

Disease-as-Mechanism vs. Disease-as-Experience:

Examining the consequences of disease conceptualization on patient care in Western medicine

I. Introduction

Within the last century and a half, history has witnessed a fundamental shift in the way in which society and medicine in the West define, diagnose, and conceptualize disease. Starting with the wide spread use of the stethoscope for diagnostic purposes in the mid-nineteenth century and progressing through to modern diagnostic imaging methods such as CAT scans and MRIs, medical professionals have been able to rely more and more on objective, observable signs, rather than subjective, patient-experienced symptoms to diagnose disease and prescribe treatment to patients. Just as modern imaging technology has progressed, so has society's knowledge of cellular and molecular biology. As a result, our ability to associate a patient's experience of illness with specific physiological and molecular mechanisms of malfunction has also increased. These changes have culminated in our modern conception of disease as synonymous with the specific molecular mechanism deemed to be its cause, and the goal of medical diagnosis has become to use objective signs to track down such a mechanism within the body of a patient.

The rising importance of molecular mechanisms and objective signs in medicine has been accompanied by a decline in the significance accredited to any given subjective symptom of illness that is experienced by a patient. Certainly no practicing physician would ignore symptomatic evidence entirely as it might indicate which objective signs will lead him or her to the molecular mechanism at work and thus to the patient's disease, but even so symptoms alone are no longer sufficient to medically confirm the presence of most illness classified as disease. Even the linguistic categorization of experienced

phenomena as “symptoms” is indicative of this sentiment. It is not possible, under modern Western conceptualization of disease-as-mechanism for there to exist a symptom without an underlying physical mechanism. A symptom must always be secondary to, and come from, something else—something less subjective, but “more real”. Thus we see a trend in Western medicine which devalues symptomatic experience in favor of what is presumed to be its underlying causative mechanism.

This trend rests on the presupposition that not only is the reversal of underlying mechanisms more important than alleviation of symptoms, but also that experienced symptoms are always and necessarily associated with underlying mechanisms. This valuing of “underlying”, secretive causes over the overt and obvious symptoms, it seems, is part of a larger movement within Western society in which the obvious “big truths” are distrusted, while the more complex “smaller truths”, which are available to us only through experts, are considered to be more worthy of our trust and respect. This movement is most evident within the fields of technology and medicine in that the *way* in which things function is considered a far more important truth than merely the *effect* produced by their functioning. With regards to health-care, this movement places medical professionals in the privileged position of experts who know *how* the body works or malfunctions, which is valued over the knowledge of the experience of malfunction held by the patient. Within this dynamic, the experiential knowledge of the patient is quickly and quietly discarded in favor of the knowledge of the body’s hidden, inner, physical workings held by the physician. This trend is manifested in the importance given to the search for the causative mechanisms of disease in the health care system and in the greater context of society at large.

In cases in which no physical mechanism can be found, then the medical community either looks for other evidence that one exists, such as the ability to relieve signs and symptoms of illness with drugs, or dismisses a patient's symptoms as not resulting from a "disease" as such. After all, all symptoms must be symptomatic *of* something. If no such underlying cause can be found, Western society and medicine conclude, the patient's experienced symptoms must be fictitious, as they have no observable reason to exist. As a result, individuals who experience illness but for whom no specific molecular mechanism (thus, no disease) can be identified find their complaints considered by society, and sometimes medical professionals, as less legitimate than the complaints voiced by patients who have been diagnosed as having a mechanistically-based disease.

There are many examples of such negative categorization of experiential illness that lacks a specifically identified disease. If, for example, a patient is experiencing anxiety-induced hyperventilation for which no underlying biochemical or physiological cause can be found, he or she is not told that he or she has a disease, but rather that he or she is "making him or herself sick". Or, if upon examination a patient's experience of pain seems to be psychological in origin, such pain is categorized by society as being "made up" or "all in their head". Of course the truth of the matter, even on mechanistic grounds, is that all pain, psychologically caused or otherwise, is "in one's head", as pain is the *perception and interpretation* of sensory information by the central nervous system, not an externally extant phenomenon. In cases where symptoms are determined to be psychological in origin, however, the patient's experience of illness is implied to be in some way his or her own fault. This is not the case for individuals who are described as

having a mechanism-based disease. In those cases, it is considered the disease or the mechanism which produces the symptoms of illness, not the patient.

Advocacy groups form around individuals who experience these marginalized types of illnesses without identifiable mechanisms, such as chronic fatigue syndrome, dissociative identity (multiple personality) disorder, or chronic pain syndrome. Only by the efforts of dedicated advocates working to legitimize in the eyes of society the experiences of individuals with these illnesses have these specific disorders been named and classified. Diagnosing such illnesses is based on symptomology alone, and as such, these diagnoses are frequently controversial. Many medical professionals do not recognize dissociative identity disorder as a “real” disorder¹, and at least one theory hypothesizes that chronic pain syndrome is a learned behavior by patients who find either internal or external rewards in the perceived experience of pain.² What is more, individuals who are diagnosed with these acknowledged disorders, however controversial the diagnosis, are far more enfranchised within the health care system than most individuals who experience illness in the absence of molecular mechanisms, but do not fit the symptomological diagnostic criteria of acknowledged disorders.

