Humanizing Modern Medicine

An Introductory Philosophy of Medicine

Philosophy and Medicine

VOLUME 99

James A. Marcum

Humanizing Modern Medicine

An Introductory Philosophy of Medicine

Springer

James A. Marcum
Baylor University
TX, USA
James_Marcum@baylor.edu

ISBN 978-1-4020-6796-9 e-ISBN 978-1-4020-6797-6

Library of Congress Control Number: 2008921930

Printed on acid-free paper

9 8 7 6 5 4 3 2 1

springer.com

Preface

Today, traditional medical knowledge and practice in the United States are modeled after and depend upon the biomedical sciences and the technology derived from them. Although the biomedical model is responsible for the "miracles" of modern medicine, it often leaves many patients disenfranchised with the American healthcare system. "In spite of remarkable advances in medical therapy and in development of fantastic diagnostic devices," observes Franz Ingelfinger, "American society appears increasingly disenchanted with the physician" (1978, p. 942).[1] This disenchantment with modern medicine is based on "the delivery of [medical] care [that] has become more institutionalized and depersonalized" (Glick, 1981, p. 1037).[2] Again, David Weatherall claims that "the art of medicine, in particular the ability of doctors to care for their patients as individuals, has been lost in a morass of expensive high-technology investigation and treatment…In short, modern scientific medicine is a failure" (1996, p. 17). The overly enthusiastic appropriation of the biomedical model, especially in the United States, has precipitated over the past several decades a perceived quality-of-care crisis on the part of patients, as well as many within the healthcare system itself.[3]

In response to the quality-of-care crisis, many physicians and healthcare professionals call for humanizing the biomedical model upon which modern medical knowledge and practice are based. The result is a variety of humane or humanistic models from the biopsychosocial model to the narrative model, in which the patient's human dimension is reinstated into the patient-physician relationship.[4] These models in general attempt to replace a biomedical concern for a cure with a humane care for healing. In addition, patients now seek alternative and complementary forms of healthcare to compensate for the ineffectual treatment, especially for chronic diseases such as cancer, offered by—or for the negligence or perceived

[1] For additional discussion of the erosion of the medicine's image, see Burnham (1982).

[2] Not only are patients disillusioned with modern medicine, but so are many physicians (Le Fanu, 2002).

[3] Besides the quality-of-care crisis, the spiraling costs of American health care have also spawned a cost-of-care crisis. For discussion of these crises, see Konner (1993) and Siegler and Epstein (2003).

[4] Both humanistic and humane are used in the literature and are used interchangeably here, although there is a significant difference between them, e.g. a humane person need not be humanistic.

indifference of—biomedical practitioners.[5] These alternative and complementary forms include holistic medical practices, which range from acupuncture to Edgar Casey therapy.

In this book I map the shifting philosophical boundaries of American medical knowledge and practice occasioned by the quality-of-care crisis, especially in terms of the various humanistic or humane adjustments to the biomedical model.[6] To that end, I utilize a philosophy of medicine that explores the metaphysical, epistemological, and ethical boundaries of these medical models. I begin with their metaphysics, analyzing the metaphysical positions and presuppositions and ontological commitments upon which medical knowledge and practice is founded; for the metaphysical position influences and constrains the entities—such as bodies, disease, and drugs—that compose the medical worldview. I then consider the epistemological issues that face these medical models, particularly those driven by methodological procedures undertaken by epistemic agents to constitute medical knowledge and practice.

Finally, I examine the axiological boundaries and the ethical implications of each model, especially in terms of the physician-patient relationship.[7] In a concluding chapter I explore how philosophical analysis of humanizing modern medicine helps to address the quality-of-care crisis, as well as the question: "What is medicine?" Specifically, the nature of medicine is discussed in terms of the debate over the art *versus* the science of medicine and its current manifestation of evidence-based *versus* patient-centered medicine, followed by a brief comment on the possible transformation of modern medicine.

Although I am not a practicing clinician, I am educated in both the biomedical sciences and the philosophy of science. I was trained a research scientist in medical physiology at the University of Cincinnati College of Medicine and conducted research on the role of endothelial cell proteoheparan sulfate in the non-thrombogenic properties of the vascular endothelium at Harvard Medical School (Marcum and Rosenberg, 1991). While a post-doctoral fellow at the Massachusetts Institute of Technology, I took a course from Thomas Kuhn on the nature of scientific knowledge (Marcum, 2005a). That experience reoriented my career towards philosophy of science, which I pursued at Boston College. Since then I have been actively engaged in research in the history and philosophy of science and medicine, especially on issues concerning models and methodology.

I must also address my motivations for writing this book. First I teach a philosophy of medicine course to undergraduates, many of whom are in the Medical Humanities

---

[5] For results on a national survey about the reasons patients use alternative types of medicine, see Astin (1998). For the tendencies of Americans to choose alternative medicine, see Eisenberg et al. (1998).

[6] Although alternative and complementary models are important fixtures of today's medical landscape, their diversity defies a straightforward philosophical analysis as conducted herein.

[7] The specific bioethical issues, such as abortion and euthanasia, are not considered here. Rather, the biomedical ethics, in terms of normative ethical theories, is examined and discussed, especially the ethical dimension of each model and the ethical or moral nature of medical practice *vis-à-vis* the patient-physician relationship.

Program at Baylor University. On one level this book serves as a textbook for that course, especially to equip pre-healthcare students with the philosophical skills to reflect upon what type of medicine they may want to practice someday. On another level it is intended for physicians and other healthcare professionals, since I believe rather enthusiastically that philosophy of medicine is a crucial subject for them. The plurality of models available for medical knowledge and practice cry out for philosophical analysis in order to navigate among them. This book is an attempt to help the wary physician in such an endeavor.

Second, I am convinced that change is sorely needed in modern medicine, especially in terms of medical education and practice, and that change must be revolutionary. As Kuhn notes in *The Structure of Scientific Revolutions*, scientists involved in a revolution often turn to philosophy to help address the foundations of their discipline. Modern medicine, especially in America, is headed towards, if not already engaged in, a profound healthcare revolution *vis-à-vis* the quality-of-care crisis. The foundations of medical knowledge and practice must be examined philosophically to aid that revolution.

