

# Diseases, patients and the epistemology of practice: mapping the borders of health, medicine and care

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## Abstract

Last year saw the 20th anniversary edition of JECP, and in the introduction to the philosophy section of that landmark edition, we posed the question: apart from ethics, what is the role of philosophy 'at the bedside'? The purpose of this question was not to downplay the significance of ethics to clinical practice. Rather, we raised it as part of a broader argument to the effect that ethical questions – about what we should do in any given situation – are embedded within whole understandings of the situation, inseparable from our beliefs about what is the case (metaphysics), what it is that we feel we can claim to know (epistemology), as well as the meaning we ascribe to different aspects of the situation or to our perception of it. Philosophy concerns fundamental questions: it is a discipline requiring us to examine the underlying assumptions we bring with us to our thinking about practical problems. Traditional academic philosophers divide their discipline into distinct areas that typically include logic: questions about meaning, truth and validity; ontology: questions about the nature of reality, what exists; epistemology: concerning knowledge; and ethics: how we should live and practice, the nature of value. Any credible attempt to analyse clinical reasoning will require us to think carefully about these types of question and the relationships between them, as they influence our thinking about specific situations and problems. So, the answers to the question we posed, about the role of philosophy at the bedside, are numerous and diverse, and that diversity is illustrated in the contributions to this thematic edition.

## Introduction

Recent developments in UK health policy have focused public attention on the relationship between health and social care, with the government announcing 'ground-breaking' policies to increase the integration of these aspects of care in the Manchester region [1]. Despite serious disagreements about the practicality of this initiative at the organizational level, the public debate thus far has indicated broad support for greater integration [1], arguably suggesting a developing consensus that medical, psychological and social dimensions of health form an integrated whole, such that the different aspects of care delivered under these labels should, ideally, form part of a provision directed at the overall well-being of the patient.

If this really is the current consensus, then it perhaps represents a shift in thinking from models once regarded as mainstream, in which health was primarily a biomedical concept and other uses of the term were considered extensions of its core meaning [2–7]. But whatever our view on such issues, and on the wider debate about biomedicine and person-centred care, the very existence of this debate in the public sphere (one involving local authorities, numerous professional organizations, patient advocacy groups as well as all the main political parties) reminds us of something important. That is, questions about the conceptual boundaries of different types of care, the scope of medical categories, the relationships between appropriate forms of expertise with which we categorize health problems and the appropriate methodologies to employ when addressing them are by no means questions we can afford to

bracket off as merely academic in nature, divorced from the concerns of front-line practice. Discussions about the nature of health and illness, which sources of knowledge are appropriate in understanding health problems and how we conceptualize evidence and causality are indeed ‘academic’ in the sense that they require serious intellectual attention, but they are not ‘merely’ academic: our responses to them will determine how we approach the most challenging choices facing health and social care in the immediate and long-term future.

Last year saw the 20th anniversary edition of JECP, and in the introduction to the philosophy section of that landmark edition, we posed the question: apart from ethics, what is the role of philosophy ‘at the bedside’ [8]? The purpose of this question was not to downplay the significance of ethics to clinical practice. Rather, we raised it as part of a broader argument to the effect that ethical questions – about what we *should* do in any given situation – are embedded within whole understandings of the situation, inseparable from our beliefs about what *is* the case (metaphysics), what it is that we feel we can claim to *know* (epistemology) as well as the meaning we ascribe to different aspects of the situation or to our perception of it. Philosophy concerns fundamental questions: it is a discipline requiring us to examine the underlying assumptions we bring with us to our thinking about practical problems [9]. Traditional academic philosophers divide their discipline into distinct areas that typically include logic: questions about meaning, truth and validity; ontology: questions about the nature of reality, what exists; epistemology: concerning knowledge; and ethics: how we should live and practice, the nature of value. Any credible attempt to analyse clinical reasoning will require us to think carefully about these types of question and the relationships between them, as they influence our thinking about specific situations and problems.

So, the answers to the question we posed, about the role of philosophy at the bedside, are numerous and diverse, and that diversity is illustrated in the contributions to this thematic edition. In what follows we present a series of insightful discussions about the nature of health, disease, care, reasoning and knowledge in clinical practice. Authors consider the relationships between scientific explanations of disorder and human experience, the therapeutic implications of different ways of ‘framing’ our experiences of illness, the relationship between economic and medical thinking and the use of analogies in clinical reasoning. Throughout they attempt to develop clear implications of their arguments for the solution of the problems of practice. Included in this edition is a selection of papers from a recent meeting of the Association for the Advancement of Philosophy and Psychiatry (AAPP), addressing questions where the attempt to map the boundaries and understand the conceptual overlaps between science, evaluation, experience and reasoning have become particularly urgent and challenging.

## Diseases and medical categories

Discussions of the nature of health, disease and diagnosis date back to the ancients [10], but the contemporary philosophical discussion of these crucial questions owes a lot to the work of late 20th century theorists including Christopher Boorse and his many critics [2,3,11,12]. This section opens with a paper by Marco Azevedo that proposes a conception of health as a ‘clinic-epidemiological concept’ [13]. Although heavily influenced by

Boorse’s biostatistical theory, which he describes as ‘the best approach’ to defining health in the philosophy of medicine, as a practising physician, Azevedo takes issue with Boorse’s treatment of health as ‘a theoretical concept’. The view of health as ‘a species normal functional ability’ grounds our understanding of health in ‘normal physiology’, but ‘this is not what physicians mean by health’. If, instead, we understand health as ‘a practical clinical concept’ then health is not ‘the mere absence of disease’, because ‘diseases that do not increase patients’ morbi-mortality and disability indexes are not incompatible with health’. So on Azevedo’s pragmatic approach, health is ‘best described as the state of absence of chronic diseases or disabilities’ and he recommends this as ‘the best description of what physicians actually think about health within medical practices’.