In this country the most obvious form of discrimination against patients without mechanism-based, pharmacotherapeutically treatable disease is seen in the policies of health insurance companies. Without a specific diagnosis of a known illness classified in a professional manual like the *International Classification of Disease* or the *Diagnostic and Statistical Manual of Mental Disorders*, many health insurance policies will not

¹ Pope HG, Oliva PS, Hudson JI, Bodkin JA, Gruber AJ (1999). "Attitudes toward DSM-IV dissociative disorders diagnoses among board-certified American psychiatrists". *The American journal of psychiatry* **156** (2): 321-3.

² Silver BV, Blanchard EB. Biofeedback and relaxation training in the treatment of psychophysiological disorders: or are the machines really necessary?. *J Behav Med.* Jun 1978;1(2):217-39

cover medical expenses. This pressures both doctors and patients alike to seek a diagnosis of a mechanism based, medically non-controversial disease with the accompanying objective signs rather than a subjective diagnosis based on symptoms, the payment for which might be disputed by the patient's insurance agency.

Some might feel it appropriate to dismiss such discrimination on the basis that, as a socially derived value, disease is exactly what society defines it to be. Thus, if an individual's experience of illness is not ratified by societal requirements, he or she is not being treated in a discriminatory manner; he or she is merely experiencing a "problem of living"³ that does not fall under that particular society's domain of medicine. While proponents of this argument seem to make a valid point, their line of reasoning—and the entire line of argument upon which the disease-as-mechanism model of medicine is based—rests on fundamentally flawed thought processes which conflate the separate notions of a disease's existence and its causation.

While Western society privileges patients with typical mechanistic diseases over those whose experiences of illness cannot be explained through molecular mechanisms, society's true conception of disease is not, and never has been, synonymous with a disease's causative biological agent. Both as a society and as individuals, we determine a disease to exist before we begin the search for a mechanism with which to specifically identify it. If, either as a patient or a health care provider, one is looking for a mechanism for the purpose of diagnosis, one has already made the judgment that disease is present based on experiential information, not on the presence of a causative, molecular mechanism. Thus the determination that one has a disease does not lie within the

³ Engel, G.L. The Need for a New Medical Model: A Challenge for Biomedicine *Science*, V196(4286) p129-136

mechanism used to diagnose specific types of disease, but rather in the experience of illness. For society to legitimize certain types of experiential illnesses (that is, those with associated mechanistic malfunctions) over others (those without such associated biological mechanisms) is not then merely a case in which some individuals meet society's definition of disease while others do not, it is a case of hypocritical exclusion of certain individuals from a societal system of support and care without just cause, even when judged from within society's own framework.

The existence of such hypocritical practices calls out for a change in the way in which disease is categorized and legitimized by society so as the fundamental perception of disease as an experienced entity, and the knowledge of molecular mechanisms associated with some but not all experiences of illness, do not come into conflict with each other. There have been many suggested revisions to the conceptualization of disease which contribute towards revising the tyranny of the disease-as-mechanism definition. The Biopsychosocial model of medicine⁴ suggests that psychological as well as social factors ought to be accepted as causative mechanisms of disease. This would allow for the diseases of those who experience illness without biological mechanisms to be legitimized by society through other sorts of mechanisms currently not widely recognized within the domain of medicine, with the exception of the sort of medicine practiced by psychiatrists. Indeed, the separation of the psychiatric and medical professional fields is indicative of this rejection by Western society of psychiatric causes of disease. Allowing psychiatric factors to serve as causal mechanisms of disease would not only bridge the gap between these two professions, it would also legitimate the medical needs of many

⁴ Engel, G.L. The Need for a New Medical Model: A Challenge for Biomedicine *Science*, V196(4286) p129-136

psychiatric patients who are currently marginalized by society. Another suggested line of thought proposes that the logic we currently use to distinguish disease from health is outdated- we ought to rearrange our ideas of illness to allow for “fuzzy disease”, that is, degrees to which one is or is not diseased which do not necessarily complement the degree to which one is or is not healthy.⁵ A third suggested course of action suggests society ought to redefine disease as a failure to replicate internal organization, either on a cellular, organismal, or societal level.⁶

Each of these suggestions moves towards a practice of medicine in which there are fewer individuals against whom discrimination occurs due to a lack of a societally accepted mechanistic cause associated with their illness, but none of these proposed changes has completely solved the dilemma. This is because none of them directly addresses the conflict between society’s dueling definitions of disease: disease-as-mechanism and disease-as-experience.

II. Disease as Mechanism

The history of the disease-as-mechanism conceptualization of disease is a fairly short one. For most of Western medicine’s history from the Ancient Greek cultures through the European Middle Ages, all diseases and illness, with the exception of injury, were diagnosed based almost exclusively on the presence or absence of specific experimental symptoms. It was not until recently that medicine has had the ability to

⁵ Sadegh-Zadeh, K. Fuzzy Health, Illness and Disease, *Journal of Medicine and Philosophy*, V25(5) p605-638

⁶ Rudnick, A. The Ends of Medical Intervention and the Demarcation of the Normal from the Pathological, *Journal of Medicine and Philosophy*, V25(5) p569-580

reliably determine the mechanistic cause of disease- knowledge of some mechanistic causes, such as genetic mutations, have only become available to us in the last several decades. And yet, we must allow for more than just mere technology to fully account for the shift from disease-as-experience to disease-as-mechanism, for while this shift was seen in Europe, it was not seen throughout much of Asia, thus producing what is now seen as the rift between Eastern and Western medical philosophy. What, then, were the other factors involved in making this transformation from a symptom-oriented to a mechanism-based definition of disease?

