



EDITORIAL

Philosophy, ethics, medicine and health care: the urgent need for critical practice

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What is philosophy and should health practitioners, patients and policy makers take the subject seriously? A rudimentary acquaintance with the literature on a range of important topics, from the nature of clinical evidence to the management of health services, reveals that many would answer the second question with a resounding 'no', implicitly vindicating their refusal even to think about the first [1–6]. It is deemed acceptable to write about the nature of clinical knowledge and the proper relationship between scientific research and medical practice, while professing no interest in epistemology and the philosophy of science, as though underlying questions about the nature, limitations and role of science in clinical practice were just too obvious to merit serious consideration [2,7]. Even those who declare their area of expertise to be 'ethics' may openly eschew philosophical methods [8–12], treating 'applied' as distinct from 'philosophical' ethics: the former being neither 'the offspring of' nor 'even dependent upon' philosophy [3]. The term, associated for much of human history with the work of thinkers such as Plato, Aristotle, Hume, Kant, Mill and Sartre, has in the course of approximately 30 years been effectively appropriated by those who understand 'ethics' to be all about ticking boxes on forms, regulatory mechanisms and committee meetings, and by authors who think a really great work of ethics is a comprehensive set of 'authoritative guidelines', punctuated by handy 'ethics check lists' to facilitate compliance [5].

Consider the following quotations, separated by 14 years and addressing radically different topics. The first is about health management and responds to questions about the intellectual foundations of the author's approach to this subject.

I certainly admire those who have spent their lives trying to improve the quality of thought but for those of us employed in more mundane processes of what is called 'real life' we must be forgiven for feeling that some intellectual ruminations are not to our purpose. [1]

The second is from a text on evidence-based medicine (EBM) and berates 'philosophers' for questioning the epistemological foundations of EBM [13]. Complaining that such questions are 'confusing rather than helpful', the authors conclude:

We are sure the intellectual ruminations would be fascinating – if only we could understand them. The debate is for philosophers, not busy healthcare practitioners. For now, all we want to say is this: if you're overwhelmed by the literature in healthcare, then it doesn't matter if you're a doctor, dentist, nurse, midwife or therapist, EBM is for you! [2, pp. 2–3]

A couple of pages later the same authors ask if EBM is 'a philosophy, a movement or even a scientific revolution' and respond: 'Let's leave the debate to philosophers. This book is for healthcare practitioners. We say it again – if you are drowning in medical literature, EBM is for you!' [2, p. 5]

Despite the differences in time and topic, the underlying attitudes of the authors are strikingly similar. Both dismiss philosophical questions as 'intellectual ruminations' detached from the processes of 'real life', where people are too busy to address such 'academic' issues. The first quotation was prefaced by a comment implying it is 'arrogant' even to assume that people who work at universities (and are officially part of the 'academic staff' of a

university, as was the author at the time) must be 'academic' and should therefore 'rely on the processes of rational thought' [1].

The EBM authors' reference to 'scientific revolutions' was a reaction to questions raised by two philosophers [14] about the use by EBM protagonists of the language of 'paradigms', 'scientific revolutions' and other terms taken from the philosophical work of Thomas Kuhn [15]. The authors apparently found nothing unhelpful or confusing in the initial appropriation of this language, with scant explanation, by the founders of EBM [16]. Nor do they have any problem, it seems, with the fact that EBM literature has been peppered with this sort of terminology ever since. It is the raising of questions about it that they regard as a trivial academic exercise. It is not trivial to claim that EBM is a paradigm,¹ but it is trivial to ask what that claim means and why anyone should believe it. What they seem to be saying to the practitioners they address is: 'you are far too busy to think about the meaning and justification of the claims we invite you to accept, so just accept them!' [7]

Thus their hostility to philosophy's 'ruminations' is a species of what might be called 'moderate anti-intellectualism'. After all, the authors do not dismiss all intellectual ruminations as impractical and are happy to ponder at length, in their own work, the implications of the latest policy document, manual or handbook in their selected area, sometimes taking readers through a wide range of 'what if' scenarios to make sure they are 'up to speed'. The intellect is, it seems, properly occupied in equipping people to follow the instructions of any selected text or policy document, and the authors seem remarkably untroubled at the prospect of practitioners 'drowning' in the sea of handy 'how to' texts to which they readily contribute. Intellectual exercise becomes improper when it is used to question the validity of the reasoning within the selected documents, or to raise questions about their underlying assumptions. Although few, if any, would accept this label (preferring to call themselves 'pragmatists', 'realists' or some other rhetorically more effective term) this moderate anti-intellectualism has many defenders, including some powerful voices in academia, where one might reasonably expect it to meet the most fierce resistance [5,17]. According to this view, thinking is permissible and sometimes highly desirable in working life, so long as you are thinking about 'how to' questions: how to follow the rules, how to accomplish tasks and achieve goals. But a truly 'practical' person has no interest in 'why?' questions: why should we work in this way? Why these rules, tasks and goals? What alternative approaches to practice are available? What justification has been provided for currently dominant approaches over such possible alternatives? Such questions are dismissed as spurious, as questioning the just-plain-obvious, as playing no role in 'real life'.

