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Objectivity of the Concepts of Health and Disease[1]

Abstract: It is now widely accepted that the concepts of "health" and "disease" in psychiatric and psychological contexts are value laden. In this article I argue that even in the realm of physical illness and disease (appendicitis, phenylketonuria, etc.), the concepts of "health", "illness" and "disease" are value laden. I explore the four most common bases used to objectively ground the key concept "normal functioning", namely, genetic structure, evolutionary fitness, non-premature death and absence of pain. I argue that they all fail to adequately provide an objective grounding for the concept "normal functioning" (health) and, hence, for "abnormal functioning" (illness, disease). The reason an objective grounding cannot be given is that physical "health", "illness" and "disease" rest on widely shared values in addition to the condition of the organism.

During the last 30 years, a number of arguments have been provided in support of the position that medical concepts and claims are value laden (see, for example: Boorse 1975; 1976; Engelhardt 1974; 1975; Feinberg 1970; Macklin 1972; Margolis 1976; Moore 1975; Szasz 1961; 1973). With the exception of Feinberg and Margolis, the arguments in these writings tend to focus on psychiatric or psychological (well-being, etc.) areas of medicine. In these areas they provide convincing arguments that the concepts "health" and "disease" are value laden. Tristram Engelhardt, for example, examines the concept of, and claims about, homosexuality within psychiatry, and examines the 'disease' of masturbation. Szasz attacks the whole of psychiatry claiming that 'illness' in psychiatry involves moral and political judgements. Szasz, like many others, does not perceive his analysis as extending to physical illness. Szasz assumes that 'illness' in the case physical illness (i.e., where an organism is 'diseased') does not involve moral and political judgements.

In this paper I argue that this assumption is false. This position has also been taken by a number of writers although most do not provide the systematic analysis needed to establish the required non-objectivity. Some, however, have. Ian

1 This article relates to the discussion of health and disease in *Analyse & Kritik* 12.1 (1990).

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Kennedy (1981), Joel Feinberg (1970), and Joseph Margolis (1976) have in different ways addressed the issue of objectivity. Ian Kennedy claims that "The flaw (with Szasz's position) does not lie in in the point that there are, in fact, disease entities in the case of mental illness. Rather, the flaw lies in the failure to understand that illness, in the form of alleged physical illness, is equally a normative or judgmental term." (Kennedy 1981, 101) Kennedy provides ample reason for accepting that mental illness is normative and judgmental. His support for the similar normative and judgmental character of physical illness is more diffuse and considerably less well developed. Feinberg provides a more focused but brief analysis and argumentation in support of the contention that the assumption that physical illness/disease is objective is false. On a somewhat different tack, Margolis provides a penetrating analysis of normal function as a basis for attributing the concept "disease". My aim in this paper is to strengthen and consolidate the arguments of Feinberg and Margolis and to provide additional grounds for accepting that the conceptual basis - and, hence, determination - of physical illness/disease is not objective but thoroughly value-laden and individually and socially constructed.

What I am, therefore, challenging is the distinction that underlies the position, taken by many, that the non-objective nature of the concepts of "health", "disease" and "illness" in psychiatric and psychosocial aspects of medicine is obvious but that the concepts of "health", "disease" and "illness" are objective in physiological medicine. For example, the claim that appendicitis is a "disease" or an "illness" is widely held to be an objective claim. In focusing on the objective nature of this claim, I am going beyond the claim that "the determination that X has appendicitis is objective but that it is a 'bad' thing to have" is evaluative. Many of the writers cited above have argued that the claim that physiological condition *y* is a 'bad' condition is evaluative. To assert that some claim is evaluative does not entail that the evaluation is based on moral or social values. The evaluation may be based on an objective referent. For example, to evaluate the performance of an engine against a set of mechanical specifications is an evaluation that is objective. One might argue, of course, that the set of mechanical specifications is itself based on moral and social values, but this requires additional argumentation. The fact that an evaluation has occurred does not establish that the referent is based on moral or social values. In what follows I argue that the referent in the evaluation of physiological illness/disease is based on moral or social values.

The crucial concept in arguments for the normative nature of 'health', 'disease' and 'illness' in psychiatry is that there is no objective referent to ground the judgment that a particular condition is 'dysfunctional' or 'abnormal'. In psychiatry, the terms "dysfunctional" and "abnormal" are relative to the structure and values of society and to the level of tolerance of deviations from the standards of that society. By contrast, it is widely believed that, in the context of physiological medicine, "dysfunctional" and "abnormal" are related to the phys-

iology of the organism and not to social structures, values and tolerance levels. Upon what, however, is this widespread confidence in objectivity based? It is based on the conviction that 'dysfunction' and 'abnormal' are established by reference to an *objectively* specifiable state of the organism that deviates from the *objectively* specifiable norm for that organism. Both of these objective specifications are required. What I shall challenge is the second assumption of objective specification. That is, I shall argue that it is not possible to specify objectively the norm for an organism or group of organisms in a way that enables it to perform the required role in determining objectively a state of 'disease', 'illness' or 'health' for an organism.

