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EDITORIAL

Hello everybody, I'm back. As the guest editor of this issue of *The Reasoner*, I have the great pleasure to interview my friend and ex-colleague Francesco (Franz) Berto, Professor of Metaphysics at the University of Amsterdam. I first met Franz in Sydney a few years ago, when he gave a talk at Sydney University. After that, we were simultaneously hired at Aberdeen in 2009, so we became colleagues for a while both at the Department of Philosophy and at the Northern Institute of Philosophy (which now doesn't



exist any longer). In 2014 Franz was offered a Professorial position at Amsterdam. He has been incredibly successful with research grants in his career. In 2013 he was awarded simultaneously a Leverhulme Trust Grant and an AHRC Early Researcher Grant. And in 2016 an ERC consolidator grant. In this interview, I would like to ask Franz questions about his career but also about general philosophical issues related to his multifaceted research activity. I will lastly return to the topic of research grants.

LUCA MORETTI

University of Aberdeen

FEATURES

Interview with Francesco Berto

Luca Moretti: Hi Franz, could you please tell us something about your academic career?

Francesco Berto: My career has been extremely lucky. I got my PhD from the University of Venice, Italy, in 2004. Then a two-year postdoc at the University of Padua, after which I found myself jobless in Italy. But I was lucky enough to get a so-called 'Chaire d'Éxcellence' Postdoctoral Fellowship in Paris, at the CNRS, from 2007 to 2009. There I did mostly ontology with Friederike Moltmann, a philosopher and linguist. In 2009 I applied for a lectureship in Scotland, for I knew that Crispin Wright was moving to Aberdeen to set up a new research centre: the Northern Institute of Philosophy. Again, I was lucky enough to get the job, and I worked there until the end of 2013. In the middle of this, I also spent one year in the US, at the University of Notre Dame (IN), as a fellow of their Institute for Advanced Study, and I also got a research grant in Venice again. In 2013 I was offered a professorship at the University of Amsterdam. Since 2014 I have been working there, at the Institute for Logic, Language and Computation (ILLC) and at the Department of Philosophy. I said that I

have been lucky, for though I had learned a lot of philosophy in Italy, my Italian PhD was not considered very competitive abroad. Of course I didn't know it at the time, nor did I intend to leave my home country (indeed I realized only at the end of my PhD that, to get a job in the world out there, one should publish in international peer-reviewed journals of philosophy!).

LM: It seems to me that one of the topics of your research, when you started your career, was Hegel. This sounds a bit weird for an analytic philosopher like you! Please tell us about your interpretation of Hegel—you have a paper on it in the *European Journal of Philosophy*.

FB: My PhD thesis was on Hegel. It became a thick 450-page book titled: *Che Cos'è la dialettica hegeliana?* [What Is Hegel's Dialectic?]. They had me study a lot of Hegel in Italy, which I found very difficult and obscure. So I thought about applying tools from analytic philosophy of language to clarify and understand Hegel, in particular his famous "dialectical method".



It turned out that there's some literature on that, by authors like Robert Brandom, Paul Redding, and others. My main inspirers were two Italian philosophers, though, Emanuele Severino and Diego Marconi. The latter had also done a PhD on Hegel at Pittsburgh. Marconi's idea, which I developed, was that Hegel's dialectic is a theory of concepts. It looks at how certain conceptual words are used, both in the vernacular and in the philosophical and scientific jargon, and at the inferences that people make with them. It then spots contradictions in such uses and inferences, and aims at overcoming ('aufheben') them.

I stopped working on this years ago. The main reason was that nobody was listening. The analytic folks (to employ the stereotypical labels) would keep thinking that Hegel is not worth reading. The continentals (ditto) would claim that my attempt at clarifying Hegel was a betrayal, a misunderstanding of Hegel's "richness and depth". So I gave up—life is too short.

LM: Ah this is interesting. And where did you go from there?