So if you want to know what is the best evidence in your area of practice, consult the relevant guidelines. How do you decide which published sources of guidance are relevant? As a general rule, find out which ones are currently recognized as relevant by whoever is funding your project or area. It is just a job of keeping up, making sure you know what the most recent advice is on the matter, and sometimes hoping that official advice does not change in the course of your carrying out your work. Similarly, if you want to know what is ethical in your area, then find and follow the guide-

¹ In their opening pages the authors shower praise on the paper that initially made this claim [16], which they regard as 'exciting', groundbreaking and of immense practical significance [2, p. 3].

lines issued by the ethics committee for your institution, the regulator for your area of practice or whoever it is with the power to pull the plug on whatever you are trying to do. Obviously, some would wonder whether a group of instruction-seeking, guideline-following workers of this sort represented the excellent, autonomous and thoroughly motivated professionals boasted of in the management mission and vision statements of so many health organizations across the world. Some might even question whether or not services might be better if provided by staff with the time and energy sometimes to think of thinking for themselves at all.² But the people who wonder about such things would not include you, because you are a practical person, and you do not have the time to engage in such impractical thought experiments.

The nature and value of philosophy

There is, of course, no good reason to accept the conception of 'the practical' embodied by the version of moderate anti-intellectualism sketched above. Understood properly, philosophy is the antidote to this position. Far from being an other-worldly occupation, philosophy is a practice that all human beings engage in at some point in their lives – at the very least, when we are young and refuse to abandon a question until we have been given a sensible answer, meaning one that actually answers the question asked [7]. It is an extension of our everyday reasoning processes. We all have the experience of sensing that a conclusion does not follow, that a line of argument someone has presented to us is either incomplete or just plain spurious, and we may sometimes stop to think about why. Philosophers (at least, those fortunate enough to be paid to teach and write in the subject) simply do this professionally. By analogy, we all engage in physical exercise: the sportsperson does not exist outside of 'real life' but simply develops a set of skills that others may also aim to develop and improve. The philosopher aims to be intellectually fit in much the same way and is no less a part of 'real life' for so doing. Just about anyone can engage in sport, and similarly just about anyone can do philosophy.

Philosophy is an activity, an intellectual discipline: you learn it by practising. Philosophical training helps you to think more clearly about any problem that confronts you and to distinguish sense from nonsense, good arguments from bad. To do philosophy is to learn to identify the logical structure of arguments, clarifying debates by exposing ambiguities and errors of reasoning. Far from being an alternative to practical thinking, it is essential, if thinking is to provide the basis for coherent practice, that logical confusions, about the meanings of terms and about the implications of statements, are identified in this way. The choice is not between practical and logical thinking, but between clear practical thinking and confused thinking [5]. There is certainly no credible evidence to the effect that tasks, as a rule, are performed more effectively if their performance is based upon confused thinking.

Done properly, philosophy helps to foster the disposition to think critically. A student qualifying in philosophy should have

² From the Gilbert & Sullivan opera *HMS Pinafore*: 'I always voted at my party's call, and I never thought of thinking for myself at all.' It would of course be a mistake to treat anti-intellectualism specifically as a contemporary problem. The moderate version is without doubt an advance on the unadulterated form that has ruled the lives of so many human beings for so much of our history.

come to expect, as a matter of routine, those who make assertions and issue instructions to be able to produce good reasons in support of what they say. Please note that the term 'expect' here should be read morally: she does not have the 'naïve' (empirical) expectation that such persons will, as a matter of fact, have good reasons for what they say. Rather, she thinks that they should do and will be prepared to challenge them to explain and defend their claims. It is for this reason that philosophers have, traditionally, been regarded as troublemakers by dogmatists and ideologues of all sorts, who prefer their assertions to pass unchallenged [5]. While Socrates was famously sentenced to death for asking questions that others preferred not to answer, a more standard rhetorical strategy is to misread the normative nature of the philosopher's challenge, to construe her instead as making an empirical claim and on that basis to treat her questions as revealing lack of familiarity with the 'real world'. The author of the first 'anti-philosophy' quotation cited above states that 'it is vain to criticise intellectual flabbiness' in senior management and 'unrealistic' to complain about the basing of decisions on 'vague and half digested ideas', because in 'real life' that is in fact how decisions are made [1]. One does not need to have made an extensive study of Sartre's work on 'bad faith' to get a sense of what is wrong with this response [18]. It is reminiscent of an old joke told by the comedian Alexei Sayle. In the days before the widespread criminalization of public smoking in the UK, Sayle complained that many restaurants and shops in his native Liverpool habitually made false assumptions about his behaviour, because they kept placing signs on their walls saying 'Thank you for not smoking!' when, in fact, he invariably *was* smoking. There are, indeed, times when the thing is not to describe, but to change the world [19], and one of those times is when confronted with the news that decisions that affect services vital to the common good are being based on 'vague and half digested ideas'!

In addition to critiquing 'intellectual flabbiness' in others, the philosopher should expect her peers to hold her to account for the claims she makes and the positions she espouses. She should have been trained to identify and question assumptions, even ones presented as too obvious or too widely shared to be worth questioning; even those so fundamental that they have slipped out of sight, making their presence felt in a line of reasoning only when someone notices that they may indeed be questioned, and that without them an otherwise sound argument collapses [17]. So the characteristic method of philosophy (its ability to expose underlying and often unarticulated assumptions) explains why it so often seems to have a characteristic content, in that philosophers tend to address questions of a peculiarly 'fundamental' nature. Discussions (about the nature of knowledge and evidence, about the proper goals of practice, or indeed about the moral character of actions) can appear intractable because parties bring to the debate fundamental beliefs that they may rarely think about, and so may never have seriously questioned. In such cases it can come as a genuine shock to find that there are others who do not share those beliefs: such persons may initially appear just plain crazy, or wilfully perverse. Philosophy forces us to identify our basic assumptions, to characterize them as clearly and honestly as possible and to decide whether, once we have brought what may have been background assumptions into the foreground, we still wish to endorse them.