Much of the force of the claim that disease in physiological medicine is objective rests on the conviction that the concept "normal" can be given an objective physiological meaning. Although it is accepted that mistakes can be made in characterizing 'normal functioning', it is assumed, there is a non-subjective normal physiological state of the organism which is able to be determined by using standard scientific techniques and methodologies. Can one, however, successfully define 'normal functioning' in this objective way and, thereby, give objective meaning to 'health' (normalcy), 'disease' and 'illness' (abnormal) ? I think not. My tack in defending this assertion is to examine the four most promising - and most widely employed - bases used to provide an objective definition of 'normal' in a physiological context. I argue that each fails to live up to the promise of delivering objectivity. The four bases are: (1) Genetic; (2) Evolutionary; (3) Non-premature death; (4) Absence of pain.

All four of these bases for defining physiologically 'normal' involve an appeal to a principle something like, "an organism is functioning normally if it is functioning the way it should function". On some expansions of this principle values quickly enter the discussion. It is the meaning and force of the "should" that allows this rapid involvement of values. For example, if "functioning the way it should" means the way the individual involved *would like it to function,* or the way others including physicians *would desire it to function,* a clear appeal to values is involved. What is necessary in order to avoid this involvement of values is a grounding of "should" which does not rest in any way on values. To do this, "the way it should" needs to be given an objective referent. Usually one or more of the four bases set out above is assumed explicitly or implicitly to provide the required objective referent.

The genetic basis of objectivity attempts to ground normal functioning in the genetic makeup of the individual. An individual is functioning normally if she is functioning in accordance with her genetic code. Having bacterially or virally caused diseases is *objectively* abnormal on this view. Promising though this definition may appear, it is seriouly flawed. The most serious problem is that we include in the notion of disease and ill-health physiological conditions that are quite clearly the result of the individual's genetic makeup. For example, sickle-cell anaemia is a homozygous condition which is considered to be ill-health or

disease, even though it is a result of the genetic structure of the individual. Other examples include phenylketonuria, lactose intolerance, a wide variety of allergies, etc. Indeed, a large range of what is included within modern medicine as physical disease or illness is quite normal from a genetic (and, one might add, biochemical) perspective.

"Normal functioning", therefore, cannot mean simply that the organism is normal from the genetic and biochemical perspectives relative to that individual. What is meant by "functioning as it should function", therefore, cannot mean simply that the organism is normal from the genetic and biochemical perspectives relative to that individual. Perhaps what is meant by "functioning as it should function" is more abstract - having to do, for example, with an ideal genotype. But how can the concept of the ideal genotype be *objectively* defined? Objectivity would immediately be lost if one chose as the ideal genotype, a genotype that resulted in an individual who conformed to a set of hopes and desires. There appear to be two ways in which an ideal genotype can be determined without reference to values. One can take as the ideal some statistical norm within a population or one can employ the concept of evolutionary adaptation or evolutionary inclusive fitness. I shall turn to the latter in a moment.

What about a statistical genetic norm within a population? First, it is clear that this is not in fact how we determine 'normal', 'disease' or 'illness'. At present we have no conception of a statistical norm for the genotype of any human population and we are many years from being in a position to even contemplate determining one. Indeed, it is difficult to conceptualize the enterprise. Is this statistical norm, for example, the norm of entire genotypes or the norm resulting from a constructed genotype consisting of the norm at each locus, or perhaps at each nucleotide triplet sequence? Second, even if we succeeded in constructing this norm, it is extremely unlikely that it would generate a list of 'illnesses' and 'diseases' matching the currently accepted list. It is also almost certain that no actual individual will be identical to this statistical norm - certainly most will not. Therefore, most actual individuals will deviate to some extent from the norm and most will thereby be 'diseased' or in 'ill-health': a bizarre situation to say the least. And if some variation is allowed within the range of normal, it will need to be so broad and complex a variability that it will rapidly become unworkable (the extremely large number of variables involved is enough to guarantee that the task is unmanageable). Also, returning to the first point, once one realizes the complexity involved, it is obvious that we do not currently define "health", "disease" and "illness" in terms of such a statistical norm. Hence, our current use of the terms "health", "disease" and "illness" do not and cannot rest on a statistical norm for the genotype of a population.

What about using evolutionary theory to ground the notion of an ideal genotype? Surely this is one of the main features of evolution: through selection an ideal organism - relative to an environment - is produced. Therefore, in an evolutionary perspective, the 'normal' is related directly to evolutionary survival.

Expressed individualistically, if an organism fails to function in ways that achieve the evolutionary survival of the organism, that organism is dysfunctioning. Since whether an organism is functioning in a way that sustains evolutionary survival is presumed to be objective, the concept of "normal functioning" is presumed to be objective. Unfortunately, however, evolutionary survival also fails to provide an adequate demarcation of health and disease.

