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REFLECTIONS ON THE WHITE COAT? FOUNDATIONS, PROBLEMS AND UTILITY OF THE PHILOSOPHY OF MEDICINE

REFLEXÕES SOBRE O JALECO BRANCO? FUNDAMENTOS, PROBLEMAS E UTILIDADE DA FILOSOFIA DA MEDICINA

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Abstract

This paper examines the status, core problems, and practical utility of the philosophy of medicine, arguing that it constitutes a fully autonomous field of research distinct from the philosophy of science and biology. Grounded in the unique human experience of illness and clinical encounter, medical autonomy is anchored in a non-negotiable teleological objective: healing, relief, and patient care under conditions of clinical uncertainty. Structurally, the article explores four main problem constellations defining the discipline: logical-semantic issues concerning medical language and diagnostic reasoning; ontological debates contrasting naturalistic reductionism with constructivist-holistic models of health and disease; epistemological challenges scrutinizing the limits of Evidence-Based Medicine and the epistemic opacity of contemporary Artificial Intelligence; and ethical-social concerns regarding medicalization, overdiagnosis, and epistemic exclusion based on race or gender. Ultimately, this conceptual cartography underscores the indispensable utility of philosophy for medical practitioners. Far from a detached abstraction, cultivating a philosophical attitude serves as a vital safeguard against technocratic *hubris*, educating clinicians in *phronesis* (practical wisdom) to bridge abstract biomedical knowledge with the deeply human and idiosyncratic reality of individual patients.

Keywords: Philosophy of Medicine; Clinical Reasoning; Epistemology; Medical

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Ethics; *Phronesis*.

Resumo

Este artigo examina o estatuto, os problemas fundamentais e a utilidade prática da filosofia da medicina, sustentando que esta constitui um campo de pesquisa totalmente autônomo em relação à filosofia da ciência e da biologia. Fundamentada na experiência humana única da enfermidade e do encontro clínico, a autonomia médica ancora-se em um objetivo teleológico inegociável: a cura, o alívio e o cuidado do paciente sob condições de incerteza clínica. Estruturalmente, o artigo explora quatro constelações de problemas que definem a disciplina: questões lógico-semânticas sobre a linguagem médica e o raciocínio diagnóstico; debates ontológicos que contrastam o reducionismo naturalista com modelos construtivistas-holísticos de saúde e doença; desafios epistemológicos que escrutinam os limites da Medicina Baseada em Evidências e a opacidade epistêmica da Inteligência Artificial contemporânea; e preocupações ético-sociais relativas à medicalização, ao sobrediagnóstico e à exclusão epistêmica baseada em raça ou gênero. Por fim, esta cartografia conceitual sublinha a utilidade indispensável da filosofia para os médicos. Longe de ser uma abstração distante, o cultivo de uma atitude filosófica serve como salvaguarda vital contra a *hubris* tecnocrática, educando os clínicos na *phronesis* (sabedoria prática) para aproximar o conhecimento biomédico abstrato da realidade profundamente humana e idiossincrática de cada paciente.

Palavras-chave: Filosofia da medicina; Raciocínio clínico; Epistemologia; Ética médica; *Phronesis*.

1. Introduction and Problem Statement

Examining the potential relationships between philosophy and medicine requires venturing into two fields of knowledge that are already, in and of themselves, highly complex. Fundamentally, following Villanueva, Calderón, and Aliseda (Villanueva et al., 2022), characterizing the disciplinary field of the philosophy of medicine involves addressing several questions. The first question is a fundamental one: does the philosophy of medicine exist as an autonomous field of research? The key issue here lies in distinguishing this branch of philosophy from neighboring areas, such as the philosophy of biology or ethics applied to the health sciences. Secondly, it is pertinent to investigate the subdisciplines that currently constitute

this field. Finally, if the viability of this field of knowledge can be established, it is worth asking: what are the core problems addressed by the philosophy of medicine? The development of this paper will focus primarily on the first and second questions. Thus, we will outline the reasons that lead us to assert that the philosophy of medicine is, in its own right, an autonomous field of knowledge.

2. An Autonomous Field of Research?

When addressing the question of the autonomy of philosophical reflection on medicine, the primary objective is to demarcate it from the rest of the life sciences. That is, to justify why it is insufficient to conceptualize it merely as a subdiscipline within the philosophy of biology or the philosophy of ecology –both of which have seen considerable development since the second half of the twentieth century (*cf.* Engelhardt, 1976; Hull, 1982; Schaffner, 1986; Stempsey, 2008).

One possible answer to this challenge is that the autonomy of the philosophy of medicine is grounded, among other things, in the human experience of illness and its impact on the sufferer (*cf.* Thomasma, 1997; Svenaeus, 2000, 2001; Pellegrino, 2004; Carel, 2016). Neither plants nor animals, despite suffering organic or psychological damage, can enter such a distinctive intersubjective and therapeutic relationship –one in which they simultaneously participate as full subjects and as objects of healing. For this reason, certain authors (*e.g.*, Pellegrino, 2004) argue that the autonomy of the discipline studying the clinical encounter between physician and patient lies in the fact that medicine is an inherently goal-directed activity; that is, it is oriented toward healing, relief, or the restoration of the patient's integrity and well-being. This teleological commitment renders medicine a practice that transcends other sciences such as biology or genetics. Because it constitutes a set of technical and technological practices systematically directed toward pragmatic and remedial goals –with or without the deployment of external artefacts– medicine may be more properly conceptualized alongside the philosophy of technology. This perspective provides an additional compelling reason to decouple the philosophy of medicine from standard philosophy of science, anticipating its status as an interventionist, goal-directed discipline rather than a basic science in the traditional sense.