Finally, I must stress that this book is an introduction to the philosophy of medicine. To that end, I first introduce the content of traditional philosophical disciplines—including metaphysics, epistemology, and ethics—before mapping the shifting boundaries in these disciplines, in terms of what philosophers of medicine write about them. Even though I occasionally make a critical remark or observation about what others write in terms of the philosophy of medicine, my goal is to present their thoughts to enlighten and inform the reader. I must admit, however, that I am sympathetic to the humanistic or humane models, which often shape the discussion in the book—although I do argue in a concluding chapter how best to humanize modern medicine. Finally, I must emphasize that critical reflection on the philosophy of medicine, from my personal perspective, is the subject of another book.

Acknowledgments

I am indebted to a number of colleagues, including Mike Attas, Todd Buras, Bob Kruschwitz, Bill Stempsey, Kay Toombs, and especially Fred Tauber, who engaged me in valuable discussions and provided insightful comments that enhanced the quality of this book. I am also indebted to the students who take my philosophy of medicine course, for their enthusiasm that someday they will practice a more humane medicine; may this book continue to inspire them and others towards that goal. I am also indebted to Baylor University for several sabbaticals to conduct the research and writing required to complete this book. Finally, I am indebted to my wife, Sarah, and to my daughters, Meg and Meredith, for their loving support, without which this book and my life would be poorer. This book is dedicated to the memory of my parents, Richard C. and Madonna M. Marcum, whom I often served as an interpreter of the medical profession.

Contents

Introduction: A Philosophy of Medicine?

The title of this book is problematic on two counts. The first is the title itself, as it pertains to the relationship between philosophy and medicine. Should that relationship be philosophy *and* medicine or philosophy *in* medicine or philosophy *of* medicine? If the last relationship is chosen, as evident from the title, then the question is raised whether such a relationship—as a discipline—exists. I first discuss these two problems in order to situate the philosophy of medicine developed herein, in terms of examining the biomedical and humanistic or humane models for medical knowledge and practice and addressing the quality-of-care crisis.

1 Philosophy *and/in/of* Medicine

In a round-table discussion held at the first trans-disciplinary symposium on philosophy and medicine in 1974, Jerome Shaffer questioned the validity of any relationship or interface between medicine and philosophy. "I am inclined to think," claimed Shaffer, "that there are medical problems and there are philosophical problems, with no overlap or borderline area between them, no field which could be called medico-philosophy or philosopho-medicine on the analogy with bio-chemistry or astro-physics" (1975, pp. 215–216). Although he acknowledged that a field such as philosophy of medicine might exist, problems and issues arising from medical knowledge and practice are best addressed by philosophers of mind and philosophers of science as well as by moral philosophers. Hence, concluded Shaffer, "there is nothing left for Philosophy of Medicine to do" (1975, p. 218).

Edmund Pellegrino took issue with Shaffer, claiming that Shaffer in an effort to deny a relationship or interface between philosophy and medicine has "philosophized *about* medicine" (1975, p. 231). Pellegrino also made a distinction between a philosophy *in* medicine and a philosophy *of* medicine. The first relationship between philosophy and medicine, philosophy *in* medicine, is unproblematic and involves using philosophical methods to address philosophical problems such as causality in medical knowledge and practice. The second relationship, philosophy *of* medicine, Pellegrino admitted is problematic because of the nature of medicine. However, according to Pellegrino medicine is, *contra* Shaffer, more than simply the

J.A. Marcum, *Humanizing Modern Medicine: An Introductory Philosophy of Medicine,*

sum of the sciences that constitute it. Philosophy of medicine involves defining the nature of medicine *per se* or in terms of its essence. A few years later, Pellegrino (1976) added a third relationship between the two disciplines, philosophy *and* medicine, in a lead article to the first issue of a new journal entitled *The Journal of Medicine and Philosophy*. This relationship involves problems that overlap between the two disciplines.

Gerlof Verwey (1987) claimed in a critical commentary on Pellegrino and David Thomasma's *A Philosophical Basis of Medical Practice* that the nascent field of contemporary philosophy of medicine produced its first fruits.[1] Pellegrino and Thomasma rehearsed and further developed the three relationships between philosophy and medicine first proposed by Pellegrino.[2] "Philosophy *and* medicine," Pellegrino and Thomasma contended, "comprises the mutual considerations by medicine and philosophy of problems common to both" (1981a, p. 29). Problems common to both include consciousness, mind-body, perception, and language. The relationship is a collaborative affair, in which the two disciplines retain their individual identities. Although separate, each discipline may draw on the conceptual resources of the other for addressing a problem at hand. The result of such interaction is often the synthesis of a new idea concerning health or illness, especially through a dialogical method (Pellegrino, 1998).

"Philosophy *in* medicine," according to Pellegrino and Thomasma, "refers to the application of the traditional tools of philosophy—critical reflection, dialectical reasoning, uncovering of value and purpose, or asking first-order questions—to some medically defined problem" (1981a, p. 29). The problems may involve logical or epistemological issues, but the majority and most popular concern ethical issues. In this relationship, philosophers "function *in* medicine—that is, in the medical setting as educator and trained thinker exhibiting the way philosophy can illuminate and examine critically what physicians do in their everyday activity" (Pellegrino and Thomasma, 1981a, p. 30). Pellegrino (1998) later points to the use of existentialism and phenomenology as examples of fertile philosophies for analyzing medicine.

Pellegrino and Thomasma admitted that philosophy *of* medicine is the most problematic of the three relationships and needs careful explication. In philosophy of medicine, genuine philosophical issues concerning medical knowledge and practice are examined.[3] According to Pellegrino and Thomasma, this relationship is

---

[1] The year before Pellegrino and Thomasma's book appeared, Tristram Engelhardt and Edmund Erde (1980) published an extensive article on philosophy of medicine in which they discussed ethical and epistemological issues in medical knowledge and practice.

[2] Later Pellegrino added a fourth categorical relationship, medical philosophy, which "is more a literary than a philosophical genre" (1986, p. 10). He cited works by William Osler and by Francis Peabody as examples of this relationship. More recently, Pellegrino has defined this relationship as "any informal reflection on the practice of medicine—usually by physicians on clinical medicine based on their reflections on their own clinical experiences" (1998, p. 324). Often this relationship between medicine and philosophy is taken to reflect clinical wisdom.

