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Beyond the consulting room: Intuition and intersubjectivity in journal peer review

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Imagine for a moment that you have been asked to review a manuscript for a peer reviewed psychiatric journal. The manuscript reports the results of a randomised trial of a new anti-depressant. What approach would you take? What principles would you apply?

Perhaps, in thinking through your approach, you considered the importance of disinterestedness, and of the need to apply the principles of critical appraisal as set out in the many guidelines available on evaluating clinical research. Perhaps, in other words, you considered the need to be as “scientific” as possible in your approach to the review. This attitude would be pleasing to most journal editors, who would likely subscribe to the guidelines of the International Committee of Medical Journal Editors (ICMJE) which state that [1]:

Unbiased, independent, critical assessment is an intrinsic part of all scholarly work, including the scientific process. Peer review is the critical assessment of manuscripts submitted to journals by experts who are not part of the editorial staff. Peer review can therefore be viewed as an important extension of the scientific process.

At first glance this might appear to be a perfectly appropriate and realistic approach. After all, you are a scientist and you are reviewing a scientific manuscript, so it seems only reasonable that your approach to the review should be scientific too. But is it really so straightforward? Is a “scientific” approach to peer review really achievable? And even if it is achievable, is it necessarily desirable?

To answer these questions, consider another scenario:

Imagine for a moment that you are a psychotherapist assessing a new patient complaining of symptoms of depression. Now imagine that you have been asked to carry out your evaluation in a purely “scientific” manner. You are asked to set aside all personal intuitions, emotions, preconceived ideas, personal interests and prejudices, and you are asked to apply clearly defined principles (an evidence-based guideline, for example) in a methodical manner leading to a conclusion that can be justified completely. Finally, you are asked not to consult with any of your colleagues, no matter how difficult the diagnostic process may be.

This would, of course, be an absurd request, and you would probably argue, with good justification, that clinical practice does not, and cannot, work this way. In response to the demand that you should set aside intuitions and emotions, you might argue that the aim of your discipline has always been “to incorporate into human understanding, the sphere of feelings, imagination, desire and the unconscious” [2][p1]. You might, similarly, challenge the request to set aside all preconceived ideas on the basis that evaluation of a patient is unavoidably shaped by pre-existing concepts, theories and evidence which emerge from frames of reference already accepted in your clinical community, and that these concepts are reflexively related to the specifics of the patient’s discourse [2]. More generally, particularly if you are psychodynamically inclined, you might emphasise the intersubjective and preverbal, enacted nature of the clinician-patient encounter [3].

Even a biologically-oriented psychiatrist, with an armoury of diagnostic and therapeutic guidelines, would recognise the impossibility of achieving “scientific” ideals such as total disinterestedness, and methodical, principle-based reasoning, to the complete exclusion of such things as intuition and intersubjective relating. Indeed, even the strongest proponents of evidence-based medicine have always qualified their hierarchy of evidence by acknowledging the importance of integrating clinical expertise and patient values into evidence-based practice [4, 5], and similar challenges to “scientific” reasoning (in the idealised sense) have been put forward by practitioners in all fields of medicine [6, 7]. Ironically, even the “science” that is supposed to provide a template for “scientific” clinical practice is well known to be a process with strongly subjective, social and intersubjective dimensions, and it is generally accepted that this is not a bad thing for the generation of scientific knowledge. Post-positivist philosophers of science have emphasized the fact that scientific observations are mediated and filtered by existing beliefs, interpretations, categories, theories and interpretations, as well as by intuitions and aesthetic responses [8-10].

The assumption that peer review can and should be “scientific” would not be particularly surprising coming from an epidemiologist or a molecular biologist, but it is somewhat surprising to find that clinicians are so wedded to a reasoning process that they themselves have questioned in their clinical practice. While at first glance this may seem strange, this strong scientific imperative can be understood as a manifestation of the dominant scientific “paradigm” [11], which has been gaining strength for centuries—a phenomenon often attributed to the “Enlightenment tradition” and which has been entrenched in Western thought since Descartes. This tradition is based on the idea that the true form of things can be discovered through thought that is objective, dispassionate and context-free. Such thinking has maintained its primacy through the scientific revolution (with a shift in emphasis away from rational logic and towards rational empiricism), the industrial revolution and the more recent information revolution; and it is a key element of systems of thought as diverse as modern philosophical logic and linguistic philosophy; philosophy of language (e.g. Chomsky’s universal grammar); critical thinking (e.g. in education); scientific positivism/ empiricism; materialism in philosophy of mind. The privileging of science-like thinking has also made its way into many practical domains including schools of normative

ethics such as Kantianism; rational choice economics, artificial intelligence and, as mentioned above, evidence-based medicine [8, 12-21].

This is not to say that the scientific paradigm has been without its critics. Debates about the possibility of human “rationality” go back at least as far as Plato and Aristotle, and were central concerns for Hume, Kant and others. More specifically, the question has arisen as to how humans deal in their lives with unavoidable “irreducible uncertainty” –that is, the need to make policies and plans, with real social implications, without recourse to simple rules and explicit principles [8]. Many scholars have, therefore, emphasized the need to take a behaviourally more sophisticated approach which captures the full richness of human reasoning, and determine the extent to which human reasoning is actually “scientific” in the sense described above. There is now a wide recognition in fields including sociology, political science, economics, management, law, ethics and philosophy that people often act “intuitively”, “impulsively”, “emotionally”, “habitually” and according to a number of systematic heuristics (cognitive shortcuts), biases, errors and framing effects, and that to deny this is to be “ahistorical” [8, 12-21].