A second justification for the autonomy of the philosophy of medicine is epistemological. This discipline distinguishes itself from the *received view* in the philosophy of science (*cf.* Suppe, 1972; Shapere, 1982; Wade Hands, 2003; Lutz, 2012) –namely, the conception that the philosophy of science is strictly concerned

with the justification of scientific theories. Medicine is not a science in the traditional sense (*cf.* Budeguer & Juri, 2026). Although it draws a significant portion of its tools and methods from biological sciences, medical practice is far from being identical to them. The clinical dimension of medicine, coupled with its imperative to make decisions directed toward a singular purpose, distances it from other fields.

Herbert Simon (*cf.* Simon, 2006) posited that disciplines such as medicine and engineering do not merely analyze their object of study but rather intervene upon it to solve practical problems. Consequently, their primary objective is not solely the production of true knowledge, but the attainment of effective results aligned with specific criteria for success. In medicine, this is observable both in epidemiological interventions aimed at improving population health and in clinical practice, where the fundamental purpose is frequently to restore the patient's health rather than to exhaustively identify the underlying causes and mechanisms of the disease.

Unlike traditional scientists who seek to isolate variables to uncover the causes explaining phenomena across various domains, the physician must constantly contend with uncertainty and the irreducible particularity of each individual. It is precisely for this reason that several authors have emphasized the interdisciplinary nature of medical practice. To bridge the gap between scientific principles and the concrete reality of each patient, the physician –as well as other professionals– requires a highly specialized form of practical knowledge, typically identified by the Greek term *phronesis* (*cf.* Kotzee et al., 2016; Malik et al., 2020; Saborido, 2020; Jameel, 2025) –that is, the capacity to rationally judge our actions so that they yield desirable outcomes. This virtue equips the professional with the ability to discern the correct course of action for a specific patient under specific circumstances. Thus, medical rationality possesses a well-defined epistemological autonomy with respect to philosophy of science that relies on the integration of strictly scientific and prudential elements.

Thirdly, if we accept that medicine is a partially moral enterprise structured by the virtue of prudence, it is worth examining its relationship with bioethics (Carson & Burns, 1997; Engelhardt, 2000; Bystranowski et al., 2022; Schramme, 2025). Admittedly, both disciplines share a foundation based on a specific interplay between philosophy and medicine. Medicine itself, much like bioethics, is a partially normative discipline that aims, in its healthcare dimension, to pursue the well-being of patients. However, as Schramme (2025) suggests, this does not imply that the philosophy of medicine must pursue normative objectives. Although the problems faced by philosophers of medicine carry ethical implications, their analysis

does not seek to directly dictate norms, but rather to clarify the very nature of medicine. Authors such as Pellegrino insist that it is indispensable to define what medicine is and what its ends are before one can formulate moral expectations and guidelines for its practitioners (*cf.* Pellegrino, 1986). The philosophy of medicine thus serves as the indispensable foundation upon which any bioethical consideration must be constructed. In other words, prior to normatively prescribing how health professionals ought to act in complex situations –such as end-of-life care or the allocation of healthcare resources– it is imperative to philosophically comprehend what medicine is, what its boundaries are, and what duties emanate from the roles of healthcare system agents. We will comment further on this in the section dedicated to ethical and social problems in the philosophy of medicine.

Edmund Pellegrino was a philosopher of medicine who significantly helped to delineate the boundaries of the field (*cf.* Pellegrino, 1963, 1976, 1986, 1998, 2001, 2004). In a classic 1998 article titled "What the Philosophy of Medicine Is" (*cf.* Pellegrino, 1998), he established a distinction regarding the ways in which philosophy and medicine can intertwine. This framework allowed for the establishment of a research program for the philosophy of medicine, bringing to light the distinct work of philosophers interested in medical issues and physicians challenged by philosophical questions. It is worth reviewing this attempt at boundary-setting, which will prove useful for developing the next section of this contribution, wherein we will highlight the specific problems addressed by the philosophy of medicine. Pellegrino's classification is as follows:

1. Philosophy and medicine. In this case, philosophy and medicine "[...] each retains its identity and enters as a distinct discipline into independent and autonomous dialogue with the other" (Pellegrino, 1998, p. 321). This form of reflection refers to the conjunction of both fields carried out by figures such as Hippocrates and Socrates, or modern authors like Descartes and Leibniz. A quintessential example is the Platonic conception of medicine found in dialogues such as the *Symposium*.

