Demarcating and Judging Medicine: Review of Broadbent's *Philosophy* of Medicine

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Alex Broadbent, *Philosophy of Medicine*. New York: Oxford University Press (2019), 296 pp., \$105.00 (cloth).

The long and winding history of mainstream (Western) medicine is often told in popular narratives as a success story beginning with ignorance and blood-letting thousands of years ago and ending with the triumph of science and miracle cures over dogma and quackery by the middle of the twentieth century. However, there are other medical traditions quite different from the mainstream one, many of which have existed for longer, and medicine (even contemporary mainstream medicine) has not always lived up to its heroic ideal. So, what is medicine, and what unites these different traditions across time and place? Moreover, what should we think of medicine given its checkered record?

These two questions occupy Alex Broadbent in his book *Philosophy of Medicine*. The first question is the theme of the first half of the book, in which Broadbent surveys various medical traditions, develops his view of the goal and 'business' of medicine, and provides an account of health and disease. In the second half, Broadbent turns to the second question, rejecting evidence-based medicine (EBM) and medical nihilism, developing a medical cosmopolitanism, and applying his cosmopolitanism to alternative medicine and medical decolonization.

Philosophy of Medicine is an excellent, agenda-setting contribution to the philosophy of medicine. It is fresh and original in its scope. It is historically

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and culturally aware. It is more cosmopolitan than other work in philosophy of medicine, as it does not focus exclusively on Western medicine. It is lively. Finally, it gives rigorous and fascinating attention to two questions that should be getting more attention from philosophers of science and medicine.

Broadbent's central questions—'what is medicine?' and 'what should we think of medicine?' or 'what attitude should we adopt toward medicine?'—should be viewed as two of the field-defining questions for the philosophy of medicine, analogous to two questions that mark out the territory of general philosophy of science: 'what is science (vs. pseudoscience)?' and 'what stance should we take toward science and its theories (e.g., realism vs. antirealism)?' The first kind of question asks for a demarcation criterion for medicine (or science); the second asks us to judge or appraise medicine (or science).

Broadbent argues that a sufficient answer to the question 'what is medicine?' must tell us about the goal(s) of medicine, the core business of medicine (what doctors do), and the nature of health and disease. He identifies cure and prevention of disease as the goal of medicine, understanding and predicting disease as the core business or *competencies* of medicine, and secondary properties as constituting health and disease. In answering the question, 'what attitude should we take toward medicine?' Broadbent develops a stance of medical cosmopolitanism as a way of resolving disagreements about contested medical practices.

I accept Broadbent's parsing of the problem 'what is medicine?' into questions about medicine's goals, medicine's business, and health/disease as a reasonable decomposition of the problem. However, I argue that his account of the core business of medicine should be amended to include treatment and to describe the core activities rather than core competencies of doctors. This amendment would help mitigate important objections and would provide a blueprint for a fuller answer to the question 'what should we think of medicine?' than the one Broadbent provides. I will not discuss Broadbent's view of health and disease or of the goals of medicine.¹

Broadbent's Inquiry Thesis says that the core business of medicine is understanding and prediction rather than cure and prevention (however, cure and prevention are the core *goals* of medicine). According to this idea, medicine is "fundamentally an inquiry rather than a tool" (80). This way of characterizing medicine correctly emphasizes its cognitive dimension while incorrectly deemphasizing its praxis. Medicine is both an inquiry and a tool. Doctors divine disease, whether that disease is an imbalance in a Hippocratic humor, a disruption in the flow of chi, or a disturbance in a biological function. However,

^{1.} I will say that the relative importance of the goals of cure and prevention seems to be historically contingent, with prevention occupying an elevated role and cure occupying a diminished role in contemporary mainstream medicine compared to the past because of the increased prevalence of incurable chronic diseases (Fuller 2017).

doctors are also in the business of intervening, whether that intervention consists of bloodletting, herbs, homeopathic drafts, pharmaceutical drugs, or even lifestyle advice. While some medical traditions are more interventionist than others, all doctors are healers in some sense and not just diagnosticians and prognosticators. Or at least they attempt to heal; they intervene even when their interventions are ineffective. Even if Broadbent is right that understanding and prediction are logically primary to intervention because successful intervention requires understanding and making predictions (71), that would not imply that intervening has less primacy in terms of what doctors actually do with their time.

What leads Broadbent to deny that cure and prevention are the core business of medicine is what he calls the Puzzle of Ineffective Medicine: "medicine is extremely unreliable at achieving its fundamental goal, namely healing the sick" (56)—so, "why does it persist?" (56). For the most part, over time and across medical traditions, medicine has been and still is ineffective at curing. Thus, curing cannot be a medical competency because most of what we rightly recognize as medicine would then wrongly not be considered medicine by definition (because the core business or competencies of medicine are part of medicine's demarcation criterion). Broadbent argues that this curative incompetence extends to contemporary mainstream medicine, but one does not have to look far outside of the current mainstream to find medicine that is largely incapable of curing—pick your favorite historical, traditional, or alternative medicine.

