



EDITORIAL

## Explanation, understanding, objectivity and experience

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It is commonly – although not universally – accepted that clinical reasoning should in some sense be ‘objective’, and that we lack a proper explanation of a problem, symptom or condition if we lack an objective account of the nature and causes of that problem, symptom or condition [1–4]. The pages of this journal over its 19-year history testify that we are still far from reaching a broad consensus on the precise nature of clinical reasoning, and that the reasons for this lack of consensus are rooted in deeper, philosophical disagreements about the nature of objective reasoning in science, the nature of evidence and the role of mechanistic reasoning, statistical reasoning and theoretical frameworks in clinical judgement [5–14].

It is also commonly – but again not universally – accepted that we lack a full understanding of the problems we seek to treat if we do not have a proper account of the human, subjective experiences that (arguably) prompt us to conceptualize a given condition as a ‘problem’ in the first place [15–20]. Some critics maintain that the modern emphasis on biomedical science, its undoubted initial benefits notwithstanding, has led in recent times to a neglect of the lived experience of health and illness, and to the rise of a theoretically motivated reductionism that threatens to impoverish practice [21–26].

What is more, we seem to inherit a set of underlying assumptions or conceptual framework suggesting some sort of opposition, or at least a tension, between these different notions of explaining a problem objectively and understanding its human dimensions. ‘Reintegrating’ the two approaches or perspectives thus becomes, in itself, an intellectual problem in need of resolution [27–31]. That so fundamental a problem remains unresolved – at the very least, no consensus is discernable among intelligent contributors to

the debate about its resolution – reveals merely that we have not yet reached the end of intellectual history [32]. Even a brief acquaintance with the history of ideas should fill any thoughtful student of that history with a sense of humility and hope, being confronted at once with at least two realizations: that even the greatest thinkers of earlier ages lacked insights now deemed commonplace, and that, via a determined effort to challenge entrenched ideas, human beings were able to identify assumptions and dogmas standing in the way of progress, to provide us with the moral and intellectual inheritance upon which our current civilization stands [33,34]. It will therefore come as no great surprise to the reflective reader that she did not happen to be born at that point in the evolution of human society when all the most important and fundamental problems were resolved, and that there remains a need to interrogate our underlying assumptions about our lives and practices, if we are to build upon the progress made by our ancestors [32].

In recognition of the need to give sustained and rigorous attention to such underlying questions, the *Journal of Evaluation in Clinical Practice* (JECPC) launched a series of special thematic issues, where the broad range of philosophical questions that affect practice could be raised and thoroughly investigated [32,34,35]. With regard to the problems outlined in the preceding paragraphs, concerning the nature of objective explanations of health and illness and their relationship to lived experience, we believe that substantial intellectual progress has already been made in the three, preceding thematic issues. Contributors have considered attempts to revive features of our intellectual heritage that have been neglected in the modern era, in particular the emphasis on virtue that characterized ancient approaches to understanding sound judgement, as ways of resolving these very modern

problems. Virtue-based approaches to epistemology and ethics focus on the sort of dispositions we need to develop to be fit to practice [36–38], and this approach has been seen to facilitate a re-evaluation of the role of value judgements in clinical reasoning [39–43] and in particular, the possibility of conciliating neuroscience with phenomenology as it relates to clinical reasoning [44]. However, we concluded the editorial to the previous thematic by noting that: ‘These matters are by no means settled and therefore the debate is by no means closed.’ [34]

In this, the fourth in the series of JECPC thematic issues in the philosophy of medicine, the debate continues.

## Causal reasoning and evidential warrants

Since the early thematic issues on evidence-based medicine (EBM), contributors to the JECPC have been subjecting influential claims made about causal reasoning in clinical practice to rigorous critical scrutiny [22,45–49]. The debate has moved on significantly, with productive exchanges between EBM’s protagonists and critics [7,8], giving some contributors grounds to hope for a ‘pluralogue’, allowing the best in divergent approaches, previously thought incompatible, to flourish [31].

This edition opens with a series of papers addressing the relationship between our understanding of physiological mechanisms, epidemiological research, probability and the justification of causal claims [50–56]. Robyn Bluhm discusses the role for reasoning about physiological mechanisms in medical decision making [50]. Analysing two important recent contributions to this debate [4,10], she suggests an alternative role for physiological research and argues that, for knowledge of mechanisms to be truly useful, it should be integrated into epidemiological research, rather than being viewed as an alternative to it.