The alternative to thinking critically about one's fundamental assumptions is to allow one's ideas and attitudes, and conse-

quently one's behaviour, to be shaped and directed by forces that one fails even to perceive, let alone control. If that is my condition, it makes very little sense to speak of me as a person who 'thinks for himself' or who makes his own decisions [5]. A political culture that derides critical reflection is, as Mill noted [20], fertile soil for tyranny. In a culture characterized increasingly by ever more sophisticated approaches to influencing our beliefs and attitudes [5,17], a population unable to think critically and analytically about the suppositions underlying the messages it receives is at the mercy of those who control the media in a very real sense, because the way that population conceives the world is determined by forces that its members fail to understand or even consider. The way in which we conceive the world includes our conception of the moral relationships existing between ourselves and others: it shapes the values that determine how we live our lives, so such a population can in no meaningful sense be described as in control of its own destiny, and cannot plausibly be said to populate a 'free' society. The version of moderate anti-intellectualism outlined above is a very real threat to our freedom, as citizens and in particular as professionals. It threatens to turn autonomous workers in control of their own practices (cf. the initial meaning of the term 'profession') into technicians awaiting instructions from others, whose authority to issue them remains unquestioned, lying beyond the scope of properly 'practical' enquiry for the rest of us.

The first thematic philosophy issue of the Journal of Evaluation in Clinical Practice

The Journal of Evaluation in Clinical Practice has consistently recognized the central importance of philosophical rigour and the questioning of underlying assumptions in the analysis of clinical policy and practice. Its regular thematic editions on evidence-based practice have done much to restore the discussion of underlying questions about nature and value of health practices (questions some advocates of currently popular approaches would urge us to ignore or treat as already resolved) to their proper place in public discourse [21–32]. This first thematic edition of the Journal devoted explicitly to philosophy in medicine and health care continues this tradition. We present contributions from some of the most incisive, exciting and rigorous thinkers the discipline has to offer on a broad range of subjects of urgent practical import [33–61]. The key goal is to bring depth and clarity to the discussion of topics too often addressed superficially, even in some respected mainstream medical media.³ Another goal is to illustrate the impressive scope and variety of applications of philosophy: to topics ranging from the nature of evidence and reasoning in clinical practice to the politics of professional ethics, traversing en route such diverse intellectual territories as the nature of clinical judgement, expertise and tacit knowledge, the relationship between the language of science and narrative evidence in medical epistemology, homeopathy, personalized care, the nature of health and questions of intrinsic value as well as the debate of specific moral controversies, including the currently topical and always highly controversial issues of assisted dying, conscientious objection and abortion.

³ On the surprising superficiality of mainstream medical and policy discourse, see criticisms presented in this journal [7,12,28–32] and elsewhere [5,9,11].

The collection opens with a characteristically insightful and original discussion co-authored by the renowned philosopher of science, Nancy Cartwright and her esteemed colleague Eileen Munro [33]. These authors open with the question: 'what kinds of evidence reliably support predictions of effectiveness for health and social care interventions?' They note that there is an increasing reliance on evidence from studies whose basic logic is that of JS Mill's method of difference, including the randomized controlled trial (RCT), regarded as the 'gold standard' by proponents of EBM. Their central concern is the much debated issue of the 'external validity' of causal conclusions from these kinds of studies, and they argue, firstly, that 'external validity is the wrong idea' and secondly that 'capacities' are 'almost always the right idea'. But they notice that this argument has profound and problematic implications for a variety of policy issues in health and social care, illustrating the complexities involved with the case of Multisystemic Therapy, an internationally adopted intervention to reduce antisocial behaviour in the young. Their challenging and rigorous discussion is followed by another very tightly argued and impressive paper [34], this one authored by RP Thompson, who founds a devastating critique of EBM upon an analysis of causality, mathematical models and statistical association. Thompson argues that RCTs use mathematics solely as a *tool* of analysis rather than as the *language* of the science and that this fundamentally affects the validity of causal claims. EBM gives pride of place to RCTs and devalues theoretical models – a devaluation, the author notes, that would be incomprehensible to a physicist or biologist. Because of this, the validity of EBM's causal claims and knowledge claims are undermined.

Scott Sehon and Donald Stanley develop a philosophical critique of homeopathy on the basis of a version of 'the simplicity principle', which has ancient roots going back at least to Occam and which, they argue, constrains all empirical reasoning [35]. They argue that we are all (homeopaths included) committed to this principle, but that its proper application reveals homeopathy to be irrational. An important goal of the paper is to explain to homeopaths that medical scepticism of homeopathy is based not on dogma or prejudice but on rational principles that homeopaths also share, thus illustrating 'the usefulness of philosophy in unearthing presuppositions in seemingly deadlocked debates'. In a lively response [36], the distinguished homeopath Peter Fisher queries the authors' rendition of Occam (as their version of 'the simplicity principle'), defending homeopathy against the charge of 'inherent implausibility' by evoking a theoretical background that, he maintains, Sehon and Stanley simply ignore. We look forward to the continuation of this important debate in future editions of the Journal, particularly as it is one that (we feel sure both parties to this dispute would agree) raises crucial questions about the relationship between evidence, explanatory frameworks and rationality that are not only central to the debate about homeopathy but that also have a significance extending beyond homeopathy.

