

Philosophy at Cambridge

Newsletter of the Faculty of Philosophy

Issue No. 18 May 2024

From the Chair Alexander Bird



Alexander Bird at TimFest, Magdalen College, Oxford, July 2023

Welcome to the first properly postpandemic newsletter. We are delighted to be back to normal with fully in-person lectures, supervisions, and meetings. Not everything is entirely 'normal'. We are working out which pandemic-induced practices we wish to retain and which we are only too happy to jettison. Many behaviours are the products of evolution and established practicesuch as students and staff meeting for coffee in the Faculty common room. The Office and Library staff are working hard to recreate these arenas that are so valuable both socially and intellectually. The acquisition of a new coffee machine (thanks to the graduate students) has therefore been a crucial boost to research and learning.

Many readers will have come across

and perhaps experimented with ChatGPT. ChatGPT really does seem to have begun a new chapter in Al. While most AI systems are intended to manage specific datasets and tasks, ChatGPT is trained on a vast array of diverse information and has a language model at its heart that enables it to engage in well-informed conversation with human users. Impressively and alarmingly it can produce the core of a decent first year supervision essay. And it is getting better. Of greater interest to us as philosophers are the conceptual and ethical questions that this new kind of AI presents. ChatGPT and Google's LaMDA, some have argued, have definitively passed the Turing test.

Cambridge's Leverhulme Centre for the Future of Intelligence (LCFI), founded by my predecessor as Bertrand Russell Professor, Huw Price, and led by Cambridge Philosophy alumnus, Stephen Cave, as well as Faculty researchers such as Jessie Munton are leading the way in posing and addressing pressing questions surrounding the development of AI and its consequences. The LCFI already runs a successful MSt in Al Ethics and Society and the first cohort in its new MPhil in the Ethics of Al, Data, and Algorithms arrived in Michaelmas Term. The LCFI has appointed two assistant professors, one of whom is our own alumna, Claire Benn, who is also now member of the Faculty of Philosophy. We are delighted to welcome her back to Cambridge.

The results of REF2021 were published shortly after last year's newsletter was published. Alumni and friends of Cambridge Philosophy will be pleased to hear that our research was again judged to be outstanding. For the first time we made a joint submission with the Department of History and Philosophy of Science. This required a lot of work from Huw Price and Rae Langton in particular, as well as other colleagues in the Faculty and in HPS. A key metric in the REF results is 'research power', which measures the total strength of a unit's research output. By this measure, Cambridge came second only to Oxford. Galling as that may be, it is an excellent outcome. Oxford is a Philosophy behemoth with 65 permanent research-and-teaching staff, versus 13 in our Faculty of Philosophy plus 15 in HPS. Weighted by guality, we produce one eighth of the UK's best philosophy. Congratulations are very much in order to all in the Faculty as well as to our friends in HPS.

Although this is entitled 'From the Chair' I am not in fact Chair of the Faculty at the time of publication. I am taking a break to pursue a Leverhulme Trust funded research project on creativity—including asking whether Al can be genuinely creative. Professor Michael Potter was Chair in Michaelmas 2023, while Professor Angela Breitenbach, is Chair for Lent and Easter terms in 2024. The Faculty is very grateful indeed (and I am especially grateful!) that they have been willing to take on this role.

In line with other changes in how we communicate these days, we have decided to distribute this newsletter electronically in future. So, to continue receiving it, please make sure that your details and permissions in the alumni database are up to date. Please see p.7 for more information.

One True Logic

Owen Griffiths

Alex Paseau and I published our book *One True Logic* with Oxford University Press in May 2022. It is a book with its roots in the Faculty of Philosophy in Cambridge. Alex and I both wrote our PhDs in Philosophy at Cambridge, both supervised by Alex Oliver, to whom our book is jointly dedicated. I've subsequently worked as a lecturer at the Faculty and Alex was a Junior Research Fellow at Jesus College, before moving to Oxford, where he still works.

In the book, we argue for two main claims. First, and as the title suggests, there is one true logic, not many. Second, its nature is highly infinitary.