One significant event in Western history which has been suggested to have set the stage for the development of the disease-as-mechanism model of medicine is the decision by the Catholic Church to permit the dissection of deceased human bodies in the fifteenth century.⁷ In doing so, the Church tacitly segregated the imperfect human corpse from the immortal and everlasting soul. This decision not only began a modern tradition of mind-body dualism within Western culture and medicine, but also formed a setting in which the corpse, not the living body became the primary model used in the study of health and disease. Together, these two changes, the segregation of body and soul and the use of the corpse as the primary human model in medical study, primed society for the conceptual removal of psychological and social factors from the scientific contemplation of disease. It also resulted in the removal of any synergistic, non-reductionist elements which might be present in disease. With the segregation of the body from the soul, the Church placed “disease” firmly in the realm of the body. Illnesses which were experienced by the soul were not the result of “disease” but rather of evil influence, immorality, or weakness of

⁷ Engel, G.L. The Need for a New Medical Model: A Challenge for Biomedicine *Science*, V196(4286) p129-136

character. Furthermore, by proffering to the scientific community the corpse as a primary medical model, this decision on the part of the Church limited the exploration of medicine to those actions of the body replicable or inferable in death alone. This excluded many aspects of human life, namely, those that are not mechanistically simple biological phenomena: all synergistic interactions, all psychological effects, and all social factors which may influence a person's health or wellness. As the primary subjects of medical practice are living humans rather than the deceased, the corpse is clearly an incomplete model of the human condition- it fails to reproduce the dynamic and interactive qualities of a living person for the purpose of medical study. Because of this, society and physicians have always attempted to bring other aspects of life into medical reckoning, however, centuries of using the corpse as the primary medical model of study has resulted in a system in which those aspects of health and illness that can be observed or inferred from a corpse are privileged as "more medical" in nature than those that cannot, and disruptions of the mind or soul are viewed not as disease but as moral shortcomings.

A second factor which has been suggested to have influenced the transition towards the conceptualization of disease as disease-as-mechanism is the shift in popular philosophy often attributed to the work of Rene Descartes. While Descartes' personal standpoint on the issue may in fact have been very different, the description of the human body in his philosophical writings has since been interpreted as giving to society a conceptualization of the body as a strictly mechanical entity.⁸ The emphasis on the mechanistic nature of the body, together with the rise in the significance attributed by

⁸ Grant, D. Mind-Body Dualism and the Biopsychosocial Model of Pain: What Did Descartes Really Say? *Journal of Medicine and Philosophy*, V25(4) p485-513

society to empirical data that was also a byproduct of the scientific revolution, lead Western society and medicine towards the idea that as a mechanical entity, all aspects of bodily function and dysfunction could be accounted for by molecular biology or the science of physiology. The increasingly privileged status of empirical knowledge by virtue of its predictive power produced a social background in which less medical significance was given to those aspects of human experience that did not follow the rules of empirical science or could not be explained by the model of the body-as-corpse.

Finally, although it cannot entirely account for the arrival of Western culture at the concept of disease-as-mechanism, one cannot deny the role that improved imaging technologies have had in creating this cultural conception. Throughout most of human history we have granted epistemological primacy to the faculty of vision, and reductionist biological mechanisms have had the good fortune of being the most easily visualizable factor to contribute to the human state that society categorizes as “disease”. CT-scans, MRIs, X-rays, sonograms, even lab results which are ultimately determined by peering at cell cultures through a microscope- almost all Western medicine’s diagnostic criteria depend in some way or another on visualizable results. In this fashion, the dependence on molecular mechanisms to identify the presence of disease is the dependence of modern medicine on the ability to produce a visual representation of disease. Those aspects of life which cannot be easily or accurately visualized, (one example being the psychological or social dynamics which contribute to the pathology of disease, another being the experience of illness by a patient rather than objective observable signs of illness) are considered to be secondary in importance to the visualizable, physical aspects of disease. Rather than creating an inclusive environment for the patient, where his or her knowledge

of experienced symptoms are considered the patient's contribution to a group effort, the emphasis on the importance of visualization in Western medicine creates a doctor-patient dynamic in which the patient is excluded from the medical process by his or her inability to meaningfully interpret visualized results. Without special training, the visual data presented in an EKG reading is meaningless. By relying on EKG results to determine whether or not a patient is ill, a physician is removing the patient from the process of diagnostic evaluation. By relying on visual input to determine mechanism of disease, doctors are, in fact, placing the determinative power of disease versus non-disease in the hands of "trained experts", outside the influence and discretion of the individuals who actually judge a given experience to be one of illness in the first place- that is, the patients.

