Philosophy of Medicine
Book Review

Review of Somogy Varga's *Science, Medicine, and the Aims of Inquiry: A Philosophical Analysis* (Cambridge University Press, 2024)

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1. Introduction

Somogy Varga's *Science, Medicine, and the Aims of Inquiry: A Philosophical Analysis* (2024) is a rich and ambitious contribution to the philosophy of medicine. It offers a structured attempt to reconstruct the aims and norms of contemporary medicine by examining a trio of widely discussed criticisms—skepticism about efficacy, over-medicalization, and objectification. Varga treats these criticisms not as external moralizing attacks but as *internal* critiques that rely on evaluative standards already embedded within medical practice. If these criticisms make sense, he argues, then medicine must implicitly be governed by constitutive aims whose violation they reveal. The book develops this idea into three theses: the Systematicity Thesis (medicine is a scientific form of inquiry), the Understanding Thesis (medical inquiry aims at understanding), and the Autonomy Thesis (the aim of medical practice is to promote health insofar as doing so supports autonomy).

The argument is structured, clear, and bold. The book ranges across the history of medicine, philosophy of science, phenomenology, bioethics, sociological critiques, and clinical examples. The result is a work that is as philosophically ambitious as it is interdisciplinary, offering readers an integrated picture of medicine that spans epistemic, ethical, institutional, and experiential dimensions. In what follows, I outline the content of the book's seven chapters, offering brief comments along the way, and then turn, in section 3, to some major points for further reflection.

2. Contents of the Book

Chapter 1 offers a clear presentation of the three criticisms or challenges. Skepticism is treated historically and conceptually. Eighteenth- and nineteenth-century critiques challenged the causal efficacy of medical practice. Today's skepticism takes the form of meta-research, best exemplified by John Ioannidis's work on statistical power, bias, publication filtering, and exaggerated effect sizes (see, for example, Ioannidis 2005). Jacob

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Stegenga's medical nihilism crystallizes this into a general claim: For any given intervention, low effectiveness is more probable than high effectiveness; therefore, clinicians and policymakers should reduce confidence in interventions and introduce stricter evidential demands (Stegenga 2018). Varga does not adopt nihilism but reconstructs skepticism as an internal corrective. Medicine aspires to produce reliable, actionable knowledge; skepticism highlights where those aspirations are not met.

The discussion of overmedicalization, the second challenge, is one of the most conceptually satisfying parts of the book. Drawing on various sociological and philosophical sources, Varga distinguishes medicalization—a descriptive expansion of medical jurisdiction—from pathologization, an evaluative classification of a phenomenon as a disorder. Overmedicalization occurs when pathologization is not warranted by harms, mechanistic understanding, or clinical relevance. This analytic distinction is crisp, and it allows Varga to argue later that some expansions of medicine—for example, into chronic care, mental health, and preventive care—may be justified when they address genuine harms and support patient agency.

The third challenge is objectification. Varga synthesizes phenomenological accounts (Carel 2016), narrative medicine (Charon 2008), and practice-based analyses (Mol 2002) to show how patients may feel reduced to diagnostic structures or data points. Objectification is not merely an interpersonal failure; it reflects an epistemic and organizational dynamic of modern medicine. Importantly, clinicians themselves sometimes articulate these concerns without abandoning biomedical practice, suggesting that objectification is also an internal self-critique, not just a philosophical charge.

The book's methodological pivot is to treat these three critiques as internal criticisms, akin to Karl Popper's notion of immanent critique. Internal criticism differs from external moralizing evaluation: It points to failures relative to the practice's own standards. Skepticism presupposes the norm of reliable knowledge, overmedicalization presupposes appropriate scope, and objectification presupposes meaningful patient engagement. This move sets the stage for the book's central argument: If these criticisms hold, they reveal the constitutive aims of medicine. This interpretive move is elegant and philosophically productive, though, as I discuss later, it is also one of the book's most delicate steps.

Chapter 2 situates the project within normative philosophy of science, which recognizes that science is structured by norms and goals that guide inquiry. Varga distinguishes three domains: aim (what medicine seeks to achieve), nature (what makes medicine scientific), and key concepts (hybrid or thick notions, such as health, disease, and autonomy, where descriptive and normative elements interact). Conceptual engineering plays a role here: Medicine's central concepts may be revised to more accurately reflect or improve its normative architecture.

Chapter 3 develops the Systematicity Thesis: Medicine is a form of science because it exemplifies higher degrees of systematicity than everyday knowledge. Borrowing from German philosopher Paul Hoyningen-Huene's nine dimensions of systematicity (descriptions, explanations, predictions, defense of claims, critical discourse, connectedness, completeness, generation, and representation), the chapter shows how medicine's epistemic architecture—classification systems, diagnostic categories, controlled trials, reporting standards—reveals a coordinated and self-correcting structure. This is illustrated with historical cases—from early statistical classifications to the International Classification of Diseases (ICD) system, and from the rise of control and randomization to

the contemporary integration of mechanistic understanding with evidence-based practice. The comparison with homeopathy, treated respectfully but clearly, serves to highlight the lack of diachronic and synchronic systematicity in pseudoscientific traditions. The chapter demonstrates Varga's strength in bridging historical material with conceptual analysis and is, to my knowledge, one of the clearest defenses of medicine's scientific status available.

