Health is in the Eye of the Beholder: Exploring Normative and Empirical Conceptions of Health and Illness

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Introduction

The discourse surrounding scientific and medical practice is often conceptualized as entirely objective and empirical. Through this assumption, previous philosophical literature has attempted to provide a conception of health and illness in a purely empirical and descriptive manner. However, the conception of science and medicine occurring in the abstract is misguided—these practices do not occur in a vacuum and are not free from normativity. As such, we cannot have a purely descriptive and empirical account of health and illness because of value-laden judgements on statistical normalcy, impeding social values of desirability, and societal interest funding scientific inquiry. What, then, encapsulates an adequate definition of health and illness? This is not to say that a good definition of health does not encapsulate empirical biological claims. Such a definition is preferable, but the inability for such a definition to be completely nonnormative is arguably unachievable. Any instance of normative values necessitates this definition as no longer being entirely empirically descriptive. A recognition of both empirical and normative claims is needed for an adequate account of health and illness whilst limiting our own biases and value judgements as much as possible. This paper will not provide a novel definition of health and illness but will rather provide the reasons for why normativity is entrenched into our core understandings of health and illness and, is in some cases, beneficial. This paper acts as the groundwork for the critique of a fully naturalistic account of defining health and

illness and demonstrates the pervasive nature of normativity. This will be done through the initial outlining of key terms, a walkthrough of some past historical attempts to define health and its weak points, the impact of normativity in social values pervading our understanding of health and illness, and an examination of the funding of scientific inquiry. Medicine and scientific practice are not impervious to normative values, and thus, we cannot have a singular, isolated definition of health without considerations of these socio-cultural factors that impact our understanding of what it means to be healthy.

Defining Terms

It is essential to first characterize what a normative claim is when examining the framework of potentially purely descriptive definitions of health and illness. Empirical descriptions involving health are imperative in the accuracy of biological and scientific truths and are needed in good definitions of health. The notion of asking *why* we ought to have a purely descriptive definition of health and illness, however, in and of itself possesses normative components. A normative claim is a statement on how things should or ought to be. Such a claim involves an assessment of what should be considered good or bad, or right and wrong. There is an evaluation of one definition, albeit empirical over a normative claim, here. This evaluation is itself a value judgement; a purely descriptive claim appears to be more desirable. While I contend that normative claims, whether implicit or explicit, are unavoidable in characterizations of health and illness, we can try to minimize them in scientific practice. It is important to note that any instance of value-laden judgements or normative claims within a definition of health or illness no longer makes that definition purely descriptive, but both empirical and normative elements ought to be considered in formulating these definitions.

This paper will initially examine Christopher Boorse's attempt to define health in an objectively empirical manner—his view, commonly referred to as a naturalistic account of health, sees health through an isolated examination of empirical biological facts. On the other side of the spectrum lies the fully normativist approach to defining health, which relies on the "impact a biological condition has on our lives" (Ho, 2019, vii). While this paper heavily focuses on why a naturalistic approach to defining health is unfavourable, it also does not advocate for a purely normative approach. Rather, this paper acts as a critique of naturalism and argues that any instance of a value-laden judgement in an understanding of health and illness no longer constitutes such a definition as purely descriptive and empirical.

Previous Attempts at Defining Health

To contextualize previous attempts at defining health and illness, Christopher Boorse was noteworthy in bringing naturalism to the forefront of philosophical discourse in his 1977 piece, *Health as a Theoretical Concept.* His work outlined an attempt to define health in a purely empirical manner: health is to be understood as "normal functioning, where the normality is statistical, and the functions biological" (Boorse, 1977, p. 542). In other words, as Boorse purports, to be healthy is to function *normally*. Boorse attempts to exemplify a wholly empirical understanding of health by using reference classes and his Biostatistical Theory (BST). Boorse's BST uses the reference classes of age, sex, and race in order to determine normalcy in an individual (Kingma, 2007). For example, Brad Pitt would be considered healthy by Boorse's account so long as all of his biological functions are statistically typical for a Caucasian, male, 58-year-old human. Boorse's need for reference classes is due to *relative* normalcy—a female with testosterone levels that match the statistically typical levels of testosterone for a male is considered to *not* be healthy (Kingma,

2007). Boorse's view is commonly characterized as a naturalist conception of health and illness through the sole examination of biological function (Ho, 2019). While Boorse's claim on his attempt to define health in a purely empirical manner is one of the most pervasive characterizations of health and illness, he implicitly makes normative, value-laden judgements within his assessment of health, which is delineated in Elselijn Kingma's (2007) piece, *What is it to be Healthy?*