Of particular relevance to psychiatric practice have been recognitions of the importance of intuition as a mode of judgment and of the ways in which we intersubjectively (or hermeneutically) construct language and interpret the various ‘texts’ we come across [2, 3]. But these recognitions of the realities of human judgment have done little to weaken the scientific paradigm within certain branches of basic and applied science—probably not least due to the fact that the scientific paradigm is often equated with “rationality”, and other forms of judgment tend to be considered “irrational”. What tends to be ignored is the fact that even “experts” frequently fail to fulfil the normative criteria for fully “rational” reasoning. Indeed, one definition of expertise is that it is best described not by rules, even subconscious ones, but by recognizing familiar situations and reacting intuitively [13, 14]. Also frequently ignored is that whether reasoning counts as “rational” or not depends upon one’s definition of the term, and whether one distinguishes between, for example, coherence competence (the coherence of ideas with ideas) and correspondence competence (the correspondence of ideas with facts) [8].

So where does this leave us in relation to processes such as manuscript review? Does it really matter if the scientific paradigm has been somewhat naively transferred from the laboratory to the peer review process? I would argue that it is indeed a problem, and one that needs to be addressed. To use intuition as an example, one could argue that even if it were possible to set aside this mode of reasoning, to do so would mean that we would lose a mode of judgment that is extremely useful. Intuition is known to be useful in recognising patterns and extracting probabilistic contingencies, and in leading to conclusions that can be correct even if those doing the reasoning cannot be explicit about the principles underlying their impressions. In the context of medicine, it has been noted that clinical judgment does not proceed entirely inductively or deductively. One needs to take into account both “scientific-actuarial” and “artist-intuitionist” models of clinical judgment, with the latter being focused on the nuances of clinical judgment and on its cultivation “as one cultivates painting, music, or sculpture” [22][p120]. It is important to note that a modern

understanding of intuition differs both from instinct and from the older formulations that linked intuition with an immediate recognition of truth. Contemporary ideas of intuition, in contrast refer to a type of judgment known to have a neurological basis and used to make decisions in the face of probabilistic data. This form of intuition tends to manifest itself, and have particular utility, in circumstances of “irreducible uncertainty”—that is, when people need to make decisions with real social implications, without recourse to simple rules and explicit principles [8, 23-25]. Peer review, like clinical medicine, fits clearly into this category, and there is no reason to doubt that intuition—whether acknowledged or not— shapes the judgment of manuscript reviewers.

Intersubjectivity too has been recognised as a fundamental part of clinical reasoning. It has been noted, for example, that in psychoanalysis, “[t]he object of...enquiry is not the ‘hydraulics of the mind’, but associations of meanings formulated in language, and the method of psychoanalysis is not the scientific experiment, but understanding, interpretation and reflection.” This “hermeneutic” view of medicine challenges the idea of medicine as purely a natural science in which patients’ behaviour is seen as a natural phenomenon, the causes of which must be hypothesised and explained [26][p126]. As with intuition, intersubjectivity is not something that can or should be overcome. When faced with a patient (or a manuscript) we need somehow to make sense of what is said or written, and to do this, we need to somehow bridge the gap between our familiar world and the strange meaning that we encounter. Such an interpretive process can work only if we can enter into the interpretation with our own stock of possibilities of meaning and some pre-understanding of the text and/or its producer. Gadamer has referred to this as the “background”, or “prejudice” that we bring to any interpretive encounter. In this context, the word “prejudice” is used in a descriptive, rather than a normative, sense. Prejudice, in this sense, enables us to frame what we see, find its significance and make connections by drawing upon our own lives, all of which are crucial in processes such as peer review and clinical diagnosis in which we are provided with limited information at any given time. Once we have framed what we encounter, we enter into a two-way intersubjective interaction, and we are subsequently changed by the process, becoming aware of new possibilities of existence, thus closing the “hermeneutic circle” of interpretation. Much is lost from an interpretive encounter from which its intersubjective dimensions—prejudice and mutual transformation—are explicitly excluded [27-29].

Given the potential inherent in processes such as intuition and intersubjectivity, it is not surprising that clinicians do not want to lose these dimensions of clinical judgment. I would argue that this should apply equally to the peer review setting. To ignore aspects of reasoning such as intuition is to fall into a trap that Elster has called “hyperrationality”—the failure of reason to recognize its own limitations [19] or, of more relevance here, the failure to recognise those aspects of judgment that do not fit into narrowly defined definitions of rationality. Unless we recognise both the inevitability and desirability of processes such as intuition and intersubjectivity, we cannot make the most of them. Moreover, without acknowledging their presence, we cannot manage their disadvantages. Ironically, then, the efforts to make processes such as peer review entirely “scientific” may actually stand in the

way of that very goal by failing to recognise, and manage, the ways in which the process is *not* “scientific”.

It seems, therefore, that the peer review process needs to be seen as a complex process which is in some ways “scientific”, but which is also shaped by processes such as intuition and intersubjectivity. This is not to take a position of epistemological relativism, but rather to account for a complexity that unavoidably exists. To take this complexity into account in practice would not necessarily demand major structural changes to the review process. Much could be gained, for example, if reviewers were simply able to comment—without embarrassment—on their intuitive reactions and relational experiences. I would argue also that clinicians, and particularly psychiatrists, are in an especially good position to challenge the scientific imperative within their own publishing processes. A more open minded epistemic paradigm already exists in clinical psychiatry, and this would seem to be a solid starting point for a process of reforming biomedical publishing.

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