[3] Engelhardt and Erde (1980) also acknowledged the problematic nature of philosophy of medicine and located the problem to an imprecise definition of medicine. They opted for a broad definition of medicine to inform their philosophy of medicine, including the epistemological and ethical issues of medicine knowledge and practice.

defined as "a systematic set of ways for articulating, clarifying, and addressing the philosophical issues in medicine" (1981a, p. 28). The philosopher's role *vis-à-vis* medicine is to apply a critical and dialectical methodology to address philosophical issues in medicine, especially the clinical encounter. The aim of the philosophy of medicine is to account for "the whole domain of the clinical moment" (Pellegrino and Thomasma, 1981a, p. 28).

Importantly for Pellegrino and Thomasma, philosophy of medicine functions both descriptively and normatively: "The philosophy of medicine seeks explanations for what medicine is and ought to be, in terms of the axiomatic assumptions upon which it is based" (1981a, p. 30). It is this spirit that a philosophy of medicine is developed herein, especially in terms of metaphysics, epistemology, and ethics of medical knowledge and practice. The driving question for this approach involves the nature of medicine itself. However, before addressing that subject the question of whether philosophy of medicine exists must be entertained first.

2 Does Philosophy of Medicine Exist?

In the 1976 Philosophy of Science Association symposium on the philosophy of medicine and its relationship to the philosophy of science, Tristram Engelhardt also responded to Shaffer's assertion that "there is no subject matter unique to medicine for a philosophy of medicine to address" (1977, p. 94). To the question, "Is there a philosophy of medicine?," which also served as the title of his lecture, Engelhardt not only gave an affirmative answer but delineated weak and strong senses for a philosophy of medicine. The weak sense pertains to issues such as bioethics and mind-body dualism and is comparable to Pellegrino's philosophy *in* medicine. In a strong sense philosophy of medicine is concerned with notions specific to medicine, such as health and disease. What distinguishes philosophy of medicine from philosophy of biology is that the notions of health and disease are not so much species problems but individual human problems: "What counts as health and disease for humans depends upon very complex judgments concerning suffering, the goals proper to humans, and, for that matter, the form or appearance proper to humans" (Engelhardt, 1977, p. 102).

In editorial remarks to a special issue of *The Journal of Medicine and Philosophy*, which marked the journal's decennial issue, Engelhardt reviewed the rise of contemporary philosophy of medicine as a discipline, including the founding of the journal, the establishment of a President's Commission, and numerous books and essays on the subject. "There is now," concluded Engelhardt, "a philosophy of medicine. To demonstrate its existence, one need not be able to show that the issues examined in the philosophy of medicine are irreducible to issues in other branches of philosophy. Though this likely can be shown," he continued, "it is enough to

demonstrate the success of examining together the cluster of philosophical issues that has come to constitute the philosophy of medicine. The last decade has more than established this point" (1986a, p. 7).

Pellegrino followed these comments with an essay, in which he argued on two counts for the existence of philosophy of medicine as a distinct discipline. The first is that medicine is not simply the summation of the individual disciplines that comprise it. "Medicine," claimed Pellegrino, "calls upon insights, knowledge, skills, and techniques from science, art, and the humanities, but for a distinctive and defined end [healing this patient] that is not the end of any of these other disciplines. The philosophy of medicine, therefore," he concluded, "is not synonymous with the philosophy of biology, literature, history, or sociology, though each may contribute to medicine's specific enterprise" (1986, p. 13). The second count is that philosophy of medicine is distinct from medicine itself. Philosophy of medicine, although examining issues that overlap with medicine, treats medicine, however, as its subject matter. Again, Pellegrino concluded that philosophy of medicine "seeks to understand and define the conceptual substrata of medical phenomena" (1986, p. 14).

In the early 1990s Arthur Caplan argued that although there is no reason why philosophy of medicine cannot exist, it does not. Just as Shaffer posed as a foil to force clarification of the notion of philosophy of medicine, so did Caplan. Caplan's assertion for the non-existence of philosophy of medicine depended on his definition of it: "The philosophy of medicine is the study of the epistemological, metaphysical and methodological dimensions of medicine; therapeutic and experimental; diagnostic, therapeutic, and palliative" (1992, p. 69). Given this definition, he maintained that philosophy of medicine is really a sub-field of philosophy of science. And its goal or focus should be epistemological rather than ethical.

Caplan (1992) discussed three possible responses to his thesis for the non-existence of philosophy of medicine. The first is agreement both with his definition for the philosophy of medicine and with his conclusion that philosophy of medicine so defined does not exist. The second response is agreement with the non-existence conclusion but disagreement over his definition for the philosophy of medicine. He recognized that his definition is narrow in scope and that some may want to expand it to include ethics. Caplan, however, contended that ethics is normative while philosophy need not be. The final response is acceptance of the definition but rejection of the non-existence conclusion. Caplan noted that those who make this objection often point to the published literature and professional meetings concerned with philosophy of medicine. Although he admitted the impressive nature of this evidence, it is, in principle, inadequate to defend the existence of philosophy of medicine.

According to Caplan, the philosophy of medicine does not exist because it does not meet the necessary criteria for recognition as a field or discipline. Caplan identified three criteria to define a field. The first is "a subject must be integrated into cognate areas of inquiry" (1992, p. 72). In other words, the discipline must cohere with

other well defined disciplines. For Caplan, philosophy of medicine is more like an "intellectual island" on an otherwise coherent "intellectual map" of disciplines. Second, a discipline requires a "canon…a set of core readings, articles, books and case studies which are taught to those wishing to enter the field and cited by those who see themselves as working collegially in the field" (1992, p. 72). Caplan's claim was that philosophy of medicine lacks such a canon. Finally, "to be a field an inquiry ought to have certain problems, puzzles and intellectual challenges that define its boundaries" (Caplan, 1992, p. 73). Other than the notions of disease and health, philosophy of medicine fails this criterion as well.

