Chapter 1

Introduction to the Concept of Health

Topic of Study: The Importance and Priority of a Concept of Health

This work is a contribution to the extensive philosophical literature on the concept of health. Given that a concept of health is indispensable to (1) the practices of medicine, (2) the many debates surrounding public policy issues, and (3) the ethical concerns that loom over the decisions made by medical practitioners, it might be presumed that much progress has been made with regard to the concept of health. In fact, there is still a notable lack of consensus concerning the concept of health among scholars and healthcare professionals. Lennart Nordenfelt offers the following summation of this problem:

The entire medical enterprise—theoretical and clinical research as well as medical practice—has human health as its ultimate end. Health, as well as disease and illness, must be in the focus of medical attention … In spite of their central place, however, and in spite of numerous efforts directed to the clarification of the concepts of health and disease, there is far from universal agreement about their nature. In fact, the controversies are quite profound … [O]ne encounters anthropological, sociological, psychological, and

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biological theories, as well as combinations of these. The contents of the various theories are quite different and often quite difficult to compare.⁴

Despite the pressing need for a cogent concept of health across disciplines, no single account has been agreed upon to address adequately the many practical and theoretical difficulties associated with (1)–(3) above. The problem, thinks Nordenfelt, is that the assumptions and agendas of different disciplines come into conflict, rendering “consilience” near impossible.⁵

Therefore, the goal of this project is to provide a naturalistic concept of health that is able to parry some of the difficulties encountered by previously proposed concepts. Before turning to a sketch of this naturalistic approach, the general problem under consideration in this project needs to be made clear.

**The Concept of Health Debate: Naturalists Versus Normativists**

The problem with offering a definitive account of health is apparent in the World Health Organization’s (WHO) definition. In 1947, the WHO offered the following statement about health: “Health is a state of complete physical, mental, and social well-being, and not merely the absence of disease and infirmity.” There is a great deal that must be unpacked in this rather broad definition of health. What does the WHO mean by “complete”? Moreover, what does it mean by the use of “physical,” “mental,” and the supposed distinction between these two terms? Further, what does the WHO have in mind when it employs “social” and “well-being” to define “health?” Finally, what is the meaning of “disease” and “infirmity” in the WHO’s definition of health? These terms need to be explained carefully so that a detailed account of health can be made manifest.

Indeed, many contemporary scholars, who have offered their own theories of health, have, in effect, refined, supplemented, and, in some cases, abandoned or accepted entirely the WHO’s definition of health. Specifically, in the last few decades, philosophers, sociologists, psychologists, and scientists (chemists, biologists, ecologists, neuroscientists, etc.) have provided accounts of health that pick out one or more of the above terms as definitive constituents of a concept of health. As a result of this scholarship, the following two schools of thought with respect to the concept of health have emerged:

1. Health as a Natural Concept
2. Health as a Normative Concept

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The contemporary debate on the concept of health is basically between naturalists and normativists. The fundamental issue concerns the role of values with respect to the scope of medicine.

On the one hand, although health may be valued or disvalued, naturalists argue, the concept of health is itself a value-free concept. For example, naturalists contend that whether a heart is healthy or diseased is an objective matter to be determined by relevant medical scientists. It is entirely a separate matter, they argue, whether or not such a condition is of value. Michael Ruse describes the naturalist perspective as follows:

The naturalist approach...attempts initially to approach matters in a nonvalue-laden fashion. In particular, the notion of disease, the concept of disease, is defined without respect to the implications for the bearer—whether they be good or bad, happiness-generating or otherwise, or anything else of this emotive nature. Essentially, a healthy state is taken to be one of proper functioning, that is to say, proper functioning for the species *Home sapiens*. A diseased state is taken to be one that, in some sense, interferes with this proper functioning.7

Thus, naturalists deny that values are part of the concept of health, on the grounds that health essentially involves only the functional activities of organisms and their parts.