Drawing on extensive empirical data, Andrew Edgar, Celia Kitinger and Jenny Kitinger describe and analyse the categories employed by medical professionals and lay carers (typically family members) when conceptualizing the subjective states of patients suffering with Chronic Disorders of Consciousness (CDoC) [14]. They note that these different parties employ quite different interpretive frameworks to address the most pressing epistemological problem such patients present: how to ‘gain an insight into the patient’s state of consciousness merely from observation of their physical movements – the flicker of an eyelid, thrashing or kicking’. Both frameworks may reveal aspects of the truth about the patient’s situation, but they note that the differences between them can ‘lead to ruptures in communication between medical professionals and relatives’. They conclude that ‘an increased self-consciousness of the framing assumptions being made will facilitate communication and enrich understanding of CDoCs’.

The need to be explicit about underlying assumptions which frame our thinking about medical conditions is highlighted in the paper by Alexandra Parvan – although her concern is not primarily with the assumptions of physicians, nurses or family carers, but with the way that patients with chronic conditions conceptualize their own situation, and in particular the ontological status of their own condition [15]. Parvan notes that ‘the receipt of diagnosis and medical care can give patients the sense that they are ontologically diminished, or less of a human’ and this ‘may prompt them to seek ontological restoration’ by treating the disease (or associated experience of harm) as ‘a thing that exists *per se*’. She labels this tendency the ‘substantialization’ of disease (or harm) and argues that ‘substantialization can generate a “hybrid symptom,” consisting in patterns of exercising agency which may predispose to non-adherence’. Parvan is fully convinced that this gives a crucial role to philosophy ‘at the bedside’ as practitioners may need to give ‘metaphysical care’ by enabling patients to reframe their thinking about the status of their conditions/deficiencies.

In his commentary, the clinician Victor Cellarius assesses the therapeutic potential in Parvan’s concept of ‘metaphysical care’ [16]. Cellarius agrees that, although persons may reflect deeply on their experiences and situation, ‘the metaphysical commitments underlying these experiences may be left unexamined’. But he raises a number of pressing questions about how practitioners might use this insight to benefit patients. These include concerns about how we assess the significance of what Parvan labels ‘external’ as opposed to ‘internal’ factors prompting the substantialization of disease, how we weigh the benefits against the harms of substantialization in particular cases and ‘how we evaluate the

degree to which the person has reframed their metaphysical stance'. We need to be able to determine what sort of truth claims should be made for the ideas connected with substantialization if we are to justify attempting to get patients to address and indeed change their underlying commitments. Cellarius stresses he is not treating these questions as rebuttals of an approach proposed in a 'purposefully exploratory' paper, and argues that an empirical investigation must be the next step in integrating this approach into practice.

This section closes with a paper by Nicholas Binney that also makes a plea for the importance of metaphysics at the bedside [17]. He cautions against the uncritical acceptance of a monist ontology in medicine, in which disease classification is performed exclusively according to a single classification system (nosology). Binney traces this thinking back to the early modern nosologist Thomas Sydenham, who modelled disease taxonomy after plant taxonomy. Drawing on the work of John Dupre, who criticizes the use of a single classification system in plant biology, Binney makes the analogous case for a pluralist disease ontology. Using illustrations from the diagnosis of heart failure, he argues convincingly that medics prepared to think carefully about their ontological assumptions are better prepared to capture the different aspects of their patients' problems, and so to care for their patients better, than those who fail to take metaphysics seriously.

## The care of the patient

As Binney's paper suggests, there is a relationship between the ability of our methods and classificatory systems to capture the diverse aspects of patients' problems, and the quality of patient care. Anna Luise Kirkengen and Eline Thornqvist note that the movement towards personalized medicine (PM) developed as an attempt to overcome the limitations of evidence-based medicine (EBM) in accommodating clinical complexity and human individuality [18]. However, they argue that both these approaches to medical practice place too high a priority on quantitative data. As a result, they both miss out on the social context and lived experience of illness, and can therefore neglect what really matters to patients. Furthermore, this narrow focus can lead to harm. This point is driven home through the use of the 'sickness history' of a woman named Judith Janson, whose experiences with the health care system, although extensive, were largely negative because they routinely failed to address her real health needs. EBM and PM alike fail to address adequately issues of multi-morbidity leading to poly-pharmacy, complex chronic disorders and the roots of illness.

Addressing specifically the problems of caring for patients during challenging clinical encounters, James Marcum reveals that medical literature is deficient in accounting for the nature and origins of such problems, which tend to frustrate and demoralize clinicians as well as patients [19]. Drawing insight from a reconstructed clinical case, the author suggests that these encounters do not signify a medical disorder. Rather, they indicate a type of existential dysfunction whose origins lie not only in patients but also in clinicians and health systems. Marcum further draws on his clinical case to suggest revisions to two models – CALMER and REBELS – for managing challenging encounters more effectively than at present.

Dignity is a *sine qua non* of patient care, yet the literature on dignity is sparse. Kathleen Galvin and Les Todres thoughtfully

address this concern in their paper honouring the complexity of the concept of 'dignity'. [20] Through phenomenological thinking, they first consider 'the essence of dignity and its ontological roots'. They reconcile pure (essential) and interpretive (existential) notions of phenomenology, then frame dignity within health and social care as a coherent set of seven interrelated kinds that may rupture at different levels of intensity and range, and be restored. This framework informs practical ways to affect this restoration, and specific debates about dignity within philosophical and professional literatures.