Next, Caplan raised a challenging question: "So, if the philosophy of medicine does not meet the criteria that would confer disciplinary or sub-disciplinary status on the work that has gone on to date in its name, is that a bad thing?" (1992, p. 73). His answer was an emphatic "yes" for the following reasons. First, philosophy of science has too long ignored the applied branches of science that could breathe new life into stale answers to questions like theory development or evolution. Philosophy of medicine could assist in this endeavor. Second, a robust philosophy of medicine is sorely needed for bioethics. Finally, philosophy of medicine could contribute to the development of medicine itself in terms of clinical trial design or explicating notions of pain and suffering. Caplan concluded that "while there are no in principle reasons why the philosophy of medicine cannot exist, it does not yet exist" (1992, p. 74).

Henrik Wulff (1992) provided commentary on Caplan's article. He began by dividing participants at meetings on medicine and philosophy into three categories. The first consists of professional philosophers, who use medicine to do philosophy. The second consists of medical professionals who approach philosophy as a hobby and of professional philosophers who engage philosophical problems from a medical perspective. The last category consists of medical professionals who have formal training in philosophy and those who have no training in philosophy because of professional obligations.

According to Wulff, Caplan is a member of the first category and being a member of this group accounts for Caplan's denial of philosophy of medicine's existence. However, from a medical perspective philosophy of medicine—although not as robust as it should or could be—is a vital part of contemporary medical thinking, especially for medical professionals of the third category who are too busy in their practices to engage the medical problems from a philosophical perspective. In conclusion, Wulff beckoned professional philosophers of the second category to "come to my support and argue that philosophy of medicine does exist as a medical subdiscipline, if not as a philosophical one" (1992, p. 85).

In presaging responses to the thesis of the non-existence of philosophy of medicine, Caplan was certainly correct that the thesis would be challenged. However, only a few took exception to his definition for philosophy of medicine. Most of the debate focused on whether philosophy of medicine met the criteria necessary for defining a field or discipline, and only a few challenged whether the criteria themselves are met. For example, although Vic Velanovich (1994) agreed with Caplan's conclusion,

he claimed that philosophy of medicine is a developing field of inquiry, in terms of John Dewey's notion of the logical development of a discipline.[4]

As for Caplan's first criterion, Velanovich admitted that much work remains to integrate philosophy of medicine into other disciplines. For the second criterion, he cited Jeffery Spike's article on teaching philosophy of medicine, which he noted Caplan also referenced, and Wilfried Lorenz's list of works on theoretical surgery, as providing a foundation for development of a canon. Finally, Velanovich listed a series of metaphysical, ontological, and epistemological questions, concerning medical causation, reductionism, and explanation, which he claimed provides critical problems and puzzles for philosophy of medicine. "I have argued," concluded Velanovich, "that [philosophy of medicine] should be considered a developing field which will eventually meet all the criteria Caplan imposes on any endeavor to be called such" (1994, p. 81).

Although Caplan's thesis for the non-existence for philosophy of medicine was critiqued mainly in terms of the criteria for establishing a discipline, his thesis was also criticized by a few with respect to his definition for philosophy of medicine. Some philosophers of medicine felt Caplan's definition was too narrow and wanted to broaden it. For example, Engelhardt and Kevin Wildes argued for an expanded conception of the philosophy of medicine. Although one could argue, *pro* Caplan, that philosophy of medicine engages no unique problems *vis-à-vis* philosophy of science or biology Engelhardt and Wildes held, *contra* Caplan, "there would still be merit in exploring the ways in which philosophical study and analysis can be directed to the understanding of medicine" (1995, p. 1683). Kenneth Schaffner and Engelhardt argued for an even broader conception for philosophy of medicine, "as encompassing those issues in epistemology, axiology, logic, methodology and metaphysics generated by or related to medicine" (1998, p. 264). They included not only the natural sciences but also the social sciences, e.g. George Engel's biopsychosocial model.

In response to the broad or expansive definition for the philosophy of medicine, Pellegrino insisted that such a definition "dilutes the specificity of philosophy of medicine and weakens the identification of a definite set of problems" (1998, p. 319). He then proposed a more narrow definition for philosophy of medicine as "a critical reflection on the matter of medicine—on the content, method, concepts and presuppositions peculiar to medicine *as medicine*" (Pellegrino, 1998, p. 325). The goal of this relationship is to understand medicine *per se*, i.e. the ultimate reality of what constitutes medicine beyond the entities that are studied in medicine. To that end, Pellegrino claimed that the philosophy of medicine requires a precise or narrow definition of medicine.

Although medicine depends on the natural sciences, according to Pellegrino, it is not simply a branch of them. Rather, medicine is concerned with more than obtaining truth but the truth applied specifically to the health of individuals and

[4] What Dewey meant by the logical development of a discipline, according to Velanovich, is that a discipline's rational or cognitive dimensions evolve along with the discipline's efforts to inquire into a given phenomenon.

societies. Tantamount to that goal is the clinical encounter between physician and patient. "Philosophy of medicine," concluded Pellegrino, "is concerned with the phenomena peculiar to the human encounter with health, illness, disease, death, and the desire for prevention and healing" (1998, p. 327). The basis for philosophy of medicine is the *telos* of medicine: the caring of the physician for the patient's healing (Pellegrino, 1998).

Wildes (2001) responded to both Pellegrino and Caplan, charging them with failure to engage the broader social context in which medicine is practiced. Pellegrino's and Caplan's approaches were too narrow and myopically fixated on the essence of medicine, with Caplan's approach being too analytic, in terms of an applied science, and with Pellegrino's being too phenomenological, in terms of the patient-physician encounter. According to Wildes, the broader approach takes into consideration the social or cultural dimension of medicine: "medicine is a socially constructed set of practices and philosophy of medicine must take this social dimension into account if it is to be therapeutic [in terms of medicine's current crisis]" (2001, p. 74). By social construction, he meant that medicine is practiced in a specific social or cultural context. After all, he argued, notions like health and disease are culturally laden. "For philosophy of medicine to scrutinize medical practice," concluded Wildes, "it too must take the social structures into account and not be too narrowly construed" (2001, p. 85).