Chapter 4 introduces the Understanding Thesis: Medicine's epistemic aim is understanding, rather than truth or prediction alone. The argument uses examples from pharmacology, microbiology, and physiology to show how explanatory understanding—knowing not only what works but why and how—guides clinical reasoning. Understanding is treated as an explanatory and counterfactual competence: the ability to project how interventions or failures would unfold across mechanisms.

Here, Varga uses an analogy with the North Atlantic Treaty Organization (NATO) to clarify what it means for a practice to have a constitutive aim. NATO's founding treaty explicitly states its purpose—collective security—which organizes its various activities. By analogy, the constitutive aim of a practice provides the standard against which failures are judged. I find the analogy conceptually useful but institutionally strained. Medicine has no founding treaty, no single document that codifies its aims. Indeed, contemporary medicine is governed by what sociologists call regulatory objectivity: guidelines, standards, classifications, and protocols, as well as frameworks that coordinate practices often by means of explicit definitions, rules, regulations, and criteria – but do not articulate a unified telos. Unlike NATO, medicine has evolved across centuries, cultures, and institutional forms without a single founding moment. This does not undermine the chapter's conceptual point—practices can be interpreted as if they have constitutive aims—but it highlights the interpretive nature of the approach. Medicine's aims must be reconstructed or proposed in a revisionary project, but they cannot be retrieved from institutional foundations.

Chapter 5 elaborates the Understanding Thesis by distinguishing biomedical understanding from clinical understanding. Biomedical understanding is mechanistic: It involves knowing causal pathways, counterfactual dependencies, and intervention points. The chapter draws on classical philosophical interventionist and mechanistic accounts of explanation but argues that clinical understanding requires more. It integrates biomedical knowledge with the phenomenological and narrative dimensions of illness—the patient's experience, values, agency, and social context. The chapter then engages with phenomenology of illness, ethics of care, and narrative medicine to articulate how clinicians must take account of both explanatory structures and lived realities.

In the end, medicine comes out as an epistemically hybrid practice. Yet the form of understanding described resembles the epistemic profile of general practitioners, who combine biomedical reasoning with relational, narrative engagement. In many specialized fields—oncology, radiology, anesthesiology, epidemiology—understanding is often mediated by technologies, models, and team coordination, rather than by dialogical patient interactions. This is not a flaw, but it suggests that understanding in medicine may be more plural than uniform.

Chapter 6 introduces the book's most explicitly normative thesis: The final aim of medicine is to promote health, but only insofar as doing so supports or is at least compatible with autonomy. Health is interpreted as the ability to realize valuable states of functioning (a rich, positive concept of health in the tradition of welfarism), and autonomy is analyzed through competence, authenticity, and relational support. My own recent work offers a

sustained critique of broad positive accounts of health, but a full discussion of this issue here would risk shifting the focus away from an assessment of the book's central theses. The Positive Health Plus Autonomy thesis captures the importance of agency in chronic illness, mental health, reproductive decisions, and palliative care. It explains why mere extension of life may not be the highest medical good, and why respecting patient values matters even when biomedical outcomes are clear.

Chapter 7 situates Varga's account among existing theories of medicine's aim, including Edmund D. Pellegrino and David C. Thomasma's teleology of healing (1993), Alex Broadbent's epistemic account (2018), and Franklin G. Miller and Howard Brody's professional-contract model (2001). Varga argues that his combination of systematicity, understanding, and autonomy synthesizes their strengths without collapsing into reductionism or moralism. The conclusion presents a moderate position: Medicine is scientific, normatively structured, and oriented toward patient flourishing without succumbing to paternalism. The moderate position is constructive and well defended. It neither idealizes medicine nor dismisses its epistemic and ethical challenges.

3. Major Points for Further Reflection

This is a book rich in theses, distinctions, and constructive proposals, and it will no doubt receive extensive discussion in the coming years—from the nature of medical understanding to the role of autonomy in clinical practice. Rather than revisiting the elements that will likely attract immediate scholarly attention, I focus here on a less obvious but, I think, philosophically interesting aspect of the work: its methodological architecture. This is the kind of issue that is harder to address in a research article but well suited to a review, where one can step back and examine the inferential structure on which the book's main conclusions rest.

A central feature of the book's argumentative strategy is that it depends on the three challenges being not only *internal* but also mapping cleanly onto three distinct constitutive norms. The logic can be reconstructed as follows:

a) The skepticism challenge is an internal criticism; therefore, it points to a violated norm—namely, medicine ought to be a systematic and reliable form of inquiry. This motivates the Systematicity Thesis.
b) The overmedicalization challenge is an internal criticism; therefore, it points to a violated norm—namely, medicine ought to be oriented toward meaningful understanding, rather than indiscriminate diagnostic expansion. This motivates the Understanding Thesis.
c) The objectification challenge is an internal criticism; therefore, it points to a violated norm—namely, medicine ought to recognize patients as agents whose autonomy must be respected and supported. This motivates the Autonomy Thesis.