Kingma (2007) proves the existence of value-laden judgements in Boorse's account through her critique of the BST. Boorse claims that a normal function is considered in relation to its reference class, whereby its proper function is statistically typical. Boorse characterizes health as being normal concerning its reference class and disease as reduced functional ability below what is typical for the individual's reference class. Kingma (2007) asserts that this characterization of health and illness, while initially presented as convincing, is actually misguided. Boorse claims that the guiding principle of his definitions is *relativity*. Namely, if Person A (Brad Pitt) is being compared to a statistically typical healthy Person B, this comparison requires the assessment of Brad Pitt's health to its exemplar in the reference class, Person B. What is significant about this claim is that Boorse purports that Person B distinguishes how Person A (in this case, Brad Pitt) *ought* to be. The notion of 'ought to' or how a particular individual should be biologically, physiologically, emotionally, or mentally, relies on the assumption that behaving or possessing particular traits is more valuable or desirable because they are more statistically typical. This evaluation of what is typical or atypical necessitates a normative element to Boorse's claim (Kingma, 2007). Moreover, Kingma demarcates the faults in Boorse's definitions of health and illness as his BST requires reference classes *because* individuals possess a wide variety of functions.

Boorse organizes these reference classes based on race, sex, and age. Kingma claims that Boorse's account of health is accurate only if the "right kind[s]" of reference classes are used for comparison (p. 128). The determination of what is appropriate or inappropriate to be included in Boorse's reference classes is a normative claim in itself. This is problematic for a Boorsean account of health, as he purports his definition is fully empirical and free from normative judgement in the determination of health.

To further her critique of Boorse's (1977) account of health, Kingma (2007) uses the example of heavy drinkers. If Boorse were to hypothetically use alcoholics as the exemplars for healthy livers, then the classification of what counts as a healthy liver drastically changes. Kingma purports that by Boorse's definition, to be healthy is to be compared to the *appropriate* reference class. What is considered to be appropriate is in and of itself a normative, value-laden judgement; it requires a decision on what is deemed appropriate and statistically typical. While Boorse pushes for 'function' to be characterized as working towards a goal, the notion of which goal is appropriate, statistically typical, or desirable requires a normative evaluation. Kingma's critique thus reveals that a Boorsean account of health is not value-free.

Examining Statistical Normalcy

Boorse (1977) might respond to Kingma's (2007) assertion such that his proposed reference classes *are* the relevant reference classes and all other distinctions that could be made are not relevant to characterizing health and illness. Kingma accounts for this in her critique of Boorse by making the superior assertion through her use of the example of homosexuality. Kingma proposes a hypothetical second characterization of health to be known as XST compared to the BST; the only difference is that

XST has one additional reference class: sexual orientation. If one looks at homosexuality under Boorse's BST, homosexuality is considered a disease because of its interference with statistically typical reproductive functions. If one looks at homosexuality through the lens of the XST, homosexuality is accounted for in its own reference class and would be considered a healthy function of an individual. The question for Kingma thus becomes *which model of health is the correct account*? This itself would necessitate an evaluative judgement on whether or not homosexuality ought to be considered a disease. Kingma concludes that there are no empirical facts in science to determine which reference class could be considered appropriate or inappropriate, which means there is also no empirical fact that points to whether the XST or BST model is correct.

If Boorse were to adjust these reference classes to be more representative of society, evaluative judgement is still required in this inherently normative decision-making process. The difficulty in the creation of a fully empirical understanding of health and illness suggests that normative accounts within a definition are beneficial in the understanding of what it means to be healthy or ill. Hypothetically, suppose it were to be discovered that all individuals who possessed high levels of intelligence were found to have a statistically atypical genetic defect correlated with their high intelligence. When compared to their reference class, by a Boorsean naturalistic account, these individuals would be considered diseased. Yet the hesitancy to categorize intelligent individuals as possessing an illness indicates the existence of our attitudes and value judgements entirely towards the *symptoms* and not the biological markers (Ho, 2019). This then suggests that in some cases, normative judgements are needed in the determination of health and illness. Even the most prominent and pervasive claims from the naturalistic side of the philosophy of medicine fail to make a purely descriptive account of health and illness and

supersede normative claims. This is not to say that these objections to Boorse's definition alone are sufficient to claim that we cannot have a purely descriptive account of health. Rather, this notion, combined with the aspect of impeding social values and social interest funding scientific inquiry, alludes to the pervasive nature of value-laden judgements within a definition of health and illness.