When we first teach our students logic, we teach them various controversial principles. For example, they learn that a conditional 'if *P*, then *Q*' is true whenever '*P*' is false. So, if I say—located in Cambridge—'if I am in Oxford, then I'm in Cambridge', I say something true. We also teach them that contradictions explode and entail anything. So 'I am in Cambridge and I'm not in Cambridge'—a contradiction—entails 'the Moon is made of cheese'. These, and many others, are principles of classical logic that students often view with suspicion.

In response to each such suspicious principle, there will be a logic—a so-called *non-classical logic*—that blocks it. And non-classical systems have proliferated. This prompts the question: which one is *true*? Perhaps they can all be true and we can quite reasonably use a classical system one day and a non-classical one the next. Or perhaps there is a uniquely true system that should always be used, and we are liable to error if we use any other.

The first attitude is an expression of *logical pluralism*. The pluralist lets a thousand flowers bloom, logically speaking, and sees no real competition among the various candidates. In contrast, the *logical monist*, captured by the second attitude above, endorses one system across the board. This needn't be classical logic, of course. Plenty of monists think that some non-classical system is the uniquely correct one, to be used under all circumstances.

Anyone engaging in debates such as this in philosophical logic finds themselves in a delicate dialectical situation. On the one hand, we are debating questions such as 'how many true logics are there?' and 'which logic is the true one?'. On the other, we are using logic to do so. Logical pluralists and logical monists alike will want to offer *arguments* for their views. And logic is, among other things, the study of arguments. So which logic should be used to adjudicate in such debates?

The situation finds analogues in other areas of philosophy. Consider the well-known case of *moral relativism*, which asserts, roughly, that moral sentences are never true or false *simpliciter* but only relative to some standard, whether cultural, societal, individual or otherwise. Whatever else we might think about this claim, it's clearly a *moral* one and, as such, should meet its own standard. So, *it* is only true relative to some standard. But this is not the spirit in which a moral relativist advances their view: the statement of their view is special, outside of the standards it describes for other statements. The moral relativist therefore faces a well-known problem: either the statement of their view proves its own falsity, or it doesn't say what they want it to.

We argue that this, or something like it, is going on in the case of logical pluralist. They want to say, roughly, that there



Image courtesy of Oxford University Press

is no sense in calling an argument valid or asserting that some sentence follows logically from some others *simpliciter*. Rather, an argument is valid *in some logic or other*. How about the argument for logical pluralism itself? The logical pluralist seemingly wants to say that the argument for their view is special, outside of the standards it describes. The logical pluralist is then in an analogous situation to the moral relativist: either the argument for their view undermines the view itself, or it will fail to convince some folks.

This is a sketch of an argument we offer in *One True Logic* against logical pluralism and in favour of logical monism (which unapologetically endorses one logic across the board). The obvious next question is: which logic is it then? Our view here is far from the classical logic we teach our students. I invite you to read the book to find out more.

Owen Griffiths is Director of Studies at Churchill College and incoming Assistant Professor in the Faculty.

Bronze Award from Athena SWAN

Rae Langton



In recognition of our gender equality efforts and achievements, the Faculty received a Bronze Award in 2022 from Athena SWAN, a national framework designed to support gender equality within higher education and research. This has special significance for Philosophy—'a subject and a profession where women have been historically underrepresented as students, and as teaching and research staff', as Alexander Bird observed in his supporting letter. At Cambridge we are fortunate to have a distinguished history of women philosophers who have been giants in the history of the subject, but we face challenges common to the profession. Internationally the proportions of women at postgraduate and higher levels are comparable to STEM subjects and have been the topic of numerous empirical studies and practical initiatives—the so-called 'Philosophy exception' among Humanities subjects, where women are not usually in a minority. Explanations have been various (see the 2011 and 2021 British Philosophical Association Reports https://bpa.ac.uk/diversity/ reports/), and practical solutions have long been of interest, pre-dating the Athena SWAN scheme.

