Workshop 'Logic, Modernity, Modernism: Chinese and Western Perspectives'

A Write-up of First Impressions

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Workshop 'Logic, Modernity, Modernism: Chinese and Western Perspectives'
A write-up of first impressions[*][†]

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Abstract

This short note reports on the results of a workshop on the interplay between modern logic and logic-oriented philosophy and key concepts from modernity and modernism, in China and in the West. It also identifies some possible directions for further research in this area.

1   When and where

The workshop 'Logic, Modernity, Modernism: Chinese and Western Perspectives' took place on October 11-12, 2014, at the Department of Philosophy at Tsinghua University in Beijing. It was organised by Wang Lu and Martin Stokhof, and received financial support from the School of Humanities of Tsinghua University, from the Department of Philosophy and the Institute for Logic, Language and Computation (ILLC) of the University of Amsterdam, and from Tsinghua's and UvA's Joint Research Center in Logic.

2   And why

The main impetus for the workshop came from discussions between Wang Lu and Martin Stokhof about the various factors that were involved in the acceptance and further development of modern logic, and of 'logic-oriented philosophy', both in Western Europe and the US, as well as in China. In various guises key ideas, concepts, assumptions and principles that can be classified under the broad heading of 'modernity' have played an important role in the remarkably rapid development and acceptance of modern logic, as a discipline in its own right as well as an essential tool in philosophical

analysis, and similar elements from later modernist developments have shaped the various ways in which it has continued to play a role in contemporary philosophy. These factors range from philosophical ideas that played out primarily internally, i.e., within philosophy itself, to much broader political, socio-economic, and cultural developments.

The key observation that triggered the organisation of the workshop was this. Certainly in its early stages, i.e., during the first two or three decades of the twentieth century, the acceptance of logic and logic-oriented philosophy in China was remarkably quick, even though it was primarily instigated by the work of philosophers, mathematicians and logicians that worked in the West. In Europe, and somewhat later in the US, and in China these disciplines for some time developed in quite parallel ways. What calls for an explanation is the fact that the philosophical traditions that these developments were grafted upon are nevertheless quite different. A case can be made that in the West the advent of modern logic and the new conception of philosophy that was spawned by it, although revolutionary in many respects, was also very much indebted to various key conceptions of modernity that had created an individualistic, rationalistic, and scientistic framework, in which logic could flourish. Such a tradition apparently did not exist, or at least not in any dominant way, in China at the end of the nineteenth, beginning of the twentieth century. And going back even further, whereas, from Aristotle onwards, logic has always played a role in Western philosophy, though admittedly not always a prominent one, some have argued that in the Chinese tradition there never was such a thing as a discipline of logic at all.[1] Obviously, the answer one favours will be partly determined by what one takes 'logic' to denote, with possibilities ranging from basic rational behaviour (planning, language) to the explicit use of arguments and justifications to formal definitions of validity and inference[2]

This raises a number of interesting questions. What is the systematic (as distinguished from historical) connection between modernity and logic, and logic-oriented philosophy? What other factors than such purely philosophical ones have contributed to the rise and acceptance of these disciplines, both in academia proper, as well as in the broader context of educational and societal reform? Were the Western and Chinese situations really that different? Is the political will to modernisation that was characteristic for Chinese society at the beginning of the twentieth century a sufficient explanation for its rapid embrace of logic and logic-oriented philosophy? Did perhaps similar non-philosophical factors also play a role in the West?

And how did the rise of modernism in the twentieth century affect further developments? In the early days, logic established itself as a sophisticated and prestigious discipline, closely related to mathematics. How did this influence its role in philosophy, and later on in other disciplines, such as linguistics, computer science, artificial intelligence, cognitive science?

From the perspective of the West, these developments appear to have been continuous, and one tends to think that they took place on a more or less autonomous basis, driven

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1. This continues to be a hotly debated topic, even today, and the study of the history of logic in China is a thriving discipline. Cf., e.g., the activities and publications of HOLIC, `http://holicnet.net`.
2. Thanks to Johan van Benthem and Fenrong Liu for ongoing discussion about these issues.

solely by internal considerations. In China political and socio-economic developments had a more obvious role to play, with major changes occurring in the post-WWII period in the university system, and the intellectual climate in general. A closer study of how things developed in China might actually induce a more nuanced picture of what went on in the West, and reveal influences from 'outside' that are not obvious, but nevertheless real.