FB: Into non-classical logic. Some had used relevant logics to try to formalize Hegel's dialectics (in their early works Bob Meyer and Richard Routley called some of their relevant systems "dialectical logics"; they even published their stuff in *Studies in Soviet Thought!*). I discovered such logics while working on Hegel, and I was infected by the 'Australasian syndrome' (if you want to call it that way).

LM: By the way, I remember that I first met you in Australia. It was, possibly, 2007.

FB: 2008. I was there for the 4th World Congress of Paraconsistency in Melbourne but I also passed by in Sydney.

LM: Right. I remember. But you are also a metaphysician. Aren't you? And how does this relate to the fact that you are logician? How did you get into metaphysics?

FB: While I was in Paris doing ontology, I was reading Routley and Priest on non-classical logic. It turned out that they were also non-classical metaphysicians (neo-Meinongians, in fact). That was another non-standard and very Australasian way of doing things that infected me. Suddenly the combination of deviant logics and deviant ontologies became an interesting mix.

LM: How do you conceive of metaphysics? What is the relation between metaphysics and science in your opinion? Can we do metaphysics without doing science?

FB: That's tough! I think that the so-called "armchair metaphysics"—whether Williamson-style (think of *The Philosophy of Philosophy*), or as conceptual clarification, or as the attempt at providing a unified and comprehensive worldview—still has a lot to say. Even in domains that seem to require deep appreciation of results of hard science, such as the metaphysics and ontology of material objects. In their book *Identity in Physics*, the philosophers of science Steven French and Decio Krause nicely show that our best current physics leaves important questions undecided—it is in fact compatible with two very different, and indeed reciprocally incompatible, ontological packages. When, as they say, "the problem is, it is not always clear what it is that physics teaches us!" (p. 190), armchair metaphysical reflection can step in to help.

And it's not only about clarification. The two incompatible ontological packages, in this case, are—very roughly put—that the particles of QM lack identity and are not individuals, and that, on the contrary, they have identity and are individuals. The first option is currently more popular—indeed, they call it "the received view". But French and Krause nicely show how the received view may call for a deep revision of set theory, thus of the foundations of our current math, and perhaps even of logic. Should we go for this or not, and if so, exactly how? These questions call for a unified and balanced view of the relations between logic, mathematics, physics... One of the things that armchair metaphysics has been traditionally supposed to do, is attempt such a unified view.

LM: Let's go back to logic. What is logic about, in your opinion? Where are logical structures? Is logic a normative or a descriptive discipline?

FB: I have been fond of a traditional view of logic, according to which logical laws are most general principles governing reality itself at the most general level (I did an AHRC project on this). That's how Aristotle understood them. In Book Gamma of *Metaphysics*, he considers (what was later on called) the Law of Non-Contradiction. Aristotle speaks about the Law also in *Organon* (his works on the subject of logic). But only in *Metaphysics* does he come up with a defence against opponents. He also claims that it is only up to what he called the 'first philosopher'—nowadays we would say, the metaphysician—to come up with a defence. That's because the 'axioms', as he calls them—and an axiom par excellence for him is the LNC—are principles of 'being qua being'; that is to say, of reality as such, in its most general features—which is what metaphysics is about.

Is logic normative, in this view? Well, the point of a deductively valid inference is that there is just no way things could

turn out such that the premises are true but the conclusion false. If logical laws are principles governing reality at the highest level of generality, there is just no kind of reality, or way reality could turn out to be, such that logical laws are defied. Add that truth (preservation) is good, and you get the normativity of logic.

LM: Franz, you mentioned your AHRC project—that was in Aberdeen, within the defunct *Northern Institute of Philosophy*. But it seems to me that now, in Amsterdam, you run another project on a big grant you were recently awarded. It is about logic and modal epistemology. Isn't it? Could you please tell us something about it?

