THE REASONER

CONTENTS

would be the best translation). Calvin was invited to give a series of lectures on the development of the notion of logical consequence from Antiquity to Early Modernity. He would end up becoming my thesis advisor and, over the following years, I would end up spending extensive stretches of time working with him at UCLA.

In the following interview we talk of Philosophy, Logic and their History.

Spoiler alert: beyond its historical and erudite relevance, the History of Philosophy – and of Logic, in particular – is also philosophically interesting and overall worth studying in the light of our contemporary endeavours.

GRAZIANA CIOLA
Scuola Normale Superiore

EDITORIAL

It is my great pleasure to guest edit this issue and to introduce Calvin Normore to the readers of THE REASONER. Calvin is professor of Philosophy at the UCLA Department of Philosophy; he is also Emeritus professor at McGill University and Honorary professor at the University of Queensland. His main research interests are in Medieval and Early Modern Philosophy, History of Logic, and Political Philosophy.

I met Calvin in June 2013. I was a first year PhD student at the Scuola Normale in Pisa and had begun to work on 14th century logic, in particular on Marsilius of Inghen's treatise on consequentiae ("consequences"

FEATURES

Interview with Calvin Normore

Graziana Ciola: Did you begin as a medievalist?
Calvin Normore: In a way, I did. As an undergraduate – I think I was in the beginning of my senior year – at McGill we had a new professor, John Trentman, who had come from the University of Minnesota, where he had been a track star, actually. John gave a seminar on Buridan's *Sophismata*, which had just come out in the T.K. Scott's translation – there was no text – and I got very interested in this. I had gone up to university wanting to be Bertrand Russell, so I wanted to do both math and philosophy. I was not as good at Math as I guess I was at Philosophy. In Math, I like more to have done it than, I discovered, to actually doing it. So, I was switching over into Philosophy and John's seminar was really interesting. He got me interested.

It was just at the moment when Arthur Prior was still at Oxford – I think he died the next year – and so there was a ques-

tion of what to do. I thought we were going to study with him. He had suggested that if one were interested in modal and tense logic, then there was lots to be learned from the medievals. And I was very interested in modal and tense logic. In the event, I went to Toronto, because that was the place to do medieval things in those days, and certainly if you were an Anglophone and a Canadian, but I think in general. So I went there but, frankly, I found the medieval atmosphere somewhat boring, so I fell in with people in the Philosophy department who were more interested in contemporary things. Hans Herzberger, who was working on truth, became my supervisor; Bas van Fraassen had just come to Toronto as well, so I took courses from him; David Gauthier was there, and John Woods, who was a good logician. I worked really more with them at the beginning, but I did the things one did at the Institute. When I had been thinking of going up to Toronto, I had gone to the city and I talked with Father Ed Synon, because the question was: "should I apply to come to the Pontifical Institute or should I go to the Philosophy Department?". And Father Synon said: "Oh, you should go to the Philosophy Department, because you can do everything you like at the Institute if you are in the Philosophy Department. And what's more you'll get a job, which you wouldn't do if you came to the Institute". So I got into the Philosophy Department, but I continued to do all these things at the Institute: I took their first year programme, the palaeography courses and so on. But I was working mostly with Hans, actually. I got interested in Ockham because... one could. This was 1968, when I went up. It was just at the moment when Saul Kripke and Charles Chastain were working on the causal theory of names. It was actually Chastain whose work I encountered first; and he came to Toronto and gave a talk. I had been reading Ockham at the same time when I realised "ah! this is a very similar view! let me explore it further...". And that's really what got me into Ockham.

GC: So, when you started working on these topics in Ockham's philosophy, were you already more focused on the history of logic rather than philosophy?

CN: I didn't see a distinction. Remember: Prior had claimed – quite correctly, I thought – that if you wanted to do modal and tense logic you could learn a lot from the medievals. And he was right! So I thought of working on these 14th century people as very much a contemporary project. I did never see it as a different issue at all. Later on, partly under the influence of Michael Frede, I came to think that there might be a subject – the History of Philosophy as a subject. But I am sure that when I was a graduate student I didn't think of them as distinct subjects at all.

GC: There are some strong reasons for a philosopher to be interested in the History of Philosophy –– same for a logician to be interested in the History of Logic. Your thoughts? How did your outlook evolve? How did it change over time?