In contrast, normativists argue that the concept of health is value-laden. Their justification is two-fold. First, they claim that, since science itself is littered with values, medical scientists (e.g., pathologists or physiologists) cannot escape incorporating values into their concepts. For example, in response to those who think that concepts of health and disease can be understood from a value-neutral scientific perspective, George Agich offers the following reply:

This approach is based on an unacceptably simplistic view of science as value-free. In these terms, medicine appears value-laden and is often criticized for that reason. Work in philosophy of medicine, however, has helped question this view and aided in the recognition that science, too, is a practice laden with particular value as well as conceptual commitments.8

Second, normativists claim that the scope of the concept of health is ultimately tethered to diagnosis and treatment of patients within a cultural/social context. Talcott Parsons defends this normativist position from a social context perspective as follows:

Health may be defined as the state of optimum capacity of an individual for the effective performance of the roles and tasks for which he has been socialized. It is thus defined with reference to the individual’s participation in the social system. It is also defined as

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relative to his “status” in the society, i.e. to differentiated type of role and corresponding task structure, e.g., by sex or age, and by level of education which he has attained and the like.9

Similarly, H. Tristram Engelhardt offers the following assessment of the concept of disease within the context of diagnosis and treatment:

Clinical medicine is not developed in order to catalogue diseases sub specie aeternitatis, but in order for physicians to be able to make more cost-effective decisions with respect to considerations of morbidity, financial issues, and mortality risks, so as to achieve various goals of physiologically and psychologically based well-being. Thus, clinical categories, which are characterized in terms of various warrants or indications for making diagnosis, are at once tied to the likely possibilities of useful treatments and severity of the conditions suspected.10

Given the above account, it is clear why Engelhardt thinks that “there will not be the possibility to elaborate either univocal or value-neutral, culture free concepts of disease…”11 Thus, normativists, like Agich, Parsons, and Engelhardt, think that the idea of a value-free concept of health is fundamentally misguided because science is value-laden, or because the concept of health includes values associated with medical practice and the broader social environment in which people find themselves.12

A barrier to a generally accepted concept of health is this fundamental tension between normativists and naturalists. Normativists, who include societal concerns and goals within the scope of medicine, insist that norms are an ineliminable part of the concept of health. Naturalists, in contrast, restrict the scope of medicine to the somatic condition of the human body. In response to this controversy, this book will defend a modified naturalistic concept of health. It will argue that, although epistemic norms (e.g., predictive power, replicability, parsimony, etc.) are an integral part of a naturalistic account, non-epistemic norms (e.g., social, moral, desirability, etc.) are not.13

Plan of Study: Method

There are several different ways of approaching the concept of health and identifying the problems it raises. Philosophers, from antiquity until the present age, have

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11 Ibid., p. 33.


13 It may seem that this discussion begs the question against “value naturalists” who claim that evaluative discourse is both normative and naturalistic. This is a legitimate concern and it will be discussed in Chapter 3 under the label of “weak normativism.”
written at length about the concept of health. One way, then, to understand the concept of health would be to start by following the course laid out by philosophers old and new. Alternatively, the concept of health could be approached through the writings of those practitioners of the special sciences and/or medical professionals. A list of definitions of health offered by those in each of these sub-disciplines could be compiled and seen as definitive within each domain of inquiry. Of course, a compatibilist approach, incorporating fruitful insights from both philosophers and scientists, could be a better approach to the concept of health. For surely the analytical skills of the philosopher would be of great assistance with respect to conceptual analysis. So, if it is the concept of health that is of interest, then philosophers could be of great service.

Yet, an argument could be advanced against the idea of looking to analytic philosophers for guidance. The main concern is expressed by Jay Rosenberg:

While an analytic philosopher may in fact be an advocate of some grand world-conception, in his professional capacity, he is not so much concerned with articulating and defending any one such worldview as he is with articulating and defending criteria according to which the intelligibility, clarity, coherence, rationality, cogency, or plausibility of various theses and systems ought properly to be assessed. This aim puts his questions “at one remove from the facts.” Rather than asking “Is this or that thesis true?” or “What evidence is there in favor of this or that belief?” an analytic philosopher of this persuasion will more likely pose such questions as “How are we to understand this thesis?” and “What is meant by it?” and “What sorts of grounds or reasons could there be for believing it?”

If the above account is an accurate depiction of contemporary analytic philosophers, then it seems that their professional duty is to make sure that other disciplines (and their own) are using terms appropriately and advancing arguments that are governed by the rules of logic. No doubt, there are many scientists, bioethicists, and healthcare professionals who share Rosenberg’s view of contemporary analytic philosophers and find it quite troubling. They fear that analytic philosophers—whose concerns

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16 For example, Donald Light and Glenn McGee state the following: “Analytic philosophy, with its insistence on linguistic strictures and universal moral duties, tends to reduce the complexities of the clinic to the most benign details… As a result of their training, bioethicists are inclined to take an anecdotal approach to the basic ‘principles’ of bioethics. Or, even worse, analytic philosophers turned bioethicists will insert here and there, as suits their argument, a few facts or assertions about the real world. The full range of variables present in a clinical context will be ignored, as will the implications of these variables for defining the issues and finding solutions.” See Donald W. Light and Glenn McGee, “On the Social
are “at one remove from the facts”—do not place enough emphasis on the details of the practice of science and medicine. Rather, they suspect that analytic philosophers favor technicalities regarding the use of language. This lack of concern by analytic philosophers for the details of how science works or how the doctor-patient relationship functions, argue their critics, vitiates their pronouncements on the concept of health. So, again, why should the insights of philosophers be entertained seriously within any discussion concerning the topic of health?