Pellegrino (2001) responded to Wildes by defending an emphasis on the *telos* of medicine, as its distinguishing characteristic, in terms of patient-physician relationship as a realistic healing encounter. "Clearly, this relationship was not the whole of medicine," argued Pellegrino, "but it is still in my opinion that which makes it a distinct human activity" (2001, p. 171). In fact, a teleologically based philosophy of medicine is "the only tenable basis for an ethics of the healing professions as a whole in an era of widespread moral and social pluralism like ours" (Pellegrino, 2001, p. 173). Pellegrino admitted that he did not emphasize the primary importance of the social for defining the philosophy of medicine. His reason was that he follows an Aristotelian projection from the virtuous individual to the virtuous society. It is in this context that Pellegrino claimed he engages the social dimension of medical practice in his philosophy of medicine. For Pellegrino, Wildes' emphasis on the social construction of medicine resembles nominalism and "allows for no permanent theory of medicine and therefore allows no permanent or stable ethics of the profession" (2001, p. 177).

Recently, William Stempsey has offered a broader conception of the philosophy of medicine. "Philosophers of medicine today are addressing not only issues of medical ethics and the doctor-patient relationship," according to Stempsey, "but also models of medicine, visions of human nature, concepts of health and disease, conceptions of the body, epistemological standards of evidence and other topics" (2004, p. 246). He identified philosophy of medicine as a philosophical sub-discipline and situated it thusly with respect to three factors.

The first is one's metaphysical worldview used to divide up the world. For example, whether one holds to holism or reductionism profoundly affects one's medical knowledge and practice. Philosophy of medicine can certainly help to clarify the

metaphysical foundations of medicine. The second factor is one's understanding of cognate disciplines. Stempsey acknowledged that the relationship between medicine and philosophy is historically an enriching one for both disciplines and that "even in the face of changing perspectives on the disciplines of philosophy and medicine, there have always been a philosophy lurking behind medical thought and practice" (2004, p. 248). The final factor is the perspective from which the disciplines are viewed. Stempsey noted that much of the controversy over the existence of philosophy of medicine stems from a myopic view of the disciplines: "We should not let narrow disciplinary boundaries blind us to the richness that is inherent in a broad view of the philosophy of medicine" (2004, p. 250). In conclusion, he beckoned for a "medical studies" discipline that incorporates historical, philosophical, and social dimensions of medical knowledge and practice.

3 Philosophy of Medicine: Models of Medical Knowledge and Practice

As evident from the title of the book I opt for the philosophy of medicine relationship, which I hold to be a sub-discipline of philosophy. The relationship between the two disciplines is more than simply philosophy *and* medicine in that they share more than common problems and is more than philosophy *in* medicine in that philosophers use medicine not just to do philosophy but to understand the nature of medicine itself. I define philosophy *of* medicine specifically as the metaphysical and ontological, the epistemological, and the axiological and ethical analyses of different models for medical knowledge and practice. Such a definition is rooted in a standard topology for philosophical analysis. The aim of this analysis is to unpack the nature of medicine itself as articulated in the question: What is medicine? This question is at the center of the quality-of-care crisis facing modern western medicine and represents the primary issue for my philosophy of medicine.

By model is meant an idealized notion or representation of a system or phenomenon that is proposed as a theoretical explanation or a construct.[5] In other words, models are idealizations and not the real thing, i.e. they are notional. They represent a phenomenon or system and are used to explain it, often from an abstract perspective. As such models are constantly in flux and are either advancing or degenerating, in terms of their explanatory power. Part of that power is the ability to predict future events. Models then can assist in visualizing how the natural and social worlds operate and in manipulating those worlds for better or worse. The two models of modern western medicine analyzed herein are the biomedical and the

[5] Murphy provides a precise definition for model: "A model is a representation of a complicated process as an abstract set of relationships among its known or conjectured components" (1997, p. 264).

humanistic or humane models. Their histories are intertwined and a brief examination of them provides a necessary background for conducting the philosophical analysis found within this book.

Many histories of modern western medicine trace medicine's origins to the dawn of human history (Ackerknecht, 1982; Porter, 1998). Certainly the first chief figure in western medicine was Hippocrates. The Hippocratic corpus influenced western medicine for over a millennium. Even today, medical students often recite in unison a version of the Hippocratic Oath as part of their graduation exercises. The next major figure in the western medicine was Galen, whose influence again was also felt for over a millennium. Not until the scientific revolution of the sixteenth and seventeenth centuries, especially with the anatomical work of Andreas Vesalius on the human body and the experimental work of William Harvey on the circulation of the blood, was Galen's approach to medical knowledge and practice challenged. By the end of the nineteenth century and the beginning of the twentieth century, the biomedical or allopathic model of medicine became the dominant model for medical knowledge and practice.

In the United States the biomedical model had its origins in the late nineteenth century, especially with the importation of physiology or experimental medicine from Europe (Duffy, 1993). One of the chief figures—if not the chief figure—in the development of experimental medicine was Claude Bernard in Paris (Olmsted and Olmsted, 1952). American physicians traveled to Europe and returned to introduce the latest in scientific advances (Fye, 1987). Bernard had a major impact on the development of American medical science through several students, including William Henry Anderson, John Call Dalton, Jr., Frank Donaldson, and Silas Weir Mitchell (Carmichael, 1972; Marcum, 2004a). Bernard's influence was keenly felt in American education, where the use of animals to illustrate physiological principles during lectures revolutionized medical pedagogy: "We venture to say that demonstrative teaching in physiology in [America] is to be attributed to the influence of Bernard's works" (Flint, 1878, p. 173). Besides Bernard other European scientists, including Michael Foster in Cambridge and Carl Ludwig in Leipzig, also influenced the development of experimental medicine in the United States (Fye, 1987; Geison, 1978).

A major event in the origins of the biomedical model in the United States is traditionally claimed to be the opening of The Johns Hopkins Hospital in 1889, followed four years later with the launching of the Hopkins medical school (Chesney, 1943). Entrance into the new medical school required a rigorous scientific undergraduate education and the Hopkins faculty taught its medical students a medicine shaped by current scientific knowledge. Hopkins set a standard that became the benchmark for medical education and practice in the United States, if not the world (Ludmerer, 1985). Besides Hopkins, the founding of the Rockefeller Institute for Medical Research in 1901 also contributed significantly to the development and establishment of the biomedical model in American medicine (Corner, 1964). Finally, Abraham Flexner's 1910 Report to the Carnegie Foundation was influential in promoting pedagogical changes in medical education to reflect the focus on scientific medicine (Flexner, 1910; Boelen, 2002).