This debate is followed by three articles that analyse the practical and context-specific nature of knowledge in the clinical encounter, examining clinical judgement and tacit knowledge and explaining the significance of conceptualizing knowledge as primarily a human activity. Tim Thornton warns against a prejudice in favour of 'technical rationality' in analyses of medical knowledge, exemplified in much of the work on EBM and attempts to lay the foundations for 'a general account of the relation of practical

expertise and general medical knowledge' [37]. He examines the relationship between judgement, expertise and 'skilled coping' with reference to the work of Dreyfus and McDowell, preferring the latter because it provides a better basis for a unified account of clinical judgement, as both practical and *conceptually structured*. Only an analysis that incorporates the latter element can adequately account for the relationship between 'the descriptive and the practical' in clinical knowledge, between 'embodied practical know-how' and 'disinterested, context-free knowledge-that'.

Stephen Henry's discussion of Polanyi's work on 'tacit knowing' also warns against overly technical or 'reductionist' accounts of medical knowledge, arguing that many of his clinical colleagues 'take for granted a simple, reductionist understanding of medical knowledge that is at odds with how they actually practice medicine' and that 'routine medical decisions incorporate more complicated kinds of information than most standard accounts of medical reasoning suggest' [38]. He eloquently articulates the need, in medical education, practice and policy, for a full recognition of the importance of the clinical encounter and the significance of 'the taken for granted background knowledge that underlies all human knowing'. In a response to Henry, Michael Loughlin praises the paper's emphasis on 'recognising the clinical encounter as an interaction between persons' and in bringing out the significance of our status as embodied creatures to any meaningful discussion about the nature and limits of our knowledge [39]. Insofar as the defence of 'tacit knowledge' depends upon a thesis about the status of knowledge as an activity of the whole person, it is compatible with a properly scientific understanding of what we are – and indeed has the virtue of showing that 'reductionist' or 'scientistic' accounts of knowledge have lost touch with this understanding. However, Henry (following Polanyi) makes appeal to Kantian and also to mystical language [38], and Loughlin argues that this language is not needed to defend the forms of practical knowing Henry wishes to defend [39].

In a discussion of the epistemology and ethics of EBM, Pier-sante Sestini argues that, contrary to the views of many philosophical commentators, EBM is 'highly consistent with Karl Popper's criterion of demarcation through falsification' and offers a reading of 'the first 3 steps of the EBM process' that interprets them as 'closely patterned on the Popper's evolutionary approach of objective knowledge' [40]. In reply, Maya Goldenberg argues that Popper and EBM share only superficial similarity, and that Sestini's focus on the centrality that formulating the clinical questions plays in evidence-based practice instead highlights EBM's compatibility with the Kuhnian picture of 'normal science' [41].

Ethics, health and value

In addition to these primarily epistemological discussions, we also present a series of papers that could be characterized as primarily 'ethical' in character, although we fully recognize that the divisions and relationships between the epistemic and the ethical are themselves a matter for philosophical debate, as some of the papers published in this issue of the Journal demonstrate [37–39,44,45,51]. Alan Cribb and John Owens argue that calls for personalization or 'tailored' services derive a large part of their appeal from the way they 'fudge together' a great many things – one crucial fudge being between a health service tailored to peoples' medically defined needs and one tailored to peoples'

wants [42]. Their philosophically incisive and politically astute analysis both draws attention to personalization's place in the re-engineering of the welfare state in the UK, and 'highlights some of the fundamental philosophical and political questions that need to be addressed before personalisation can take shape as a coherent policy option'. In the process of developing their main argument they make useful points about methodology in applied philosophy, arguing that philosophers should not dismiss 'the pervasive vagueness of policy talk' but should look instead at 'the particular conceptual and policy "work" that is done by vagueness'. In response, John Cox acknowledges that 'There is indeed much fudging of the crucial structural and philosophical concepts' implicit in the 'orchestrating labels' of personalization and person-centred care [43]. However, he argues that personalization of health care delivery and personalized care reflect holistic conceptions of the person with roots in existential philosophy and humanistic values, making reference to Tournier's concept of a 'medicine of the person' and the work of continental philosophers including Husserl, Heidegger and Merleau-Ponty. We have no doubt that personalization will feature in future policy discussions, in this journal and elsewhere.

In a fascinating analysis of the relationship between health and value, Peter Duncan argues against a popular view that health is an intrinsic value – capable of being abstracted from thoughts of preference or utility (subjective or instrumental value) [44]. The view that health has essential intrinsic value is often associated with attempts to justify the production of 'more health' through health promotion and public health interventions, possibly by authoritarian means. Seeing health as instrumental in value supports liberal interpretations of the purpose and methods of health care, including public health and health promotion, but these interpretations 'may pose real difficulties for occupational or professional direction in the field and for the disadvantaged within health care systems'. Richard Hamilton provides a crisp summary of, and original contribution to, the debate between normative and naturalist conceptions of health, defending 'a broadly Aristotelian naturalism' about health [45]. The paper incorporates an incisive discussion of the relationships between medicine and biology, physical health and moral well-being, evolution and goal-directed systems, using medicine to illustrate the problems for a conception of science as 'value-free'. As such it is both a useful introduction to these topics for readers new to philosophy and an example of how applied philosophy can raise challenging questions for (and suggest directions for solutions to) perennial philosophical debates, including the relationships between epistemology and ethics, science and value.