Our submission was led by Professor Angela Breitenbach, with strong collaboration from the Faculty. In making the award, the Athena SWAN panel commended our 'longstanding commitment' to equality principles and actions, taking seriously 'the need to address the loss of women across the career pipeline, the obstacles faced by women at major points of career development and progression, the negative consequences of short-term contracts, the need for structural and cultural changes to advance gender equality, the need for active leadership from those in senior roles.' Tim Crane set up our Equality Working Group in 2012, and leadership continued with subsequent Chairs, Alexander Bird and Rae Langton. Measures have included: increased visibility of women on reading lists and in common areas; promoting the University's Parental Leave and Returning Carers' schemes; additional training for discussion leaders; additional mentoring and support for career development and promotion; proactive methods in recruitment, strengthening quality and diversity of the applicant pool; and adopting the BPA's 'Good Practice Guidelines'. We have had notable promotion and research grant successes, especially for early-to-mid-career staff. Women are now a slight majority (54%) of the Cambridge permanent faculty—possibly the first and only researchintensive philosophy programme in the English-speaking world where this is so. The Faculty has ongoing action-plans, and the Athena SWAN framework will help us keep track of them.

Rae Langton is Knightbridge Professor and Chair of the Equality Working Group in the Faculty.



Clarity as a Moral Value Nikhil Krishnan

My book, A Terribly Serious Adventure: Philosophy at Oxford 1900–60 was published in March this year. I had been working on it on and off since 2015, but I only worked out what the book should be about when I hit, serendipitously, on its final title. The slightly twee phrase in fact comes from a paper by the American philosopher of science Ernest Nagel, 'Impressions and Appraisals of Analytic Philosophy in Europe'. The paper was published in the Journal of Philosophy in 1936 and was the result of a sabbatical spent travelling in Europe (Cambridge, Vienna, Prague and Lviv) and exploring the new currents of thought abroad there. Nagel's paper did a good deal to popularise the phrase 'analytic philosophy' as a general term unifying what might originally have seemed quite distinct intellectual figures and traditions: the commonsense realism of G. E. Moore, the logic atomism of Bertrand Russell and the logical empiricism of Rudolf Carnap and the 'Vienna Circle'. But there were evidently connections and echoes.

The most interesting part of the paper is when Nagel raises the question of why such a style of philosophy, distinguished by its technicality and a vigilance about language bordering on the pedantic, should be attracting so many new adherents. Why, in particular, should it be expanding its influence when its officially apolitical character was at odds with the political passions (fascist, Communist) of the 1930s?

Nagel's answer was two-fold. Analytic philosophy, he wrote, has 'a double function: it provides quiet green pastures for intellectual analysis, wherein its practitioners can find refuge from a troubled world and cultivate their intellectual games with chess-like indifference to its course; and it is also a keen, shining sword helping to dispel irrational beliefs'. He concluded: 'It is at once the pastime of a recluse and a terribly serious adventure'. It was the discovery of that striking phrase that told me I had found my theme and unifying idea.

On the one hand, I knew of the criticism—expressed by thinkers of many different sorts (Christian, humanistic, Communist)—that there was something inhumane about the technicality of analytic philosophy. Even the relatively gentle pedantry associated with the 'ordinary language' phase of that tradition inaugurated by the late Wittgenstein and his Oxford coevals Gilbert Ryle and J. L. Austin seemed to such critics a betrayal of an ancient Socratic legacy. But on the other was the sense I had, both from reading accounts such as Nagel of the excitement stirred by analytic ideas in the 1930s, and my own personal sense (as student and then as teacher), of what it is like to be stirred by a piece of philosophy.

My book was an attempt to reply to such critics by painting a picture of twentieth-century analytic philosophy, even at its most technical or deflationary, as a serious intellectual project. Moreover, I tried to argue that the project had a deeper—and often unacknowledged—moral dimension. That dimension can be brought out by considering why this tradition made such an idol of those twin values, clarity and precision. There are certainly reasons to value these qualities in our thought, conversation and prose—epistemic reasons. But I wished to come at these values from a different direction. To show that these values were not merely epistemic but also moral.

The guiding idea behind my narrative history was that the quest for clarity in twentieth-century philosophy, far from being



Image courtesy of Penguin Random House

a betrayal of the Socratic legacy in philosophy, was the respect in which modern philosophy is most deeply Socratic. It was Socrates, after all, who first embodied the ideal of a philosopher as a style of person fundamentally different from those more familiar Greek archetypes of the 'rhetorician' and 'sophist'. Rhetoricians aim to persuade, at any cost; sophists aim simply to confound. The philosopher, by contrast, seeks truth. And that must mean that the relation of philosopher to fellow philosopher is not—or rather, ought not to be—antagonistic.