However, this argument requires that we equate the core business of medicine with medicine's core competencies: "The core business of a profession or tradition is related to the competence or skill of some kind that its practitioners have" (34). If we instead understand the core business of medicine as medicine's core *activities*, it is possible to maintain that the core business of medicine defines medicine (in part) and that the core business of medicine includes treating disease (attempting to cure and prevent), while granting that medicine has been largely unsuccessful at actually curing disease.

This substitution would not dissolve the Puzzle of Ineffective Medicine because it would not explain how medicine has persisted despite being generally lousy at curing. Broadbent's answer to the puzzle is that medicine has generally been competent at understanding and prediction (hence, he argues that understanding and predicting are the core business of medicine). Understanding and predicting have earned medicine its keep. By 'understanding', Broadbent is referring to providing true explanations about disease.

However, it is questionable whether medicine has in fact been generally competent at explanation and prediction. Broadbent calls this objection the Whig's Other Objection. In particular, physicians have historically lacked correct explanations about the causes and nature of disease, which explains why they have done so poorly in their curative efforts (Metz 2018). In mainstream medicine, only recently has our understanding progressed to the point

that we have finally been able to intervene successfully in many cases, as demonstrated, for example, by the arrival of effective internal surgeries in the last couple centuries.

In response to the Whig's Other Objection, Broadbent argues that medical understanding is cumulative: the arrival of effective surgeries required an understanding of anatomy and infection, which arrived over time, eventually enabling successful internal surgeries. Moreover, Broadbent argues that even before they arrived at true explanations about diseases, physicians were competent at understanding because they were engaged meaningfully in explanatory progress. Says Broadbent, "an intellectual project can progress, in some sense, even while a strict assessment of its assertions at a particular time would have to conclude that they were largely or completely false. In the medical case this is perhaps even easier to see than in the scientific case. At least some branches of medical science lend themselves to being seen as cumulative over a fairly long period" (90). An inquiry that makes progress toward the right explanation is a successful inquiry.

Yet despite what Broadbent argues, only since roughly the Renaissance in the mainstream tradition has medicine been cumulating good explanations for disease or even making progress in this task. That is because before the Renaissance in mainstream medicine, and outside of mainstream medicine generally, medicine was largely tradition based and very often authority based. Medical theory and practices were passed down by tradition and very often originated in authoritative texts or authoritative founders. There was little progress of any kind, least of all scientific progress. In the mainstream tradition, Hippocrates and his corpus were the authority for almost 2,000 years before the Renaissance. Hippocratic theory and practices derived from grand theory rather than empirical study, and during the Dark Ages in Europe the scientific study of the human body was discouraged or outright suppressed by the church.

Fortunately, Broadbent can avoid the Whig's Other Objection by framing the pursuit of understanding and prediction as two of the core *activities* of medicine rather than *competencies* because physicians have always been engaged in these activities qua physicians even if it turns out that they have been largely incompetent. The core business of medicine is what doctors do rather than what they necessarily do well. This would allow Broadbent to say that the core business of medicine is the pursuit of understanding, predicting, curing, and preventing disease without denying the persistence of ineffective medicine, in terms of the persistence of either unsuccessful cures or unsuccessful medical understanding.²

2. I have still not solved the Puzzle of Ineffective Medicine: if medicine has usually been incompetent at treating, understanding, and predicting, how on earth has it survived? While I cannot provide a solution to the puzzle here, an alternative explanation might rely on the cultural significance of medicine around the world since societies first appeared.

Characterizing the core business of medicine as the core competencies of physicians faces a further problem. It risks conflating the answer to Broadbent's first central question (what is medicine?) with the answer to his second central question (what attitude should we take toward medicine, or how should we judge medicine?). Claiming that physicians are competent at understanding and prediction provides an answer to both questions: doctors are those who are good at understanding and predicting disease (by definition), and doctors are good at understanding and predicting disease (as a matter of fact). This leaves little room for bad doctors: those who are bona fide doctors but who are incompetent at doctoring. If we instead frame the core business of medicine as the core activities of physicians, then we will have different answers to Broadbent's two questions. Medicine is, in part, the core activities of pursuing understanding and predicting disease toward the goals of curing and preventing disease. Good medicine happens when these activities are successful and achieve their goals, or at least make meaningful progress toward them.

As I just alluded, an answer to the first of Broadbent's two central questions provides a blueprint for answering the second question. If medicine has certain core activities and goals, then medical expertise or success should be judged in terms of these activities and goals. We can even ask whether an entire medical tradition is a good medical tradition using this standard. Stegenga (2018) essentially asks this question and answers that contemporary Western medicine is generally ineffective at treating disease, a view he calls medical nihilism.

Broadbent denies Stegenga's medical nihilism, in part because he believes that curing or treating disease is not all there is to medicine (there is also understanding and prediction). In defending understanding and prediction as core medical competencies, Broadbent commits himself to the view that medicine is effective at understanding and predicting, so he does engage to some extent in the project of judging medicine as a whole, despite generally refraining from evaluating medical traditions.