As the movement towards person-centred care increasingly emphasizes the status of patients and professionals as members of broader communities and ways of life that encompass the clinical encounter, Sandro Tsang discusses the ability of health economics to enhance medicine [21]. Her paper takes on directly the claim that economics and medicine are 'philosophically incompatible' disciplines because conventional (neoclassical) economics assumes models of human motivation (based on self-interest) that are incompatible with altruism, and consequently with patient care and medical professionalism's principle of the primacy of patient welfare. Drawing on the ideas of economist Kenneth Arrow about the relationship between trust, reciprocity and the efficient use of communal resources, Tsang uses the term 'arrow physician' to characterize 'a humanistic carer who has a concern for the patient and acts on the best available evidence with health equity in mind'. She hopes that the development of a shared professional language can motivate and enable all physicians within a trusting institutional environment, including polycentric governance, to practice medicine as arrow physicians.

The conceptual boundaries between 'patient-centred care', public health and 'patient empowerment' are the central concerns of the paper by Ignaas Devisch and Stijn Vanheule [22]. They note that the rhetoric of public health discourse emphasizes such ideas as empowerment and self-management – driven by the bioethical principle of respect for autonomy – to imply a significant shift from earlier, more paternalistic conceptions of patient care. Drawing on the ideas of philosopher Michel Foucault, they argue that patients have been taught to internalize the medical prescriptions that used to be advanced paternalistically. As an example, the 'healthy lifestyle' prescribed to all citizens is fairly strict and specific (don't smoke!), yet it is seen as an individual's responsibility (and free choice) to pursue this objective. Avoiding 'risky behaviour' becomes something governed from within. Perhaps, the authors suggest, we have not taken freedom seriously so much as created ways for people to feel free while acting according to the wishes of those in power. Taking a somewhat more cynical view of the role of economics than Tsang, these authors regard the role of public health as sustaining an economically productive population via the application of statistical knowledge, with scant concern for individual values and divergence.

## Rethinking medical epistemology

Such questions, about value and diversity, care, altruism, empowerment and paternalism, are ethical and political in nature. But these questions, and the associated problems about ontology and classification that formed the main focus of papers in the first section, are all intimately linked to questions about knowledge, validity and justification. Questions about how we know and how

we can demonstrate the truth of the claims we make can be asked of any claim we advance about medical ontology and good practice, and it is to the fundamental issues of clinical epistemology that the papers in the third section turn.

Sophie van Baalen and Mieke Boon argue that EBM does not provide sufficient resources for physicians to engage in proper clinical reasoning [23]. In particular, the evidence and the decision support methods provided by EBM are unable to support the kind of epistemic responsibility that doctors must take for their diagnostic and treatment decisions. They provide an alternative approach to understanding what kinds of information are required to enable doctors to take epistemic responsibility, describing the function of such knowledge as an ‘epistemic tool’ that is developed in particular clinical situations in response to the needs of a particular patient, rather than viewing knowledge solely in terms of a narrow conception of the objective facts and rule-based reasoning.

The problem of reasoning from general knowledge to particular cases resurfaces again in the paper by Luis Flores [24]. Flores explores the challenge of applying population-level effect sizes – as probabilities – to particular patients: a problem which, he notes, is highly vexing and unresolved in EBM. He discusses the extent to which pragmatic randomized controlled trials (RCTs) and subgroup analyses remedy the problem, and concludes that even effect size estimates derived from highly representative and/or specific samples are rarely directly applicable to the particular patient. Instead, as a guiding principle, the probabilities of interest are the probabilities given everything that is relevant at the time of the decision, which will inevitably include details derived from other kinds of (non-trial) evidence.

Benjamin Chin-Yee and Ross Upshur offer insights from RG Collingwood’s philosophy of history for medical epistemology [25]. Chin-Yee and Upshur trace the decline of the patient history with the rise of biomedicine and EBM. They argue that Collingwood’s philosophy of history provides a more inclusive concept of evidence that embraces narrative knowledge, and thus resituates the patient history at the centre of medical practice, in line with contemporary medical movements that emphasize narrative thinking and patient centredness.

A distinct set of issues about clinical reasoning is raised in the paper by Ramesh Prasad, which discusses the use of creative analogies in medicine as a vehicle for revolutionary progress [26]. Conservative analogies involve importing a technology from one domain into a similar domain, as when the use of steroid immunosuppression for kidney transplantation was imported from rheumatology, where it played a similar role in autoimmune disease. In contrast, in creative analogy a new technology is created in one domain through analogy with another technology used in a dissimilar domain. Prasad describes the development of domino kidney transplantation (through analogy with the game of dominoes) as an example of this promising mode of discovery.

Matt Boyd investigates the limits of root cause analysis (RCA) as a method for identifying the causes of adverse events in medicine [27]. He suggests that closer attention to the insights of philosophers of science, particularly those working on causation and explanation, will help to improve RCA. Although RCA currently identifies the factors that may have led to an adverse event, it does not have an adequately fine-tuned method for sorting among those factors. Given that sorting among these factors is important, since we do not want to take action against every

possible contributing factor when some of them may not be harmful at all, this sort of fine-tuning would be a real advance in the field.