CN: There is this famous quote of Quine that "logic is an old subject and since 1879 it has been a great one", referring to Frege's *Begriffsschrift*. This, I think, is just a mistake. What Frege was trying to do was to develop an adequate foundation for mathematics and to show that you could develop an adequate foundation for mathematics that relied only on concepts that would be uncontroversially thought of as logical. But, of course, that presupposes already that one had a conception of what was logical, right? Otherwise it would make no sense – and you might ask "well, where did that conception of logical come from?". I think *that* is a part historical project. If you go back to Aristotle, something that, for example, Chris Martin has emphasised (and it's true), is that Aristotle doesn't have a propositional logic at all: he's got a logic of terms, that explores relations among certain expressions we would call quantifiers. The Stoics developed a theory, which explores the relations among certain words – let's suppose – or concepts that we would regard as propositional connectives. And medieval theorists inherited both: more obviously, Aristotle; but they inherited a good deal of Stoic material as well. What you find throughout the Middle Ages is exploration of a number of these items (quantifiers, connectives, and so on) under the general heading of "syncategorematic expressions" – and also some "partially" syncategorematic expressions, as they thought, that is: expressions that when you analyse them turn out to have a syncategorematic component. The medievals were working to explore the structure of these syncategorematic terms. About the time you get to Frege a lot of that could simply be taken for granted. The logic that has been developed since 1879 is just, as I see it, a continuation. If you teach introductory Logic these days, you teach your students, typically, a propositional logic – and what do you do? You explore the structure of conjunction, negation, disjunction, sometimes a conditional; you go on to explore the structure of some quantifiers; you worry, at some point, about how to give a translation of this into a mathematical framework – that is new: that wasn't done much, before Frege. But the idea that you are going to explore the core of some syncategorematic terms, that has been the core of the subject. I don't see it as a different subject now.

GC: I agree with you. However in many Departments, both in Europe and in the US, it is still common to find a split between historians of Philosophy and philosophers "in a proper sense", as if the former were not as much philosophers as the the latter. And that seems very wrong to me.

CN: I think it's wrong. When I went to Princeton, in the late '70s, that split was very much there. Gil Harman is a wonderful philosopher but really did not think that the History of Philosophy belonged in a Philosophy Department. Now, interestingly, I don't think that Michael Frede would have agreed exactly that it didn't belong in a Philosophy Department, but Michael thought of it as a distinct subject. And the reason he thought of it as a distinct subject was that he thought that, unlike Philosophy, the History of Philosophy, as he saw it, was also a branch of History — and he thought of Philosophy and History as two distinct disciplines. So the History of Philosophy had two masters; because it had two masters, it had a master that wasn't just Philosophy. How you lodge these people institutionally, that's just an institutional accident. But the thought that a historian of philosophy had to be a good historian, as well as a good philosopher, meant that it was an open question whether the History of Philosophy would be best done in a Philosophy Department. Now, my own view is that Michael is right: there is a way in which a historian of Philosophy is answerable to the discipline of History, but also to the discipline of Philosophy. You have to be doing Philosophy: you

can't even understand the history, typically, unless you do the philosophy well. There's something quite exciting about encountering ideas that are not part of the current philosophical landscape but you realise could be, as well as what got me into it – encountering ideas that were part of the contemporary philosophical landscape, but really hadn't been explored yet very much. I don't see any particular problem in housing a historian of Philosophy in a History Department, but I don't see any reason to think that a historian of Philosophy couldn't just as well be in a Philosophy Department. Nor do I see any problem in thinking that contemporary Philosophy can be informed by ideas that come from doing the History of Philosophy.

GC: Many historians have chosen to formalise medieval logical theories to make them intelligible and interesting for contemporary readers. What do you think about formalisation in approaching the History of Logic?

CN: Formal tools are very old: Aristotle used schematic letters to represent things in the syllogistics; the Stoics used analogous things – they had "the first", "the second" and various kinds of expressions like that. I don't think of formalisation as distinct in kind from regimentation. What does happen more recently is the development of a formal semantics. You have a formal semantics when you take a symbol that doesn't have any natural language meaning – if you like, just a letter of the alphabet or something – and you assign it something in your semantics. And of course if the formal semantics itself is something presented in set theory, then it's going to look rather different from if your formal semantics is a fragment of natural language. But when you teach Introductory Logic, typically, before you dwell upon any formal semantics, what you do is you present an interpretation of the symbols you use, *in ordinary natural language*: it's just a schematic way of presenting a fragment of the natural language. I think the big shift is not with introducing symbols and letters: the big shift is presenting something like a set-theoretic semantics. That's of course new, because Set Theory is new, but the idea of schematic representation is not new – in Leibniz, Aristotle, etc.

CG: Where do you think the discipline is going?