Interestingly, the only mechanism of illness which was visually determinable for most of medicine's history was injury and this sort of illness was dealt with by surgeons, who were historically members of a different profession than that of the physician. Only in modernity where the mechanisms of many types of disease are visually known to us have we combined the professions in the common field of health care.⁹ As our ability to visualize and thereby "know" the mechanisms by which specific illnesses exert their effect, our ideas of what these illnesses "really" are changed as well. With modern technology available to analyze and describe illness, a case of the common cold is no longer merely a stuffy nose and a mildly elevated temperature; it is the infection of somatic cells by the *rhino* virus, and the associated immune system response. The ability

⁹ Engel, G.L. The Need for a New Medical Model: A Challenge for Biomedicine *Science*, V196(4286) p129-136

to detect such viruses and cellular responses has enabled medicine to come to new ways of understanding diseases.

What modern imaging technology does not do, however, is allow for empirical visualization of non-physical or non-localized aspects of experience. That is to say, in reducing disease, or any life experience, to its simple visualizable causative mechanism, the disease-as-mechanism model of medicine is not fully describing the reality of the situation. Take, for example, a mother who has just delivered her first child. Let us imagine her holding her newborn son, kissing him gently, and whispering that she loves him. This scenario can be mechanistically explained as the result of the post-pregnancy, post-delivery hormone content of the woman's blood stream. Increased levels of oxytocin result in feelings of love, bonding, and altruism. As the oxytocin molecules encounter protein receptors, neuronal signaling is sent to the brain which interprets these electrical impulses to mean that the body ought to feel compelled to care for the signal's source: in this case, the newborn child. But this, it seems, somehow misses the essence of the moment, and the essence of the relationship between mother and child. The linguistic expression "I love you" signifies more to society than merely a reflexive response to hormonal stimulation. To claim that it does not is to radically misrepresent the meaning of the word "love". Similarly, when an individual makes the expression "I'm sick", it means far more than the mere statement "there is, within my body, a mechanism by which my biological processes are malfunctioning." The condition of being ill contains within it the linguistic connotations of an *experience* of the effects of illness- not merely the existence of a causative element. In this way, the disease-as-mechanism model not

only fails to fully describe illness, but also actively misrepresents society's fundamental definition of disease.

These examples merely serve to demonstrate that as modern imaging technology has progressed, the knowledge society possess of some sorts of illness has increased while the knowledge we have of other, non-mechanistic illnesses, has not. This, combined with other factors discussed here, has resulted in a trend in medicine in which objective observable signs of disease have been privileged over the less well-visualized subjective experienced symptoms of illness while simultaneously the aim of medical diagnosis and treatment has shifted from the alleviation of experienced suffering toward the goal of accounting for disease by identifying its causal mechanism, and correcting this mechanism in its malfunction.

This second shift in medical philosophy has come about as a result of the increased importance given to the mechanism of disease. If a disease is defined as the causative mechanism, then curing the disease consists entirely in the reversal of its mechanism, rather than the alleviation of its symptoms. The generalized trend in medicine towards the privileging of mechanism-based disease over experienced illness results in the marginalization within the health care system of individuals who experience illness, but fail to produce within themselves a biological mechanism with which to justify being labeled as 'having a disease'. The majority of these individuals experience illness in one of three main categories: somatic illness with a non-existent or as-of-yet undiscovered mechanism of disease, psychosomatic illness in which the somatic signs or symptoms are deemed to have psychological origins and mental illness which is the result of either psychological or social factors.

The first noticeable aspect of these categories is that they are delineated in the language of mind-body dualism, which is far from uncontested within the medical community. Accepting for a moment, however, the societal notion of mind-body dualism, it is not insignificant that most of those individuals who are marginalized by the conceptualization of disease-as-mechanism experience illnesses which at least partially involve the mind, rather than solely originating from within the body. The second way in which these categories are divided apart from the dualist terms of mind-body relationships is by the status of the mechanisms or origins of the illness involved. In each of these cases, either a causative mechanism is not present in the presentation of the illness, or the origin of the illness is found within psychological or social factors; neither of which is accepted as a valid mechanism of disease as they cannot be empirically determined or objectively visualized.

Chronic fatigue syndrome is one example of a non-specific diagnosis of somatic events for which no causative mechanism can currently be found. In the absence of such mechanisms, individuals diagnosed with chronic fatigue syndrome often find that what they consider to be medical needs are not ratified by society at large. Ostensibly, this is because the diagnosis of chronic fatigue syndrome is based upon set symptom clusters rather than causative agents. And yet, the existence of non-controversial diseases which have been historically defined in the same manner shows the societal contradiction in this line of reasoning. Asthma is an example of a non-controversial disease which is diagnosed based on distinct symptom clusters, and has non-specific causative agents.¹⁰ While the immediate mechanism by which the symptoms of asthma are experienced is

¹⁰ Aronowitz, R.A. When Do Symptoms Become a Disease? *Annals of Internal Medicine*, 2000; V134 p803-808

universal across all asthmatics- constriction of the bronchioles prevents proper ventilation which results in shortness of breath- the ultimate cause of these mechanisms is non-specific and can range from anxiety to exercise to allergens to spontaneous attacks where the ultimate cause appears to come from a non-localizable source.