Today, the biomedical model is the prevailing model of medical knowledge and practice within the United States of America, as well as in other western and developed countries, and is also becoming the dominant model in eastern and underdeveloped countries. In this model, the patient is reduced to a physical body composed of separate body parts that occupy a machine-world. The physician's emotionally detached concern is to identify the patient's diseased body part and to treat or replace it, using the latest scientific and technological advances in medical knowledge sanctioned by the medical community. The outcome of this intervention is to cure the patient, thereby saving the patient from permanent injury or possibly death.

Although the biomedical model provides major advances in American medicine, one of its chief underlying problems is the alienation of the patient from the physician. "The public perceives medicine," claims Miles Little, "to be too impersonal" (1995, p. 2). Moreover, by reducing the patient to a collection of body parts, the patient as a person disappears before the physician's clinical gaze (MacIntyre, 1979). The loss of the patient as a person from the physician's clinical gaze has led to a quality-of-care crisis, which afflicts American medicine today, and has eroded the intimacy of today's patient-physician relationship from a perceived intimacy of an earlier age in the United States.[6] For example, much of the infrastructure supporting current American medical practice favors the physician's schedule at the expense of the patient's lifestyle and at times the patient's health and wellbeing. Importantly, Engel identified the origins of this crisis in the "adherence to a [biomedical] model of disease no longer adequate for the scientific tasks and social responsibilities of either medicine or psychiatry" (1977, p. 129). In other words, the crisis arose over bracketing the psychological and social dimensions associated with the patient's experience of illness and the physician's inability to understand the patient as an ill *person*.

In response to the quality-of-care crisis, some practitioners of modern medicine have proposed over the past several decades humanistic modifications of the biomedical model, in order to reinstate the humanity of both patient and physician into medical knowledge and practice. Michael Schwartz and Osborne Wiggins broadly define humanistic or humane medicine accordingly: "medical practice that focuses on the whole person and not solely on the patient's disease" (1988, p. 159). They do not reject scientific medicine but enlarge its scope to include the patient's psychological and social dimensions. Davis-Floyd and St. John concur with this assessment of the humanistic models: "Humanists wish simply to humanize technomedicine [biomedicine]—that is, to make it relational, partnership-oriented, individually responsive, and compassionate" (1998, p. 82).

Humanistic or humane modifications of the biomedical model range from more conventional efforts to reform the biomedical model, such as Engel's biopsychosocial model, to the more unconventional efforts by phenomenologists to replace it

[6] Of course, humanistic or humane practitioners do not reject the advances of the biomedical model for a myth that medicine prior to it was somehow better because of the intimacy between the patient and physician (Engel, 1977, p. 135).

(Toombs, 2001). In humanistic models, the patient is recognized as a person (or self) or at least an organism composed of body and mind occupying a lived context or a socioeconomic environment. Under the practitioner's empathic gaze and care, the informed and autonomous patient is cured and at times even healed using generally scientific evidence-based or traditional medical therapies but possibly—and then only as a last resort—nontraditional therapies.

In the first part of this book I examine initially the metaphysical boundaries of the biomedical and humanistic models, in terms of medical worldviews in which the models are embedded (Table 1). Specifically, I analyze the biomedical worldview in terms of its metaphysical position of mechanistic monism and its metaphysical presupposition of reductionism, and its ontological commitment to physicalism or materialism. For the practitioner of this model the patient is a material object that is reduced to a collection of physical parts. Importantly the mind is not a separate non-material entity but a functional property of the brain, as the pumping of blood is the functional property of the heart.

According to the biomedical model, the patient is a machine composed of individual body parts that, when broken or lost, can be fixed or replaced by new parts. Moreover disease, whose cause can be identified by scientific analysis, is an objective entity. It is often organic and seldom, if ever, psychological or mental. The notion of health involves the absence of disease or the normal functioning of body parts. Physicians are interested in identifying only the physical causes or entities that are responsible for a patient's disease. Once identified by objective diagnostic procedures, treatment then is generally based on some type of drug or surgical procedure. Appropriation of the proper therapeutic modality, selected by the physician, is based on statistical analysis of data obtained from randomized clinical trials. Thus, the physician is a mechanic or technician, whose task is to determine which part of a patient's body is broken or diseased and to mend or replace it.

The biomedical worldview is modified in humanistic or humane models, with a metaphysical position that is often dualistic, composed of two non-reducible entities—the body and the mind. Other humanistic models operate from a holistic position, in which the person (or self) represents an integrated whole not only in terms of the individual but with the person's environmental context or lifeworld. Although practitioners of humanistic models of medical knowledge and practice appreciate biomedical model's metaphysical presupposition of reductionism and the gains it provides for the technical side of western medicine, they often reject it as an insufficient presupposition for medical knowledge and practice. They generally subscribe to some form of emergentism, in which properties of the system are not determined by the properties of the individual parts but transcend them. Practitioners of humanistic models share to some extent the biomedical model's ontological commitment to physicalism or materialism; however, this commitment is tempered in the humane models by including the patient's psychological or mental state—and for some, the spiritual state.

Instead of reducing the patient to the physical body alone, the humanistic or humane practitioner, who is not just a mechanic, encounters the patient as a

person composed of both mind and body. Importantly, the mind and body often influence the behavior and state of each other in a reciprocal manner. Thus, the mind and body are complementary aspects of the patient and both must be considered when making a diagnosis or choosing a therapy. For the patient's illness may be more than simply organic (a disease) but may also include the psychological and social (an illness or a sickness, respectively). Causation then is more than physical but also includes information concerning the individual patient *qua* person. Moreover, rather than being considered just a machine composed of individual parts separate from any background or framework, the patient is viewed as an organism or a person within a socioeconomic environment or cultural background. And as an organism or a person the patient is more than simply the sum of separate body parts but also exhibits properties that surpass the aggregation of those parts. Thus, an important ontological commitment for some humanistic models is organicism.