CN: Here's something that's important, I think: what's important is that Logic itself is becoming an orphan. My mathematician friends who do Logic say it's less and less a standard part of Mathematics; philosophers think of it as less and less a standard part of Philosophy. It's becoming an orphan. I don't think this is anything special about the History of Logic, here: it's that Logic itself is losing the central place that it has had both in Philosophy and in Math. Now, you might ask why. This is an interesting question. In the first half of the 20th century, there were some extraordinarily exciting results in Logic, which gave us reason to think that the whole project of presenting a theoretical picture of the world was different from the way we had previously thought it was. The limitative results that Gödel and Turing and others showed were just mind-blowing or earth-shaking. Now there has been nothing like that since. And what's more, the techniques that have been developed for exploring parts of Set Theory, in particular, have become very recondite: ever since Cohen's works on forcing, and the beginnings of the development of large cardinal axioms and things like that, the technical side of contemporary Logic had less to do with anything other than itself than it ever had before. In Mathematics there's a project, which Harvey Friedman and others have, of what they call "reverse Mathematics", which is to take Mathematics as it currently stands and try to see what

sort of logical foundation you need for it; it turns out that you don't need most of of the stuff that has been developed since 1964, for example. In Philosophy we teach our students how to read the symbolism; on a good day, we teach them something about Gödel's results, for example. But we don't take it very seriously and people don't think hard about it anymore; that has just made Logic itself less and less central in the field – and, of course, the History of Logic follows. But some of that is just a plain mistake, because people haven't appreciated the significance of the results that were developed throughout the 20th century. There's also this other thing, which is *reasoning*. Logic is not a theory of reasoning, because what Logic can tell you is what follows from what, but it doesn't tell you what to do once you discovered that. There's much more to Reasoning than Logic. And so *Reasoning*, the theory of reasoning, is a lively part of the contemporary scene; it just presupposes a lot of the logic that people have taken for granted. What's interesting is that, if you look at the History of Logic, the History of Logic is often in part a History of Reasoning, so it's a wider subject than Logic once Frege, and eventually Russell and Whitehead, tried to use it as a basis for Mathematics. Because of that, in some sense, there's perhaps more to be learned from earlier logical developments about what's currently relevant than from the Frege or Russell project.

CG: I completely agree. So, what would you tell a student who's becoming interested in the History of Logic?

CN: I would recommend to remember that the History of Philosophy has two masters – and so they have to be good at Philosophy and they have to be a good historian. I would urge not to forget that: you won't understand what you are doing, if you haven't thought hard about what philosophical issues are involved; and you won't know what to do, if you haven't thought about the historical context. I think that's all true. From a purely sociological point of view, there's no good reason not to get into this stuff. I point out to my students that a couple of years ago in North America there was one dedicated job in the Philosophy of Language and four in Medieval Philosophy. So if you are thinking just of an academic career, there's no particular reason to prefer doing the Philosophy of Language to Medieval Philosophy. But if you are thinking of the subject, the key thing is to not be too narrow.

GC: Thank you, Calvin.

CN: My pleasure.

News

Big Data in the Social Sciences, 22-23 June

On June 22-23 2017, a two-day interdisciplinary conference at the University of Kent brought together philosophers and social scientists to explore methodological implications of using big data for causal discovery in the social sciences.

Wolfgang Pietsch presented a conceptual framework of data science to answer epistemological questions concerning inductivism, causation and prediction. His proposal was based on two distinctions: one between theoretical and phenomenological science, the other between enumerative and eliminative induction. He claimed that data science mostly remains on the phenomenological level, while many objections against inductivism concern theoretical science. Similarly, he considered that many arguments criticizing induction, including the influ-

ential discussion by David Hume, rely on enumerative induction; however scientific practice is primarily based on eliminative induction. Finally, he concluded that these two distinctions provide useful guidelines for discussing analogical reasoning, which is crucial for many inferences in data science.

Chidiebere Ogbonnaya proposed a 2-1-2 multilevel mediation model, or bathtub model, based on large data studies. To illustrate this model, he presented a case study: his work on the mediating role of employee outcomes in terms of the links between high-performance work practices and organizational performance (Ogbonnaya and Valizade 2016). In this study, four data sets were analysed to examine the causal mechanisms occurring at level 2 (organizational level) and at level 1 (individual level), and the cross-level effects linking these levels. The results illustrated that high-performance work practices at level 1 have an impact on employees' job satisfaction and work engagement at level 2. Ogbonnaya concluded that these employee outcomes at the individual level might have a role in explaining the links between high-performance work practices and organizational performance.

Considering the question of big data's objectivity, Federica Russo and Jean-Christophe Plantin claimed that two notions of objectivity are at play. On the one hand, outside the data archives data users are not aware of the process of data curation performed to produce the "end product": data curators remain invisible and objectivity is considered a property of data, not of the process. On the other hand, inside the data archives, the data curator must be visible and his/her activities must be transparent at any time in the data curation process: the process is considered objective as long as it is traceable. Furthermore, they highlighted that the objectivity of the curation process is thought to be ensured by standardized procedures, however it is questionable whether this standardization could really ensure objectivity. They concluded that these two notions of objectivity could pave the way for further research on the re-use of data and on the factors ensuring its objectivity.