Social Values

The existence of social values in the medical profession is undeniable. The notion of ethics alone in medicine, which is used in medical practice today, is normative as ethics itself requires evaluation and judgement. More abstractly, societal considerations of morality in the past have been integrated into the medical community's understanding of illness. Take, for example, the notion of homosexuality. Previous psychological and medical textbooks have characterized homosexuality as a mental illness (Ho, 2019). But this is simply no longer considered to be true. The shift from homosexuality to being characterized as a disease, over to a sexual preference, suggests a parallel shift in societal moral values. Within this time, the notion of homosexuality was viewed as abnormal and undesirable and was thus to be treated. The notion of illness today for most is considered to be an undesirable thing to possess. These judgements and evaluations of what is and is not desirable are normative claims. To have a purely descriptive account of health is to have an account that is value-free and nonnormative. However, medical history has yet to prove that a value-free account of health is achievable. To account for both society's changing moral and social values and empirical biological facts, normative claims in a definition of health are needed. This is not to say they can be purely eliminated, and if we are to consider both social values and determinations of health and illness, we stray from having a purely descriptive account of health and illness. A potential worry that might arise is the notion that

there are objective ways to classify illness and health whereby the aforementioned example was evidence of merely an incorrect classification. While it is true that the classification of homosexuality as a disease was entirely incorrect and extremely harmful to the LGBTQ+ community, social pathologization has always been entrenched in how scientific inquiry is conducted and how we come to understand health and illness, the details of which will be discussed in the latter portion of this paper.

The Funding of Scientific Inquiry

The funding of scientific inquiry is an essential component of conducting research. Funding for scientific inquiry and research helps the scientific community gain the empirical data needed to understand aspects of health and illness. This funding, however, is inherently tied to social value. For example, in the 1950s, tobacco companies funded and skewed scientific research to rival the emerging scientific evidence that smoking cigarettes were harmful to one's health; the proposal was to manipulate scientific research and outcomes (Brandt, 2012). While social interests and medical science have "never been sacrosanct" from each other, the tobacco industry inserted its own value judgements even further into scientific inquiries on health (Brandt, 2012, p. 64). One cannot adequately account for an entirely descriptive account of health if one does not understand the full breadth of health, particularly if some areas of health have yet to be investigated.

Biological risk assessment, as highlighted by Longino (1983), discusses the value-laden judgements within scientific experimentation. Take, for example, the creation of Enovid, an oral contraceptive, which led to an increased risk of developing cervical cancer. This fault was due to a disregard for certain risks to be measured. These selections of risks were extra-scientific, which biased the experimenters in failing to measure these

potential harms (Longino, 2019). The funding of research by philanthropists or pharmaceutical companies undoubtedly impedes extra-scientific values in determining health concerning the subject being researched. In this way, whatever is deemed valuable by a researcher's sponsor motivates the direction of inquiry. What is judged as important for further inquiry is thus determined, at least partially, by social and contextual values, which are undoubtedly normative (Longino, 1983). This leaves the possibility of important aspects of health being left undiscovered. To do science in a purely descriptive and objective context would be to ignore these unavoidable biases – not all subject matter can be funded fully. Decisions and value judgements must be made on what is *worth* further inquiry.

This topic also requires the discussion of the goals of medicine. While on one hand, medicine is (1) a scientific endeavour, it also (2) aims to improve an individual's wellbeing (Ho, 2019). If we are to examine medicine only through the first pursuit, then perhaps a more empirically grounded understanding of health ought to be pursued (Ho, 2019). However, this is not the case; the second goal of improving an individual's well-being, if also viewed in isolation, may advocate for a more fully normativist approach (Ho, 2019). In either case, medicine does not occur in a vacuum – these goals are in no way independent from each other. As such, neither a fully empirical nor a fully normative approach to understanding health and illness ought to be pursued. Rather, a blend of both empirical and normative understandings appears to be the most favourable and well-rounded approach to defining these terms. Prevention of biases to the greatest degree is necessary for scientific experimentation and practice, yet social interest funding inquiry undoubtedly has an impact on the discourse surrounding our understanding of health and illness today. Thus, social interest influences scientific inquiry, which impacts the determinations of health, and thus, impacts our

understanding of what health and illness entail. We cannot then have a purely descriptive account of health, but we also ought not to pursue a wholehearted normative approach to health, either.

Counterarguments

Objections to the claims of the significance of societal values include the idea that this example of homosexuality being classified as a disease is merely an erroneous classification. One may also argue that because medicine has yet to achieve a purely descriptive account of health does not make this objective impossible. Both objections will be addressed below to demonstrate that despite these contestations, the entrenchment of normative valuations in our understanding of health and illness continues to persist. In some cases this entrenchment is necessary for conceptualizing these terms.