Asthma, then, is an example of a disease with an associated mechanism of function but without a specific causative mechanism of disease. Why then does society allow the existence of asthma as disease but not chronic fatigue syndrome? The answer seems only to be that asthma is an historically recognized disease while chronic fatigue syndrome is not. This it seems is a problematic justification for what should and should not be considered disease. If we accept this argument, it follows that only new illnesses for which the causative agent is immediately apparent ought to be allowed to be added to western medicinal nosology, and that if any illness without immediate causative agents are encountered, they should only be considered disease if they are historically recognized as such. If this is an accepted method of disease identification and classification, then no new diseases—except those with the most obvious causative mechanisms—will be discovered and explored.

Illnesses which have been termed ‘psychosomatic’ present the disease-as-mechanism model of medicine with yet another dilemma. Psychosomatic illnesses are experiences of bodily dysfunction which seem to have their origin in the mind rather than the body. These experiences of illness are often considered by society to be less “real” than experiences of bodily dysfunction with known physical or biological causes. This categorization of psychosomatic illness even goes so far as to call psychosomatic illness a fictitious experience of bodily discomfort, and as such far less deserving of medical care

than those experiences for which causation can be found within the body rather than the mind. And yet diseases with clear causal molecular mechanisms, such as diabetes, have been seen to respond to psychological and social factors as well.¹¹ If Western medicine can accept that the level of insulin required by a diabetic patient can be influenced by the patient's social relationships and his or her perception of these relationships, why can we not accept that the amount of, say, pain a person feels in a given situation can be influenced by these factors? The acceptance of psychological influence ('influence', though never 'causation') on diseases of known mechanisms has been documented in a number of cases, and is now accepted by almost all practicing physicians. This creates a double standard within the disease-as-mechanism framework of illness, the continuation of which is proving to be both socially and scientifically untenable.

Those disorders which have been classified as "mental illnesses" for the large part of this past century are now, with the development of reliably effective pharmacotherapy, being divided into "behavioral disorders" and "brain dysfunctions"¹². Brain dysfunction categorizes those diseases, previously thought of as "mental illnesses", which can now be treated with prescription drugs. Brain dysfunctions include diseases like depression, anxiety, attention deficit disorder and obsessive compulsive disorder. The introduction of therapeutic drugs for each of these illnesses was scientifically interpreted as indicative of an underlying biological mechanism of disease, and although the specific mechanism was still unknown for any given brain dysfunction, the discovery of the probable presence of such a mechanism was sufficient to prompt the disease-as-mechanism model to welcome these brain dysfunctions back into the fold of accepted disease. Behavioral disorders, on

¹¹ Kety, S. From Rationalization to Reason. *American Journal of Psychiatry*, V131pp957-963

¹² Kendell R.E. The distinction between mental and physical illness *British Journal of Psychiatry*, V178, pp 490-493

the other hand, as of yet have no such indicated mechanism and the drugs used to treat such disorders (if any exist) are much less reliable. Given this, the social stigmas which have begun to fall away from brain dysfunctions are still very much attached to behavioral disorders, the diagnoses of which are laden with social connotations of blame, guilt, and weakness of character.

The first problem with this distinction between behavioral disorders and brain dysfunction on the basis of the availability of therapeutic drugs is that in studies examining patients with brain dysfunctions, psychotherapy has been shown to produce the same therapeutic effects as the prescribed pharmacotherapy, and what is more, produce them by modulation of the brain in the same way as do the prescribed drugs.¹³ If this is the case, then the modulation of neuroanatomy and physiology by psychotherapy ought to be associated with the existence of biological mechanisms, just as the modulation of the brain by pharmacotherapy is. This would allow for the assertion of the existence of undiscovered biological mechanisms for all behavioral disorders for which psychotherapy can produce changes within the brain, and thus make absurd the division between these two sorts of mental illnesses. However, the logical implications as have been laid out here have not yet been adopted by society at large. The division between the fields of medicine and psychiatry is evidence of this. The medical field is associated with diseases for which the patient is not responsible for the effects of the disease. (Although in some cases, such as sexually transmitted disease, society does label individuals as responsible for their diseased state.) The field of psychiatry, on the other hand, is

¹³ Roffman, J., Marci C.D., Glick D.M., Dougherty D.D., and Rauch S.L., Neuroimaging and the functional neuroanatomy of psychotherapy, *Psychological Medicine*, V35, pp1-14

associated with behavioral disorders for which patients can be, and often are, held morally culpable.

This, however, is not the most pressing fault of the use of pharmacotherapy as an indicator of mechanism and thus disease. The far more disturbing implication of this argument is that it holds the presence or absence of empirical corrective measures as the criteria which determine what should and shouldn't qualify as valid medical complaints. This presents medicine with the task not of treating what either medical professionals, society, or the patient determines is unhealthy, but instead treating that which can be effectively altered by the use of medication. Surely this is not a conclusion one wishes to make. What is the pursuit of medicine if not to cure what cannot be cured by the patient himself or herself? This goal, it would seem, should extend beyond what a patient can or cannot cure at home toward the goal of being able to cure that which cannot presently be cured at all. To remove such drive is to limit all medical practice to what is currently treatable with very limited potential for growth in new directions.