The moral value of clarity lies in its making philosopher accountable to philosopher. An unintelligible thesis is irrefutable; to state a thesis clearly, by contrast, is to paint a target on it, and thus to make oneself vulnerable to challenge, refutation and (thus) humiliation. I try to show in my book that a tradition of philosophy aiming above all to be clear is the best modern example of the old Socratic ideal in practice: to say what we mean, to mean what we say.

Nikhil Krishnan is Director of Studies at Robinson College and former Lecturer in the Faculty.

Knowing Science

Alexander Bird

Knowing Science can be summed up in four words: knowledge good, empiricism bad. Let me explain. 'Scientific knowledge'----it's a phrase we use all the time. Those outside philosophy of science would generally concur that science is in the knowledge business: science aims at knowledge, successful science adds to the stock of knowledge. But you would not know that from reading the works of philosophers of science. They will tell you about 'confirmation', when evidence speaks in favour of a hypothesis. But philosophy of science does not seem at all concerned with the possibility that, with enough evidence, science might generate knowledge. Indeed many philosophers of science, even realist ones, will deny that it ever does. Knowledge requires truth. But science never actually gets to the truth—the best we can hope for is to get closer to the truth. All theories will eventually be found to be false in some way or other. In any case, our evidence is always a matter of observation. Since to observe is to perceive, possibly enhanced by instruments, it will never be enough to determine that our theories are fully true.

I think that standard philosophy of science, by ignoring knowledge, is making a profound mistake. Knowing Science argues that we cannot understand science without using the concept of knowledge. The non-philosophers are right: science does aim to produce knowledge; science progresses just when it adds to the stock of knowledge. Now, one has to be careful when one says 'science aims at knowledge'. That does not mean that every scientist is involved in the single-minded and disinterested pursuit of knowledge. They might be doing only what they need to do to get the next publication or grant or promotion. Indeed, all scientists could be like that, so long as the organisation of science as an institution promotes the production of science that does amount to knowledge and hinders science that fails to be knowledge. We attribute scientific knowledge not just to individuals but to groups and to institutions and we must think carefully about what that means. Typically, this is thought to be a matter of aggregating the knowledge of individuals in those groups. Or it is built up in some other way from the beliefs and attitudes of individuals. But this is a mistake-group knowledge is a matter of the group having a certain structure, a cognitive structure, that is the analogue of the cognitive capacities of an individual knower.

So science aims at knowledge, in an analogue of, as Aristotle tells us, the individual human's desire to know. But how is that knowledge achieved? The distinctive feature of science is that it reasons from evidence to conclusions about its theories. Which propositions count as evidence in this reasoning is crucial—too liberal with what is taken to be evidence, and you can reach any conclusion; too restrictive and you end up with no or few conclusions. What we should take as evidence should thus be governed by the goal of scientific inquiry, i.e. scientific knowledge. Evidence is, then, that which, with well-reasoned inferences, can lead to knowledge. I show that only knowledge itself can do this—start from anything less than knowledge, and you will not end up with knowledge in your conclusion. But just as important is what this view of evidence includes. For traditional approaches to evidence in philosophy of science take evidence to be a matter of observation, and they take observation to be fundamentally a matter of perception (possibly aided by instruments such as optical microscopes). This is empiricism. And in my view

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ALEXANDER BIRD

Image courtesy of Oxford University Press

it has been and remains a profound and very bad influence on philosophy of science. On the view of evidence I have articulated, there is no reason to limit evidence to the perceptual. Or even to the observational. If one does make such a restriction, then scientific knowledge looks almost impossible. Given just what we see, hear, feel, smell, and taste how could we possibly hope to know of the existence of atoms, let alone their inner structures? Scientific realists struggle valiantly to show how we can bridge that gap. They are hamstrung by starting in the wrong place. Scientists' reasoning does not start from their perceptions. On the contrary, what scientists call evidence is itself highly non-perceptual. After all, what do scientists at CERN see other than highly processed data in spreadsheets on their computer screens?

The above touches on some of the central themes of *Knowing Science*. For more, do please see this recording of my inaugural lecture: http://www.alexanderbird.org/Research/Inaugural_Lecture.mp4.