The paper by Stephen Tyreman shifts the focus again to a discussion of uncertainty, truth and trust [28]. He argues that uncertainty for practitioners may be about enhancing theoretical knowledge, but for patients it is about ‘knowing how to act in a taken-for-granted and largely unconscious way in a world that has become uncertain’ because ‘the main tool of action, the human body, no longer functions with the certainty it once had’. The paper in some ways evokes the one by Parvan [15] in that it proposes a role for practitioners in helping patients frame their situation, although in Tyreman’s case the goal is not to combat substantialization but to recognize ‘the uncertainty that has emerged in the patient’s “habitation” and to reassure them’ by restoring confidence in the body so they can act with certainty.

Abdi Sanati draws on Miranda Fricker’s concept of epistemic injustice in order to analyse the problems that arise when assessing the claims of patients who suffer from delusions [29]. In particular, he says that these patients often encounter testimonial injustice, which occurs when prejudice leads us to consider a speaker to be less than credible. He presents two illustrative cases in which patients who suffer from a delusional disorder make true claims that are wrongly considered to be delusions. He argues that these cases should not be understood as ‘incidental’ cases of epistemic injustice, but rather show that, because patients with delusions do make claims that appear irrational, bizarre and incomprehensible, it is all too easy to conclude that any unusual claim that they make is therefore a delusion. Because such cases of epistemic injustice undermine patients’ status as knowers, they are stigmatizing as well as a threat to the relationship between patients and health care providers. This important paper again illustrates the overlapping nature of claims about knowledge and uncertainty, judgement, evidence, argument and rhetoric, reason, ethics and politics in practical debate, setting the scene for the discussions of the ensuing section.

### **AAPP annual meeting: conceptual and philosophical aspects of clinical reasoning**

The papers included in this section arose from the 26th annual meeting of the AAPP, held 3–4 May 2014 in New York City. The AAPP (est. 1989) is an organization developed to promote interdisciplinary research, educational initiatives and graduate training programmes in philosophy and psychiatry. The annual meeting brings together a range of disciplines encompassing psychiatry, philosophy, psychology, social work and other disciplines in humanities. The 2014 meeting focused on conceptual and philosophical aspects of clinical reasoning. The breadth of this topic is nicely illustrated by the papers included in this thematic issue.

The conceptual and practical challenges involved in an interdisciplinary gathering such as this are fundamental to the philosophy of psychiatry more generally: namely, identifying connections between theory and practice and finding common ground among differing conceptual frameworks to begin a conversation. Given the heterogeneity in background and expertise represented, the annual meeting prioritizes explanatory pluralism. This is evident in the six papers selected here, which present a wide range of concerns.

Clinical reasoning is at once ubiquitous and understudied. Despite being a psychological process that clinicians engage with on a daily basis, it is a process that remains poorly characterized both methodologically and pedagogically. As a phenomenon it runs the risk of being generalized to the point of meaninglessness, or colloquialized to the ‘I know it when I see it’ of Justice Stewart.<sup>1</sup> In his book *How Doctors Think* [30], Jerome Groopman discusses a range of intuitive heuristics (as well as logical fallacies) employed on the medical wards for better or worse, and identifies how these heuristics are in play within seconds of assessing a patient. Groopman offers many examples as to how this reflexive use of heuristics leads to poor clinical decision making and bad outcomes. Clinical reasoning as a topic of interest receives attention when it breaks down, or works suboptimally. At the same time, Groopman bemoans the rise of EBM approaches as being overly mechanistic, rigid and woefully inadequate at characterizing the individual nuances of a given patient. This tension between evidence-based approaches (and the proceduralized decision-making processes involved) and the less well-characterized appeals to clinician experience and expertise (and associated intuitive approaches to decision making) is a thread that runs through this discussion.

Although the possibility of medical error is relevant to a discussion of clinical reasoning, there are good reasons to try to understand clinical reasoning above and beyond the avoidance of bad clinical outcomes. Groopman’s book, for all its rich anecdotal examples, does not help us identify when heuristics are useful and when they are not, the best direction being the passed-down, inverted advice of a mentor: ‘Don’t just do something, stand there’. Certainly taking pause given the inherent irrationality of much decision making is worthy advice – inaction may very well be prudent at times. But at a certain point we must act. As has been suggested elsewhere [31] perhaps a more apt title might have been *How Doctors Think They Think*. So how do we translate this process of clinical reasoning into action and how do we justify this form of knowledge (to ourselves, to patients, to peers) so as to move forward in ethically, clinically and scientifically justified fashion? How should we assess and account for the various and competing interests that come to bear on decision making and influence this translation from clinical reasoning to action? These interests may range from pharmaceutical marketing, insurance reimbursement and DSM classification changes to issues of countertransference in the therapist/client relationship.

Groopman’s book draws heavily on Kahneman’s two system theories of decision making [30]. System 1, per Kahneman’s model, is fast, heuristic-based, intuitive and largely unconscious – useful in quick appraisal but often resulting in misdiagnosis. System 2, in contrast, is the slow, deliberate, analytical and energy-demanding mode of reasoning. It is useful in deductive problem solving and yet fatigable (one is well advised to schedule their medical appointments – mental health related or otherwise – in the early part of the day). Both systems are practically useful in clinical reasoning in different circumstances and there is good reason to believe that these two systems have discrete neuroanatomical substrates. And yet the process occurring between the enunciation of presenting

symptoms and diagnosis and treatment prescription remains, in large part, poorly characterized both in terms of what *is* occurring as well as what *should be* occurring.