Given that there are so many faults within the Western medical field for patients with these sorts of experiences of illness, why, then, is there such a drive among members of this marginalized community to legitimize in the eyes of society and medical professionals their experience of illness as a medical disease? One example of such desire can be seen in the initiative among chronic fatigue syndrome advocacy groups to replace the term "chronic fatigue" with "postviral" so as to imply within the name of the syndrome an underlying mechanistic agent, even though no such mechanism has been definitively proven to exist.¹⁴ Projects like this one are common throughout the United

¹⁴ Aronowitz, R.A. When Do Symptoms Become a Disease? *Annals of Internal Medicine*, 2000; V134 p803-808

States. One must inquire as why so much effort is directed towards gaining the acceptance of such illnesses as disease by Western society and medicine. If society has deemed that these experiences do not fit the model of medical disease, why not seek help outside the Western medical field, in systems such as traditional Eastern medicine or in the services offered by therapeutic psychologists?

Seeking alternative help to that provided by Western medicine is certainly a course of action taken by some, although in the United States few can afford such services without the help of health insurance, which often will not cover these sorts of treatments, even in the presence of an officially classified disease. But many others do not attempt to find help outside of the domain of mainstream Western medicine, and instead push for greater recognition and acceptance of their non-mechanistic experience of illness within this field. This is because these individuals believe their experiences really do fall under the domain of medicine, and they are right to believe so. The position that disease must be accompanied by a biological mechanism is clearly riddled with hypocritical and logically unsustainable positions. The most problematic objection to the conceptualization of disease-as-mechanism is that on the most basic level, society doesn't consistently categorize disease in that fashion, and to privilege one type of disease (those with mechanisms) over another (those without), is mere prejudice.

Certainly knowledge of molecular mechanisms by which some diseases produce their effects has proven itself to be a powerful tool in designing treatment regimens for patients with these diseases. Even acknowledging this, however, there is a fundamental mistake in necessitating the existence of a mechanism in order for there to exist disease. All diseases and illnesses, with or without known causative mechanisms, have always

been identified prior to the discovery of such mechanism. By the time that a physician or patient seeks to find a molecular mechanisms for the purpose of diagnosis, he or she has already determined that a disease is present, and is only searching for a specific mechanism in order to design the most effective treatment towards its cure. Causative mechanisms are only ever used to determine *which* disease is present, never *that* disease is present.

How then does one judge whether or not disease is present if not by the presence or absence of causative mechanisms? Historically, the presence of disease has been identified on the basis of symptoms experienced by the patient.¹⁵ This is a method of identification which persists through modernity, but the significance of which has been eclipsed by the predictive and prescriptive powers provided to medicine by the increased biological knowledge of pathological etiology. Apart from the instance of “check-up’s”, which are aimed towards the prevention of disease rather than its treatment, any person seeking medical assistance has already made the determination that the phenomenon which he or she has experienced is a case of disease and is in need of medical care. Individuals have never in the past, nor do they currently, place themselves in the social position of patient without having already made a judgment that they are in need of medical care. Patients do not come before doctors to see whether they are sick or not as indicated by the presence or absence of a mechanism of malfunction. Rather they present themselves to the field of medicine having already determined by their experience of illness that a disease is present, and with the hope that their physician will be able to prescribe a treatment regimen which will alleviate this experience. Should the ability to

¹⁵ Aronowitz, R.A. When Do Symptoms Become a Disease? *Annals of Internal Medicine*, 2000; V134 p803-808

isolate a biological mechanism by which a particular experience of disease is working prove useful in designing the most effective program of treatment, then so much the better, but in reality it is never used to determine *that* disease is present at all. To say that the presence of disease is only “real” once it has been corroborated by the presence of a causative mechanism is to deny the criteria upon which one first determined to seek medical assistance: experience.

I propose that it is around these criteria of experience that we should form our cultural and medical conception of disease. In doing so, we solve many of the problems, both intrinsic and externally imposed, presented by the conceptualization of disease-as-mechanism.

III. Disease-as-Experience

An alternative to the medical system created under the concept of disease-as-mechanism is provided by the idea of disease-as-experience. The immediate advantages of such a system are seen in the implications it has for the medical field, and the effects it has on reversing the thought processes which have led to the disturbing trend in recent medical history that has shifted the goal of medical intervention away from the alleviation of suffering and towards creating a mechanistic account of disease. Further, the concept of disease-as-experience does not run into the same issues of marginalization and internal contradictions that the concept of disease-as-mechanism does. Most importantly, categorizing disease-as-experience rather than disease-as-mechanism allows for the resolution of the primary hypocrisy seen in the system created by the concept of

disease-as-mechanism: the equation of knowledge *that* one is ill with the knowledge of from *which* illness one is suffering.

The concept of disease-as-experience is simple enough to grasp. Rather than having causative physical mechanisms serve as the legitimating factor in disease determination, the concept of disease-as-experience uses the experience of symptoms by the individual and their own desire to place themselves in the patient-role within the health care system for this purpose. Under such a conceptualization, disease and experienced illness can be considered synonymous, as it is the experience of the patient which plays the lead role in determining the answer to the question of whether or not he or she has a disease. Such a change in the conceptualization of disease has important implications for the medical community.