Alexander Bird is Bertrand Russell Professor and Chair of Faculty.

People

Faculty and Staff News

Welcome to:



Claire Benn, Assistant Professor based at the Leverhulme Centre for the Future of Intelligence



Sophie Dandalet, Assistant Professor and Sidgwick Lecturer

Will Hornett, Teaching Associate

Christopher Masterman, Teaching Associate

Colette Olive, Teaching Associate

The Faculty also looks forward to welcoming **Owen Griffiths** as Assistant Professor from 2024/2025

Welcome also to:

Suf Amichay, Junior Research Fellow at Trinity Hall, Cambridge

Alexander Bryan, Isaac Newton Trust Career Development Research Fellow, Magdalene College and Newnham College

Lea Cantor, Junior Research Fellow at Peterhouse, Cambridge

Paula Keller, Junior Research Fellow, Jesus College, Cambridge

Chiara Martini, Junior Research Fellow, Corpus Christi College, Cambridge

The Faculty also welcomes **Jo Farmer** as Faculty Manager, taking over the role from Heather Sanderson, and **Janette Dutton** as Postgraduate Administrator, taking over from Anna Simpson

Honours, Awards and Promotions

Congratulations to:

Alexander Bird, elected Correspondant de l'Academie des Science Morales et Politiques

Angela Breitenbach, promoted to Professor

Clare Chambers, appointed a member of the Advisory Board for a major new public engagement project on the ethics of assisted dying led by the Nuffield Council on Bioethics

Rae Langton, elected to the Bayerische Akademie der Wissenschaften

Tom McClelland, appointed Teaching Associate with the Department of History and Philosophy of Science, Cambridge

Jessie Munton, awarded a 2023 Philip Leverhulme Prize

Departures

Farewell and congratulations to:

Arif Ahmed, promoted to Professor, appointed Commissioner at the Equality and Human Rights Commission (EHRC), and appointed Director for Freedom of Speech and Academic Freedom at the Office for Students

Jeremy Butterfield, who has retired

Daisy Dixon, awarded the American Society for Aesthetics Prize in Social Justice and the Arts, for her paper 'Artistic (counter)speech' and appointed Lecturer in Philosophy at Cardiff University

Matt Dougherty, appointed University Assistant at the University of Vienna

Nikhil Krishnan, appointed teacher of Philosophy at Winchester College

Cathy Mason, appointed Assistant Professor at the Central European University in Vienna

Lucy McDonald, appointed Lecturer at King's College London

Heather Sanderson, who has retired from her role as Faculty Manager

Jack Wearing, appointed Lecturer at Corpus Christi College, University of Oxford

Cecily Whiteley, appointed Lecturer, University of St Andrews

Student News

Congratulations to:

Alex Fisher (Robinson), who won the 2022 Fabian Dorsch ESA Essay Prize for his essay 'In Defence of Fictional Examples'.

Pablo Hubacher (Pembroke), who won the 2022 DGPPN prize for Philosophy and Ethics in Psychiatry and Psychotherapy for his paper 'Is OCD epistemically irrational?'.

In Memoriam

A web site to commemorate the life and work of **Hugh Mellor** is available at https://hughmellor.com/. Please see the home page for details of how you can add a memorial or suggest changes or addition to the site.

The Faculty of Philosophy was saddened to hear of the following deaths:

Jonathan Bennett died on 30 March 2024. Jonathan taught at Cambridge from 1956 to1968 and received his Litt D. from the University of Cambridge. Jonathan was wellknown for his work on early modern philosophy and for his Early Modern Texts website. He also taught at Simon Fraser University, University of British Columbia and Syracuse University. https://www.phil.cam.ac.uk/news/jonathanbennett-1930-2024.

Ian Hacking died on 10 May 2023. Ian was an undergraduate and then a doctoral student (supervised by Casimir Lewy) in the Faculty of Philosophy, thereafter a research fellow, between 1956 and 1964. He was later a lecturer in the Faculty, from 1969 to 1974. Ian spent much of the rest of his career in his native Canada at the University of Toronto: https://philosophy.utoronto.ca/news/inmemoriam-ian-hacking-1936-2023/.