Addressing whether big data can enable better prediction, Robert Northcott went through a group of case studies of field predictions. He illustrated that sometimes big data contributed to predictive success. As an example, weather forecasting accuracy has increased significantly over the last couple of decades, and improved data collection and analysis are important reasons why. However, other case studies also suggest limitations to big data's impact. At heart, these limitations arise because the lack of data is not the only constraint on predictive success and other problems (such as the presence of non-stationary underlying causal processes) cannot be solved by gathering more data. In conclusion, he considered that successful predictive models in field sciences often have limited generalizability and, so far, big data has not begun to mitigate this limiting feature.

Jorg Muller is the coordinator of the Horizon 2020 Gender Diversity Impact project. After having described the main aspects investigated by the project, he focused on one of them: the way in which gendered role expectations shape team communication. To understand it, scientists are gathering data from sensor based devices called sociometric badges. Such devices are particularly relevant to study dimensions of social interaction that are conditioned by gender, like non-verbal communication, proximity and average speaking length. Müller recognized that behavioural data from sociometric badges gives access to otherwise "hard to observe" processes, nevertheless he also emphasized the difficulties related to this form of data. In particular, he stated that decision criteria for thresholds and measurements are crucial in order to gather relevant data.

Stefano Canali's presentation was focused on molecular epidemiology, often described as an example of data-intensive science. He examined the claim by Russo and Vineis (2017) according to which intermediate biomarkers can shed light on the mechanisms of disease causation. Canali challenged this idea and suggested that intermediate biomarkers, through exposure profiles, just track the presence/absence of pollutants and cannot be used to track causal mechanisms. He suggested that although mechanistic evidence is required to make causal claims in the health sciences, as proposed by the Russo-Williamson thesis (RWT), this kind of evidence does not seem to play a special nor new role in molecular epidemiology, and is often provided by other disciplines than molecular epidemiology.

Virginia Ghiara claimed that big data can offer new insights into the nature of social mechanisms and that new data sources offer the opportunity to gather different types of mechanistic evidence. She suggested that big data can be particularly helpful to conceptualize multilevel mechanisms, in which macro phenomena, meso-level factors and individual actions interact with each other. This opportunity, she claimed, is well illustrated by the results of new web-based experiments focused on the ways in which social influence affects individual behaviour and macro phenomena. She concluded that new data sources, such as the Internet and sensor devices, are likely to produce new experimental and observational mechanistic evidence, while the huge amount of data might be used to obtain mechanistic evidence through large-scale studies.

Overall, the conference was very insightful bringing to attention significant challenges and opportunities linked to the use of big data in the social sciences. The organizer Virginia Ghiara acknowledge funding for this event from the University of Kent and the Eastern ARC Consortium.

Virginia Ghiara
Philosophy, University of Kent

Counterfactuals and Practical Reason, 22-26 May

The topic of the *Casalegno Lectures*, held by Robert Stalnaker in Milan, was Counterfactuals and Pratical Reason. The lectures focussed on conditionals, a theme Robert Stalnaker has been working on for over fifty years, prompted by Kripke's lectures on modal logic at Princeton, which Stalnaker attended as a PhD student in the 1960s.

Stalnaker's first seminal work on the topic (i.e. "A Theory of Conditionals") appeared in 1968; soon afterwards, he received a letter from David Lewis announcing that he was working on similar ideas for analysing conditionals. That was the beginning of a philosophical exchange, which continues to have an impact on Stalnaker's work. But the exchange with Lewis, even though important and mutually influential, was not the only influence on Stalnaker's work. The lectures have been an opportunity to appreciate Stalnaker's own historical reconstruction of the problems raised by counterfactuals, which modern philosophers, such as Hume, and neo-positivists, such as Ayer and Goodman, had to confront.

In this short summary, I would like to focus on a few issues about conditionals, and counterfactuals in particular, as considered by Robert Stalnaker during his lectures. According to Stalnaker, a conditional sentence expresses a conditional proposition, while according to other philosophers, like Dorothy Edgington, it is a speech act to be explained in terms of norms of assertion and intended to change the context. In the debate between a semantic approach to conditional sentences and a pragmatic approach, Stalnaker adopts a middle position, as he acknowledges that contextual and epistemic factors are crucial in order to analyse conditionals. His proposal is therefore not limited to a strictly logical reconstruction of the truth-conditional analysis: contextual factors determined by shared true opinions among the participants in a conversation determine the truth-conditional content of any conditional sentence.