Martin Hoffmann explains the benefits for future generations of patients generated by population-level studies using magnetic resonance imaging (MRI). However, he notes that there are *unintended* implications for present patients and research subjects that highlight a conflict in the medical researcher’s role [51]. His paper focuses on the ethical problems that arise from the occurrence of ‘incidental findings’ in MRI research.

Jonathon Fuller notes that clinical practice guidelines (CPGs) are an important source of justification for clinical decisions in modern, evidence-based practice [52]. Looking in particular at how CPGs argue for treatment with long-term medications increasingly prescribed to older patients, Fuller notes that the arguments analysed lack the auxiliary assumptions that would warrant making a generalization about the clinical effectiveness of medications for the older population. He argues that guidelines need to be well-reasoned rather than simply evidence-based, and must avoid the temptation to use simple induction, ignoring important inferential gaps.

Harry Lesser’s paper also takes reasoning about the treatment of the elderly as the basis for his discussion of the role of statistical reasoning in decisions about suitability for treatment [53]. Lesser considers a particular inference about the competence of elderly patients with respect to a treatment which is self-administered, noting a range of factors that influence our assessment of competence and ascriptions of causal responsibility for the failure of procedures.

Peter Cramer makes a comparison between, on the one hand, the efforts of the EBM movement to standardize clinical decision-making practices, with the goal of improving decision making in clinicians, (to instil, as it were, better ‘habits of the mind’ in clinicians) thereby reducing the number of poor outcomes arising from clinical decisions, and on the other hand, Joseph Lister’s campaign promoting surgical antisepsis in the 19th century. Lister’s aim was also to change habits with the goal of preventing unintended and undesirable outcomes, and this point of comparison enables Cramer to characterize EBM as an ‘argument hygiene campaign’ [54]. For Cramer, many of the problems EBM has encountered result from the difficulties in applying its ‘hygienic’ approach to the inherently messy world of practical reasoning.

Cramer’s contribution is followed by another paper examining assumptions about reasoning, in this case with respect to the goals of clinical research. Most researchers take for granted that the aim of phase 3 clinical research is to determine whether treatments are efficacious, while adverse events (‘side-effects’) are just oddities to be noted along the way. Barbara Osimani [55] asks what would happen if clinical research were flipped on its head, so that researchers would instead *seek out* information about adverse drug effects rather than wait for those effects to show up in research designed for other purposes? What, if any, methodological changes would be required to meet this revised goal? Osimani provides a compelling and detailed statistical argument, and case study, in support of her claim that significant methodological changes would indeed be required.

Probability statements are ubiquitous for describing uncertainty in the medical literature. Ross Upshur, in a brief note, questions how probability statements relate to the world of clinical events [56]. Exploring the varied and contradictory interpretations of probability in the statistical and philosophical literatures, he suggests that the relationship is not as clear and straightforward as it is thought to be. He calls for an expanded research effort on how to conceptualize uncertainty in clinical practice. Upshur’s paper intentionally raises more problems than it presumes to solve, but the problems it raises are of such a fundamental nature, and concern such a central component of clinical reasoning, that they surely call for further investigation.

## Value, ontology and the nature of medicine

When do we categorize a problem as ‘medical’ (or ‘biomedical’)? What problems fall within the legitimate scope of medical enquiry and scientific explanation? To what extent should we expect to be able to achieve a full scientific, objective explanation of the human condition? The papers in this section address questions ranging from the intellectual and social foundations of medicine as a practice, to the relationship between neuroscience and phenomenology [57–64]. They consider the extent to which medical education needs to be underpinned by concepts derived from disciplines outside the traditional sciences [59], the severe limitations of ‘objectivity’ if understood in a characteristically ‘modern’ sense as meaning ‘value-neutrality’ [60], and the relationship between scientific and more broadly ‘humanistic’ approaches to understanding health and illness – crucially, seeking ways to integrate or reconcile these approaches while avoiding the pitfalls of reductionism [62–64]. While there are worries that we can place too much

responsibility upon medical science to resolve all human problems [58], there are also worries that certain current political agendas are pressing for problems quite properly understood in medical terms to be re-classified as ‘lifestyle choices’, with potentially disastrous implications for vulnerable patients [61].