A reply to the above objection is that the topic of health is ideally suited for the conceptual analysis found in philosophy as a second-order discipline. For analytic philosophers are in the business of providing both analysis and synthesis concerning particular topics that may not have been recognized by those in a particular specialized discipline. In the words of Peter Caws: “Philosophy … examines critically everything that may be offered as grounds for belief or action, including its own theories, with a view to the elimination of inconsistency and error.”17 For instance, the contribution made by those practitioners of the special sciences regarding the concept of health are of interest to philosophers because these accounts of health often include claims about (1) what we are as humans when we are thought to be healthy, (2) how we are able to come to be in a state of health, and (3) how we relate to the world when we are in a certain state of health. Claims that fall within the purview of (1)–(3) are just the kind of claims that are of great interest to philosophers. It is just this ability to pay attention to such claims and examine them that uniquely distinguishes philosophy as a second-order discipline from other first-order disciplines.18 Indeed, in response to their critics, analytic philosophers can justifiably reply: why should only the ruminations of medical practitioners and the custodians of the special sciences be considered with respect to the concept of health?

The resolution as to which discipline, philosophy or the special sciences or both, has the authority to investigate the concept of health can be resolved in favor of the compatibilist approach in the following way. Although the first-order disciplines are indispensable, philosophy qua second-order discipline can provide a valuable service by clarifying the concepts employed by first-order disciplines. For example,

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18 In his lucid account of the role of analytic philosophers in the field of medicine, David Thomasma argues that it is precisely this sensitivity to concepts that reveals the benefit analytic philosophers can provide medical practitioners. See David C. Thomasma, “The Role of the Clinical Medical Ethicist: The Problem of Applied Ethics and Medicine,” in Michael Bradie, Thomas W. Attig, and Nicholas Rescher (eds), The Applied Turn in Contemporary Philosophy (Bowling Green, 1983), vol. 5, pp. 136–57.

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a physiologist might offer a list of properties that uniquely distinguishes a healthy organism from an unhealthy one with respect to the species to which it belongs. A philosopher of biology might ask the physiologist what he means by this: has he offered an essentialist account of what it means to be a healthy token of a type? The philosopher of biology is trying to impress upon the physiologist the question of whether he has taken a standard philosophical position about natural kinds. In this case, the philosopher of biology can explain to the physiologist that an essentialist account implies that tokens of a type have a unique immutable cluster of properties that are possessed by all and only those tokens of that type. The philosopher of biology may go on to inform the physiologist that viewing species as historical entities is another alternative that he may do well to entertain. This alternative to the essentialist position suggests that two organisms belong to the same group as a result of their historical relationship to each other, not in virtue of an immutable set of physical properties shared by the group.

The above biology/philosophy example is offered not to resolve the debate about what a species is, but to make clear that philosophers can provide valuable insights and suggestions to those researchers in other areas of inquiry. Moreover, note that the concepts (e.g., species) evaluated by philosophers will have been formed to fit the phenomena (e.g., healthy humans or healthy mice) discovered by researchers. In the above example, if the field biologist were to offer additional empirical evidence to buttress his essentialist position, then it would be incumbent upon the philosopher of biology to assess whether this additional evidence helps resolve the problem under consideration. It may very well be the case that the new evidence reveals that the essentialist position is more plausible than the alternative historical position. Most importantly, it should be clear that there is a general “give-and-take” between philosophers and the researchers of specific disciplines. Conceptual analysis, then, is a sort of “two-way street” between philosophy and other primary disciplines; that is, both philosophers and other researchers of specific areas of inquiry engage in an exchange of information that is indispensable to the precision and clarity of their respective enterprises.

If the above account is correct, then neither the custodians of the special sciences nor the philosophers may monopolize an analysis of the concept of health. Rather, a joint effort between these researchers and scholars is necessary to provide a careful and insightful analysis of the concept of health. Thus, the compatibilist methodology is the most promising of the methodologies to address adequately the concept of health. This compatibilist methodology will be employed throughout the analysis of the concept of health that is to follow.