Stalnaker's analysis of conditionals, which combines contextual factors with semantic considerations adopting possible worlds, may seem problematic to a reductionist philosopher. According to such an approach, "a philosophical problem is a call to provide an adequate explanation in terms of an acceptable base" (in Goodman's words), the idea being that we should define certain concepts in terms of non-problematic ones. The reductionist may therefore consider awkward the idea proposed by Stalnaker that shared opinions among the participants in a conversation are relevant in order to establish the truth-conditional content of what is asserted, while the truth-conditional content of what is asserted is appropriate to change the opinions of the participants in a conversation, allowing for a circular interaction between content and context. Stalnaker is not worried by this kind of objection because he rejects the reductive assumption it is grounded on. According to his non-reductive stance, there is not a set of non-problematic concepts in terms of which all other concepts may be explained; he claims instead that the context determines the truth-conditional content, just as the truth-conditional content determines the context. He adopts a neo-Quinean approach to philosophical analysis, refusing any reduction of any concept to more basic ones, explaining instead the interactions among different concepts.

The non-reductive approach is also essential in order to understand Stalnaker's rejection of Humean supervenience (broadly construed), according to which notions connected with cause (such as causal dependence and independence, capacities, dispositions, potentialities, propensities and counterfactuals) should be reduced to non-problematic ones. Stalnaker has offered a historical reconstruction of the ways in which Humean supervenience has been differently defended over the centuries. For example, the non-problematic base has been variously identified by different philosophers: Hume considered ideas as the non-problematic base, neo-positivists such as Goodman considered observable facts as the non-problematic base, and finally Lewis considered local intrinsic properties as the non-problematic base. Stalnaker explained the difficulties these theories encounter and described the "projection strategy" which typifies his research attitude and according to which "there is not a level of fact that is characterizable independently of theory (where 'theory' here refers to powers, dispositions, relations of causal dependence and independence, etc.)".

The distinction between causal dependence and independence is crucial for Stalnaker's analysis of counterfactuals and decision theory. To begin with, he refuses a wholly deterministic attitude towards the world, and an analysis of counterfactuals would entail determinism if this distinction could not be made. If any fact is causally dependent on any other, then, if any fact were different from how it actually is, any other fact would have to be different, too. If, in contrast, there are causal independent facts, a fact may be different from the way it actually is without other facts necessarily changing. Since for any fact one can distinguish between facts determining it and facts not determining it, the analysis does not incur determinism.

Causal independence is also relevant to tackle decision problems. The outcome of any decision depends on two things: (1) the act chosen among the available ones and (2) the facts of the world over which we have no control. In order for there to be facts over which we have no control, there should be facts causally independent of our actions. Any decision theory accounting for maximal expected utility relies on causal independence. This consideration is thus key, for Stalnaker, to analyse rational choices and to account for dispositional properties like beliefs and desires.

The *Casalegno Lectures* have been a great success and an opportunity to engage with high-quality philosophy. They were live-streamed and are now available, along with the handouts, on a dedicated webpage.

Elisa Paganini
Philosophy, Università degli Studi di Milano

TURING TEST EXTRA CREDIT: CONVINCE THE EXAMINER THAT HE'S A COMPUTER.

YOU KNOW, YOU MAKE SOME REALLY GOOD POINTS.

I'M ... NOT EVEN SURE WHO I AM ANYMORE.

(Formal) Argumentation Theory

Researchers working within the field of multi-agent systems (MAS), which is broadly concerned with the formalisation of autonomous agent reasoning and interactions between agents, have long been leveraging insights from philosophical studies of reasoning, communication and the organisation of societies. For example, M. Bratman's belief-desire-intention (BDI) model of human practical reasoning has become a mainstay of agent reasoning architectures, and speech act theory (J.L Austin and subsequently J.R. Searle) has informed specification of agent communication languages. However, the motivational appeal to values in practical reasoning has been relatively under-explored within the MAS community. This is perhaps in part due to the intangible nature of values such as 'security', 'benevolence', 'equality' etc. in contrast to more mathematically precise notions of utility or goals interpreted as propositions that agents are committed to bring about. However, values can provide reasons justifying desires, and hence the goals that in the BDI model are desires that an agent commits to.