Miles Little takes issue with the anti-foundationalist stance as expressed in papers published in the JECIP and the *International Journal of Person Centred Medicine*. Addressing arguments by Upshur [9] and Miles & Mezzich [21], he outlines what he calls a ‘modest foundationalism’ drawing on the philosophy of David Hume [57]. Little critiques what he interprets as the misuse of terms such as ‘emergence’ and ‘complexity’ to propose an account of foundationalism that is compatible with these concepts. Little’s paper is a valuable contribution to this debate, and will no doubt stimulate responses.

Ignaas Devisch analyses the case of a ‘wrongful birth’ suit brought against UZ Brussels, suggesting that such a suit reflects a profound shift in the way we understand and attribute responsibility [58]. For Devisch, this case raises fundamental questions about our expectations of science – including medical science – in the modern age, and reflects our inability to accept uncertainty as an inherent feature of the human condition. Despite striking differences in style and starting point, this paper, like Upshur’s [56], is significant in prompting further consideration of the relationship between probability, practice and reality.

Bruce Wilson argues that medicine, and in particular medical education, has problematically adopted concepts from outside the traditional ambit of medical science [59]. Focusing on holism, connectedness and reflective practice, Wilson constructs an argument for an ‘explicit commitment to teach the metaphysics of medicine’. The creation of a compelling metaphysical narrative will permit grounding these concepts within the teaching of medicine.

The case for incorporating questions traditionally conceived as ‘metaphysical’ or even ‘meta-philosophical’ into medical education can only be strengthened by such arguments as Richard Hamilton’s [60]. Hamilton questions a number of widely held views of the role of values in psychotherapy, rejecting what he regards as ‘the now largely discredited view that psychotherapy can be value free’, but also raising problems with how values are conceptualized by many who believe they have freed themselves from ‘the myth of moral neutrality’. The underlying conception of values as largely arbitrary preferences that the client and the therapist bring to the encounter, fails to do justice to the inherently ethical nature of psychotherapy. Hamilton makes effective use of examples to suggest that, like all enterprises designed to improve the health of the patient, psychotherapy needs to be grounded in a conception of the good of the patient in terms of what the Greeks called ‘virtue’ [60]. In line with contributors to previous thematic issues [32,34,36,39,41,44], Hamilton calls for a reconsideration of the relationship between ethical and epistemic questions, illustrating the ability of practice to challenge and confound the categories of academic philosophy [32,34,35], and urging contemporary practitioners never to ignore the insights of the ancients.

In a refreshing and tightly argued paper, David Nutt focuses on the UK government’s current efforts to recategorize addiction as a ‘lifestyle choice’ rather than an illness [61]. Whether driven by ideology or an ill-thought out attempt to reduce costs in the health service, this shift in health policy threatens to do irreparable

damage to current care provisions that are proving effective, and will result in more patients dying, getting blood borne viruses and encouraging others into drug use. By looking at several diverse forms of addiction, Nutt argues convincingly that addiction must be categorized as an illness, and conceptually distinct from the simple ‘choice’ to engage in an activity.

Two papers in this section address the relationship between the patient’s experience of illness and scientific explanations, with reference to the aforementioned project of reconciling neuroscience with phenomenology. While, in a previous issue, Hillel Braude analysed clinical reasoning and grounded his analysis in the philosophy of Aristotle [44], neurologist Donald Borrett examines patient experiences, looking in particular at the perception of time and appealing for his philosophical grounding to the work of Martin Heidegger [62]. Heidegger emphasized a need to study the conscious experience of what it means to be human in the world. Borrett discusses Heidegger’s concept of ‘ecstatic temporality’, the lived experience of time as the *form* of being, in which the subject sees herself ‘as her own possibility’. In illness, this experience is disrupted: ‘the future is no longer experienced as the patient’s own possibility but rather as a series of pre-determined external events that dictate the patient’s affairs’.<sup>1</sup> Borrett explains that the biomedical model of illness can similarly disrupt patients’ ability to experience control over their possible futures, if it leads to an overly exclusive focus on objective aspects of the problem. He suggests that practitioners should embrace an altered biomedical model in which the patient’s direct experience of their illness constructs, constrains and is created by a field of temporal possibilities [62]. In her helpful commentary on this paper, Tania Gergel [63] expands on, and commends, Borrett’s attempt to integrate biomedical and humanistic ideas on time and illness. In raising important questions about his model, she leads the way in initiating an expanded discussion of how phenomenological ideas on time and illness can stimulate understanding and support interventions to ameliorate perceptions.