2. Philosophy in medicine. This mode of reflection is defined by the application of specific areas of philosophy to the consideration of medical matters; "Most of their attention is devoted to philosophical study of the scientific foundations of medicine" (Pellegrino, 1998, p. 323). This was the typical way of relating both fields (*e.g.*, Engelhardt, 2000), though, as can be seen, it is merely one possibility among multiple others.

3. Medical philosophy. This represents an informal reflection on medical prac-

tice carried out by healthcare professionals themselves, generally grounded in their clinical experience (Pellegrino, 1998, p. 324). Here we can include autobiographical accounts by professionals that narrate the diverse facets of the profession. Examples include the narratives of neurologist Oliver Sacks (Sacks, 1985, 1999) or, in Argentina, the texts of cardiologist and cardiovascular surgeon René Favaloro (Favaloro, 2007, 2023).

4. Philosophy of medicine. Pellegrino defines this as a critical reflection on the content, method, assumptions and institutions peculiar to medicine *qua* medicine (Pellegrino, 1998, p. 325). The goal of this discipline is to obtain philosophical –that is, metatheoretical– knowledge about medicine, determining what distinguishes it from other disciplines. In short, in the author's own words, this approach is "[...] a search for ultimacy, for a grasp of the reality of the things studied beyond what is discernible by the discipline studied" (Pellegrino, 1998, p. 326).

By way of summarizing what has been discussed thus far, we can state that the philosophy of medicine justifies its autonomous status because it investigates a realm of human reality that no other theoretical discipline addresses in its entirety. Pellegrino's inquiry aims to demonstrate that, due to the inexhaustible complexity of medical matters, medicine demands its own domain of philosophical interrogation (for further discussion on this topic, *cf.* Saborido, 2021).

3. Problems in the Philosophy of Medicine

The approximations made thus far allow us to draw a general inventory of the types of problems addressed by philosophers of medicine. The classification presented below, like the one recently proposed by Villanueva, Calderón, and Aliseda (Villanueva et al., 2022), is merely tentative and eminently analytical[1].

a. Logical and Semantic Problems

Philosophical semantics is the field of research concerned with meaning, truth, and the diverse attributes of language (Bunge, 1974; Romero, 2018, pp. 7-28). Se-

[1]Our classificatory proposal, as will be seen, differs in some respects from that suggested by Villanueva, Calderón Aguilar, and Aliseda (2022). We propose specifically distinguishing between logical and semantic problems, and for the present we set aside the valuable category that these authors call problems of reflexivity. We believe that such problems could instead be included as a subgroup within epistemological problems.

mantics applied to medicine would be that branch of the philosophy of medicine that interrogates the use of language by healthcare professionals and the way they apply terms. Although we could subsume these issues under methodological problems (*e.g.*, Villanueva et al., 2022), treating them as an independent category allows us, in our view, to more directly justify the role that clinical reasoning and language use play in medical practice. We will mention three groups of problems.

The fundamental question of medical semantics seeks to determine how medical terms acquire their meaning and what exactly they refer to (Sadegh-Zadeh, 2015). Traditionally, medicine has operated under a model derived from empiricism (Good & Vecchio Good, 1981), in the sense that medical discourse is assumed to be constituted in direct relation to the biological reality of the patient. That is, disease categories are considered to reflect universal, context-independent entities (*pace* Foucault, 2002). In contrast to this conception –and drawing elements from sociolinguistics and contemporary phenomenology– several authors have proposed that the realities of disease should account for the subjective aspects of the illness experience, and that this should consequently be expressible through specific linguistic resources (Good & Vecchio Good, 1981).

A significant group of theorists in the philosophy of medicine focuses on analyzing the structure of clinical reasoning –namely, what has been termed the *logic of the diagnostic process* (*e.g.*, Aliseda, 1998; Bolton, 2015; Martini, 2023; Tomasini & Magnani, 2025). The models proposed in recent years recognize that the type of judgment put into practice during the diagnostic and therapeutic process must consider dimensions that warrant careful analysis. For instance, the fact that the physician always operates under an environment of incomplete information –since we cannot know *everything* happening to a patient *at any given moment*– means that their decisions are grounded in contextual factors that cannot be overlooked when proposing a model for such procedures.

A third notable avenue within the semantic domain, of particular interest to psychiatry and psychopathology (Scadding, 1990), is the question of disease taxonomy. Discussions concerning classification, and the defense or critique of the idea of natural kinds, are themselves subjects of intense debate within the philosophy of science (*cf.* Sokal, 1974; Goodman, 1978; Hacking, 1983, 1991; Dupré, 1995). Within medicine, the goal is to ascertain the criteria used to establish nosological classifications. From a naturalistic perspective, diseases belonging to the same class –such as sleep disorders– do so because they share an essential property (*cf.* D'Amico, 1995; Reznek, 1995; Sulmasy, 2005; Samuels, 2009). Conversely, for various strands of normativism, classifications consider other factors that are, fundamentally, open

to debate.