It was with the advent of research into formal models of argumentation based reasoning and dialogue, and its overlapping concerns with the use of argument in everyday reasoning and discourse, that values began to make an appearance on the scene. Notably, T.J.M. Bench-Capon's work on value based argumentation, wherein an argument justifying an action consists of beliefs about the current situation, the goal realised by the action, and the value promoted as a result of achieving the goal. Bench-Capon modelled orderings over values so as to arbitrate amongst arguments for alternative actions (an argument for action a_1 is preferred to an argument for action a_2 if the value promoted by a_1 is ranked strictly higher than the value promoted by a_2). Bench-Capon was influenced in his approach by the philosophers C. Perelman and L. Olbecht Tytecha's *The New Rhetoric: A Treatise on Argumentation* (1958). In a nutshell, the new rhetoric rejects the logically positivist notion that deduction holds the key to all truth; rather, the focus was on persuasion with a speaker having in mind an audience's values. Hence Bench-Capon considered a persuasive context for his work, referring to value orderings as 'audiences'. More recently, there have been works formalising arguments justifying alternative value orderings, and it would be fruitful to further develop this line of research by reference to the study of value and preference orderings in formal ethics (e.g., see S.O. Hansson's *The Structure of Values and Norms* (2001)). However, I would advocate more concerted efforts towards formalising argumentation based reasoning about values modelled as first class citizens in formal languages. Such reasoning is commonplace in everyday discourse, and is of particular relevance given contemporary concerns about the ethical behaviour of artificially intelligent agents.

It was with the above in mind that I recently attended a conference on values in argumentation, hosted by the NOVA institute of Philosophy at the New University of Lisbon. Speakers from fields such as communication studies, epistemology, moral philosophy and legal reasoning, provided much food for thought and insights into how one might further develop accounts of formal reasoning about values. To mention but one example, Frank Zenker (Lund University) reviewed work on 'co-value argumentation', whereby a reason to further one moral value v_1 is that it furthers another moral value v_2 ("I will choose freedom because I think freedom leads to equality" - George W. Bush). Such a link between values might then be mediated by action-value pairs, in the sense that there is a causal link between an action a_1 (that promotes v_1) and an action a_2 (that promotes v_2), interpreted as a_1 disposing one to act in a v_2 complicit way. A number of other presentations suggested avenues for further exploration within the field of formal argumentation, and while I appreciate that advocating the benefits of interdisciplinary research is somewhat of an academic cliché, clichés are clichés because there is some truth to them.

SANJAY MODGIL
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Medieval Reasoning

There's going to be a new entry among the "What's hot in..." columns of The Reasoner – and it's about "hot topics" from the history of medieval logic, philosophy and science. At first sight, it might seem quite counterintuitive to have "medieval" and "hot" in the same sentence: in what sense can anything from about a millennia ago (give or take a few centuries) be considered "hot" rather than out-dated and antiquated? That's a legitimate question. Sometimes, as Calvin Normore underlined,

> [p]hilosophers in the past asked questions we no longer ask (and perhaps cannot reasonably ask any longer). Philosophers in the past also did not ask questions we find completely natural. ("The Methodology of the History of Philosophy", in The Oxford Handbook of Philosophical Methodology, eds. H. Cappelen, T. Szabó Gendler, J. Hawthorne [2016], p. 33)

Medieval stuff is, by nature, occasionally quite dusty. Why did some issues, that nowadays would look silly or outright unreasonable, get so much serious philosophical attention in the past? Why were other questions not asked at all? Could they have been? These are interesting questions in Intellectual History, but they have some relevance also from the philosophical point of view, since they inform us on what counted as a worthy subject of enquiry for many past thinkers. With this perspective, we get to see several surprising examples of ingenuity dealing with issues that are extremely alien to us. Today we would still consider many of those issues and arguments to be silly or outright irrational, however (unless we are ready to assume that most pre-modern thinkers were not as rational or smart as we are) they offer us insight on which problems people used to reason about and how they went about it. But there's more to it than that: in Medieval Philosophy we can often find hidden treasures – arguments, questions, and ideas – that either are relevant for our own contemporary intellectual endeavours or that could be. This is the medieval stuff that's still hot, or that should be. In a sense, the past of Philosophy

is another vast continent where may be found philosophies not found closer to home which (because the work of developing them has already been done) can be imported for less than the cost of manufacture and, in principle at least, might compete with the local products. They can be assimilated. (C. Normore, "The Methodology", 35)

Philosophy (and the study of its history) is at times something of a smuggling operation and it requires a bit of caution: old luxuries should be handled with care, lest we end up being anachronistic and misuse them; but often those dusty treasures are worth the effort. So, here we are going to have a little car boot sale of medieval logical and philosophical trinkets: some will be dusty; some, we will restore a bit to let them shine anew. Come and have a look! Who knows? Maybe you will find a few arguments, questions or ideas to take home with you.