It remains unclear how to combine the experiential aspects of clinical practice, with its traditional maxims and heuristics, with more evidence-based approaches. Although EBM offers clear direction for weighing varieties of evidence and interpreting data, it often remains unclear how to apply resultant generalized guidelines in the unique, often highly idiosyncratic microclimate of an individual who is incompletely characterized by study populations. There are also concerns that EBM cannot adequately account for the way in which patient values figure into decision making: concerns that have motivated an array of humanistic approaches such as values-based medicine, patient-centred medicine and narrative medicine. In psychiatric formulation this pluralism is perhaps best embodied by the biopsychosocial formulation that proposes to understand and represent illness in terms of biological, psychological and social factors rather than fall into simple biological reductionism. As has been pointed out by Nassir Ghaemi and others [32], however, the biopsychosocial model is not only trivially self-evident in the face of caring for an individual patient, but it runs the risk of vacuous eclecticism in that a simple rendition of possible explanatory models across theoretical domains does not necessarily help us craft meaningful interventions, identify the causal factors at play or draw meaningful connections between those levels of causation.

The broad topic of clinical reasoning offers ecumenical appeal to both analytic and continental philosophical traditions, as illustrated in this sampling of papers. There are metaphysical issues at stake relating to the ontological assumptions of clinical inference. What sort of ‘kinds’ are psychiatric diagnostic categories – natural? sociocultural? looping? practical? What are the inherent conceptual and practical limitations in using an operationalized approach to classification such as the DSM 5 for the purpose of diagnosis and clinical decision making? How do our modes of clinical decision making differentially suggest stances in the philosophy of science – realist, instrumentalist, constructive empiricist or otherwise?

There are hermeneutic challenges in the examination of the clinical dyad and the play of interpretation as well as phenomenological questions as to the relative weight to be placed on subjective patient experience and the utility of these data to clinical diagnosis and treatment prescription. How is this hermeneutic circle impacted by pharmaceutical influences on clinical decision making and illness characterization?

There are relevant sociocultural questions regarding the social construction of various diagnoses and modes of illness presentation and how this impacts the reasoning processes of individual practitioners. There are existential questions surrounding the applied meaning of symptomatology and downstream effects on patient experience and clinical appraisal. And there are ethical questions regarding the role of mental health service users in defining illness and illness experience as well as defining the scope of ethical practice.

Jonathan Bolton, with reference to CS Peirce, examines the structure of clinical inference, in particular the role of abductive reasoning (namely, inferring a case example given a result and a rule) as a common and practically useful mode of clinical reasoning [33]. His paper not only provides good reason to believe that

<sup>1</sup> The American Supreme Court judge who famously ‘explained’ his system for the classification of ‘hard core pornography’ with this phrase in the 1960s.

this mode of reasoning is common when faced with diagnostic uncertainty, but also that EBM's prioritization of inductive reasoning misrepresents the fact that, particularly in mental health, many presenting clinical scenarios are underspecified in terms of informational content. Among other interesting implications, Bolton's argument suggests that clinical reasoning relies on variable methodologies depending on the timeline of the clinical investigation, the degree of information saturation present and how standardized the presentation is.

In a discussion resonating with Sanati's [29], Laura Guidry-Grimes turns to disability studies and disability activism to argue for a more rigorous incorporation of the subjective perspectives of individuals with psychiatric disability into clinical reasoning models [34]. Guidry-Grimes' argument hinges on ethical issues of autonomy and agency in the context of psychiatric disability. Given that many individuals with a psychiatric condition have full capacity to form stable commitments, preferences and interests and are thus able to care about their disabled condition, Guidry-Grimes suggests that there is a *prima facie* duty to respect and trust their claims about valued aspects of their condition. This presents potentially radical challenges to typical biomedical conceptions of illness and health and expands the conversation to disability in general and the way in which health care recognizes, evaluates and accommodates difference in a variety of forms.

Oleksandr Dubov looks at rhetorical strategies in the patient-physician interaction and examines the ethical issues at stake in expanding this communication beyond appeals to reason to encompass persuasive appeals to the emotions [35]. Although tracing this strategy back to Aristotle, Dubov's examination benefits from a more modern understanding of decision making as a process (contra Descartes) that always involves emotional processing. From a practical standpoint this is observed in the wide range of rhetorical styles observed in discussions regarding code/DNR status. Given physicians' clear ability to influence patient decision making through the emotional inflections of their messages, this raises interesting ethical questions surrounding when this technique is permissible or even indicated. Although Dubov focuses primarily on how emotional tone can influence information delivery (and hence disposition to act on the part of the patient), the paper raises interesting questions about the role of emotion in individual clinician decision-making processes.

Greg Mahr's paper 'Narrative Medicine and Decision Making Capacity' [36] provides an interesting exploration of an alternative model of capacity assessment that draws from narrative medicine. Mahr identifies limitations of typical capacity assessments and suggests alterations informed by narrative medicine that better capture the clinical encounter as a multilayered interaction between equally valid (and possibly conflicting) narratives. The issues at stake here are practical and cognitive, as well as ethical. Mahr's paper indirectly expands on several themes raised by Guidry-Grimes and Dubov [34,35], both in terms of the relative weight given to patients' subjective reports in assessment and decision-making processes, but also the degree to which clinicians should feel ethically justified in rhetorically bolstering their clinical narrative.

Anthony Fernandez and Sarah Wieten's paper 'Values-Based Practice and Phenomenological Psychopathology: Implications of Existential Changes in Depression' [37] argues that values-based practice (VBP) as currently understood does not adequately

account for the subjective existential changes that take place in patients with certain severe psychiatric conditions, such as major depressive disorder. Their argument is that VBP, while representing a useful expansion of EBM to incorporate patient values, does not do justice to the fact that the very act of valuing can be fundamentally altered by an illness such as depression.