These groups of problems –the use of terms in medicine, the nature of clinical reasoning, and the debate surrounding nosological classifications– are merely the most representative examples of what we consider to be one of the most pressing tasks in the field. Given the impact that artificial intelligence and Large Language Models have had on clinical practice, addressing questions of semantics and the philosophy of language within the medical sphere can help us clearly determine how we utilize specific terms in daily clinical encounters, but also carries profound methodological and epistemological implications for how clinical evidence is processed, validated, and translated into practice. This, in turn, can define concerns that must be resolved in dialogue with health system users. We will return to artificial intelligence when dealing with epistemological matters. Let us now turn to considering the ontological questions in the field of philosophy of medicine.

b. Ontological Problems

Secondly, there are the problems pertaining to what may be termed the ontology of medicine –that is, the study of the most general components and things utilized by this discipline (for a formal characterization of the field, *cf.* Jovic et al., 2007; Simon, 2008, 2011). Although daily clinical practice typically proceeds without pause to deeply examine the concepts applied by healthcare professionals, the reality is that the way physicians implicitly assume ontological premises ultimately shapes –usually silently– their entire professional activity. This presentation focuses on three major groups of problems.

The ontological problem *par excellence* in medicine is the characterization of health and disease (*e.g.*, Engelhardt, 1975; Scadding, 1988; Boorse, 2011). The pivotal question is whether diseases possess an objective and independent existence or if, conversely, they are constructions molded by our value judgments. Moreover, even when assuming an objective reality for health and disease, an equally fundamental metaphysical debate persists regarding their categorical status: whether being healthy or ill is to be understood as an autonomous substantial entity or, alternatively, as a relational property, disposition, or systemic state of the organism. The naturalistic or objectivist approach, championed by theorists such as Boorse (Boorse, 1977), posits that disease is an identifiable reality equated with biological dysfunction –that is, a measurable deviation from the statistical and functional normality of our species' design. In contrast to this position, constructivism or normativism in the philosophy of medicine maintains that physical states only acquire

the ontological status of disease when they interfere with well-being or limit an individual's adaptation to their environment. Authors such as Nordenfelt or Jerome Wakefield –the latter employing a hybrid approach– argue that no disease exists without a component of harm, suffering, or disability that is negatively valued by the individual's environment.

In the second place lies the debate regarding reductionism and holism in the explanation of diseases. Once what constitutes a disease has been determined, it remains to be asked at what level of reality its origin should be sought. The traditional biomedical model assumes a rather reductionist ontology, according to which the human body functions analogously to a large machine; therefore, disease is the failure of one of its parts, and its explanation must be sought within the most basic physiological or molecular components, frequently appealing to singular causes such as a microorganism or a mutation. Conversely, radical holistic positions tend to prioritize the totality of the organism while often downplaying specific micro-mechanisms. Between these two extremes, systemism emerges as a robust intermediate framework (*e.g.*, Buzzoni et al., 2022; Woods, 2025). Under this systemic ontology, individuals are understood as complex systems where lower-level components (cellular and molecular pathways) and higher-level global interactions with the environment constantly interlock. From this perspective, diseases are neither isolated mechanical failures nor vague holistic disturbances, but rather systemic misalignments that require integrating component-level mechanisms with the macroscopic context of the patient as a whole.

A third field of debate with profound repercussions centers on the distinction between normality and disability. By establishing the biological and statistical criteria for what qualifies as a normal body or intellect, medicine draws boundaries that directly impact human identity. The traditional model typically classifies physical or cognitive disability as a pathological deviation or an inherent defect within the individual that requires clinical correction. However, critical approaches such as the social model of disability (*cf.* Terzi, 2004; Hughes, 2010) challenge this reification, proposing that disability does not reside in the individual's physiology, but rather in the barriers of the architectural and social environment that marginalize and restrict them. This compels philosophers of medicine to reconsider whether certain functional or morphological variations should be viewed as pathologies to be cured, or simply as instances of the natural human diversity that society must accommodate, thereby questioning the functional determinism of biological normality.

c. Epistemological Problems

A third noteworthy group of problems comprises those addressing the nature of knowledge in medicine. In recent decades, the philosophy of medicine has undergone what some authors have termed an *epistemic turn* (*e.g.*, Stegenga et al., 2016). This shift marks the abandonment of attempts to subordinate medical epistemological questions to classical philosophy of science, choosing instead to analyze the distinctive specificities of clinical research and practice. Indeed, while medicine grounds a significant portion of its reflections in general laws derived from the biological and natural sciences, it must ultimately contend with the irreducible singularity of the patient –a fact that generates unique cognitive and epistemological challenges requiring specific methodological approaches (*cf.* Budeguer & Juri, 2026). Below, we present four major groups of problems that define this subdiscipline.

The first group concerns the justification of evidence in medicine. Epistemology within the health sciences has traditionally rested upon a biomedical prerogative that dictates what qualifies as legitimate knowledge (*cf.* Malterud, 1995) and must, therefore, be considered when determining a therapeutic course of action. In this context, the emergence of *Evidence-Based Medicine* (EBM) introduced a novel paradigm in the recent past by proposing a strict hierarchy of evidence. In this hierarchy, *randomized controlled trials* (RCTs) and meta-analyses occupy the epistemic pinnacle, displacing the opinions of clinical experts and purely mechanistic reasoning (Howick, 2017, 2023).