The three papers that follow incorporate a debate between the respected moral philosopher Harry Lesser and the renowned exponent of virtue ethics Rosalind Hursthouse, on the issue of assisted dying. Lesser takes as his starting point the disputed status of assisted suicide and argues that 'the question of whether assisted suicide should be legal should be decided independently of the moral issue' [46]. He defends the use of criteria (based on a model used in the Netherlands), which would allow assisted suicide when a request is made that is 'reasonable and genuine', and raises the question as to whether these assisted suicides should be legalized or simply not prosecuted, 'with the criteria for non-prosecution made explicit'. In a response that is at once sharp and humane, Hursthouse focuses on the specific question of 'physician assisted

suicide' [47]. She urges us to consider what we would be asking general practitioners (GPs) to do by allowing the practice. She is not considering the issue of GPs with a strong moral objection to assisted dying (which would raise the issue of conscientious objection, the topic of the papers to follow this debate) but rather with what moral philosophers call 'resolvable moral dilemmas'. Where there is a choice between two horrible options, if one option is clearly 'the lesser of two evils' then the dilemma is formally 'resolvable'. Even so, the moral reasons weighing against the 'lesser' evil will still weigh heavily upon the person, if she is a decent person who takes morality seriously: 'a moral person ought to find reaching the correct resolution of a serious moral dilemma horrible and distressing'. So compassionate GPs could suffer an intolerable moral burden in being obliged to participate in decisions they would rightly regard as terrible. In a counter-reply as impressively concise and humane as that of Hursthouse, Lesser takes on board her objections but notes that GPs are already involved in the foreseeable shortening of lives in a number of ways [48]. If someone terminally ill is undergoing grave suffering, which 'only death can relieve', strategies to counter professional distress (by reflecting on the fact that the decision made was 'compassionate' rather than seeing it as 'terrible') would not eliminate the suffering of the professional altogether, but would relieve a much more terrible suffering being experienced the patient.

Two papers address the issue of conscience and conscientious objection with regard to controversial medical practices. Erica Sutton and Ross Upshur critique numerous proposals in favour of implementing review boards to assess whether appeals to conscience are 'justifiable, reasonable, and sincere' [49]. They note that both legal norms and academic work in the area 'reveal a constructed hierarchy of conscientious objections', which they seek to expose and challenge, emphasizing the importance of considering the lay public when discussing the role of conscientious objection in medicine, and using the Universal Declaration of Human Rights and the Siracusa Principles to suggest that 'perhaps conscientious objection is a human right'. Daniel Hill looks in particular at the issue of conscientious objection and abortion [50]. Setting aside the issue of whether abortion is morally permissible, Hill seeks 'to analyse the precise legal status of the exemptions afforded under British law to those with a conscientious objection to abortion' and defends changes in the law to broaden the scope for conscientious objection. He considers a number of objections to his position, including the telling objection that a racist might well 'conscientiously object' to treating members of other racial groups, and responds that problems about 'where to draw the line' need not invalidate claims that some forms of conscientious objection require statutory protection. This might lead us to question whether or not it really is possible to discuss such questions while setting aside our moral views on the question at hand, and this raises broader issues about whether it is possible to address such questions within a liberal political framework, where the idea⁴ that the law can and should be 'morally neutral' predominates [5,62].

The relationship between ethics and politics is the focus of Bob Brecher's paper [51]. Brecher presents a critique of 'professional ethics' in terms of 'what is left out of the moral picture' on this approach to ethics, in particular how political considerations are

⁴ Arguably at work in Hill's paper and also, perhaps, in Lesser [46] and Sutton and Upshur [49].

sidelined, arguing that 'professional codes' are especially insidious and the wrong way to think about our duties, in a work context or anywhere else. The paper opens with an extensive discussion of the ethics of war, to illustrate how discussions of ethics, abstracted from broader consideration of the (political and social) contexts that give rise to them, can be distorted, and can even (paradoxically) function to protect from criticism arrangements and assumptions that seem patently immoral. He then argues that ethics committees can perform a similar function in the health service, allowing limited scrutiny of some arrangements while leaving underlying structural inequities unexamined and tending to place the burden for solving moral problems on the frontline workforce, when a rational analysis of their origin shows them to be economic in nature, and the product of processes wholly beyond the control of the workforce.

Conference report: critical debates in EBM

This special edition also incorporates the papers resulting from a ground-breaking, 3-day workshop entitled 'Critical Debates in Evidence-based Medicine: Where we've been and where we're going' that was held in Toronto, Canada, 14–16 November 2008.⁵ [52–61] The workshop brought together participants from a variety of disciplines (including medicine, health policy, history, philosophy, bioethics, sociology, epidemiology and biostatistics) and from a number of countries (including Canada, the USA, Australia and Great Britain). The purpose was to provide a forum for clinicians, scholars and policy makers concerned with EBM to meet, share perspectives and develop strategies for building on the strengths of EBM and for improving it where it remains problematic or incomplete. Furthermore, the organizers aimed to ask not just how EBM could be improved but how different disciplines can contribute to this improvement. The workshop was organized at a time when EBM was widely adopted in health care systems around the world and the language of 'evidence-based everything' had pervaded many other realms. Thoughtful critical discussion about the evidence-based movement, in a manner that fosters further constructive collaborative work, was (and still is) greatly needed. This event, and the publication in this special edition of the resulting papers, summaries and discussions, has the potential to become a turning point in the EBM debate.

We include here not only an overview of the workshop papers that appear in this issue, but also an account of the dialogue these important papers generated among attendees during the workshop. This is because a key goal of the conference was to generate intellectual progress through structured dialogue – as such it was arranged as a series of workshops chaired by the conference organizers⁶, each with specific intellectual agendas, taking the speakers' presentations as the starting point for detailed discussion and critical analysis. Since Socrates, dialogue of this sort has been an

essential component of philosophical methodology and it would be bizarre to ignore this component of the event in any summary of its intellectual substance. The workshop highlighted the advantages of a truly transdisciplinary approach to the issues raised by EBM. Attendees were struck by the collegiality and productivity of discussions despite deep differences in points of view. Fruitful collaborations have emerged from this workshop. It is the hope of the conference organizers that this summary and the featured keynote papers and commentaries do justice to the richness of the presentations and discussions.