There are two essential difficulties with the evolutionary perspective. First, 'evolutionary survival' is quite different from 'survival' simpliciter. From an evolutionary perspective survival is related to reproduction such that survival is based on contributing offspring to the next generation and perhaps subsequent generations. Hence, a post-menopausal woman whose children have all reached reproductive age is generally understood to have survived from an evolutionary point of view. Were she at that point to develop appendicitis or cancer she could no longer be said to be diseased on the evolutionary definition because she has already survived from an evolutionary point of view. Indeed, it may well be that, from an evolutionary point of view, a proper functioning of such an organism is to die since scarce resources are better employed in ensuring that her children have the resources to raise offspring. Of course, evolutionary theory is more complex than this sketch portrays but even this simple exposition highlights the difficulty of defining health and disease in terms of evolutionary survival. If such a basis for defining health and disease were adopted most, if not all, conditions experienced in old age that are currently considered diseases would cease to be such. One further consequence is that health and disease become age dependent such that in a large number of cases the same condition at two different times would be classified differently.

Second, strictly speaking evolution involves complex interactions of organisms: interactions of prey and predator, parasite and host. Many diseases viewed from an evolutionary perspective are entirely intelligible. They are understandable as part of the *normal* process of evolution. In what sense then is malaria abnormal within the evolutionary framework? An answer to this question betrays that it is not an evolutionary perspective that is employed in defining health and disease but an individualistic perspective in which after an individual organism is selected for attention, health and disease are related to that organism and not at all to the role of that organism within an evolving population or a larger evolutionary ecosystem.

If the evolutionary concept of survival does not give us a clear basis for determining normal functioning, what else might be a candidate? Perhaps a concept of survival tied more to death.

Death unqualified, however, is of little help since aging, though perhaps for many undesirable, is really not credibly dysfunctional in any meaningful physiological sense but it does lead to death. One rather needs something like premature death. This, however, is incomplete. In addition one needs to know the frame of reference against which death is, or would be without treatment, premature. I can

imagine three frames of reference. Premature death means either premature relative to the average life expectancy 'in a given population' or earlier than we would prefer to be the case, or earlier than it would have occurred without this condition. The latter is clearly vacuous since something must have occurred to any individual to bring about death from a physiological cause. Hence, it is analytic to claim that if that thing which brought about the individuals death had not occurred, it would not have brought about her/his death.

Although I suspect that part of the actual definitions of health and disease rest substantially on the idea that death would occur earlier *than we would have preferred,* this definition is blatantly value laden. Once individual or collective preferences enter the picture values are immediately involved. Hence, if we are seeking an objective, value free, definition preferences must be shunned. Consequently, of the three, we are left with the option that premature death means earlier than the life expectancy in the given population. This, however, is a somewhat peculiar basis for a claim of objectivity. Since buried behind the notion of average is the concept of variance one does not have an average unless one has variability. Hence, the concept of average life expectancy includes the concept that some will die earlier and some later than the average. Those that die later can hardly be considered objectively diseased. In order to make such a claim one has to consider the average life expectancy concept to be a cosmic norm. Rather than being a one among many statistical descriptions of the life-span of individuals in a population, it become the measure, the norm. Of course one can simply stipulate that this is the case but the justification for such a stipulation ultimately rest on a non-objective basis: it is simpler, heuristically useful, etc.

One might claim that the 'normal' life expectancy is what is really meant and that the average life expectancy is simply an indicator of 'normal' life expectancy. Normal life expectancy is that age to which one would live if nothing untoward happen to the individual. This, however, is entirely circular. What in effect is being said is that a condition is dysfunctional if it shortens the 'normal' life-expectancy of the individual. An individual's 'normal' life expectancy is that age to which she/he would live if no condition occurs that shortened her/his life. Hence an individual's 'normal' life-expectancy is that age to which she/he would live without any dysfunctional conditions. Dysfunctional condition is defined in terms of 'normal' life expectancy and normal life expectancy is defined in terms of dysfunctional conditions. This path is, hence, entirely unhelpful.

The final potential basis for an objective definition is pain. Pain is, one assumes, an evolved mechanism for indicating that something is 'wrong' in the sense of dangerous to the organism. Without care this reasoning will lead back to 'premature death' via 'dangerous'. But even if care is taken to define dangerous independently of death, this bases for definition has a fatal problem: many diseases do not cause pain and pain often occurs in physiologically healthy organisms (psychosomatic pains are only one instance of this: there is no underlying physiological disease but there is pain).

No doubt numerous other candidates for the objective basis of physiological health and disease can be found. None that I can think of are independent of the four explored. For example, 'harm to the organism' might be suggested but to be useful an account of why such harm is physiologically abnormal needs to be given. It is hard to imagine how some reference to death, or pain and so on can be avoided.

I have no doubt that what lies at the heart of our concepts of physiological health and disease is a set of preferences relating to avoidance of pain and death and to the frustration of hopes and desires. Although this does not render the concepts of health and disease unimportant, it does deny objectivity. Unlike many, I think this makes them richer concepts in that they reflect, in an important area of discourse and action, the deepest values of individuals and societies. Indeed, I have never understood the desire for sterile objectivity in this area: it robs us of the ability to penetrate and reflect, within medicine, on some of the most profound questions of human existence.

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