FB: Yes, it's called "The Logic of Conceivability. Modelling Rational Imagination with Non-Normal Modal Logics". We want to investigate how intentional states like *conceiving* and *imagining* work inferentially. An obvious place to look for logical techniques to do the job is modal-epistemic logic with possible worlds semantics. But the standard approach has a number of problems (logical omniscience, inconceivability of inconsistencies, no hyperintensional distinctions, etc.). I think these can be addressed using non-classical modal logics with so-called *non-normal worlds semantics*. And I think the framework can have nice spin-offs for AI, but also for issues like the link between conceivability and possibility, and modal epistemology. But I'm no expert in epistemology and only moderately expert in epistemic logic for AI. Also, the project ventures a bit into cognitive psychology and I know nothing about that. So I applied for ERC money in order to hire people with expertise to give me a hand.

LM: Do you see some general "path" in your research as a whole? Are there recurrent themes or topics? Is there anything that you think you are basically interested in?

FB: Maybe that I look at non-standard views? Non-classical logics, non-standard metaontology, etc. (the 'Australasian' bit). Other than that, I don't know. It seems to me that what one gets interested in, and where one ends, are products of lots of very random factors.

LM: Yes I fully agree.... It seems to me that in your career you were awarded a number of very good grants... and recently an ERC Consolidator Grant. What do you think of these grants?

FB: I think there's something good with ERC grant policy, namely that they fund pure research and they don't ask a lot of questions about impact, practical applications, and so forth (why pure research is important... well that's a long story and there's little need to persuade philosophers about this anyway, I guess). I also think there are bad things about big and very selective individual grants in general. One is that when the ratio of success is 10% or less, and people have to work for months to prepare a grant application and go through the whole process, 90% or more of months and months of work by people will be working time that went lost (that's not exactly precise, for one can re-use one's work to submit elsewhere or again; you get the picture). That seems a high price to pay even in the name of competitive selection. Another thing is that it's not clear that the competition here matches the competition for research quality precisely. I know people who are excellent

researchers but not into grant-writing, which is an activity very different from writing research papers. It has to do with selling your stuff well, and it's not clear that this is very meritorious (I hear people say that researchers should learn this skill too, but it would be nice to back this up with an argument different from "that's how things are now"). One other thing is that bigger grants tend to go where smaller grants went before. Which means that a minimal and accidental initial divergence on this at the beginning of two people's career (A gets an initial grant as fresh PhD, B is that close but doesn't get it), can develop into a very big divergence across the years. And I say "accidental" because one needs luck in these things (I think on average it takes more luck to get a grant than to publish in a top journal).

LM: Grazie Franz!

FB: Di niente. Ciao!

Tal and Comesaña on evidence of evidence

R. Feldman defends a general principle about evidence the slogan form of which says that 'evidence of evidence is evidence' (cf. 2014: 'Evidence of evidence is evidence', in eds. J. Mattheson and R. Vitz, *The Ethics of Belief*, OUP, 284-99; 2011: 'Evidence of evidence is evidence', in *Keynote Lecture at Feldmania: A Conference in Honor of Richard Feldman*, UT-San Antonio, Texas, 19 February 2011; and 2007: 'Reasonable religious disagreements', in ed. L. Anthony, *Philosophers Without God: Meditations on Atheism and the Secular Life*, OUP, 194-214). B. Fitelson (2012: 'Evidence of evidence is not (necessarily) evidence', *Analysis* 72: 85-88) considers three renditions of this principle and contends they are all falsified by counterexamples. Against both Feldman and Fitelson, J. Comesaña and E. Tal (2015: 'Evidence of evidence is evidence (trivially)', *Analysis* 75: 557-59) show that the third rendition—the one actually endorsed by Feldman—isn't affected by Fitelson's counterexamples, but only because it is *trivially* true and thus uninteresting. Tal and Comesaña (2015: 'Is Evidence of Evidence Evidence?' *Nous*. doi: 10.1111/nous.12101) defend a fourth version of Feldman's principle, which—they claim—"has not yet been shown false" (p. 16). Against Tal and Comesaña, I will show that this new version of Feldman's principle is in fact *false*.