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As Kim Sterelny and Paul Griffiths explain: “Contemporary views on species are close to a consensus in thinking that species are identified by their histories. According to these views, Charles Darwin was a human being not by virtue of having the field marks—rationality and an odd distribution of body hair…but in view of his membership in a population with a specific evolutionary history.” See Kim Sterelny and Paul E. Griffiths, Sex and Death: An Introduction to Philosophy of Biology (Chicago, 1999), p. 8. Also, for a critical reply to the “histories” approach to understanding the concept of a species, see Philip Kitcher, “Species,” Philosophy of Science, 51/3 (1984): 308–33.
Focus of Study: Narrowing the Topic

A survey of a handful of introductory health texts reveals that (1) physical health, (2) mental health, (3) social health, (4) environmental health, (5) spiritual health, and (6) emotional health are some of the commonly discussed dimensions of health. To the extent that there is a definitive concept of health, such a definition is thought by many to be circumscribed to each of the different specializations associated with (1)–(6). For example, there may be a definitive account of mental health within psychology or social health within sociology or environmental health within environmental science, but there is not thought to be an authoritative account of health that ranges over all these different dimensions of health.

The focus of this project is on the naturalistic concept of physical health that ranges over humans and non-human animals. It is possible that the arguments advanced in this analysis may be of assistance in making sense of the other dimensions of health noted above. However, this possible connection between the concept of physical health and the other dimensions of health will not be broached in this project except with respect to normativism. Thus, for the sake of this discussion, the concept of health refers to the concept of physical health, unless stated otherwise.

The claim that the focus of this project is the naturalistic concept of health is still rather vague. To try to explore the contemporary debate between the normativists and the naturalists through a catalogue of the various concepts of health offered by specific theorists would still be too ambitious and massive a task. So, as a way of navigating through this debate between the normativists and the naturalists, the primary focus of this project is on the widely discussed naturalistic concept of health offered by a particular philosopher, namely Christopher Boorse.

Boorse is one of the most ardent and discerning defenders of a value-free naturalistic concept of health, which places an emphasis on the concept of function. His account provides an excellent entry point into the debate between the normativists and the naturalists. In fact, many of the contemporary normativists and naturalists have developed their own concepts of health after launching an assault on Boorse’s “radical” account. In the spirit of this approach, the details of Boorse’s concept of health and the reply of his critics will be the major focus of this work. This analysis will argue that, although Boorse can defend his account against most of the criticisms

20 Willard Dalrymple, *Foundations of Health* (Boston, 1959); William Fassbender, *You and Your Health*, 3rd edn (New York, 1984); Jerrod S. Greenberg and George B. Dintiman, *Exploring Health: Expanding the Boundaries of Wellness* (Englewood Cliffs, 1992); Wayne A. Payne and Dale B. Hahn, *Understanding Your Health*, 3rd edn (St. Louis, 1992). If one were to think that the dimensions of health include a sort of progression from physical health to mental health to spiritual health (and everything in between), then an exemplar is Deepak Chopra, *Creating Health: Beyond Prevention, Toward Perfection* (Boston, 1987).

from the normativists, he is unable to deflect particular criticisms concerning his handling of biological and environmental factors. Nonetheless, after resolving these difficulties with Boorse’s concept of health, this work will argue positively that a modified version of his account is defensible. Thus, the goal of this work is to show that a naturalistic concept of health, which makes room for epistemic norms, is worthy of pursuit despite the concerns of many of its critics.

A Brief Guide to the Rest of This Work

Boorse devotes a great deal of effort to evaluating various concepts of health and function before offering his own naturalistic concept of health. So, this work begins by providing the context of Boorse’s own concept of health. Chapters 2–4 discuss and evaluate Boorse’s critical analysis of various naturalistic and normative concepts of health and the emergence of his own concept of function through his careful discussion of the function debate. With this preliminary background in place, Chapter 5 provides the details of Boorse’s concept of health. Then, Chapter 6 discusses the critical replies to Boorse’s concept of health, his rejoinder to them, and the extent to which he is successful in his rejoinder. Finally, in an attempt to overcome some of the difficulties with Boorse’s account, Chapter 7 offers a modified version of Boorse’s concept of health.

The contents of this work have been organized so as to begin, in Chapter 2, with Boorse’s understanding of some of the influential naturalistic concepts of health and his reasons for rejecting them. Specifically, Boorse focuses on the following three naturalistic concepts of health: (1) the statistical, (2) the adaptation, and (3) the homeostatic. This chapter reveals that Boorse is successful in his rejection of (1), partially successful against (2), and actually endorses a version of (3).