On this reading, the fact that each challenge is genuinely internal warrants treating it as signaling a norm failure, and moreover as indicating one specific norm failure. From these inferred norms, the book then abstracts a general aim for medicine. In this sense, the structure amounts to a "reverse-engineered" transcendental justification: It identifies the aims that medicine must be committed to if familiar critiques are to be intelligible as valid and internal.

This is an original and philosophically intriguing architecture. At the same time, it rests on two demanding assumptions: The three challenges are unambiguously internal (I will bracket validity here) and each corresponds to a single organizing norm. Both assumptions, I suggest, merit further scrutiny.

The first is the internality of the three challenges. Treating skepticism, overmedicalization, and objectification as internal critiques is innovative. Yet their internality is often more ambiguous than the argument requires. Contemporary skepticism is rooted in meta-research and statistical critique, rather than in norms explicitly articulated by clinicians. Overmedicalization is frequently expressed from sociological, ethical, or public health perspectives that stand partly outside medicine's own normative self-description. Objectification emerges primarily from phenomenology and narrative medicine, traditions influential but far from universally internal to biomedical practice. The challenges certainly resonate with practitioners and there are examples in the medical literature, but their "internality" is interpretive—or it needs an empirical basis. Thus, the inference from their intelligibility to medicine's constitutive aims rests on a contested premise.

A second point concerns the inference from the challenges to the three constitutive norms. While systematicity, understanding, and autonomy form a coherent and attractive framework, the challenges do not uniquely support them. One might infer from skepticism a commitment to epistemic humility or harm reduction, from overmedicalization a commitment to justice, solidarity, or to a social determinants approach, and from objectification values of compassion, or epistemic justice. If alternative reconstructions appear equally compatible with each challenge, the mapping from challenge to constitutive norm is not one-to-one, but again, interpretive. It is an inference to one good explanation.

A third point is the role of the Autonomy Thesis. Though compelling and carefully developed, autonomy does not emerge straightforwardly from the three criticisms as the single organizing value underlying them. Skepticism and overmedicalization concern primarily epistemic and conceptual coherence; objectification concerns interpersonal and experiential dimensions of care. While autonomy plays an important role in many clinical contexts, it is not obviously the unifying telos of medicine as a whole. Moreover, it can be argued that autonomy's institutional prominence varies across specialties. In emergency medicine, neonatal care, radiology, laboratory medicine, and public health, the values that structure practice often include safety, justice, reliability, or equitable distribution of risk—sometimes more centrally than autonomy. Autonomy may thus be better understood as one important value among several within a pluralistic ethical landscape, rather than the final aim of medicine.

If alternative reconstructions appear equally compatible with each challenge, the mapping from challenge to constitutive norm cannot, by itself, justify the three theses. At this point, one might wonder whether a more straightforward strategy would have been possible: namely, to propose openly that medicine ought to respond to these three challenges by becoming more systematic in its epistemic organization, by cultivating richer and more integrated forms of understanding, and by orienting its ethical commitments toward the promotion of health and autonomy. Such a strategy would treat the three theses not as norms immanent within medical practice but as philosophically motivated recommendations for improving it.

Of course, adopting this more direct route would immediately raise a classical question: On what basis can such norms be justified? Any explicit proposal about how medicine ought to be structured must confront the problem of normative authority—how one moves from empirical concerns or conceptual analysis to justified prescriptions about practice. Varga is very aware of this difficulty (which is, I believe, the essential problem we all need to face as philosophers of medicine). The book's reverse-transcendental architecture can be seen as an attempt to avoid this problem by grounding the three theses in the internal logic of medicine itself: If the criticisms are internal, then the norms they presuppose are already part of medicine's self-understanding, and no external moral foundation is required. This is a powerful aspiration. Yet it also shows why the transcendental move carries a high burden of argument: If the internality of the challenges or their one-to-one mapping is uncertain, then the attempt to circumvent the classic problem of norm justification becomes correspondingly fragile.

4. Conclusion

The critical reflections I offer here are intended not as objections but as invitations for further engagement. *Science, Medicine, and the Aims of Inquiry* is an impressive and thought-provoking book. One of its strengths is its clear and patient exposition of literatures that are not always in conversation with one another—philosophy of science, history of medicine, sociology, and epistemology. Varga is at his best when he shows how philosophical analysis can illuminate actual episodes in the history of medicine. His use of case material—from early bacteriology to contemporary evidence-based practice—gives the book a concreteness that philosophical treatments of medicine sometimes lack. Even when one does not fully agree with the conclusions, the path that leads to them is carefully constructed and rewarding to follow. In this respect, the book succeeds not only as a theoretical proposal but also as a pedagogical resource.

Finally, the book raises broader questions about what it means for a practice as heterogeneous as medicine to have an aim at all–one of the emerging debates in the philosophy of medicine community. Even readers who do not fully endorse the inference from internal critique to constitutive aim will find the book valuable for its conceptual clarity, its breadth, and its ambition to articulate a genuinely normative philosophy of medicine. It will undoubtedly stimulate further debate and deserves to be widely read by philosophers, clinicians, and scholars of scientific practice.

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