Michael Tanner died on 3 April 2024. Michael had been a member of the Faculty for all his adult life, first as an undergraduate on the Moral Sciences Tripos from 1955, taking firsts at Part I and at Part II, and from 1961 as Assistant Lecturer and as Lecturer from 1965 until his retirement in 2002. Michael had been a Fellow of Corpus Christi College since 1961. https://www.phil.cam.ac.uk/ news/michael-tanner-1935-2024.

Your comments and contributions are always welcome. Please send them to **Jo Farmer**, Editor, at: Faculty of Philosophy, Sidgwick Avenue, Cambridge, CB3 9DA. Email: jf382@cam.ac.uk.

Stop Press

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Structure and Equivalence

Neil Dewar

If Alice thinks that the current time is 3pm, and Bob thinks that the current time is 4pm, must one of them be wrong? Not if Alice lives in London and Bob lives in Paris. What if Alice and Bob are working together on an engineering project, and Alice computes the result of a weight calculation as 10 whilst Bob gets 22? Well, if Alice is working in kilograms and Bob in pounds, then the apparent disagreement again dissolves. As these examples illustrate, it isn't always possible to determine just from what people say whether they agree or disagree with one another. Sometimes, what look like disagreements turn out to be mere differences in the vocabulary or terminology being used; and sometimes, agreement on a form of words can disguise a genuine disagreement.

In the context of scientific theories especially physical theories—these kinds of questions have significant implications for how we understand those theories, and even for the progress of science itself. Among the early practitioners of quantum theory, there was a notoriously ill-tempered dispute about whether Schrödinger's "wave mechanics" was superior to the "matrix mechanics" associated with Bohr and Heisenberg. Only gradually, through the development of the Hilbert-space formalism by figures like von Neumann, was it appreciated that wave mechanics and matrix mechanics could be understood as two ways of codifying the same essential ideas. Nowadays, most physicists would tend to describe the two theories as "equivalent": that is, as expressing the same physical content, albeit in different mathematical forms.

For philosophers of science, understanding these judgments of equivalence is a long-standing point of fascination. Under what circumstances should two theories be regarded as equivalent: is it enough that they make the same empirical predictions, or is something more needed? Even in cases



Image courtesy of Cambridge University Press

like that of wave and matrix mechanics, where physicists consider the two theories to have the same *physical* content, might there nevertheless be a *metaphysical* difference between them? And how should such judgments of equivalence be integrated with the rest of our interpretational practice?

In *Structure and Equivalence*, I do not aim to give definitive answers to these questions, but rather to describe some of the tools that can be used to grapple with them. The book is part of the new Cambridge Elements in Philosophy of Physics series, which aims to provide short but authoritative introductions to key ideas in the philosophy of physics. In some ways, I wrote it to be the kind of book that I hope I would have found helpful when I started working on these topics as a graduate student: bringing together ideas that are present in the literature, but not always usefully assembled in one place (or accessible to someone coming in without extensive mathematical background).

The first part of the book focuses on ideas from philosophy of logic and model theory. It introduces readers to the intimately linked concepts of definition and translation, and comparing them to the notion of a Ramsey sentence. It then uses this material to motivate the representation of a theory in firstorder logic as a *category*: roughly, as a collection of models of the theory, along with maps that transform those models into one another. These various concepts can then be used to develop a "zoo" of possible equivalence relations between such theories. On the more philosophical side, I argue that these different equivalence relations can be thought of as picking out different kinds of "structure" within a theory: two theories agree on a certain kind of structure when they are equivalent in a certain kind of way.

The second part of the book then seeks to show how to carry over such ideas from logic to physics—although for reasons of space, the case studies are all drawn from classical Newtonian mechanics. For example, the book suggests that we can think of coordinate transformations as a species of translation, and of symmetries in physics as a translation between a theory and itself. It then uses these analogies to motivate the claim that if a piece of theoretical structure fails to be invariant under symmetries, then it should not be regarded as part of the physical content posited by that theory. Next, it shows how this lesson can be nicely codified by treating a physical theory as a category, similarly to what was done for first-order theories. The final chapter seeks to draw philosophical lessons from what has come before: both mounting a defence of the relevance of formal methods in philosophy of science, and thinking about what projects are needed to supplement such formal work.

Neil Dewar is Associate Professor in the Faculty.