In the final paper in this section, Natalie Banner argues that mental disorders are not brain disorders, and that we can believe this claim without commitment to such controversial philosophical positions as Descartes’ mind-body dualism, or the view that mental disorders have ‘psychological’ as opposed to ‘physical’ causes [64]. Banner’s point is that such disorders are properly ascribed to the *person*, not the organ that is the brain – and that the basis for this ascription is invariably deviation from epistemic, evaluative, emotional, moral and/or social norms. Her paper raises important issues about the relationship between these different levels of analysis. While these issues are particularly pressing in the area of psychiatry, Banner notes that all medical disciplines face the challenge of ‘incorporating different levels of explanation’. This has a significant implication for the papers in our next section, as it suggests that far from psychiatry attempting to adopt a reductionist version of the biomedical model, and to reclassify mental disorders as brain disorders, it should instead regard itself

<sup>1</sup> Again, despite rather dramatic differences in style and intellectual starting point, two very different papers in this issue – in this case, the paper by Nutt [61] and this one by Borrett [62] – are complementary, in that Borrett’s Heideggerian analysis of illness – as disrupting our control over our own possibilities – serves to support Nutt’s points on the crassness of treating the addicted person as simply making a ‘lifestyle choice’.

as 'ahead of the game' in terms of meeting the intellectual challenges for humane, scientifically credible health care in the future.

## Psychiatric epistemology

The problems explored in the final papers of our preceding section are particularly pressing in the field of psychiatry. The papers in this section attempt to address these underlying problems and to provide the basis for a critical epistemology of psychiatry [65–69].

Modern psychiatry has been considered by some to be in a state of crisis since the famous arguments of the anti-psychiatry movement, articulated by Foucault, Szasz and Cooper over the past century [70–72]. Arguably, this crisis is sufficiently serious to jeopardize the constitution of psychiatry as a medical discipline, and it can be understood with reference to three fundamental issues.

The first issue is related to the 'explanatory gap': the alleged dichotomy between 'understanding' and 'explanatory' knowledge (where these terms are read along the lines employed in the opening paragraphs of this editorial). As it has been discussed recently [73], psychiatry employs both facets from 'explanatory' disciplines (such as cognitive neuroscience) and 'understanding' disciplines (such as the medical humanities, psychology, ethics and sociology). In other words, psychiatry is supposed to bring together the disparate approaches of neuroscience and phenomenology in order to embrace the complexity of mental disorder. Achieving this synthesis is, however, a challenging enterprise as the two domains of knowledge have completely divergent methodologies and operational languages, which demand cross-disciplinary translation [74,75]. Korf and Bosker attempt to reconcile the two domains in a paper that examines the mind-brain problem as applied in psychiatry, and analyses depression both from a perspective of neurobiology and from what they regard as the complementary perspective of Freudian psychoanalytic theory [65]. In an insightful commentary, Gupta applauds the authors' efforts to 'relate first-personal subjective experience . . . with neurobiological correlates' but wonders if the integration of one theoretical perspective (neurobiology) with another (psychoanalytic theory) will in fact facilitate 'the integration of subjectivity and biology' (with substantive implications for practice) that the authors seek [66].

The second major issue concerns the logical underpinnings of psychopathological reasoning. While there has been some excellent work done on the issues of reasoning, semantics and validity in psychiatry [76], and the relationship between the logic of everyday practice, mental disorder and commonsense psychopathology [77], two papers in the present section illustrate how far we remain from reaching anything resembling a consensus on these fundamental points. The main focus for the papers by Gurova and Van Staden [67,68] is the reasoning that 'understanding it makes it normal' as described by Meehl [78]. Meehl noted that some clinicians tend to interpret the otherwise clear symptomatic behaviour of their patients as 'normal' if they are given a plausible causal story of the patients' behaviour, and he took this to be a clear-cut case of a common reasoning fallacy in psychiatric diagnosis. Looking at debates about bereavement and 'normal grief', Gurova draws out different assumptions concerning the reality of mental disorders that underlie different positions on whether or not Meehl has indeed identified a reasoning fallacy here [67]. Van Staden

attempts to broaden the discussion to consider 'the more general question on appropriate methods for testing whether a specific way of reasoning in making a clinical diagnosis is fallacious', raising issues about the relationship between empirical findings, physiological causation and validity [68].