These are large and complex questions, and a lot of research is needed to answer them satisfactorily. Attempts to do so do not need to start from scratch, though. There are a number of studies that deal with some of these questions. To mention just one example, the adoption of logic, in particular the work of 19th century authors such as Mill and Jevons, in which Yan Fu's translations where decisive, and its role in the newly developed curricula in China's early 20th century educational system has been studied extensively by Kurtz (Kurtz, 2011).[3] However, the comparative issue appears not to have been taken up so far, despite the fact that it promises not only to be interesting in itself but also to contribute to a better understanding of the Western and Chinese traditions as such.

So based on the conviction that there is a topic here that is worth exploring, the idea was to start with a workshop that would bring together Western and Chinese scholars who have already worked on some aspects of this complex, to see how one might proceed in untangling it. This workshop was to be small-scale with presentations and ample time for discussion, so as to maximise the exchange of ideas.

3 And who

Five Chinese scholars and five Western scholars gave presentations at the workshop. In addition a small number of interested scholars and graduate students also took part. The line-up of the speakers was as follows:

Bob Hale, University of Sheffield; Chen Jiaming, Xiamen University; Dimitris Gakis, University of Amsterdam; Han Linhe, Peking University; Gavin Kitching, University of New South Wales; Chen Yajun, Nanjing University; Sandra Lapointe, McMaster University; Yu Junwei, Renmin University; Martin Stokhof, University of Amsterdam; and Wang Lu, Tsinghua University.

4 And what, of course

The contributions of these participants range over a wide variety of issues, some of them addressing main concerns of the workshop more or less directly, others making relevant observations from a more distant vantage point. In line with the observation made above, viz., that an explicit comparison of Chinese and Western developments is lacking so far, none of the contributions did address this particular issue as its main topic, but several of them did have a comparative element.

In what follows we will review the main points of the various presentations, focussing on the background topic. Inevitably this will distort some of the things that have been

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3. For an overview, cf., Liu & Liu (2011).

presented to some extent, but we want to focus here on what we have learned from the workshop in relation to the background aim.

Bob Hale's contribution, entitled 'Necessity', focussed on the relative neglect of the concept, or rather the metaphysical fact, of necessity in early modern logic. Frege, Russell, early Wittgenstein either rejected modality as a proper topic for logical research, or paved the way for some form of linguistic conventionalism, that in various guises has been characteristic of most of modern logic and logic-oriented philosophy. In contrast to that Bob Hale argued that there is ample reason for the acknowledgement of modal facts as existing in their own right, and that a proper account of identity and essential properties requires such an acknowledgement. From this perspective, the so-called 'linguistic turn' in philosophy is not a definitive break with the past, but rather an (extended) interlude in the ongoing metaphysical tradition of Western philosophy.

In his contribution, entitled 'Chinese practice epistemology: from the perspective of knowledge-how', Chen Jiaming focussed on a re-interpretation of classical Chinese epistemological concepts, in particular from the Confucian tradition, from a practice-oriented perspective. His aim was to show that these concepts are best viewed as pre-cursors of the Rylean concept of 'know-how', and that they lack some key features that are associated with the concept of propositional know-that. According to him it is this focus on know-how, which in the Chinese tradition does come with a type of rational justification but one that is practical, rather than theoretical, that explains why modern science, including deductive logic, did not arise in the Chinese tradition in the same way as it did in the West.

Dimitris Gakis, in his presentation 'Wittgenstein, modernism, and modernity: some contextual and systematic remarks', focussed on the broader cultural context of Wittgenstein's work. Since Wittgenstein is one of the most influential thinkers in logic-oriented philosophy in the West, both as a positive contributor with his early work and as a critic in his later writings, tracing the influences of modernity and modernism in his work gives a better view of how various key ideas and concepts of these intellectual and artistic movements have shaped this tradition in modern Western philosophy. It is especially the opposing elements in modernity and modernism, such as individual versus society, or the different evaluations of the role and range of science, that appear to provide fruitful hooks for a comparison of how logic-oriented philosophy took hold in China and in the West.