Workshop breakout sessions

The 3-day workshop consisted of four sessions, each of which examined EBM from the perspective of a specific discipline or field: (1) history and philosophy of science; (2) bioethics; (3) social science; and (4) clinical practice. For each of these themes, there was a keynote address, followed by a commentary and a question and answer period. Following each keynote address, commentary and question period, workshop participants were divided into three breakout groups (with approximately 12 participants per group) to discuss specific questions raised by the speakers, and to provide disciplinary or professional perspectives on the themes addressed in the talk and commentary. Participants were randomly assigned different groups for each breakout session in order to allow people to talk to as many of the other participants as possible. Each group was led by a member of the organizing committee. Breakout groups had an hour for open and directed discussion, after which all participants returned to the main hall to share the results of their discussions with the members of other groups. Although the organizers expected that the issues identified as problematic in the keynote address and the commentary would shape the breakout group discussions, they also hoped to come up with answers to specific directed questions related to EBM in each breakout session.

History and philosophy of science session

One of the challenges of critiquing EBM is deciding what counts as EBM in the first place. Many scholars have dedicated whole essays to the critique of elements of EBM only to have proponents of EBM insist that what was critiqued is not a part of the *real* EBM, properly understood. There is some sense in which EBM is a moving target for critics [27–30,63–65]. Getting some grasp on what is taken to be EBM was thought by the organizers to be a good starting point for discussion at the workshop. The conference opened with a keynote address by the distinguished philosopher of science John Worrall [52], in which he examined the concept of evidence used in EBM from the perspective of philosophy of science. Worrall argued that EBM needs to go 'back to basics' by looking critically at its views on evidence and determining just what EBM's hierarchy of evidence provides evidence *for*, noting that the questions answered by RCTs are often not the questions that clinicians would like to have answers to when they are making decisions about the care of their patients. In her commentary, Robyn Bluhm [53] argued that the top level of the hierarchy of evidence, systematic reviews or meta-analyses of RCTs actually exacerbates the problems that Worrall identifies with RCTs, rather than providing 'more and better' evidence that a single study is able to give.

⁵ Funding for this event was provided by 'Situating Science: Cluster for the Humanist and Social Studies of Science' (a Social Science and Humanities Research Council knowledge cluster), the Connaught Fund (University of Toronto), the Canadian Institutes of Health Research, the Institute for History and Philosophy of Science (University of Toronto) and the Joint Centre for Bioethics (University of Toronto).

⁶ The philosophers Robyn Bluhm, Kirstin Borgerson, Maya Goldenberg and Ross Upshur.

In the breakout group discussions, participants were asked to discuss some of the following questions: what would you say were the defining features of EBM when it was first proposed? What do you consider to be the defining features of EBM today? Have you been selective in the aspects of EBM you have adopted in practice or accepted in theory and if so which aspects have you adopted or accepted and which have you ignored or rejected? The breakout sessions were given a task, in order to focus discussion and allow the three groups to share the results of their discussions with the other members of the workshop when everyone reconvened. The main task for the first breakout session was to come up list of the defining features of EBM. (And, of course, challenges to the task itself were presented by participants and welcomed by the organizers.)

Before identifying a few common points of discussion among the three breakout groups, it is worth noting that most participants seemed to agree that proponents of EBM have tended to change the meaning of EBM to suit their needs and that this has made the project of analysing EBM especially difficult. One participant indicated that there is also a different sense of EBM in practice than in theory, and that there is a lot of confusion on this point so the task for this session is an important one for practice (not only for theory). In contrast with this position, a smaller set of participants were reluctant to engage with the task at all, indicating that from their disciplinary perspective questions about what something 'is' or 'should be' make little sense. Everything 'is' many different things at once, from many different perspectives, and there was some discomfort with discussions that went beyond the descriptive.

A few themes emerged from the discussions about what the defining features of EBM were in 1992 when it was first proposed and what they are today. The first was the hierarchy of evidence and its role within EBM. A number of participants identified the hierarchy of evidence as a central commitment, and perhaps even the sole defining feature of EBM. Even this identification of the hierarchy as a core commitment of EBM encountered problems, though. In his keynote address, Worrall had reminded participants that there are many hierarchies of evidence (at least 40 that he was aware of at the time). If 'the' hierarchy of evidence is a defining feature of EBM, which hierarchy (or which form of 'the hierarchy') is referred to? Some participants felt the similarities in different hierarchies were enough to identify a few patterns common to all forms of EBM (e.g. ranking randomized above non-randomized trials). Others were more sceptical about identifying common content among the hierarchies, instead suggesting that the idea of hierarchically ranking research methods (however the rankings actually turned out) was a defining feature of EBM.

A second common topic of discussion in the three breakout sessions concerned the role of philosophers of science in the evaluation of EBM. Many participants were interested to discuss whether philosophers are well-positioned to answer questions about what EBM is or should be. What is the appropriate role for philosophers in this discussion? How exactly can philosophers contribute effectively to medical discussions? There was some support for the idea that one of the jobs of philosophers is to speak 'truth to power': to point out problems with dominant theories even if they are unable to do all of the work of proposing a new or alternative theory. The critical work is constructive in its own right, especially when critical attention to basic assumptions might oth-

erwise be lacking. If EBM is a sort of new epistemological authority, philosophers should have something to say about this. If we take the lead of political philosophy, modern philosophers such as John Rawls and Martha Nussbaum have had a profound impact on political thinking. Philosophy of science may have a similar impact on modern medicine. Some felt philosophers have a certain structural advantage precisely because they are isolated from the immediacy of decision making in the clinic. There is room for reflexive and reiterative process in philosophy and this is different from the situation faced by clinicians, who have to make a decision before the patient leaves the office.