Given that depression is often characterized symptomatically by degradation in the capacity to find meaning, connection or value, VBP as it currently stands is unable to account for these implications. The authors propose several modifications to VBP to better incorporate this phenomenon. Their work here also indirectly addresses what has been described by Nancy Andreasen and others as 'the loss of phenomenology' within American biological psychiatry [38]. With the advent of DSM-based operationalized symptom clusters to guide diagnosis, there has been a dramatic decrease in descriptive, phenomenological characterizations of mental illness – not only in terms of assessment but also in terms of subjective character. Given the inherent limitations of current day objective assessment in psychiatry, with incompletely characterized biological underpinnings, this loss is even more acute.

Lloyd Wells' paper 'Clinical Thinking in Psychiatry' [39] turns our discussion towards the associated pedagogical issues at stake. Clinical reasoning is poorly defined: it is not simply critical thinking, nor simply EBM, nor what Wells describes as 'eminence-based medicine' but incorporates elements of all of the above. One wants to do it well and, in turn, teach others to do it well. Given limitations in our own understanding of what clinical reasoning entails or should entail, how should we best impart this knowledge to students?

The selected papers in this issue address unique challenges in clinical reasoning involved in mental health fields as well as broader issues in health care and education. Although there are many interesting facets to this topic, as well as distinct local variations depending on speciality, we hope that the sampling provided here offers ample introduction to the spectrum of philosophical, methodological and ethical challenges involved in characterizing clinical reasoning.

## Debates

The debates section of this thematic issue contains three direct responses to papers in last year's anniversary edition. In the philosophy section of that edition, Susanna Every-Palmer and Jeremy Howick argued that EBM is failing in its mission through industry contamination of research [40]. In reply, Peter Wyer and Suzana Alves Silva accuse the authors of failing to define that mission, noting that the foundational papers they cite to define what EBM 'is' and 'does' do not contain any 'actionable mission' [41]. Wyer and Silva note that as an educational movement, 'EBM accomplished its mission to simplify and package clinical epidemiological concepts in a form accessible to clinical learners' and they accuse Every-Palmer and Howick of failing 'to distinguish between the EBM movement and the research enterprise it was developed to critique'. They speculate that this confusion may be an outcome of the development of the term 'EBM' into a 'generalized packaging label' associated with 'levels of policy, health care management and implementation' that had nothing to do with the movement's initial educative project. We suspect that Every-Palmer and Howick might actually agree with several of the points

their critics make, and look forward to their robust response in the debates section of the next thematic edition of this journal.

Staying with the theme of EBM, Eivind Engebretsen and colleagues [42] respond to a challenge raised by Jeanette Hofmeijer in a paper published in the anniversary edition of this journal [43]. The authors agree with Hofmeijer that EBM involves a significant amount of interpretation, at all levels. In particular, although proponents of EBM have admitted the challenges of integrating many sources of evidence with patient values in a clinical decision, guidance on this process has been lacking. Engebretsen and colleagues aim to pry open the black box of interpretation and expose the principles of reasoning involved in the integration of different sources of evidence (experimental and experiential) in clinical decisions. They draw upon Bernard Lonergan's epistemology for these principles, which stresses the importance of self-awareness and self-conscious questioning throughout the process of clinical decision making.

In the final contribution to this section, Veli-Pekka Parkkinen and Anders Strand continue an ongoing debate with Roger Kerry and colleagues about the nature of causation in EBM [44]. Kerry *et al.* have proposed that evidence-based practice should adopt a dispositionalist view of causality [45,46]. In reply, Parkkinen and Strand advocate for the 'difference making' view criticized by Kerry *et al.* [47,48], focusing in particular on the support that such a view gives for understanding the role that assumptions about causality play in inferences made in clinical reasoning. Here, they build on this argument to discuss predictions made across different causal contexts and predictions about individual patients that are made on the basis of evidence from RCTs. We are delighted that the philosophy thematic editions of this journal have been host to this important, meticulous and intellectually serious discussion, and we hope that the contributors from each side will continue to educate us and our readers in further exchanges.

## Book reviews

The edition contains two book reviews. Tim Kenealy reviews Nicholas Maxwell's *How Universities Can Help Create a Wiser World: The Urgent Need for an Academic Revolution* [49]. Maxwell provocatively appeals to universities to re-invent themselves to create a wiser world. Specifically, states Maxwell, universities need to re-orient their role from 'knowledge inquiry' to 'wisdom inquiry'. Maxwell believes that this shift will yield practical solutions to enhance life. Kenealy agrees on the worthiness of Maxwell's aim, mindful of 'an inappropriately narrow view of knowledge and evidence in most institutions and in some disciplines'. However, Kenealy warns that Maxwell comes up short on suggesting how to refocus universities, and he questions whether knowledge inquiry is really to blame for current world crises. To provide a more nuanced critique of Maxwell's book, Kenealy considers how scholarly service might shape four overlapping functions of wisdom inquiry, namely discovery, integration, application and teaching.

Sarah Weiten provides a detailed and largely very positive review of Mona Gupta's recent book *Is Evidence-Based Psychiatry Ethical* [50]? The heart of the book, according to Weiten, is the third chapter in which Gupta provides her answer to the question that forms the title of the book. In doing so, Gupta exposes the serious problems that arise when people apply EBM in psychiatric

care. Gupta also advances a fascinating argument about the utilitarian underpinnings of EBM near the end of the book. Not everything is perfect, though: Weiten questions Gupta's choice of representative texts on EBM, worrying that they are not recent or dynamic enough to represent EBM today, and raises worries about the role of authority figures in portraying the movement, given commitments to anti-authoritarianism in original formulations of EBM.