The third issue relevant to the identity crisis in modern clinical psychology and psychiatry is the issue of mental health taxonomy, especially concerns about its reliability, validity, normative demands and proper diagnostic criteria. An analytical approach to the indeterminacy of criteria for human emotional disorders is the topic of the paper by Nikolaidis, which concludes this section [69]. The paper provides an extensive review of the literature in the area and a useful introduction to the complex problems involved in developing an intellectually defensible conception of the emotions and emotional disorder. The development of critical epistemology of psychiatry is by no means a completed project, but the contributions to this section confirm that it is well underway.

## Debates

The papers in this section respond directly to works published in earlier thematic issues. As noted above, the reason for publishing such issues is to encourage productive discussion and debate about philosophical questions bearing on medical practice. We are gratified by the quality of the responses our earlier thematic editions have provoked, and look forward to further responses, both supportive and critical, to the contributions to this edition.

In an extensive response to criticisms made in an exchange in the second philosophy thematic issue [15,79–82], Bill Fulford notes that his previous article on values-based practice (VBP) focused primarily on its practical benefits [79], but that his interlocutors quite properly invite him to explain and defend in greater detail his assumptions about value, ethics and the proper role of philosophy in helping practitioners address pressing problems [83]. Fulford concedes to his critics that VBP as he envisages it is indeed 'liberal', 'unclear' and even 'dangerous', but he insists that, properly understood, these terms represent aspects of the position that he is prepared to defend.

In a further critical response to Fulford's original JECPC article [79], Ben Cassidy [84] argues that VBP is committed to versions of ethical subjectivism and relativism that Fulford nowhere defends nor indeed openly embraces. In a response that resonates with Hamilton's contribution to this issue [60], Cassidy argues that we need a more robust version of realism with respect to value, if a meaningful resolution of the problems VBP purports to address is even to be possible.

Like Fulford's article, the contribution of Peter Duncan and Anne Stephenson to this section [85] is a further instalment of an exchange published in a previous philosophy thematic issue: in this case a discussion of the nature, role and limitations of 'empirically informed ethics' [86,87]. While agreeing with Michael Loughlin about both the valuable and the problematic aspects of 'the empirical turn' in ethics [87], the authors look for practical ways to clarify the purposes of such research, so that in future both researchers and participants can be aware of their respective responsibilities. They argue that research of this sort can indeed make a valuable contribution which informs normative discussion, without necessarily falling victim to the pitfalls of psychologism, and serving genuinely to provide a basis for critical reflection on

current practices and structures, rather than simply reinforcing current thinking and practice.

In the third thematic issue on philosophy and medicine, Mark Tonelli contributed a paper in which he categorized and listed 12 features that make the results of research compelling to clinicians [88]. In her commentary, Kirstin Borgerson identifies the hidden normative framework shaping this account of ‘compellingness’ and urges closer attention to the relationship between study design and features that make research compelling [89]. In the same special issue, Dieneke Hubbeling drew on Nancy Cartwright’s work on the role of capacities in science to argue that, in psychiatry, we must aim to understand ‘approximate capacities’ because of the inability to isolate the fixed causal contributions of interventions [13]. Robyn Bluhm’s commentary on this paper suggests that, prior to being able to understand the causal contributions of interventions, we need better causal accounts of the conditions that the interventions are intended to treat [14]. Here, Hubbeling develops in greater detail situations in which even approximate capacities may be clinically useful [90].

## Conference report

This edition closes with a report of a 1-day interdisciplinary workshop on ‘bodies and minds in medicine’, hosted by the Centre for the Humanities and Health at King’s College, London [91]. As discussed in previous editions [32,34], the journal enthusiastically supports this sort of intellectually serious, interdisciplinary exchange of ideas. The report published here is useful in a number of ways. It provides a context for the papers in this issue by David Nutt [61] and Natalie Banner [64], as both papers were a product of addresses first delivered to the workshop. The very detailed account of the verbal exchanges surrounding these and other workshop presentations further provides an engaging insight into the debate involving practitioners and researchers whose work routinely requires them to confront the fundamental problems outlined in the opening paragraphs of this editorial. And while participants do not always agree on the precise solutions to these problems, what is striking is the level of sophistication with which diverse approaches are explained and understood in their own terms by colleagues approaching the problems from sometimes radically different intellectual starting points.

In these extremely challenging times for both health practitioners and academics, it is at least comforting that interdisciplinary debate is not only alive and well, but apparently healthier than it has been for some time. If this thematic edition of the JECP does no more than remind us of the need to take seriously approaches radically different than the ones with which we are familiar, then it will have made a worthwhile contribution to the cause of intellectual progress.

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