However, this approach has sparked profound philosophical controversies that have been extensively addressed by specialists in recent years. Marshall (1997) warns that EBM imposes a rigorous scientific epistemology that undermines traditional professional authority grounded in personal experience, thereby generating resistance within the medical community itself. Critics of EBM argue that its strict empiricism and population-based approach create an unbridgeable gap between medical research and clinical practice (e.g., Malterud, 1995, p. 184). By demanding that variables be objectively observable and isolated, the standard biomedical paradigm relegates human interaction, interpretation, and tacit knowledge –sometimes metaphorically called the *art of medicine*– to a non-scientific or, at best, illegitimate status. In a similar vein, Harari (*cf.* Harari, 2001) argues that the unquestioning acceptance of empiricist principles in evidence-based approaches is inadequate, particularly in disciplines such as psychiatry. From this critical standpoint, a *naive* empiricism tends to overlook the degree to which observation is theory-laden and falls short of capturing the full complexity of scientific practice, thereby necessitating multilay-

ered models that span from the molecular level to the social order. Nonetheless, *contemporary defenders of empiricist paradigms* counter that sophisticated forms of empiricism already integrate theory-ladenness without surrendering standard criteria of empirical rigor, suggesting that this debate remains far from settled.

A second group of problems centers on the cognitive architecture of medicine: how do physicians think when facing a concrete patient? Clinical reasoning –which is also a problem of medical logic previously noted in our section on medical semantics[2]– is characterized as a problem-solving cognitive activity that operates under ineradicable uncertainty and, in Aliseda's terms, a *bounded rationality* (Aliseda, 1998, 2025). Unlike scientific branches that seek to isolate variables in phenomena to establish laws or empirical regularities, the physician must make rapid decisions with limited resources and time, often based on incomplete information.

Beyond its logical structure, the epistemology of clinical reasoning demands the integration of explicit knowledge (theories, statistics) with tacit or intuitive knowledge acquired through experience (Braude, 2025). Dual-process theory of cognition demonstrates that physicians utilize both rapid, intuitive heuristics and analytical, deductive reasoning (Braude, 2009, 2017). To prevent cognitive biases from leading to diagnostic errors, the physician must develop metacognitive virtues. Ultimately, clinical rationality cannot be defined solely in purely technical terms; it requires prudence, or practical wisdom, which enables the professional to discern how to apply abstract biomedical knowledge to the moral and physical good of a particular individual (Braude, 2017).

The third set of epistemological problems investigates how medicine establishes causal relationships and formulates explanations. Causality in modern medicine rarely conforms to a monocausal model (such as the traditional *one germ, one disease* view). On the contrary, chronic, degenerative, and psychiatric pathologies –to mention only a few– require understanding causal relations as an eminently multifactorial phenomenon (*e.g.*, Broadbent, 2009, 2011, 2012, 2013). Diseases result from networks of genetic, environmental, and social causes. To capture this complexity, some philosophers have proposed the metaphor of the "causal mosaic" (*e.g.* Russo, 2025), arguing that no single theory of causality –whether probabilistic or mechanistic– is sufficient. Instead, medicine must assemble methodologically diverse pieces of evidence to obtain a comprehensive picture of disease etiology and determine a coherent clinical path.

[2]A preliminary distinction might be the following: the logic of medicine is concerned strictly with the question of the validity and structure of reasoning in medicine, whereas epistemology is also concerned with its application in concrete situations and with the implicit or explicit epistemic assumptions underlying it.

This causal plurality leads directly to one of the most pressing methodological problems in contemporary medical epistemology: the problem of extrapolation. The highest-quality evidence according to EBM –randomized controlled trials– is obtained by isolating highly controlled populations and excluding patients with multiple comorbidities. The epistemological dilemma lies in how to justify applying or extrapolating average statistical results obtained in an idealized experimental environment to an individual, historical, and biologically idiosyncratic patient in the clinic (Stegenga et al., 2016). The internal validity of RCTs is often achieved at the expense of their external validity or clinical generalizability. This challenge underscores the need to integrate epidemiological evidence with pathophysiological reasoning and clinical judgment to make reasonable and justified decisions.

Finally, an emerging and radically important group of epistemological problems is constituted by the impact of Artificial Intelligence (AI) and massive data analysis (*Big Data*) on medicine. The potential clinical use of AI poses challenges for the language, reasoning, and logic of medicine. Machine learning and deep neural networks (DNNs) are transforming areas such as radiology, genomics, and epidemiological outbreak prediction, achieving levels of diagnostic accuracy that frequently surpass those of human physicians (Szolovits, 1982; Holmes et al., 2015; Hamet & Tremblay, 2017; He et al., 2019; Mintz & Brodie, 2019; Kaul et al., 2020). However, AI introduces epistemological disruption through the problem of epistemic opacity. Complex algorithms can identify hidden patterns in massive volumes of data and issue highly accurate prognoses without providing an explanation that is comprehensible to the human intellect (*e.g.* Chin-Yee & Fuller, 2018). This challenges the requirement that clinical judgment be interpretable, *rationally justifiable*, and communicable to the patient. If an AI system suggests a critical diagnosis that the physician cannot explain using traditional abductive or pathophysiological reasoning, what should serve as the basis for clinical decision-making?