For some participants, the starting point in understanding EBM is the famous definition indicating a commitment to the 'conscientious and judicious use of current best evidence' [66]. It was noted that a lot is hidden behind the terms 'conscientious' and 'judicious' in this definition: for instance, the context and resources of practice matter when making real-life medical decisions, and these are also a source of important evidence for clinical decisions, even though little guidance is provided about how other sources of evidence are to be integrated (particularly in recent forms of EBM, which tend to rely on guidelines and summaries of the evidence). In response to concerns with the 'official definition', there was some suggestion that perhaps we should not pay so much attention to the wording of EBM and just take the 'spirit' of it seriously and allow it to evolve over time. In other words, perhaps critics should recognize that meanings do change over time and welcome the evolution in EBM over the years. The only 'defining feature' of EBM, then, would be a (very general) commitment to the improvement of medical practice.⁷ Or, perhaps, as one participant put it, simply this: don't believe everything you're told.

Bioethics session

Ian Kerridge's keynote address [54] began with the comment that EBM confers moral authority in its promise to make both individual patient care and public health interventions safe, effective and efficient, and to provide transparent and objective decision-making criteria. This inspired two streams of discussion in the subsequent breakout sessions: first, a moment of self-reflection among bioethicists on their role as ethics 'experts' and the moral authority that the term implies, and second, on the normative and ethical dimensions of EBM.

The first issue – what it means to be an ethics expert – has become a familiar point of discussion in bioethics circles [3,5,8–12]. Applied ethics is no longer easily regarded as an application of ethical theory to contemporary problems [51], as bioethical issues seem to call on a range of disciplinary insights, theoretical and empirical methods, sophisticated interpersonal and communication skills and culturally sensitive understanding. The role of the ethicist is also varied – do ethicists serve to make ethical judgments? Provide moral clarity to decision makers? Foster greater understanding of the issues among conflicting parties? The second issue, the normative dimensions of evidence, had been nicely developed in Mona Gupta's commentary on Kerridge's presenta-

⁷ When so 'defined', EBM can incorporate numerous and incompatible views about what actually constitutes improvement in practice, throwing into doubt its ability to resolve practical questions.

tion [55]. As evidence provides a warrant for action, it is a normative concept. For that reason, the single focus on methodological rigour that surrounds most discussion on evidence in clinical practice is incomplete. The relation of evidence and ethics needs to be fully and rigorously explored. Indeed, some of the EBM movement's strengths surface from consideration of the relationship between evidence and ethics. EBM introduced its new focus on evidence in medicine in order to replace a flawed system of clinical practice. Citing 'the evidence' became an effective way to enact change. This attack on the 'old' way of doing things was as powerful as was the 'new' evidence.

Yet, repeating themes that arose in the history and philosophy of science session, the critics remain suspicious regarding why it is that EBM supporters will not address problems in the movement's evidence base. Kerridge's address also brought out the slippery nature of EBM, with its ability to evade criticism by continually 'evolving' into new forms [54]. The medical literature is corrupted by numerous forms of biases that are not addressed by randomization or blinding – sponsorship and publication bias, for example [32]. Sophisticated techniques of meta-analysis and time-saving clinical summaries only organize and condense a flawed literature.⁸ These evidentiary difficulties raise ethical issues in patient care. Are the trial data relevant to my patient? What information should be shared with patients and how much? There are also social dimensions of evidence: whose evidence counts?

Social science session

Although it is clear that social science research currently plays an important role in medicine and health care, the place of the social sciences in, and their relationship to, EBM is not as obvious. In this breakout session, following a keynote presentation by Elizabeth Bogdan-Lovis and commentary by Eric Mykhalovskiy⁹, participants discussed the ways in which the social sciences could contribute to both EBM its critical analysis. Participants noted that the term 'social sciences' masks a great deal of diversity, both between social science disciplines (e.g. sociology, psychology, anthropology) and within specific disciplines where researchers may use very different methodological and theoretical tools. There was also much discussion of the relationship between different academic and clinical disciplines and the challenges of working with people who have different academic interests and disciplinary backgrounds, despite sharing with them an interest in EBM and possibly some overarching goals (e.g. improving health care, reforming health care practices).

A number of areas were identified in which research in the social sciences (broadly construed) has resulted in better evidence and better patient care. Studies examining patient preference have helped to educate clinicians about how to discuss with patients their values and the goals of treatment, and to remind them that patients may not share their values, so that the goals of treatment cannot be taken for granted. Research in social science has also improved clinical research; for example, the long-standing exclu-

sion of women in many areas of clinical research ended in part because of criticism from social scientists, although it was also noted that these criticisms were not taken up by medical researchers until some time after they first appeared. Social scientists have also contributed to improvements in the process of getting informed consent from research participants by clarifying potential participants' understanding of the process of research and the possible effects on them of participation.

Social science research may also have a less direct effect on research and health care, for example, by analysing research from a social justice perspective and/or identifying biases shared by clinical researchers that affect the types of research questions asked and the methods that are taken to be appropriate for answering them. Social science research has also drawn attention to other social factors in shaping the 'evidence base' for clinical care, from publishing practices (e.g. publication bias, effects of journal impact ratings) to the effects of industry involvement in research and policy setting.