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Philosophy and Economics

It's been almost ten years since Richard Thaler and Cass Sunstein published their influential book *Nudge: Improving Decisions about Health, Wealth, and Happiness* (2008, YUP). This book popularised the idea of using insights from *behavioural economics* for policy purposes. For decades now, behavioural economists have catalogued the way in which individuals fail to make rational choices: they are often influenced by the way in which a decision is presented to them - or 'framed' as the behavioural economist would say. In other words, people are often bad at reasoning and bad at choosing. This opens up ways to influence their decision-making. Indeed, the idea of 'nudging' or otherwise assisting people in their decisions by so-called 'behavioural public policies' has become an influential paradigm. Since *Nudge* was published, many governments in Western countries have implemented policies informed by behavioural economics in one way or another.

As one would imagine, this trend has been both facilitated and criticised by a literature that spans several disciplines, not least philosophy and economics. The discerning 'Reasoner' who is interested in studying this area from scratch could do worse than picking up, for instance, the textbook by philosopher-economist Erik Angner (*A course in behavioral economics*, 2nd. Ed., 2016, Palgrave) or the historical account by historian of economic thought Floris Heukelom (*Behavioral economics: A history*, 2015, CUP). There is also an ever-increasing amount of methodological literature on behavioural economics, and events in which philosophers of economics examine the foundational and methodological issues, such as the May 2017 conference in Helsinki on 'Interdisciplinary Perspectives on Behavioral Economics' (see Chiara Lisciandra's report in the previous issue of The Reasoner, 11(7)). Here, I pick two recent contributions that are perhaps not on everyone's radar.

First up is a publication called the *Behavioural Economics*

Guide: www.behavioraleconomics.com. Edited by Alain Samson, it started in 2014 as an annual report that brings together academic behavioural economists and decision scientists with practitioners in both the private and the public sector. It offers a wonderful array of useful resources, such as lists of key behavioural economics concepts, study programmes, and journals and books with a behavioural economics focus. The most recent 2017 issue also contains a comprehensive list of popular behavioural science books, which contains more bedtime reading than even the most enthusiastic Reasoner could wish for. Two more features of these guides stand out. One is the array of articles of practitioners that offer a glimpse into how insights from behavioural economics are applied in the private sector. The other are the editorials from leading behavioural scientists and behavioural economists. So far, the four published guides contain editorials by Cass Sunstein (2017), Gerd Gigerenzer (2016), Dan Ariely (2015), and George Loewenstein and Rory Sutherland (2014). These editorials offer a glimpse into the thinking of some leading figures in the area. It is perhaps the written equivalent of catching them towards the end of an informal gathering at a conference, tie-loosened and more freely talking.

In the 2017 *Behavioural Economics Guide*, for instance, Cass Sunstein is reflecting about the true meaning of an individual remaining in control of their decision-making, concluding: 'We need to know much more about when, why, and how much people value control - and about diverse valuations across persons, demographic groups, nations, and cultures' (p.XII). Now, Sunstein does nots say how behavioural economics is supposed to start investigating this question of 'control'. Indeed, most of his editorial is spent on arriving at this conclusion, making this more of an announcement of what behavioural economists should work on. Still, it is hard to overestimate the significance of Sunstein making this statement. This is, after all, one of the authors of *Nudge* who has helped kick-start the idea of assisted decision-making. Nudging, as argued initially by Thaler and Sunstein, was already supposed to take into account and preserve freedom of choice and respect the liberty of the individual. Nudges, as conceived initially, were supposed to be a way to alter the decision-making environment in subtle ways so as to exploit framing effects and reasoning deficiencies of individuals for the better: for instance, by making the default option the prudent choice, a lot of individuals would automatically do what they would have done on reflection, without incurring the cognitive burden of such reflection. Now, nearly 10 years later, one of the key proponents of this idea reflects on the idea of control, and wonders in how far people might value it. This seems to suggest that, in the interim, questions have been asked about whether or not nudging individuals respects their autonomy and agency. Indeed, these questions have been raised.

I won't review the rich methodological and ethical debates about Nudges of the last years here. Rather, I'll point to a recent article that contrasts nudging with an alternative way of conducting behavioural public policy, that of so-called 'boosting', by Till Grüne-Yanoff, T. and Ralf Hertwig (Nudge Versus Boost: How Coherent are Policy and Theory? *Minds and Machines* 26:149-83). Now, *Nudges* exploit evidence of systematic heuristics and biases of individuals by setting up decision-making environments in which decisions made with those heuristics and biases lead to the prudent choice. In contrast, the idea of *Boosts* is to use research on decision-

making heuristics in order to educate decision-makers about their decision-making, improving their decision-making capacities. The article states: '[Nudges and boosts] rest on fundamentally different research programs on bounded rationality, namely, the heuristics and biases program and the simple heuristics program, respectively.' (p149). The latter refers to a research programme mainly championed by the research group around Gerd Gigerenzer, which has sought to sharply contrast its approach and findings with behavioural economics. Regardless of the supposedly fundamental differences between these different streams of research, the fact remains that there are two quite different ideas of how to improve people's choices: nudging individuals into making the right choice in a particular decision, or boosting the capacities of individuals to make the right kind of choice.