Furthermore, automated diagnosis forces philosophers of medicine to reconsider the status of clinical expertise. AI lacks the prudence that is indispensable for navigating a context fraught with moral ambiguity, the patient's existential context, and the compassionate, empathetic interpretation of suffering. The epistemology of future medicine must, therefore, define how to integrate the formidable predictive power of algorithms with the inescapable ethical dimension of the clinical encounter, thereby redefining what it means to know and to heal in this new era. Let us turn, finally, to the last group of problems considered here.

d. Ethical and Social Problems

The final major block of inquiries within the scope of the philosophy of medicine pertains to its ethical and social dimensions. Addressing these problems requires, in the first instance, drawing a careful methodological demarcation from traditional bioethics. Although both disciplines share kindred concerns, their approaches diverge substantially. Bioethics, in its applied branch, typically draws upon theories from moral philosophy –such as consequentialism, Kantian deontology, or principlism– to offer resolution frameworks for specific practical dilemmas, including informed consent, euthanasia, abortion, or the allocation of scarce resources (Villanueva et al., 2022). In contrast, the philosophy of medicine does not seek to directly dictate moral norms but rather investigates the very nature of the medical act and the ontological foundations that render any ethical formulation possible. As will be indicated below, a genuine medical ethics cannot be an external construct applied to the clinic; instead, it must spring organically from the philosophy of medicine itself, rooting itself in the clinical encounter, the patient's vulnerability, and the inescapable fiduciary commitment to heal (*cf.* Thomasma & Pellegrino, 1981, 1993).

By recognizing that medicine is not a purely biological and neutral enterprise, but rather an institutionalized social practice (Saborido, 2020), the philosophy of medicine is compelled to scrutinize how social, cultural, and economic values structure medical knowledge. Within this vast territory, we can identify four major constellations of ethical and social problems.

1. Medicalization and *Disease Mongering*. In the first place stands the problem of what has been termed the medicalization of daily life. As Western societies have placed an almost salvific trust in biomedical science and clinical medicine, the once-clear boundaries of medical jurisdiction have expanded at a dizzying pace. Vital life conditions, natural stages of human development, or simple behavioral variations are recategorized as pathological entities. This phenomenon acquires problematic ethical overtones when it intersects with market interests, giving rise to what is known as disease mongering. From the standpoint of the philosophy of medicine, one can critically analyze how the pharmaceutical industry and other actors within the medical-industrial complex influence the creation of new nosologies to transform social problems, existential anxieties, or personality traits into biological dysfunctions that ultimately require pharmacological treatment.

2. Overdiagnosis and Primary Prevention. Closely linked to medicalization is the problem of overdiagnosis, considered today one of the foremost ethical threats generated by an excess of medicine. Overdiagnosis occurs when pathological labels are applied to abnormalities or risk factors that would never have caused symptoms or shortened the patient's life had they remained undetected (cf. Aliseda, Calderón Aguilar & Villanueva, 2022, p. 143). Driven by the uncritical use of screening technologies and the lowering of clinical thresholds for considering a state abnormal, overdiagnosis violates the traditional principle of non-maleficence. It not only squanders enormous resources that could be directed toward genuinely ill patients, but also transforms healthy people into chronically ill individuals, subjecting them to unnecessary interventions, anxiety, stigmatization, and side effects. This situation naturally warrants autonomous philosophical reflection.

3. Gender, Race, and Epistemic Exclusion Perspectives. A third group of problems, strongly driven by *Science, Technology, and Society* (STS) studies and feminist epistemologies, questions the assumed universality and neutrality of biomedical research and practice. Historically, medicine has taken the white male body as the universal physiological standard, marginalizing and treating as atypical those bodies that do not conform to this norm (Villanueva et al., 2022, p. 32). The philosophy of medicine investigates how this epistemic exclusion translates into profound clinical injustices: from gender bias in the interpretation of cardiovascular symptoms or chronic pain, to the historical exclusion of pregnant women and minorities from clinical trials. Likewise, critique is directed at the coercive medicalization of female bodies –*e.g.*, the pathologization of menstruation, pregnancy, or menopause– and the way medical discourse has served, in various eras, to justify racial oppression or the stigmatization of sexual diversity[3].

4. Power, Dehumanization, and the Problem of Multiplicity. Finally, the ethical dimension of medicine compels us to reflect upon the nature of power within

[3]It is necessary to draw a careful distinction when addressing these criticisms. While feminist epistemologies have been fundamental in uncovering and correcting the historical androcentric biases present in medical practice and research, it is problematic to embrace certain radical positions that conceive science and technology as intrinsically masculine forms of knowledge that must be opposed *per se*. Rejecting the scientific framework outright on this premise would lead to an anti-scientific dead end, ultimately hindering the advancement of knowledge. A fruitful and genuinely useful critique for medicine should not seek the abandonment of science, but rather its methodological refinement, recognizing that scientific and technological tools –once freed from exclusionary biases– are indispensable for achieving effective treatments and alleviating human suffering. More on this, *cf.* Romero, 2025.