In terms of social science research examining EBM itself, a number of complex issues were raised. Participants identified a tension between doing research that reflects the researchers' interests and disciplinary approach, as well as the recognition of such research as having intrinsic importance, and contributing to the improvement of EBM. There was a clear consensus that social science research could provide EBM and its clinical leaders with constructive criticism, but that at the same time this was not the ultimate purpose of such research. The tension between the intrinsic and the instrumental value of social science research on EBM is closely related to the issue of the different approaches and expectations of different academic disciplines and areas of clinical practice. Because social scientists have an 'outsider' perspective on EBM, they can provide new and valuable understandings of EBM as a social practice and of the broader social impact of EBM. Yet this same outsider status may mean that important criticisms are not acknowledged or taken up. This is the same problem that occurred with work on gender imbalance in clinical research discussed above.

Related to the issue of the 'outsider' status of social scientists in the clinical realm, participants also noted that the current interest in interdisciplinary research raises additional challenges. Academics in different disciplines may speak very different disciplinary 'languages' and lack the shared background that can be taken for granted by researchers with similar training. Participants noted that during the various sessions at this workshop, they had been struck by the different vocabularies used by presenters and commentators from disciplines other than their own, and shared experiences (including experiences at this workshop) in which they had discovered that another discipline used terms, or made assumptions, that differed from their own understanding. Consequently, engaging in interdisciplinary work often requires explicit discussion of issues and terminology that do not occur in conversations with other researchers in the same discipline. There was general agreement that this process could be frustrating, but at the same time very valuable. The implications of the challenges of interdisciplinary work for the critical analysis of EBM were also discussed, with participants generally feeling that EBM would benefit from scrutiny from multiple perspectives, and being cautiously optimistic that such scrutiny will ultimately improve the practice of EBM.

⁸ As one commentator puts it, 'condensed garbage is still garbage' [67].

⁹ In this issue of the Journal, we publish an expanded discussion paper written by Dr Bogdan-Lovis and her colleague Prof. Margaret Holmes-Rover [56] and an insightful response to this paper by Dr Angela Fagerlin [57].

Clinical medicine session

The final breakout session focused on the application of EBM to clinical practice. This followed a keynote presentation by Mark Tonelli [58] and a commentary by Ken Goodman [59]. Tonelli argued that there are multiple sources of evidence required for good clinical decision making and cautioned against privileging a certain type of clinical research as a trump to other considerations. The key to developing good practice is to cultivate good clinical judgement, and good clinical judgement requires a variety of reasoning skills. (This is a position he has explained and defended in some detail over a number of years, in this journal and elsewhere [68,69].) Goodman, in his commentary, was generally sympathetic to Tonelli's critique, but feared that Tonelli's arguments may go too far and threaten to undermine a credible scientific basis to clinical reasoning [59].

As this was the final session, most participants had already articulated many of their thoughts about the relationship of EBM to clinical practice. It was agreed that this area had by far the greatest volume of literature and most evolved discussion. Instead of reiterating debates about the strengths and limitations of the clinical application of EBM, participants reflected on whether EBM was something that required modification, or something that required replacement. Many felt that, in the absence of a robust alternative, EBM would likely predominate as the best possible approach. A discussion around how clinical rules are created and the problems associated with rules being reified in guidelines opened up the necessity for greater attention to reasoning in clinical practice. Consequently, when asked for a wish list for the future, participants were unanimous in endorsing the inclusion of more critical thinking into the medical school curriculum. This would entail basic logic and scientific inference and an explicit definition of what constitutes evidence in a variety of contexts. Linking good reasoning to the emerging focus on professionalism in medicine was tabled as an innovative way of bringing attention to this in the clinical domain. However, it was thought that a different set of strategies would be required to bring critical reasoning into the policy domain.

Public symposium

The workshop also featured a public symposium featuring Drs Cheryl Misak, Kumanan Wilson and Ross Upshur. This session attracted over 100 attendees. Each of the speakers gave a 20-minute talk and a plenary discussion ensued. In an engaging presentation combining personal experience with thoughtful analytical rigour, Misak reflected on her experiences as a patient in ICU, to challenge a deep rooted assumption of EBM about the value of narratives as evidence. Misak cogently argued that narrative is indeed a legitimate form of evidence, but only if regarded as a challengeable and defeasible component of arguments [60]. Wilson argued that EBM marks an advance from previous conceptions of clinical practice, that there is the 'good, the bad and the ugly' in current EBM, but as it stands there are no credible alternatives [61]. Upshur argued that the issue in clinical practice is not the availability of evidence but the lack of time in practice to understand and apply it while doing justice to the particularities of increasingly complex patients with multiple chronic diseases. Current approaches to guideline development and knowledge

translation do not sufficiently address the problem. Clinicians need trustworthy and credible tools that enhance their ability to reason rather than simply to follow rules.

Upshur's conclusions echo those of the workshop participants, and the position defended in the early sections of this editorial: the key is education, to develop critical reasoning skills in practitioners. Far from being a frivolous academic distraction, the development of such 'thinking skills' is a necessary component of any truly practical education for the professionals of today and of the future, if they are to practise well and to defend themselves against whatever threats to their integrity or independence the coming years may present [5]. We do not need more compliance in the name of a bogus pragmatism, which ultimately defeats intelligent practice and undermines professionalism. We need more intellectual rigour, not less. We need greater and more widespread reflection on fundamentals, not the false assurance that someone else will do that reflection for us. The discipline of philosophy is needed now, if not more than ever then certainly no less than at any time in history.

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