The third version of Feldman's principle considered by Fitelson (2014) is this:

(*EEE*₃) If S_1 possesses evidence, E_1 , that supports the proposition that S_2 possesses evidence, E_2 , that supports P , then S_1 possesses evidence, E_3 , that supports P .

*EEE*₃ has been defended by Feldman (2011). Furthermore, Feldman (2014: 292) endorses a restatement of this principle that is only unimportantly different. Here is Fitelson's alleged counterexample to *EEE*₃: S_1 's background information says that a card c will be picked out randomly from a standard deck. S_1 is then told that S_2 knows which card c is exactly, and that:

(E_1) c is a black card.

In these circumstances, E_1 gives S_1 some support for the proposition that S_2 possesses the following information:

(E2) c is the ace of spades.

Furthermore, E_2 entails and supports the proposition:

(P) c is an ace.

In this setting, upon learning E_1 , S_1 acquires evidence that supports the proposition that S_2 possesses evidence E_2 that supports P . So EEE_3 antecedent is satisfied. However—Fitelson contends— S_1 doesn't have any evidence E_3 that supports P . For we can stipulate that in this scenario all evidence S_1 possesses about c is constituted by E_1 , the proposition that S_2 knows which card c is exactly, and any consequence of these two propositions. But none of these propositions is—according to Fitelson—evidence for P . Since EEE_3 's antecedent is satisfied but not its consequent, EEE_3 is false.

Comesaña and Tal (2015) retort that this is no counterexample to EEE_3 . For in this scenario—pace Fitelson— S_1 has some evidence E_3 supporting P . For example, S_1 believes the trivial consequence of E_1 ,

c is not the Jack of hearts,

which supports P . Comesaña and Tal emphasize that this upshot doesn't actually help Feldman because:

For any pair of propositions E and Q (about which the subject in question is not already certain), something entailed by E supports Q : for instance, the disjunction either E or Q . Therefore, Feldman's EEE_3 is only trivially true, and so the fact that it is not refuted by Fitelson's case is irrelevant. (2015:559, edited)

The moral is that Feldman can reject Fitelson's contention that EEE_3 has a counterexample, but this is a Pyrrhic victory because EEE_3 's truth is immaterial to the general epistemological thesis that Feldman would like to substantiate. I endorse this conclusion.

To rescue the evidence-of-evidence-is-evidence principle from the triviality problem and other difficulties, Tal and Comesaña (2015: 14) propose replacing EEE_3 with this principle:

(EEE_4) For all E and Q , if (i) E is evidence that there is some evidence for Q and (ii) E is not a defeater for the support that the proposition that there is evidence for Q provides for Q , then E is evidence for Q .

In EEE_4 , 'evidence' means any *true* proposition regardless of its being possessed by a subject. Since Feldman (2014: 15.2) thinks of evidence as a proposition possessed by a subject, EEE_4 may be unsuitable to render the principle he has in mind. EEE_4 is afflicted by a more serious problem: it is not trivially true but just *false*. For there are many pairs of ordinary propositions E and Q (about which we are uncertain) that satisfy EEE_4 's antecedent but not EEE_4 's consequent.

Take E and Q from two disparate domains—for instance, E = 'Aristotle used to snore' and Q = 'There is a mouse in my house'. Even so, E and Q satisfy (i) because E is evidence that there is some evidence for Q —namely, any (uncertain) proposition E^* that entails both E and Q (e.g., the conjunction $E \& Q$). This is so because E^* entails E . Thus E is evidence for E^* . (As E^* entails E , E confirms E^* in the sense that

$Pr(E^* | E) > Pr(E^*)$, if $Pr(E^*) > 0$ and $Pr(E) < 1$.) Furthermore, E^* entails Q . Thus E^* is evidence for Q . But E and Q also satisfy (ii), for it is intuitively true that E is not a defeater for the support that the proposition that there is evidence for Q provides for Q .