> the clinical encounter and the pressing problem of dehumanization. The hegemonic biomedical model, by sustaining itself on physicalist reductionism and Cartesian dualism, tends to reify the patient. As Villanueva points out, the approach of modern medicine frequently fragments the person, ontologically prioritizing the biological self over the psychological and social self (Villanueva, 2022, p. 170). This stratification leads to what is termed in philosophy the problem of multiplicity, wherein the patient ceases to be viewed as a unified individual and is treated instead as a repository of organs.

In synthesis, ethical and social problems demonstrate that epistemology, ontology, and morality are indissolubly intertwined in medicine. The categories that medical science utilizes to define the normal and the pathological are never aseptic; they shape our institutions, justify public policies, and profoundly alter the biographies of individuals. For this reason, constant philosophical inquiry stands as the only safeguard to prevent the immense technological power of contemporary medicine from ultimately subverting its original humanistic vocation.

4. Does It Hold Any Utility for Physicians?

From a somewhat dismissive perspective, it could be argued that healthcare professionals are far too busy alleviating suffering to pause and dwell on the conceptual abstractions with which the philosophy of medicine is concerned. However, the central utility of the philosophy of medicine for physicians lies precisely in its capacity to unveil the tacit knowledge and implicit assumptions that guide clinical practice (Loughlin et al., 2015). No physician operates within a conceptual vacuum. From the very moment a healthcare professional interviews a patient, orders a laboratory test, or prescribes a treatment, they are assuming –whether consciously or not– a series of ontological (what disease is), epistemic (what constitutes valid evidence), and ethical (what is good for the patient and their health) premises. The greatest risk of failing to critically examine these foundations is that the physician may end up blindly applying concepts that others have thought out for them, thereby becoming a mere technical executor rather than a true healer. In this sense, cultivating a philosophical attitude equips the physician with the capacity to discern between those practices that are genuinely desirable and those which, shielded by custom or at times unquestioned objectivism, may prove harmful.

In the ontological domain, the utility of philosophical reflection becomes evident when the physician confronts the delineation of their own object of study. As

discussed in previous sections, the traditional biomedical model assumes a heavily naturalistic stance wherein the body is conceived as a machine and disease as a malfunction within its gears. If a physician dogmatically accepts this ontological assumption, their practice will focus exclusively on correcting the biological dysfunction (*disease*), completely ignoring both the subjective experience of suffering (*illness*) and the social context of the sick person (*sickness*).

Being conscious of the ontological debate between naturalism and constructivism grants the physician a far sharper perspective. It allows them to understand that diagnosis is not simply the discovery of a hidden thing inside the patient's body, but rather a socially and scientifically constituted category. When the clinician is aware that medical classifications are methodological tools rather than absolute realities, they acquire the necessary caution to avoid pernicious phenomena such as overdiagnosis or the medicalization of daily life. Understanding that disease is a vital experience that fractures the unity of the person –and not merely a statistical deviation in a laboratory report– radically transforms the therapeutic relationship.

From an epistemological standpoint, the philosophy of medicine provides the physician with vital tools to contend with uncertainty. As previously mentioned, the rise of Evidence-Based Medicine in recent decades has established an epistemic hierarchy that privileges randomized controlled trials and meta-analyses as the *gold standard* of medical knowledge. Although this approach to medical knowledge has yielded innumerable benefits for the standardization and safety of treatments, it has also generated resistance within the medical community.

As Malterud (1995) points out, physicians frequently experience an acute sense of personal inadequacy when attempting to apply the universal, abstract, and statistical knowledge of textbooks to the ill-structured, painful, and vague problems presented by real patients. This supposed personal inadequacy is, in truth, an epistemic inadequacy of the strict biomedical model itself. The philosophy of medicine can rescue and legitimize certain aspects of tacit clinical knowledge, thereby demonstrating that medical practice demands its own distinctive rationality –one that cannot be reduced to the mechanical application of algorithms.

Perhaps the domain where the philosophy of medicine demonstrates its greatest practical utility is in the grounding of medical ethics. Frequently, in the education of healthcare professionals, bioethics is taught as a set of external principles –represented by autonomy, beneficence, non-maleficence, and justice– that must be applied to medical dilemmas in an almost deductive manner. Nonetheless, theorists such as Edmund Pellegrino and David Thomasma have exhaustively argued that a robust medical ethics cannot consist simply of moral philosophy applied from the

outside; it must spring from the very ontology of medicine and, above all, be coherent with a more general philosophical conception that the professional can, if they so choose, make conscious (Thomasma & Pellegrino, 1981; Pellegrino, 1986).

For Pellegrino, medicine is an intrinsically moral enterprise constituted by three elements: (1) the fact of illness (the vulnerability of the patient), (2) the act of profession (the physician's promise to help), and (3) the act of medicine, whose non-negotiable end is a healing action that is medically right and morally good for that specific patient (Engelhardt, 1976; Thomasma & Pellegrino, 1993; Davis, 1997). If the physician understands this teleological orientation of their profession, their compass will not depend on deontological codes, laws, or hospital committees, but rather on the ontological and ethical commitment of the promise to heal.

