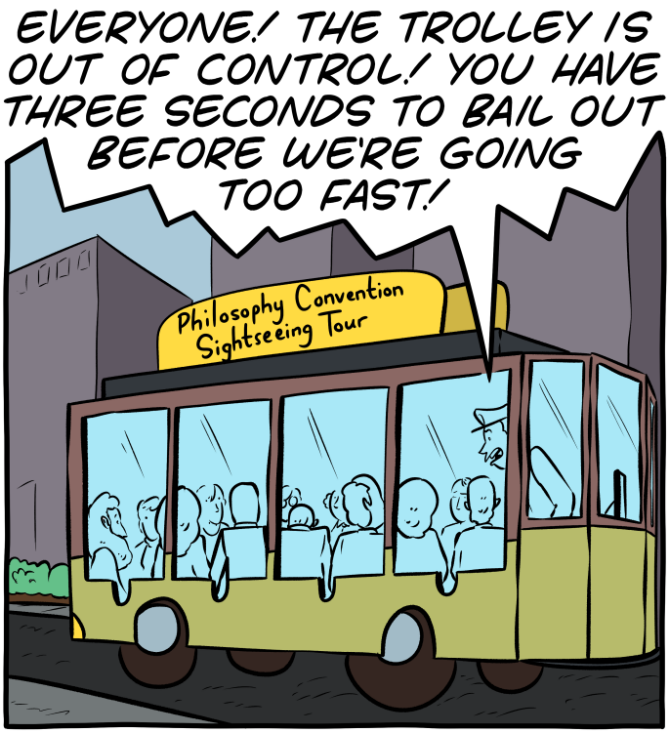
Jobs and Studentships

Jobs

Post doc: in Climate Models, Royal Institute of Technology, Stockholm, deadline 11 March.
Research Associate: in Metaphysics of Science, University of Bristol, deadline 11 March.
Post doc: in Methodology of Modal Modeling, Royal Institute of Technology, Stockholm, deadline 12 March.

Studentships

PhD: in Causal Inference, University of Sheffield, deadline 1 March.
PhD position: in Philosophy of Science, University of Sofia, deadline 31 March.



By the time we realized it wasn't a thought experiment, it was too late.