A way to flesh out this intuition is the following: the *existential* proposition that there is evidence for Q can be construed as a *disjunction* each disjunct of which states that [E_n , and E_n supports Q] for any relevant E_n . E would be a defeater for the support that this disjunction provides for Q only if E were a defeater for the support that *all* or *most* of these disjuncts individually supply for Q . But we have no reason to believe this is the case. Rather, we have reasons to believe the opposite. Take for example E_n = 'There are chew marks on the cupboard'. Clearly, E isn't a defeater for the support that [there are chew marks on the cupboard, and the proposition that there are chew marks on the cupboard supports Q] provides for Q . The same result obtains for any other E_n that stands for *typical* evidence for Q . The same happens in many cases in which E_n stands for *atypical* evidence for Q . Suppose for instance $E_n = E^*$. E isn't a defeater for the support that [E^* , and E^* supports Q] provides for Q . For the conjunction $E \& [E^*$, and E^* supports Q] supports Q . This is so because, since E^* entails E , $E \& [E^*$, and E^* supports Q] is *logically equivalent* to [E^* , and E^* supports Q], which supports Q .

In conclusion, since E and Q satisfy both (i) and (ii), EEE_4 's antecedent is satisfied. Nevertheless, since E is *not* evidence for Q , EEE_4 's consequent is unsatisfied. Therefore, EEE_4 is false.

LUCA MORETTI

University of Aberdeen

NEWS

Calls for Papers

LOGIC AS TECHNOLOGY: special issue of *Philosophy and Technology*, deadline 1 May.

MEANING AND COMPUTER GAMES: Special issue of *Journal of the Philosophy of Games*, deadline 15 May.

STATISTICAL SIGNIFICANCE AND THE LOGIC OF HYPOTHESIS TESTING: special issue of *Entropy*, deadline 30 May.

A HUNDRED YEARS OF DONALD DAVIDSON. HIS INFLUENCE ON CONTEMPORARY PHILOSOPHY: Special issue of *Argumenta*, deadline 30 June.

THE BACKGROUND OF CONSTITUTIVE RULES: Special issue of *Argumenta*, deadline 10 November.

WHAT'S HOT IN . . .

Uncertain Reasoning

The concept of Probability is interesting, among other reasons, for the variety of ways in which we may be talking about distinct things and yet, in the end, we're still talking about probability. From the philosophy-of-mathematics point of view, this is vividly illustrated by the fact that, except possibly for one's views on 'finite vs. countable additivity', one axiomatisation serves a great number of largely incompatible interpretations of the concept being axiomatised. Chapters 1–3 of J. Williamson (2010: *In Defence of Objective Bayesianism*, Oxford University Press) offer a wide angle picture which I recommend to

those who are unfamiliar with the landscape of probability interpretations.

Viewed at a relative coarse grain, the axiomatisation of probability developed by following a similar path to other mathematical concepts until at the turn of the twentieth century the key motivation became that of securing its applications against the threat of paradoxical consequences. Needless to say David Hilbert played an important role in this. The explicit question appears as number “six” in the list of problems Hilbert posed to the audience of the Second International Congress of Mathematicians, in Paris on 8 August 1900:



Six. Mathematical Treatment of the Axioms of Physics. The investigations on the foundations of geometry suggest the problem: To treat in the same manner, by means of axioms, those physical sciences in which already today mathematics plays an important part; in the first rank are the theory of probabilities and mechanics. [] As to the axioms of the theory of probabilities, it seems to me desirable that their logical investigation should be accompanied by a rigorous and satisfactory development of the method of mean values in mathematical physics, and in particular in the kinetic theory of gases.

Various attempts at putting probability on axiomatic grounds followed Hilbert’s call, with a stable answer arriving almost three decades on, in a series of three papers published by Andrej Kolmogorov between 1929 and 1933. There seems to be agreement among experts that Kolmogorov had rather strong objectivist inclinations with regards to the interpretation of the concept of probability. But this is of little consequence, for with his axiomatisation, Kolmogorov emphasised the highly abstract nature of probability, which could then be pursued as a chapter in mathematical analysis.