By refocusing the problem which medical intervention aims to solve- that is, disease- as an experiential phenomenon rather than a physical one, the concept of disease-as-experience reestablishes the goal of medicine to be the alleviation of patient suffering rather than the mere correction of physical malfunction. In other words, under the conception of disease-as-mechanism the primary role of medical intervention was associated more closely with the knowledge gained through medical research than with patient care. Under a system utilizing the concept of disease-as-experience, this association would be reversed.

Chronic back pain is an example in which this shift in focus can be demonstrated particularly well. Chronic back pain with no known physical mechanistic cause is a well documented phenomenon.^{16,17} Individuals in this situation experience what can be

¹⁶ Fordyce, W.E. (ed), *Back Pain in the Workplace: Management of Disability in Nonspecific Conditions*, International Association for the Study of Pain Press, Seattle, 1995

debilitating back pain and yet because they show no physical abnormalities upon examination, under the current medical system they are told that their symptoms are not the responsibility of the medical field. What is more, there exists a second population of individuals who experience no back pain, but because the results of examinations such as MRIs or CAT scans show a physical abnormality of the spine, under the current medical system these individuals are told they are sick and ought to seek the services of a physical therapist. If one were to encounter the same situation under a system of disease-as-experience, the seemingly counter intuitive conclusion reached by the current medical model would be reversed: the individual who experiences back pain would be considered ill while the individual who was by his or her own judgment healthy would not be placed into the patient role based merely upon the presence or absence of a certain anatomical or biochemical finding.

What, one may then ask, is the role of causative disease mechanisms in such a system? What status do those individuals with the physical mechanisms of back pain but no experience of such pain hold within the medical community? Although, as we have seen, the use of causative or molecular mechanisms as the defining and legitimizing feature of disease brings about many problems, certainly the predictive power of such mechanisms ought not to be lost in the efforts to correct these problems. Nor, using the disease-as-experience model of medicine, does one have to. Causative mechanisms of disease still hold a very important place within the conceptual framework of disease-as-experience. Given their ability to describe much of what causes many of the symptoms associated with experienced disease, their use would primarily be in determining possible treatment regimens with which to alleviate and cure experienced disease. Furthermore,

¹⁷ Haldeman, S., Failure of the pathology model to predict back pain. *Spine*. 1990, V15 pp 718-724

as is proper given the predictive power of the physical sciences, under the conceptualization of disease-as-experience the causative mechanisms which currently define disease could be used to predict the probability that the experience of disease, and thus disease itself, will develop in the future.

Disease-as-experience provides a solution to many of the counterintuitive situations brought about by the conceptualization of disease-as-mechanism. According to the disease-as-mechanism model the ability to treat a set of signs and symptoms with pharmacotherapy, which is indicative of a molecular mechanism, and thus disease, promotes the value that what medicine *ought* to treat is only that which it *can* treat, preferably with pharmacotherapy, does not exist when conceptualizing disease-as-experience. If disease is considered to be essentially an experience of the patient rather than a biological mechanism, then the ability to alleviate such experience with drugs is indicative of nothing other than a successful treatment. Should the experience of illness prove to be non-responsive to chemical based methods of treatment, this merely means that those treatments are unsuccessful, and a different regimen ought to be prescribed.

This change in perspective allows for the acceptance of what is currently classified as ‘somatic’, non-mechanistic experiential illness (that is, experienced illness with no apparent physical, psychological, or social causes) as legitimate disease. It also prevents the distinction made in mental disorders between ‘brain dysfunctions’, which are either treatable with drugs or have known molecular or genetic causes and are therefore legitimate diseases, and ‘behavioral disorders’ which are not treatedable with drugs and without known molecular mechanisms, and are thus viewed as illegitimate complaints or characterized as the fault of the patient. If disease is conceptualized as experience rather

than mechanism, then all so-called mental disorders can be considered ‘behavioral disorders’, but no social stigma or guilt or blame need be attached to the word as the lack of mechanism or presumed mechanism does not indicate any less real or legitimate experience of disease.

Understanding disease to be a patient’s experience of illness can also solve the dilemma raised for the disease-as-mechanism model by psychosomatic illnesses. Under the conception of disease-as-mechanism, psychosomatic illness was a problem due to the fact that, with no biochemical, physiological or molecular mechanism—in short, no physical cause—these experiences of disease are marginalized as not “real” diseases, that is, they are diseases without ultimate physical causation. This categorization is made despite the fact that even in accepted mechanically-defined diseases there is observable influence of psychological and social factors that time and again are disregarded by the disease-as-mechanism model.¹⁸

By allowing for social and psychological factors, as aspects of experience, to be considered as causative mechanisms (rather than limiting the term mechanism to refer to strictly biophysical phenomena as the disease-as-mechanism model does) the disease-as-experience model of medicine, unlike its mechanism-based counterpart, does not discriminate against those experiences of illness which appear to have no physical causative mechanisms. Thus psychosomatic pain or illness, as a phenomenon experienced as disease, is to be understood as disease- not merely the psychological illusions of disease in the absence of the disease itself. As such, the experience of psychosomatic disease cannot be passed over as mere weakness of character but rather mandates the respect and treatment services of the medical community. Furthermore, legitimizing