Broadbent mainly argues for medical cosmopolitanism, the application of Appiah's (2007) cosmopolitanism to medicine. One tenet of this view is the primacy of practice: one should evaluate and discuss individual medical practices rather than medical systems. Medical cosmopolitanism recommends "considering treatments on a case-by-case basis, along with the claims that are made for them" (Broadbent, 206). This approach differs from Stegenga's in *Medical Nihilism*, in which Stegenga evaluates medical therapies collectively to arrive at a general claim about their effectiveness. It also differs from EBM in one important sense because while "EBM (usually) advocates a universal standard of evidence [the hierarchy of evidence], which amounts to a general principle" (Broadbent, 206–7), medical cosmopolitanism generally favors a more open-minded evaluation of individual practices and avoids

general principles. It is hard to deny that when it comes to making patientcare decisions, treatments should be considered on a case-by-case basis (neither EBM nor Stegenga deny this).

However, it is still sometimes useful to evaluate medical traditions as a whole. When faced with illness, patients must decide which medical sect or tradition to consult and whether to consult any doctor rather than bear their illness on their own. This decision might be based in part on whether they think a particular tradition is any good in general. This judgment might serve as a proxy for whether that tradition would be helpful for the particular ailment. Further, a society must judge an entire medical tradition when deciding whether to grant it certain professional status, rights, and funding. In making these determinations, it matters whether that tradition's medical interventions are generally backed up by empirical research (the minimal sense of being 'evidence based') and indeed whether they are generally ineffective (Stegenga's definition of medical nihilism).

Still, granting that when feasible and for the most part we should evaluate individual medical practices rather than entire medical traditions, in order to answer the question 'what should we think of medicine?' we need some guidance, a framework or set of principles to use in judging how well a particular medical practice engages in the activities of attempting to understand, predict, or treat disease in pursuit of the goals of cure and prevention. Broadbent rejects EBM's evidence hierarchy, which provides such a framework and set of principles (Howick 2011). In its place, he offers medical cosmopolitanism as a means to approach disagreements among mainstream medicine and various alternative medicines and medical traditions.

The four-part recommendation is as follows. First, we should presume that there is a fact of the matter—a presumption in favour of the minimal point of agreement between disagreeing parties. Second, we should approach the disagreement with epistemic humility, which is a willingness to revise our own views in the light of evidence in general, including considerations advanced by our conversants. Third, we should regard our conversants as our moral equals. Fourth, we should usually put practice first, seeking to resolve disagreements about what to do before tackling disagreements about why to do it. We should prioritize practice over principle. (221–22)

Medical cosmopolitanism is a promising approach to adjudicating disagreements among competing medical traditions. Its first recommendation toward presuming a common field of medical facts provides a good alternative to relativism while recognizing competing medical worldviews. Its second recommendation, a commitment to humility and defeasibility in our medical beliefs, is sensible epistemic advice. Its third recommendation, which advocates treating interlocutors as worthy of moral dignity and respect, is humane and

often neglected. Its final recommendation for the primacy of clinical practice is practical and promising. Yet Broadbent's position does not go all the way to addressing how we should judge medicine or resolve difficult medical disagreements.

I argued that we should judge medicine in terms of how well it conducts its core business and achieves or makes progress toward its core goals. In discussing alternative medicines, Broadbent makes useful points about the ubiquity of testimony in medicine (even in medical science) and the persuasiveness of direct experience. Broadbent seems to grant more credibility to testimony and direct experience than EBM or Stegenga does, but he does not offer a thorough analysis of these kinds of evidence and their role in medical epistemology. He discusses problems with the clinical research evidence favored by EBM and criticized by Stegenga but does not tell us how to evaluate individual therapies in light of these problems.

You might worry that having let homeopaths, purveyors of traditional Chinese medicine, and psychiatrists in the door (or whichever kind of doctor you most distrust), with their bags full of explanations, predictions, and treatments of uncertain or dubious value, and invited them to the table for a cosmopolitan conversation, Broadbent gives us no epistemically principled way to adjudicate disagreements about what works and what we should do beyond epistemic humility. As a result, harmful explanations, predictions, and treatments might be allowed to proliferate. I think this worry is well motivated. Broadbent's four recommendations make important strides in this direction but perhaps do not stride far enough. Much of the potential of the philosophy of medicine is in developing and arguing for principles and analyses of medical evidence, reasoning, and decision-making that might help us judge medicine and resolve controversies and disagreements over particular medical practices.

Developing and defending a full set of epistemic principles and analyses for medicine is not a reasonable objective for one book, however. Rather, it is a sizable project for the philosophy of medicine, and Broadbent's book sets an agenda for tackling it.

REFERENCES

Appiah, Kwame Anthony. 2007. Cosmopolitanism: Ethics in a World of Strangers. London: Penguin Random House.

Fuller, Jonathan. 2017. "The New Medical Model: A Renewed Challenge for Biomedicine." *Canadian Medical Association Journal* 189 (17): E640–E641.

Howick, Jeremy. 2011. The Philosophy of Evidence-Based Medicine. Oxford: Wiley-Blackwell. Metz, Thadeus. 2018. "Medicine without Cure? A Cluster Analysis of the Nature of Medicine." Journal of Medicine and Philosophy 43 (3): 306–12.

Stegenga, Jacob. 2018. Medical Nihilism. Oxford: Oxford University Press.