## Conference reports

We conclude with an extremely detailed account of the exchanges and arguments presented in an interdisciplinary workshop in the philosophy of medicine, hosted by the Centre for Humanities and Health at King's College London [51]. Philosophers Emma Bullock, Tania Gergel and Elseltijn Kingma provide a thorough and insightful report on exchanges between practitioners, philosophers, psychologists, legal theorists and social scientists on the topic of 'parentalism and trust', featuring debates under the headings 'capacity and supported decision making', 'epistemic justice and medical parentalism', 'trust and the doctor-patient relationship' and 'public health policy and parentalism'.

The resonances between these discussions and the arguments of the contributors to this, thematic edition of the *Journal of Evaluation in Clinical Practice*, are striking. Although we are still far from agreement on the precise map of the intellectual territory covered in these exchanges, there is a growing sense of progress and shared understandings regarding the nature of the problems that face us and the possible ways forward if we are to resolve them. In part, these problems concern diseases, the patients that bear diseases and the knowledge-wielding providers that care for patients. These three elements represent the corners of the Hippocratic triangle [52]. One role of the philosophy of medicine is to resolve the edges that connect these three points, a venerable task towards which the articles in this special issue have no doubt contributed.

## References

1. Trigg, N. & Fitzpatrick, K. (2015) Greater Manchester to Control £6bn NHS budget. Available at: <http://www.bbc.co.uk/news/uk-england-manchester-31615218> (last accessed 1 March 2015).
2. Boorse, C. (1975) On the distinction between disease and illness. *Philosophy and Public Affairs*, 5, 49–68.
3. Fulford, K. W. M. (2001) What is (mental) disease? An open letter to Christopher Boorse. *Journal of Medical Ethics*, 27, 80–85.
4. Kirkengen, A. L. & Thornquist, E. (2012) The lived body as a medical topic: an argument for an ethically informed epistemology. *Journal of Evaluation in Clinical Practice*, 18 (5), 1095–1101.
5. Loughlin, M., Bluhm, R., Stoyanov, D., Buetow, S., Upshur, R., Borgerson, K., Goldenberg, M. J. & Kingma, E. (2013) Explanation, understanding, objectivity and experience. *Journal of Evaluation in Clinical Practice*, 19 (3), 415–421.
6. Loughlin, M. & Miles, A. (2015) Psychiatry, objectivity and realism about value. In *Alternative Perspectives on Psychiatric Validation* (eds P. Zachar & D. Stoyanov), pp. 146–163. Oxford: Oxford University Press.
7. Phillips, J. (2015) Scientific validity in psychiatry: necessarily a moving target? In *Alternative Perspectives on Psychiatric Validation* (eds P. Zachar & D. Stoyanov), pp. 164–186. Oxford: Oxford University Press.