Hilbert’s own views on the interpretation of probability feature rarely in foundational debates on the subject. However the recent paper (L. M. Verburgt, 2016: “[The place of probability in Hilbert’s axiomatization of physics, ca. 1900-1928](#)” in *Studies in History and Philosophy of Science Part B: Studies in History and Philosophy of Modern Physics*, 53, 28–44) shows that this does not reflect a lack of interest on the topic on Hilbert’s side. Quite the opposite appears to be true. In fact, and perhaps surprisingly, Hilbert changed his mind significantly over three decades on the meaning and interpretation of probability, and consequently on how it should be axiomatised. As Verburgt sums it up:

Hilbert understood probability, firstly as a mathematizable and axiomatizable branch of physics (1900–1905), secondly as a vague statistical mathematical tool for the atomistic-inspired reduction of all physical disciplines to mechanics (1910–1914), thirdly as an unaxiomatizable theory attached to the subjective

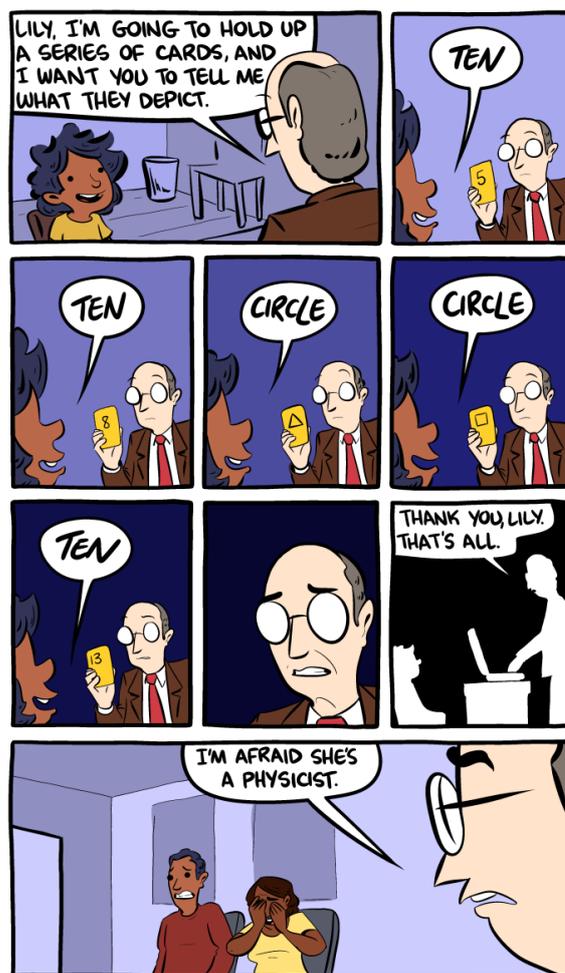
and anthropomorphic part of the fundamental laws for the electrodynamical reduction of physics (1915–1923) and, fourthly as a physical concept associated to mechanical quantities that is to be implicitly defined through the axioms for quantum mechanics (1928).

It is then apparent that Hilbert’s starting point is similar to Kolmogorov’s: probabilities are to be understood as properties of the physical world. Unlike the Russian, however, he moved on to consider other, radically different, interpretations. This is perhaps due to Hilbert’s interest in the applications of probability theory, from statistical mechanics, to what we would now call mathematical finance, as testified by his 1905 lecture notes. Be this as it may, Hilbert embraced a number of distinct positions on the meaning of probability, including a rather extreme form of subjectivism which lead him to consider probability to be “unaxiomatisable.” The details reported by Verburgt are rather involved, but quite fascinating.

One question that I anticipated would be addressed in the paper is an account of how Hilbert reacted to Kolmogorov’s own axiomatisation, and in particular whether he consequently settled down for a definite interpretation. But the author makes no reference to this. Maybe similar works will enlighten us on this side of the story too.