As for the former contestation, hereby referred to as *contestation 1*, the instance of homosexuality being classified as a disease is far from an isolated event. Instances of drapetomania, a slave's desire to flee from captivity, or a female having intercourse outside of her marriage were also both considered diseases (Powell & Scarffe, 2019). One could even contend that because these behaviours were considered 'undesirable' for their time, they were considered to be illnesses to seek remedy for this undesirability; these are undoubtedly value-laden notions. Powell and Scarffe (2019) add to the debate on the declassification of homosexuality as a mental illness by arguing this was a result of "new patterns of social evaluation" (p. 580). Today, the Diagnostic and Statistical Model of Mental Disorders-5 (DSM-5) has expanded to include medically treatable pathologies such as nail-biting, a fear of public speaking, and depression ensuing after the death of a loved one (Powell & Scarffe, 2019). These examples in today's DSM-5 infer that societal commonalities impact the

pathologization of normal variation, not biological facts alone, because these factors, for example, nail-biting, cannot be objectively considered a disease in isolation (Powell & Scarffe, 2019). Contextual understanding thus becomes essential to understanding some medical pathologies. In this case, the death of a loved one. Longino (1983) asserts that contextual values, which include social and cultural aspects, drive what is valued within that time in which science is done. This also includes the funding of scientific inquiry. Regardless of the degree to which biology versus social normalcy causes these instances of what is considered to be an illness, one can conclude that a shift in social values dictates, even to a small degree, the classification and declassification of illnesses. This small degree then means there cannot be a wholly descriptive account of health and illness as normative social considerations play a role, even if that role is minor. Granted, the aforementioned examples of homosexuality, drapetomania, and extramarital relations were misinformed and harmful failures in defining illness. This is exactly Boorse's worry: this possibility that normative values can negatively influence our understanding of what it means to be healthy or diseased. However, social values continue to pervade pathologization and, in some instances, can be helpful in our understanding of health and illness.

The latter contestation, that just because there has yet to be a fully empirical definition of health and illness does not make this feat impossible, is also an objection that fails to understand the entrenchment of evaluative judgements even in the language used in the understanding of disease, health, or illness. Boorse (1977) attempted to make this contestation more tolerable yet failed to give a purely empirically descriptive account of health and illness as described earlier. Goosens (1980) purports the word 'disease' itself implies a level of desirability or undesirability. This also can extend to the terms 'health' and 'illness'. This appraisal of what is

considered to be desirable or undesirable necessitates evaluative judgements and is thus not entirely empirical. In fact, some diseases in particular contexts have also been considered beneficial (Goosens, 1980). Take, for instance, cowpox being advantageous by providing immunity to those who contracted it during the smallpox epidemic. This delineates the subjective desirability of cowpox as being viewed as beneficial in one context, but detrimental through an isolated lens. This evaluation of the benefits and detriments of cowpox requires judgements to be imposed, specifically on the surrounding context in which the disease takes place. Because these judgements are often imperative in understanding disease, health, and illness, a wholly empirical approach would omit this important evaluation.

While an exclusively biofunctional approach to defining health and illness limits its range of applications, an entirely social classification also disregards important biological aspects in the framework of health and illness (Powell & Scarffe, 2019). One must consider both aspects for a well-rounded understanding. The existence of social values pervading medicine by itself does not show that we cannot have purely descriptive definitions, but rather, these social values combined with the normative nature of statistical normalcy and societal interest which funds scientific inquiry demonstrates that normative factors are unavoidable in characterizations of health and illness. This paper thus advocates for a combination of empirical and normative valuations in the future discourse surrounding conceptions of health and illness.

Conclusion

The discourse surrounding conceptions of defining health and illness has commonly advocated for a naturalistic approach to understanding these terms. While the work of Boorse (1977) was indeed noteworthy for its time, his conception of health failed to

give a truly descriptive and solely empirical definition of health. This was exemplified in Kingma's (2007) critique of Boorse in depicting how Boorse's use of reference classes necessitates evaluative and thus normative judgements to be imposed on which reference classes ought to be deemed appropriate. The pervasive nature of social values, while at times harmful in its conceptions of health and illness, also poses a unique perspective in gaining a more comprehensive understanding of health through contextual understanding. This was seen through the employment of the examples of high intelligence and the contraction of cowpox. The funding of scientific inquiry, while essential to the discovery of certain aspects of health and illness, also brings a set of normative values which drive the *direction* of inquiry. These normative impositions are a necessary component of scientific inquiry, thus we cannot fully separate normative values from empirical scientific practice. This is not to say that a good definition of health ignores empirical biological factors altogether. Rather, a recognition of both empirical and normative claims is needed for an adequate account of health and illness. Any instances of normative claims involving health and illness are no longer wholly empirical. The considerations listed previously clearly denote that science does not occur in the abstract, and the influence of societal values and normative judgements are unavoidable in the determination of health and illness. This paper ultimately urges future discourse to consider the benefits of the inclusion of normative components surrounded by an empirical basis in conceptualizing what it means to be healthy or ill.

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