8. Loughlin, M., Bluhm, R., Fuller, J., Buetow, S., Upshur, R., Borgerson, K., Goldenberg, M. J. & Kingma, E. (2014) Philosophy, medicine and health care – where we have come from and where we are going. *Journal of Evaluation in Clinical Practice*, 20 (6), 902–907.
9. Loughlin, M., Upshur, R., Goldenberg, M., Bluhm, R. & Borgerson, K. (2010) Editorial introduction and commentary: 'Philosophy, Ethics, Medicine and Health Care: the urgent need for critical practice'. *Journal of Evaluation in Clinical Practice*, 16 (2), 249–259.
10. Von. Staden, H. (1989) *Herophilus: The Art of Medicine in Early Alexandria*. Cambridge: Cambridge University Press.
11. Seedhouse, D. (1986) *Health: The Foundations for Achievement*. Chichester: Wiley.
12. Nordenfelt, L. (1995) *On the Nature of Health: An Action-Theoretic Approach*. Dordrecht: Kluwer Academic.
13. Azevedo, M. (2015) Health as a clinic-epidemiological concept. *Journal of Evaluation in Clinical Practice*, 21, 3.
14. Edgar, A., Kitzinger, C. & Kitzinger, J. (2015) Interpreting chronic disorders of consciousness: medical science and family experience. *Journal of Evaluation in Clinical Practice*, 21, 3.
15. Parvan, A. (2015) Patients' substantialization of disease, the hybrid symptom, and metaphysical care. *Journal of Evaluation in Clinical Practice*, 21, 3.
16. Cellarius, V. (2015) Therapeutic potential in 'metaphysical care'. *Journal of Evaluation in Clinical Practice*, 21, 3.
17. Binney, N. (2015) Nosology, ontology and promiscuous realism. *Journal of Evaluation in Clinical Practice*, 21, 3.
18. Kirkengen, A. L. & Thornqvist, E. (2015) The quantified self – closing the gap between general knowledge and particular case? *Journal of Evaluation in Clinical Practice*, 21, 3.
19. Marcum, J. (2015) Caring for patients during challenging clinical encounters. *Journal of Evaluation in Clinical Practice*, 21, 3.
20. Galvin, K. & Todres, L. (2015) Dignity as honour-wound: an experiential and relational view. *Journal of Evaluation in Clinical Practice*, 21, 3.
21. Tsang, S. (2015) Arrow physicians: are economics and medicine philosophically incompatible? *Journal of Evaluation in Clinical Practice*, 21, 3.
22. Devisch, I. & Vanheule, S. (2015) Foucault at the bedside: a critical analysis of empowering a healthy lifestyle. *Journal of Evaluation in Clinical Practice*, 21, 3.
23. van Baalen, S. & Boon, M. (2015) An epistemological shift: from evidence-based medicine to epistemological responsibility. *Journal of Evaluation in Clinical Practice*, 21, 3.
24. Flores, L. (2015) Therapeutic inferences in individual patients. *Journal of Evaluation in Clinical Practice*, 21, 3.
25. Chin-Yee, B. & Upshur, R. (2015) Historical thinking in clinical medicine: lessons from R.G. Collingwood's philosophy of history. *Journal of Evaluation in Clinical Practice*, 21, 3.
26. Prasad, R. (2015) How the creative use of analogies can shape medical practice. *Journal of Evaluation in Clinical Practice*, 21, 3.
27. Boyd, M. (2015) A method for prioritizing interventions following root cause analysis (RCA): lessons from philosophy. *Journal of Evaluation in Clinical Practice*, 21, 3.
28. Tyreman, S. (2015) Trust & truth: uncertainty in healthcare practice. *Journal of Evaluation in Clinical Practice*, 21, 3.
29. Sanati, A. (2015) Epistemic injustice in the assessment of delusions. *Journal of Evaluation in Clinical Practice*, 21, 3.
30. Groopman, J. (2007) *How Doctors Think*. Boston: Houghton Mifflin.
31. Lambdin, C. (2007) 'How doctors think they think' published electronically on eSkeptic. Available at: <http://www.skeptic.com/eskeptic/07-08-22/#feature> (last accessed 2nd February 2015).
32. Ghaemi, N. (2012) *The Rise and Fall of the Biopsychosocial Model: Reconciling Art and Science in Psychiatry*. Baltimore: John Hopkins University Press.
33. Bolton, J. (2015) Varieties of clinical reasoning. *Journal of Evaluation in Clinical Practice*, 21, 3.
34. Guidry-Grimes, L. (2015) Modeling psychiatric disability. *Journal of Evaluation in Clinical Practice*, 21, 3.
35. Dubov, O. (2015) Ethical persuasion: the rhetoric of communication in critical care. *Journal of Evaluation in Clinical Practice*, 21, 3.
36. Mahr, G. (2015) Narrative medicine and decision making capacity. *Journal of Evaluation in Clinical Practice*, 21, 3.
37. Fernandez, A. & Wieten, S. (2015) Values-based practice and phenomenological psychopathology: implications of existential changes in depression. *Journal of Evaluation in Clinical Practice*, 21, 3.
38. Andreasen, N. (2007) 'DSM and the death of phenomenology in America: an example of unintended consequences'. *Schizophrenia Bulletin*, 33 (1), 108–112.
39. Wells, L. (2015) Clinical thinking in psychiatry. *Journal of Evaluation in Clinical Practice*, 21, 3.
40. Every-Palmer, S. & Howick, J. (2014) How evidence-based medicine is failing due to biased trials and selective publication. *Journal of Evaluation in Clinical Practice*, 20 (6), 908–914.
41. Wyer, P. & Silva, S. A. (2015) One mission accomplished, more important ones remain – commentary on Every-Palmer S, Howick J. How evidence-based medicine is failing due to biased trials and selective publication. *Journal of Evaluation in Clinical Practice*, 21, 3.
42. Engebretsen, E., Vøllestad, N., Wahl, A., Robinson, H. & Heggen, K. (2015) Unpacking the process of interpretation in evidence-based decision making. *Journal of Evaluation in Clinical Practice*, 21, 3.
43. Hofmeijer, J. (2014) Evidence-based medical knowledge: the neglected role of expert opinion. *Journal of Evaluation in Clinical Practice*, 20 (6), 803–808.
44. Parkkinen, V.-P. & Strand, A. (2015) Causation in evidence-based medicine: in reply to Kerry et al. *Journal of Evaluation in Clinical Practice*, 21, 3.
45. Kerry, R., Eriksen, T. E., Noer Lie, S. A., Mumford, S. D. & Anjum, R. L. (2012) Causation and evidence-based practice: an ontological review. *Journal of Evaluation in Clinical Practice*, 18 (5), 1006–1012.
46. Kerry, R., Eriksen, T. E., Lie, S. A. N., Mumford, S. D. & Anjum, R. L. (2014) Causation in evidence-based medicine: in reply to Strand and Parkkinen. *Journal of Evaluation in Clinical Practice*, 20 (6), 985–987.
47. Strand, A. & Parkkinen, V.-P. (2014) Causal knowledge in evidence-based medicine. In reply to Kerry et al.'s causation and evidence-based practice: an ontological review. *Journal of Evaluation in Clinical Practice*, 20, 981–984.
48. Strand, A. & Parkkinen, V.-P. (2014) Causal knowledge in evidence based medicine – reply to Kerry et al. *Journal of Evaluation in Clinical Practice*, 20 (6), 981–984.
49. Knealey, T. (2015) Review of Maxwell's 'How universities can help create a wiser world: the urgent need for an academic revolution'. *Journal of Evaluation in Clinical Practice*, 21, 3.
50. Weiten, S. (2015) Review of Gupta's 'Is evidence-based psychiatry ethical?'. *Journal of Evaluation in Clinical Practice*, 21, 3.
51. Bullock, E., Gergel, T. & Kingma, E. (2015) Interdisciplinary workshop in the philosophy of medicine: parentalism and trust. *Journal of Evaluation in Clinical Practice*, 21, 3.
52. Duffin, J. (2005) *Lovers and Livers: Disease Concepts in History*. Toronto and London: University of Toronto Press.