This conceptual clarity is immensely useful when the physician must weigh conflicting goods. Daniel P. Sulmasy, following Pellegrino, reminds us that the patient's good is a fourfold notion: the biomedical good (restoring physiology), the good of particular choice (respecting autonomy), the good of the patient as a person (their intrinsic dignity), and the ultimate or spiritual good of the patient (Sulmasy, 2014). A philosophically trained physician does not naively assume that the biomedical good (for example, prolonging life at all costs through mechanical ventilation) is identical to the good of the patient as a person. This distinction is crucial in decisions regarding end-of-life care, therapeutic obstinacy, and medical futility, enabling the professional to discern when a technologically possible intervention becomes humanly detrimental.

This entire amalgam of ontological, epistemic, and ethical issues converges upon a pivotal point for the physician's education and character: the cultivation of prudence, or practical wisdom. The predominant model of the physician in popular culture –often depicted as a brilliant but humanly deficient technician who solves biological riddles through relentless epistemic authoritarianism– embodies what the Greeks called *hubris* (Saborido, 2020). Rather than a deliberate personal attitude, medical *hubris* should be understood as an insidious epistemic and institutional risk: it arises when clinical practice becomes so overwhelmingly mediated by technological and biomedical procedures that the disease is inadvertently reified. Under such institutional pressures, the clinician risks overlooking the suffering person, treating biological parameters in isolation while inadvertently sidelining the patient's life-world or underlying cultural and gender factors. A reflective philosophy of medicine can educate in prudence. *Phronesis* is the intellectual and moral virtue that allows the physician to integrate science (*episteme*) and technique (*techne*) with the moral discernment necessary to act for the benefit of a concrete individual under circum-

stances that are always contingent and uncertain (Davis, 1997). A clinician endowed with *phronesis* knows that medicine is, as Gorovitz asserted, a science of particulars (Gorovitz & MacIntyre, 1975). They understand that no general rule, no matter how statistically validated, can be applied without the mediation of prudential judgment.

In the training of future physicians, incorporating the systematic study of the philosophy of medicine fosters critical thinking and intellectual humility. It teaches them to listen to their patients' narratives not as repositories of isolated symptoms to be fitted into the mold of a diagnostic manual, but as texts laden with existential meaning. Furthermore, for those dedicated to experimental medicine or research, philosophical reflection is indispensable for recognizing values in the design of clinical trials, in the choice of variables to be measured, and in the ways in which industry can shape agendas.

5. Concluding Remarks

Throughout this paper, we have examined the status, the core problems, and the practical utility of the philosophy of medicine. Far from being a mere appendix to the philosophy of science, the philosophy of biology, or applied ethics, we have argued that this discipline constitutes a fully autonomous field of research inside the general trend of philosophy of technology. Its autonomy is anchored in the irreducible nature of its object of study: the human experience of illness and the clinical encounter, both driven by a non-negotiable objective, which is the healing, relief, and care of the vulnerable patient in the face of uncertainty.

To measure the complexity of this field, we have traversed four major problem constellations that define the discipline's endeavors. First, logical and semantic problems revealed to us that medical language and the architecture of diagnostic reasoning are not simple empirical reflections of nature, but rather complex networks of interpretations and abductive inferences. Second, ontological problems compelled us to question the very status of fundamental entities such as health and disease, highlighting the constant tension between naturalistic-reductionist models (which conceive the body as a mere mechanical assemblage) and constructivist-holistic views (which prioritize social construction often at the expense of organic composition). In contrast to both extremes, an integrative systemic ontology provides a non-reductionist naturalism that truly conceptualizes the patient as a biopsychosocial whole without neglecting either biological subcomponents or their environmental interactions.

Third, the examination of epistemological problems led us to scrutinize the

boundaries and internal structure of medical knowledge. While Evidence-Based Medicine (EBM) and randomized clinical trials remain indispensable for evaluating therapeutic efficacy at the population level, their statistical findings must be bridged with pathophysiological reasoning and clinical judgment to address the irreducibly idiosyncratic reality of each patient –a complementary requirement recognized by critics and proponents of EBM alike. Furthermore, we glimpsed how emerging technologies –especially Artificial Intelligence and the epistemic opacity of its algorithms– demand that we rethink what it truly means to *know* and to make decisions in the contemporary clinic. Finally, ethical and social problems brought to light that medical categories are invariably permeated by sociopolitical values. A lack of reflection on this aspect serves as a breeding ground for pernicious phenomena such as the medicalization of daily life, overdiagnosis, epistemic exclusion based on gender or race, and the reification or dehumanization of the patient.

This entire cartography converges upon the undeniable utility that philosophy holds for the physician. If healthcare professionals blindly accept the assumptions of modern biomedicine, they run the risk of falling into a dangerous technocratic *hubris*: treating isolated organs or statistical variables while forgetting the suffering person. Philosophical reflection acts as a powerful antidote to this dogmatism. In short, the philosophy of medicine does not distance the clinician from their vocation; rather, it educates them in *phronesis*. Only through this intellectual and moral virtue is it possible to build a secure bridge between the abstraction of medical science and the historical, existential, and value-laden reality of each individual patient, thereby ensuring that the immense technological power of medicine remains, above all, a human enterprise.

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