Han Linhe's contribution, 'Man is a rule-following animal', had Wittgenstein's rule-following considerations as its main topic. Constructing Aristotle's conception of man as a rational animal and Kant's conception of theoretical reason as rule-guided cognition as core ingredients of the idea of man as a rule-following animal, Linhe focussed on Wittgenstein's main contribution to the complex of issues surrounding rule-following behaviour, viz., the distinction between reasons and causes. In his presentation Linhe highlighted the intrinsically social nature of reasons and their justificatory role in rule-following behaviour that is a core ingredient of the Wittgensteinian approach. As such that appears to align well with the Chinese tradition and its emphasis on practice that was central in the contribution of Chen Jiaming.

The presentation of Gavin Kitching, entitled 'The Wittgensteinian critique of scientism',

dealt with a key issue in discussions of modernity and modernism, and a crucial element in the development of logic-oriented philosophy in the West, viz., the role of science. Kitching took modern economic theory as the leading example in his talk, but claimed that mechanisms by means of which economic concepts get constructed are not restricted to that particular field. Kitching's main point was that in this construction the 'hierarchical' relations between various aspects and actors gets distorted, because their aggregate nature is not sufficiently acknowledged, which has the effect that it does not provide a proper place for the diverse nature of what human activity means to the individual actors involved. It is the scientistic attitude that postulates an ontological homogeneity where in fact there is a wide diversity of actions, intentions, motives and values.

Chen Yajun's presentation, 'Pragmatism in China and Chinese philosophy', was concerned with a detailed exposition of the influence of Dewey's pragmatism in early twentieth century China. This influence was exerted mainly via education and educational reform. In the reception of pragmatism, Chen Yajun distinguished three main phases. The first phase focussed on methodology, applying it in the study of Chinese classics and in a more general attempt to introduce modern science and democracy. After a period of decline, in which the subjectivist aspects were the main issues, the dominant current conception again focusses on methodology and views pragmatism mainly as a precursor of analytic philosophy. Chen Yajun criticised this view because it ignores important insights regarding the relation between ontology and epistemology. With its rejection of an appearance – reality dichotomy and its construction of experience as interaction of individual and environment, pragmatism comes close to classical Chinese philosophy, in particular Confucianism.

In her contribution, entitled 'Kant, logic and the analytical tradition', Sandra Lapointe was concerned with the 'self image' of modern logic and logic-oriented philosophy, according to which Frege is the true originator, and a precursor such as Bolzano is 'a flower in the swamp'. Lapointe argued extensively that this form of historiography of a discipline or tradition, in which its history is reconstructed in terms of its present themes and concerns, unavoidably leads to misrepresentation. Instead, she proposed a more sociological approach, in which also institutions, journals and publishers, course descriptions, etcetera, are used as sources of information. Lapointe then discussed a number of concrete instances of substantial corrections of the self-image of logic and logic-oriented philosophy that such an intrinsically contextualist perspective provides.

Yu Junwei's presentation, 'Modality from the perspective of conception', was concerned with a somewhat more technical problem in modal logic, viz., the distinction between de dicto and de re constructions of modal statements in natural language. Yu Junwei gave an analysis of the standard approaches that use the tools of modal logic, and criticised them for not being cognitively plausible. For an alternative analysis Yu Junwei proposed to go back to Frege's approach of modality as a mode of predication. This, he argued, allows us to deal with such examples as Quine's puzzle of the number of planets without the need of essentialism with respect to properties. This more nominalistic approach would seem in some ways more congenial to certain ways of thinking in classical Chinese philosophy, and provides a counterpoint to Bob Hale's insistence that modal facts are an essential ontological category.

In his presentation, 'What Cost Naturalism?', Martin Stokhof was concerned with tracing the assumptions underlying the prevailing naturalistic attitude in modern linguistics. He argued that a particular form of scientism, combined with a thoroughly individualistic outlook, was conducive of this view, thus marking the influence of key concepts from modernity in this area. He also discussed some problems in comparing different traditions of thought in philosophy and logic, arguing that we need to be aware that how key concepts, such as meaning or logic inference, are conceptualised may influence the outcomes.