It should be apparent that the strategy of boosting implies fundamentally different ideas of the ownership or control over an individual's decision - the very aspect that Sunstein has said needs to be studied much more! This seems to suggest that some very interesting debates are ahead in which the different kinds of behavioural public policies are pitted against each other, or perhaps also integrated and improved. Behavioural economics, and behavioural public policies, are thus bound to remain a hot topic for quite a while.

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Evidence-Based Medicine

A key idea behind homeopathy is that substances that cause certain conditions can also be used to treat those conditions. Another key idea is that the more a substance is diluted, the more effective it will be at treating the condition. A report of the Science and Technology Committee of the House of Commons concluded that there was no evidence that homeopathic remedies were more effective than a placebo. It may seem odd then that homeopathy continues to be funded by the National Health Service of England (NHS England).

However, NHS England last month published a consultation document on "Items which should not be routinely prescribed in primary care". The aim of the consultation document is to get some feedback on proposed national guidance concerning the prescription of a number of putative treatments. This is in response to a worry that there is currently a misuse of scarce funds. In particular, there is a worry that the health service is spending on items that are proven to be ineffective as treatments and thus clearly not good value for money. Some of the proposed guidance concerns the prescribing of homeopathy. They recommend that "prescribers in primary care should not initiate homeopathic items for any new patient".

This reminded me of a blogpost on Homeopathy and Evidence-Based Policy by John Worrall. He points to a distinction between a proposed treatment being ineffective and being no more effective than placebo:

> "No evidence of the effectiveness" of a treatment should not then be taken literally; it really means "no evidence of greater effectiveness than an (acknowledged) placebo"; and this is compatible with the treatment's being effective at any rate for a range of conditions.

Given the presence of the placebo effect, Worrall argues that the recommendation to ban prescribing homeopathy is not so clearly a good thing, especially since homeopathy is cheap and unlikely to have adverse side-effects. Interested readers should go check out the post.

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EVENTS

AUGUST

MLwG: Mining and Learning with Graphs, Halifax, Nova Scotia, Canada, 14 August.
CW: Causality Workshop: Learning, Inference, and Decision-Making, Sydney, Australia, 15 August.
CCA: Causation, Control, and Abilities: The Agency Dimension of Moral Responsibility, Humboldt University Berlin, 17–18 August.
EPC: Buffalo Annual Experimental Philosophy Conference, Buffalo, New York, 19 August.
LFoUaL: Logical Foundations for Uncertainty and Learning, Melbourne, Australia, 19 August.
PLaAM: Philosophy, Logic and Analytical Metaphysics, Brazil, 21–23 August.

SEPTEMBER

TNF: Teleosemantics and the Nature of Functions, Bielefeld University, 7–8 September.
EPINON: Epistemology in Ontologies, Bozen-Bolzano, Italy, 21–23 September.
BCC: Bridges Causality Conference, University of Warwick, 28–29 September.

OCTOBER

HISTORY AND PHILOSOPHY OF COMPUTING: Brno, 4–7 October.
MaRU: Moral and Rational Uncertainty, University of Reading, 9 October.
RLHRC: Representation Learning for Human and Robot Cognition, Bielefeld University, Germany, 17 October.

COURSES AND PROGRAMMES

Courses

COMPUTER SIMULATION METHODS: Summer School, High Performance Computing Center Stuttgart (HLRS), 25–29 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.

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.

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.

Research Master in Philosophy and Economics: Erasmus University Rotterdam, The Netherlands.

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Jobs and Studentships

Jobs

2 Post-docs: in Big Data, Human Technopole, Milan, deadline open.

Lecturer: in Computer Science & Informatics, Cardiff University, deadline 6 August.

Senior Lecturer: in Computer Science & Informatics, Cardiff University, deadline 6 August.

Statistician: in Clinical Trials, Queen Mary, University of London, deadline 14 August.

Post-doc: in Probabilistic Modelling, University of Helsinki, deadline 15 August.

Post-doc: in Social-Epistemological, Vrije Universiteit Amsterdam, 26 August.

Senior Research Associate: in Applied Statistics, University of Cambridge, deadline 28 August.

Associate Professorship: in Statistics, University of Oxford, deadline 30 August.

Studentships

PhD: in Data Analytics, University of Leeds, deadline open.

5 PhD's: in Philosophy, University of Milan, Italy, deadline 4 September.

PhD: in Epistemology/Philosophy of Mind, University of Fribourg, Switzerland, deadline 30 September.