HYKEL HOSNI

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Evidence-Based Medicine

In her recent book, *Making Medical Knowledge*, Miriam Solomon looks at a progression of recent methods in medicine, each of which promised to be transformative for medical knowledge and practice. Among other things, her aim is to discuss the epistemological strengths and weaknesses of each of these methods. She begins her book by saying:

There is no substantial study of the ways in which the different methodologies fit together, react to one another, sometimes disagree with one another, and are negotiated in the context of specific research and clinical questions.

Solomon intends her book to fill this gap in the literature. In particular, she looks at medical consensus conferences, evidence-based medicine, translational medicine, and narrative medicine. She often presents each new method as being introduced in part as a response to the epistemological shortfalls of the old methods. For example, evidence-based medicine may be seen as responding to the method of consensus conferences by downplaying the evidential role of expert judgement. In turn, translational medicine may be seen as a response to the epistemological weaknesses of evidence-based medicine.

This may lead you to wonder: What exactly is *translational medicine*? And how is it meant to overcome the supposed incompleteness of evidence-based medicine? Solomon has a nice discussion of these issues. In fact, she argues that translational medicine can only really be understood by seeing it as a response to the epistemological incompleteness of evidence-based medicine.

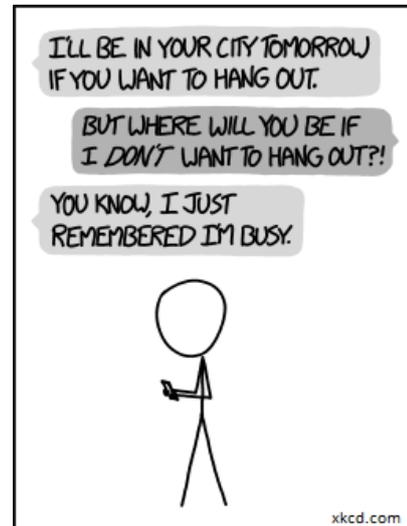
Translational medicine is often summed up by the slogan “from bench to bedside, and back again.” The idea is to make the move from basic science research to effective health interventions, for example, by bridging the gap between laboratory discoveries and clinical trials. And this is supposed to be a symmetric relationship. The move should also be made in the other direction, that is, from health interventions to basic science research, for example, by using the results of clinical trials to inform further basic science research. This is supposed to be a novel response to the epistemological shortcomings of evidence-based medicine. The thought here is that evidence-based medicine is incomplete insofar as it focuses only on evidence that an intervention makes a difference to a health outcome, where this evidence is obtained from comparative clinical trials. The suggestion is that evidence-based medicine should also look at evidence of the mechanisms by which the intervention made a difference to the health outcome, where this evidence typically comes from basic science research. Arguably, it is translational medicine that improves upon evidence-based medicine by taking on board this variety of evidence.

The you might ask: Isn't this all just standard practice for medicine? A historical example is the development of penicillin, which required a good deal of basic science research before moving onto trials in mice and then humans. In addition, the trials in humans were initially unsuccessful, and this fact informed further basic science research which concluded that greater doses were required for success in humans. This looks a lot like translational medicine. And so it begins to look like all this talk of translational medicine as a novel response to the

more recent problems of evidence-based medicine is a lot of hot air.

Against this line of thought, Solomon argues that there is substance to the translational medicine initiative. To see her argument, go check out *Making Medical Knowledge*. A recent review of the book by Joseph J. Fins is available at [Notre Dame Philosophical Reviews](#).

MICHAEL WILDE
Philosophy, Kent



WHY I TRY NOT TO BE
PEDANTIC ABOUT CONDITIONALS.

EVENTS

MAY

ADR: Aspects of Defeasible Reasoning, Konstanz University, Germany, 4 May.

PROCESSES: Bringing Analytic and Continental Traditions Together, University of Kent, Canterbury, 12 May.

RRT: Reason, Religion and toleration, University of York, 13–14 May.

MS: Models and Simulations, Barcelona, 18–20 May.

PMS: Properties in the Metaphysics of Science Workshop, University College London, 19 May.