Wang Lu, in his contribution 'Frege for China', was concerned with yet another aspect of comparison, viz., that of the introduction and application of key concepts and distinctions from one tradition to students and scholars that are raised in another tradition. After an introduction in which he emphasised the pivotal role of Frege for the development of modern logic and logic-oriented philosophy, Wang Lu went on to introduce a number of what he called 'sentence schemes' that embody a number of key concepts and distinctions from Frege. These sentence schemes are didactic tools that allow a student or a scholar to systematically discern these elements in various philosophical and logical argumentations. This was illustrated by Wang Lu with a number of examples.

5   And next

The various contributions, which were briefly characterised in the previous section, dealt with a wide variety of topics. Directly in some cases, more indirectly in others, they all touched on issues that are involved in the main question that inspired the workshop: What factors were involved in the uptake of logic and logic-oriented philosophy in China and in the West? Of course, that is a very complex question, and a wide variety of investigations would need to be undertaken to get a grip on its answer. But the presentations that were given during the workshop, and especially the discussions between the participants, did touch on a number of relevant issues, and it is with a brief indication of them that we want to conclude this write-up of the workshop.

5.1   Individualism

First of all, the role of individualism. One of the key ideas that modernity has contributed to modern Western thought is the emphasis on the intellectual and moral authority of the individual. This is aptly illustrated by the famous opening passage of Kant's essay on enlightenment:

> Enlightenment is man's release from his self-incurred immaturity. Immaturity is man's inability to make use of his understanding without direction from another. This immaturity is self-imposed when its cause lies not in lack of reason but in lack of resolution and courage to use it without direction from another. Sapere aude! 'Have courage to use your own reason!' – that is the motto of enlightenment.

Thus, modernity places the individual, and the individual's rationality, at the centre of philosophical and scientific investigation. This has been a tremendously influential development in Western thought, in philosophy, in science, in politics. It has been

one of the decisive factors in the secularisation in many Western European countries, it has helped shape liberal thought in economics and politics, and indirectly it may even be one of the driving forces behind the current rise of the perspective of cognitive neuroscience in the social sciences and humanities. The social ramifications of modernity's individualism are complex. On the socio-political front, the West has seen many different reactions, both positive and negative, to this fundamental idea, ranging from fascism and corporatism to communism and communitarianism, and from rigid plan-economies to what appears to be a wholesale embrace of political liberalism. In many ways, the current situation in Western Europe and the US is confusing, with on the one hand an extreme emphasis on individualism in socio-economic policies and popular culture, and on the other hand, an almost casual dismissal of privacy concerns in connection with the use of social media and government surveillance of communication and public space. In China the individualism that is at the core of modern scientific thought emerged in a different context, at least so it seems. The modernisation period that started at the end of the nineteenth century appears to mark a rather radical shift away from the focus on a hierarchical social order that appears to be characteristic of main parts of the Chinese tradition. There are many different ways in which a rising individualism has manifested itself. One remarkable example, that has survived many subsequent changes in political and economic circumstances for more than a century, is the introduction of the Western, more specifically the American, college and university model. While many other aspects of Western individualism, in culture, politics and economy, have been controversial, the adoption of the university system, including the division in disciplines and the role of logic in the curriculum, seems to have tapped into a deeply felt need. Its conceptual link with the Chinese examination system, that has been a force of meritocracy in some sense during part of its existence, may be part of the explanation for this.

5.2   Scientism
Second, the role of scientism. We use the term in a broad sense, not just as referring to a motivating factor of various forms of reductionism and naturalism in the sciences themselves, but also as an attitude at the level of politics and society. As for the latter, a key question is to what extent science has become, unconsciously or consciously, a major, or even decisive factor in the way in which politics organises the economy and society at large , and in which people look at society and their place in it. Two concrete questions may serve as examples of what is at stake here. First, to what extent did the new economic policies in China that started with Deng Xiaopeng in the late seventies, early eighties of the twentieth century come with a renewed reliance on science as a major contributor to economic growth and to the solution of societal problems? And what exactly were the academic effects of those new economic policies? Did they also lead to a renewed reliance on logic in a broad sense in the humanities? Second, how does this mirror the developments in the US and Western Europe in the aftermath of the Second Wold War? At the time there was a distinct expectation that science was not just the major driving force behind economic growth, but also would be able to provide solutions to all kinds of societal problems. (The rise of generative grammar, with its concomitant neglect of social and cultural factors in language and language use, and