In the second part of the book, I examine the epistemological boundaries of the biomedical and humanistic or humane models (Table 1). Medical practice within the biomedical model is based on objective or scientific knowledge and relies on the technological developments in the natural sciences, especially the biomedical sciences. The acquisition and implementation of medical knowledge reflects the techniques and procedures of these sciences. For example, the randomized, double-blind, concurrently controlled trial is considered the primary or "gold" standard for determining the efficacy of a new drug or surgical procedure. Such scientific practice defines acceptable knowledge and practice of medicine within the biomedical model. Medical knowledge in this model is generally based on mechanistic causation. Finally, epistemic claims in the biomedical model depend on the logical relationship of propositional statements obtained from empirical laboratory experiments and clinical studies. The trajectory of medical knowledge and practice is from the laboratory to the bedside. There is often little, if any, room in this model for the intuitive or emotional dimensions of either the physician or patient and medical knowledge is therefore generally impersonal.

Although the humanistic or humane models share many epistemological features with the biomedical model, they also rely on a practitioner's emotions and intuitions. Emotions and intuitions are not necessarily impediments to sound medical judgment and practice; but when judiciously utilized and constrained by the epistemic and empirical boundaries of the biomedical model, they enable a physician to access information about a patient's illness that may exceed quantified data, e.g. laboratory test results. This information obtained from a practitioner's use of emotional and intuitional resources is subjective and human. Behind such information is the face of the "Other" (Tauber, 1995). The type of knowledge obtained in this model depends on informational causation, where a patient's psychosocial dimension is an important factor in diagnosing and treating illness. Moreover, the patient is not simply a compliant or passive agent during diagnosis or treatment but can also be an active participant. The patient as an informed cognitive agent is part of the process of humanistic medicine.

Table 1 Comparison of metaphysical, epistemological, and ethical boundaries of the biomedical and humanistic models of western medical knowledge and practice

	Metaphysics	Epistemology	Ethics
Biomedical model	Mechanistic monism	Objective knowledge	Emotionally detached concern
Humanistic models	Dualism/holism	Subjective knowledge	Empathic care

In the third part of the book, I explore the axiological and ethical boundaries of the biomedical and humanistic or humane models (Table 1).[7] The biomedical model stresses the scientific problem-solving aspect of medical practice and is based on a value of objectivity. Diagnosis and treatment of a patient's disease are puzzles that concern the physician-scientist *qua* mechanic or technician. Diagnosis of the disease depends on a technology that reduces the patient to a set of objective data, from which the physician diagnoses the patient's disease. And from that diagnosis, the physician then chooses the appropriate therapeutic modality, often with little patient consultation. The ethical stance of the physician is a concern to save the patient from the disease and ultimately from death. According to the biomedical model, death is defeat and is generally avoided at all costs. The physician's concern for the patient is detached from the emotions of either the physician or patient. Moreover, the patient's relationship to a physician is passive. The physician is the authority figure with the knowledge and power to save the patient. Thus, the physician's relationship to a patient is one of dominance, as represented by paternalism.

Instead of the physician being rationally concerned in an emotionally detached manner for the patient's diseased body part, the humanistic or humane practitioner cares both rationally and emotionally for the health of the patient *qua* person. The underlying value of this type of medical practice is empathy, which shapes a physician's stance. Through this stance, the physician may become aware of the "eidetic" features of a patient's illness, including losses of wholeness, certainty, control, freedom to act, and the familiar world (Toombs, 1993). The physician is no longer the locus of supreme authority and power in curing a patient but a first-among-equals, a co-participant with a patient and other healthcare providers. In other words, the patient is an autonomous person who deserves respect for helping to make the choice as how to proceed therapeutically. Moreover, the physician recognizes that a patient's mind/body often cures itself and that often the role of both the physician and patient is to assist in that process and not to hinder it. The patient-physician relationship is one of mutual respect, for the role and contribution of each other in the healing process. Finally, death is not necessarily a defeat according to this model but another or possibly final stage in the patient's life.

In a concluding chapter, I examine the nature of medicine by addressing the question, "What is medicine?"—certainly the chief question for any philosophy of

[7] In this part the various normative ethical theories, including principlism, are also examined.

medicine. The answer to this question is examined first in terms of the historical debate over the art and the science of medicine, followed by the contemporary debate between evidence-based and patient-centered medicine. In a final section, I explore the nature of medicine in terms of the biomedical model, which focuses on the *logos* of medicine that in turn drives its *ethos*, and of the humanistic or humane models, which focus on the *ethos* of medicine that in turn drives their *logos*. My proposal is that modern medicine must undergo a revolution not in terms of its *logos* or *ethos* but in terms of its *pathos*. Specifically, *pathos* can transform the *logos* of technique and information into wisdom, a wisdom that can discern the best and appropriate way of being and acting for both the patient and the physician. *Pathos* can also transform the *ethos* of the biomedical physician's emotionally detached concern or the humane physician's empathic care into a compassionate love that is both tender and unrestricted. This love is not a mawkish sentimentality but a vigorous passion that enters the suffering of illness. Only a wise and loving stance will relieve American medicine of its quality-of-care crisis.

4 Summary

The philosophy of medicine explicated herein is based on the analysis of the metaphysical, epistemological, and ethical boundaries of the biomedical and humanistic or humane models of medical knowledge and practice, in order to address the current quality-of-care crisis in contemporary medicine. That crisis requires a close philosophical analysis in these terms to provide a systematic framework to assess the various humanistic or humane modifications to the biomedical model. Such an assessment is required to choose wisely among the various options for medical knowledge and practice, especially in terms of defining the very nature of medicine itself. For the quality-of-care crisis is really a crisis over the nature of medicine. Should medicine be strictly a science? What role does or should the art of medicine play in medical practice? An important means of addressing these questions and others like them and the quality-of-care crisis is through philosophy, as well as through history, sociology, anthropology, and the other social sciences. The aim of the book is to provide a systematical analysis of the nature of medicine from a philosophical perspective, i.e. to explore the answers to the question, "What is medicine?," and to assist, in part, in the resolution of the quality-of-care crisis facing modern American medicine.

Although the future direction of modern medicine cannot be presaged or even the direction it should take cannot be dictated, it is clear that its deep-seated commitment to the human condition cannot be lost without tremendous impairment to its main task: healthcare. By investigating the philosophical boundaries of the competing and evolving models for medical knowledge and practice, it is evident that there is no simple solution to the crisis facing modern medicine. Certainly there is a paradigmatic shift underway in medicine and is required if medicine is to succeed in the twenty first century.