RTH: Revisiting Tarski's hierarchy, Belgium, 19–20 May.

PSP: Probabilities in Science and Philosophy, The Hebrew University of Jerusalem, 19–20 May.

E&U: Workshop on Explanation and Understanding, Aarhus University, Denmark, 19–20 May.

ITT: The Identity Theory of Truth Conference, University of Cambridge, 20–21 May.

NPV: Non-physicalist Views of Consciousness, University of Cambridge, 24–26 May.

RP&P: Rationality, Probability, and Pragmatics, Berlin, 25–27 May.

FoD: Faces of Disagreement, Montreal, 26–28 May.

TE&E: Truth, Existence & Explanation, University of Chieti-Pescara, Chieti, Italy, 26–28 May.

JUNE

T&PR: Workshop on Theoretical and Practical Reasoning, University in Leipzig, Germany, 2–4 June.

MCMP5: Five Years MCMP: Quo Vadis, Mathematical Philosophy?, Ludwig Maximilian University of Munich, 2–4 June.

IDiS: Infinite Idealizations in Science, Ludwig Maximilian University of Munich, 8–9 June.

GEM: Ground, Essence and Modality, Helsinki, 8–10 June.

TT&P: Type Theory and Philosophy, University of Kent, Canterbury, 9–10 June.

PoI: Workshop on the Philosophy of Information: The Role Of Data In Biomedical Sciences, University of Ferrara, Italy, 13–14 June.

EUT: Epistemic Utility Theory, University of Bristol, 13–15 June.

S&F: Spacetime and Fundamentality, Switzerland, 17 June.

CPW: Causation and the Physical World, University of Cologne, 17–18 June.

RML: Reliable Machine Learning in the Wild, New York City, 23 June.

CE: Chance Encounter, University in Groningen, Netherlands, 23–24 June.

MI: Mechanistic Integration and Unification in Cognitive Science, Warsaw, Poland, 23–26 June.

RCS: Reasoning in Conceptual Spaces, Amsterdam, 28–29 June.

CFA: Causation: Foundation to Application, Jersey City, New Jersey, 29 June.

BD&DL: Big Data and Deep Learning in High Performance Computing, Porto, Portugal, 30 June.

JULY

CPR: Contemporary Perspectives on Reductionism, Prague, 30 June–1 July.

AAL: Australasian Association for Logic Conference, Melbourne, 30 June–2 July.

PM: Perspectival Modelling: Pluralism and Integration, University of Edinburgh, 2–3 July.

IH&PoS: Integrated History and Philosophy of Science, University of Edinburgh, 3–5 July.

SRAI: Statistical Relational Artificial Intelligence, New York City, 11 July.

NRA: Knowledge, Reasons, and Action, Erlangen University, Germany, 21–22 July.

COURSES AND PROGRAMMES

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.

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 & 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.

MA IN REASONING

A programme at the University of Kent, Canterbury, UK. Gain the philosophical background required for a PhD in this area.

Optional modules available from Psychology, Computing, Statistics, Social Policy, Law, Biosciences and History.

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.

JOBS AND STUDENTSHIPS

Jobs

LECTURER: in Statistics, Kings College London, deadline 4 May.

LECTURESHIP: in Mathematics of Data Science, University of Edinburgh, deadline 9 May.

POST-DOC: in Philosophy of Time, University of Milan, deadline 10 May.

POST-DOC: in Bayesian Computation, University of Reading, deadline 27 May.

Studentships

RESEARCH FELLOWSHIP: in Data Science, University of Oslo, deadline 7 May.

PHD POSITION: in Epistemology of Computer Simulation, Clermont University, deadline 15 May.

PHD POSITION: in Philosophy of Mathematics, Clermont University, deadline 15 May.

PHD POSITION: in Discovering Structure in Complex Data, University of Göttingen, deadline 31 May.

PHD POSITION: in Philosophy of Science, Leibniz University of Hannover and Bielefeld University, deadline 5 June.