the great hopes for its being able to solve the problem of machine translation comes to mind as a nice example in our own field.) But now the tide seems to have turned, with fewer and fewer people placing their trust in the ability of science to provide solutions. (Think of the current mania w.r.t. the Ebola-virus in the US.) The congruence with the influence of post-modernism in the humanities and the social sciences seems more than just a coincidence.[4]

5.3 Metaphysics

More focussed on our specific domain of logic and logic-oriented philosophy, we note that a crucial question concerns the role of metaphysics in the western tradition. With the 'linguistic turn' the central role of metaphysics was supposed to have come to an end, or, at least, so it may have seemed at the time. Early analytic philosophy had a distinct anti-metaphysical tendency, and that was further explored by the logical positivists. As far as logic is concerned, modality was explicitly scrapped from the agenda by Frege, and it took another 60 years for modal logic to emerge as a viable and respectable branch of (philosophical) logic. However, initially most modal logicians did not conceive of modal logic as concerned with the logical analysis of metaphysical concepts, it seems. For them it was primarily a tool: to be deployed in the analysis of intuitionistic logic, to be applied in formal semantics of natural languages. Only in a few cases did some authors, such as Cocchiarella, Vlach, and Kaplan, use modal systems to do a form of metaphysics. However, recently there is a renewed interest in metaphysical analysis as a core branch of philosophy, as was witnessed by Bob Hale's presentation at the workshop. This might suggest that the anti-metaphysical stance of early analytical philosophy was 'just a phase it was going through', and that Western philosophy remains thoroughly metaphysical. Now if we combine that with the supposedly non-metaphysical nature of the classical Chinese tradition (to be sure, with 'non-metaphysical' being something decidedly different from 'anti-metaphysical'), we have another piece of the comparative puzzle.

5.4 Contextualism

Finally, there is the issue of the 'self-image', of a discipline, a tradition. As many of the presentations have illustrated, explicitly or implicitly, we need a thoroughly contextualist perspective to address these comparative questions. If we simply compare or contrast schools of thought and philosophical traditions from an internal perspective, i.e., by comparing the self-images of these schools and traditions as they are constructed from the inside, i.e., in terms of what people at a certain time believe to be the core features of their tradition, we may end up comparing things that actually do not exist. One example is the comparison between Chinese classical philosophy and modern philosophy. From their respective self-images a fairly deep divide seems to appear. But if we combine the analysis of the Chinese tradition as being 'pragmatist', as was argued in the contribution of Chen Yiaming, with the quick and enthusiast embrace of Dewey in modern Chinese philosophy and educational policies in general, as was outlined in the presentation of

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4. Cf., Kitching (2008).

Chen Yayun, we get quite a different picture. A similar picture emerges if we contrast the self-image of modern logic and logic-oriented philosophy in the Western tradition with a contextualist history of the discipline, as outlined by Sandra Lapointe. And the issue of the linguistic turn and metaphysics illustrates this as well.

6 Conclusion

We hope the brief summary presented above has shown that there is a set of interesting questions that require further investigation. As was already mentioned, such an investigation need not start from scratch. With respect to logic specifically, but also from a broader perspective the interactions between China and the West and the roles of key ideas from modernity and modernism are being studied extensively. That these are hard problems, both historiographically and conceptually is clear.[5] The questions that the workshop made a first attempt at addressing, though more focussed in terms of subject matter, reflect the same kind of complexity, as we hope the observations and remarks just made have shown. If our take on the matter is correct then the more focussed disciplinary questions and the broader issues that pertain to cultural, political and social factors are intimately related.

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5. For a brilliant example, cf., Wang Hui's recent book on the concepts of 'empire' and 'nation-state' and the question of China's identity (Wang, 2014).