Chapter 3 examines Boorse’s various arguments against the thesis that the concept of health is normative. Boorse’s strategy is to reject two general versions of normativism—strong normativism and weak normativism—that he thinks handle most normative accounts. Moreover, Boorse charitably discusses two additional normative concepts of health—moral normativism and functional normativism—that he thinks pose specific challenges that require special attention. This chapter makes clear that, although Boorse is (for the most part) persuasive in his rejection of strong normativism, weak normativism, and moral normativism, additional support is required to show that he is justified in rejecting functional normativism.

In Chapter 4, the central element of Boorse’s naturalistic concept of health—namely his concept of function—is discussed. Since the details of Boorse’s own concept of function emerge as a response to Larry Wright’s account, a detailed description of Wright’s concept of function and Boorse’s reasons for rejecting it

Health,” in James M. Humber and Robert F. Almeder (eds), What is Disease? (Totowa, 1997), pp. 3–134.

are explained. What emerges out of this discussion is Boorse’s *part-functional contextualist* concept of function. The critical assessment of Boorse’s analysis concludes that it is able to overcome some of the difficulties with Wright’s account, but still faces some difficulties of its own.

Chapter 5 offers the fine points of Boorse’s concept of health. First, upon providing two separate argument reconstructions of Boorse’s concept of health, the details of the numerous technical terms in those arguments are explained. The initial set of technical terms includes “mechanism,” “part-functionalism,” and “organic functional holism.” After explaining these terms, it will be argued that Boorse is best understood as a *part-functionalist*. Second, Boorse claims to be offering an *objective* concept of health. To make sense of this term, different senses of “objectivism” are distinguished. This section argues that Boorse should be understood as both a *metaphysical objectivist* and a *disciplinary objectivist*. Finally, the other technical terms that make up the core of Boorse’s concept of health are explicates. These terms are “reference class,” “normal function,” and “disease.” The conclusion is that, after explaining these various technical terms, it is reasonable to understand Boorse to be offering a *non-normative ideal part-functional/contextualist* concept of health.

In Chapter 6, the focus shifts from Boorse’s concept of health to the reply of his critics. Broadly, the four major types of objections to Boorse’s concept of health are as follows: (1) the charge of circularity, (2) the charge of covert normativism, (3) the charge of bad biology, and (4) the charge of bad medicine. The critical assessment of Boorse’s rejoinder to his critics concludes that he is successful in his reply to (1), mostly successful in his reply to (2), partly unsuccessful in his reply to (3), and successful in his reply to (4). The general conclusion this chapter draws is that Boorse’s reply to his critics is, for the most part, a success, but that there are a few glaring difficulties with his concept of health related to evolutionary biology and environmental factors.

In an attempt to address the difficulties with Boorse’s account, Chapter 7 develops a modified version of his naturalistic concept of health. First, drawing on the concept of function in the philosophy of biology literature, an evolutionary propensity concept of function is defended. The reason for drawing on evolutionary considerations is that Boorse has a problem in justifying the claim that health and disease are to be understood in terms of *objective* functions. So, as a way of justifying the goal-directed nature of biological functions, this section argues that both the goals of biological systems and the means that bring about these goals are the product of natural selection.\(^\text{23}\) Second, following Boorse’s lead, the next section offers a detailed account of homeostasis, which includes both an *internal* sense and an *organism* sense. Third, the evolutionary concept of function and the concept of homeostasis are brought together to argue that health is best understood

\[^{23}\text{This is not to suggest that all of nature is replete with goal-directed activities. Rather, the claim is that biological systems (as opposed to rocks) reveal a complex hierarchical structure of interdependence that requires an explanation. This section argues that evolution by natural selection is the appropriate framework from which to make sense of this complex organization.}\]
as an evolved homeostatic propensity of both the parts of organisms and organisms as a whole to ensure survival and reproductive success. This concept of health is further qualified with respect to species, gender, and age groups. Fourth, as a way of revealing the fruitfulness of this modified account and handling possible objections to it, the following cases of “diseases” are discussed: (1) tuberculosis, (2) allergies, (3) Down’s syndrome, (4) sickle cell anemia, and (5) osteoporosis. This section argues that the concept of health defended in this chapter helps to make sense of these cases. Finally, in order to handle one lingering objection, the last section briefly argues that it is possible to defend the claim that the individual organism is the unit of selection. The conclusion of this study is that, after making necessary modifications to Boorse’s account, the naturalistic concept of health defended in this chapter is a reasonable account of physical health.