Part I
Metaphysics

Metaphysics, as a distinct subject within the western intellectual tradition, has its origins in Aristotle (384–322 BC). Although he did not coin the term, ancient editors of his works did and his treatise by that title is one of the first systematic explorations of the subject. For Aristotle (2001), metaphysics, which literally means "after or beyond physics," is actually prior logically to physics or the natural sciences. In contemporary philosophy, metaphysics deals "with questions that in some ways lie deeper than physics and most other branches of human enquiry: questions concerning the fundamental assumptions and theoretical foundations of these other inquiries" (Horner and Westacott, 2000, p. 1).

As western philosophy developed metaphysicians became concerned with the nature of objects that make up the world, whether natural or social, real or constructed. The topics covered in contemporary metaphysics range from the notion of God to that of time and space (Crane and Farkas, 2004). For example, what constitutes a person or the self is a vibrant area of metaphysical inquiry. Metaphysics is also concerned with the fundamental or universal properties or features of objects or, more technically, with ontology. Finally it is involved with the relationship among these properties, especially in terms of causation.

In this part, the metaphysical boundaries of the biomedical and humanistic or humane models of modern medicine are examined through an analysis of the larger cultural and scientific worldviews in which they are embedded. For our distinct views of the social and natural worlds shape the biomedical and humanistic or humane models. These worldviews often allow practitioners of the biomedical and humanistic models to practice in different worlds. In an initial chapter, I investigate the medical worldviews of the biomedical and humane models in terms of their metaphysical positions or stances, metaphysical presuppositions or assumptions, and ontological commitments. In the next chapter, the notions of causation and realism are examined, especially as they relate to medical knowledge and practice. Then I finally explore in the remaining chapters the specific metaphysical and ontological issues of the biomedical and humane models, including the nature of the patient, disease and health, illness and wellbeing, and diagnosis and therapeutics.

Chapter 1
Medical Worldviews

A worldview or *eine Weltanschauung*, originally coined by Immanuel Kant (1724–1804) in the *Critique of the Power of Judgment* (2000), is a notion composed of beliefs that allow us to make sense of the world and to act in it.[1] Although Kant used the term to account for the sense perception of the world, it has since then taken on a more expansive meaning. For example, the German philosopher, Wilhelm Dilthey (1833–1911), defined a worldview in terms of what is known about the world and how that knowledge is judged and responded to.[2] Many contemporary definitions emphasize some facet of Dilthey's definition. The most common definition takes a worldview to be an all-encompassing philosophy of life, composed of a personal or a social ideology. For example, Ninian Smart (2000) uses the notion of worldview to examine traditional beliefs and feelings associated with various world religions. Although he avoids defining the term, he does discuss parameters essential to a worldview, such as the mythical, emotional, and ethical.

Philosophers of science have also proposed definitions of a worldview. For example, Michael Polanyi (1891–1976), in contradistinction to logical positivism, claimed that "all knowledge is shaped and guided by gestaltlike frameworks and is both tacit and personal" (Naugle, 2002, p. 187). Richard Dewitt provides a rather general definition of worldview: "a system of beliefs that are interconnected" (2004, p. 3). He then illustrates it with an example of the Aristotelian worldview that is made of interconnecting beliefs, such that the earth is located at the center of the universe and is stationary. Other examples of scientific worldviews include the Newtonian worldview in which the world is viewed as a giant machine or the Darwinian worldview in which the biological world is viewed as evolving entities. Thus, scientific worldviews are defined by their fundamental beliefs and commitments to how the world is and how to investigate its nature.

---

[1] For an extensive discussion of the origins and use of the notion of worldview, see Naugle (2002).

[2] Dilthey (1960) identified three recurrent worldviews in history: naturalism or the material world, idealism or freedom of personal agency, and objective idealism or monism. Although truth among the worldviews is dependent on or is relative to a particular worldview, within a specific worldview truth is objective.

J.A. Marcum, *Humanizing Modern Medicine: An Introductory Philosophy of Medicine,*

Table 1.1 Comparison of metaphysical positions and presuppositions, and ontological commitments of the biomedical and humanistic models of medical knowledge and practice

	Metaphysical Position	Metaphysical Presupposition	Ontological Commitment
Biomedical model	Mechanistic monism	Reductionism	Physicalism / materialism
Humanistic models	Dualism/holism	Emergentism	Organicism

The philosopher of physics, Abner Shimony, has proposed another definition of worldview that is more precise from a metaphysical perspective: a worldview represents "a set of attitudes on a wide range of fundamental matters" (1993, p. 62). Attitude refers to a stance or position taken toward the world, especially in terms of a mental attitude and the assumptions associated with the world's ontological nature. For a scientific worldview, a set of attitudes includes the various stances or positions and assumptions or presuppositions that are important for formulating scientific theories, laws, and hypotheses to account for the ontological entities that compose the natural world. As such, then, worldview is a metaphysical notion and is analyzed herein in terms of metaphysical positions and presuppositions, as well as ontological commitments.

Modern medicine is certainly part of a larger worldview that constitutes western culture. In this chapter, the metaphysical positions, along with the metaphysical presuppositions and ontological commitments, which ground the biomedical and humanistic or humane models, are discussed, before examining the other metaphysical issues concerning these models. The metaphysical positions or stances that a physician may take towards a patient and other medical entities include monism, dualism, or holism. Associated with these positions or stances are the metaphysical presuppositions of reductionism and emergentism, as well as the ontological commitments of physicalism or materialism and organicism (Table 1.1). I begin with metaphysics, analyzing the positions, presuppositions and commitments upon which medical knowledge and practice are founded; for they influence and constrain the ontological entities—such as bodies, persons, and drugs—and the metaphysical concepts—such as causation, disease, and health—that compose medical worldviews.

1.1 Metaphysical Positions

A metaphysical position is an important component for constructing worldviews, since it defines the fundamental attitude or stance towards the world's constitution. In this section, the metaphysical positions of mechanistic monism that constitutes the biomedical worldview and of dualism/holism that compose humane models are discussed and analyzed.