¹⁸ Kety, S. From Rationalization to Reason. *American Journal of Psychiatry*, V131pp957-963

psychological and social influences on disease, the disease-as-experience model allows the medical community to more fully utilize the effects of psychological factors in treating diseases currently considered to be the product of solely biological causes. These effects are already known to exist, however, if the medical profession continues to confine causative elements of legitimate disease to physical or biological phenomena, it will be able to find no place for these effects to be comfortably categorized and studied.^{19,20}

The role of consensus in medicine also changes in the shift from the conceptualization of disease-as-mechanism to disease-as-experience. Within Western society and the Western medical community in which disease is considered in mechanistic terms, the criteria one must meet in order to be considered as having a disease are determined by the consensus of health-care providers. Which mechanisms must be proven to exist, and in the absence of such proof, which signs must be present and for how long they must be so, is all determined by committees composed of health-care providers and medical researchers.²¹ These criteria are presented to individuals seeking medical assistance as a sort of test they must pass in order to prove their claim to such aid. If an individual fails to meet the criteria for any specific disease, and cannot produce a molecular mechanism indicative of a new sort of disease which has not yet been classified then he or she is, while not flatly denied medical services, provided with

¹⁹ Roffman, J., Marci C.D., Glick D.M., Dougherty D.D., and Rauch S.L., Neuroimaging and the functional neuroanatomy of psychotherapy, *Psychological Medicine*, V35, pp1-14

²⁰ Grant, D. Mind-Body Dualism and the Biopsychosocial Model of Pain: What Did Descartes Really Say? *Journal of Medicine and Philosophy*, V25(4) p485-513

²¹ Aronowitz, R.A. When Do Symptoms Become a Disease? *Annals of Internal Medicine*, 2000; V134 p803-808

medical care only begrudgingly by society, and categorized as taking up resources to which he or she is not entitled.

If society and the medical community were to adopt a model of disease-as-experience, however, this system could not be maintained. If disease were to be taken to indicate the presence of an experience of the individual seeking the patient role, no form of consensus regarding the defining of disease could take place without the inclusion of the patient in the process. Instead, disease would have to be determined by the collaboration of the patient and health care provider, with the patient presenting his or her experience of illness and the physician lending his or her perspective containing expertise and familiarity with individuals having these sorts of experience to provide the patient with the context and background in which to place his or her own experience. Consensus amongst medical professionals alone could still be used to design treatment regimens and to determine which signs, symptoms, and causative mechanisms are indicative of a high probability that any specific treatment regimen will effectively alleviate a given experience of disease, but never in defining disease itself, or in constructing a list of requirements one must meet before being considered as having a disease.

Perhaps the most significant improvement of the model of disease-as-experience over disease-as-mechanism is its facilitation of the removal of the underlying hypocrisy present in the conceptualization disease-as-mechanism. This hypocrisy that the determination of *which* disease one has can be made in lieu of, or synonymously with, the determination *that* one has a disease is not tenable if disease is considered to be a product of experience rather than biology alone. Instead, the disease-as-experience model always prioritizes the conclusion *that* one has a disease over the determination of its cause

(biological, psychological, or otherwise). In both described models of disease, the conclusion that one has a disease is always necessarily made prior to the initiation of a search for its causative mechanism. Furthermore, in both models of disease, the conclusion that one has a disease is based on the subjective experience of the individual seeking to become a patient rather than objective physician observation. The difference between the models of disease-as-mechanism and disease-as-experience in this respect is that rather than deny the medical significance of this experiential conclusion as the disease-as-mechanism model does, the model of disease-as-experience values this conclusion as the most medically significant aspect of disease.

Whereas the disease-as-mechanism model requires patients to produce evidence supporting the existence of an underlying biological causative mechanism before such experiential conclusions of disease are considered medically treatable, the model of disease-as-experience conceptualizes disease to be present in the experience of the individual, and manifested through that individual's acquiescence to and assumption of the patient-role within the health care system. Secondary to these considerations is the evidence, if evidence exists, of a causative mechanism; the only purpose of which is to narrow the possible paths towards recovery to which a physician may consider directing his or her patient. The model of disease-as-experience uses the experiential conclusion by the patient of the presence of disease rather than knowledge of molecular mechanisms as a requirement of entry into the medical system. These molecular mechanisms are instead relegated to the role of aiding in prescriptive judgment rather than defining and justifying disease.

Thus, the shift in conceptualization of disease from disease-as-mechanism to disease-as-experience provides solutions to many of the major problems which are produced by the conception of disease-as-mechanism. It allows for the acceptance of those individuals that experience illness without culturally accepted causative mechanisms, those who are currently marginalized within the health care system, into the greater community of those individual with “legitimate” diseases. It does this in two ways. First, it does not provide the presence or absence mechanistic explanations of disease with the authority to legitimize or deny the legitimacy of an experience of disease: that is a right reserved for the patient’s own experience of disease and his or her own acceptance of the patient role within the health care system. Second, the plausibility of psychological and social factors acting as causative mechanisms of disease by accepting by virtue of their status as experienced phenomenon, the disease-as-experience model of medicine moves towards closing the gap between mental and physical illnesses, which is mirrored in the gap between the fields of psychiatry and medicine. Most significantly, the conceptualization of disease-as-experience allows for the resolution of the underlying contradiction inherent in the system of disease-as-mechanism by uniting the powerful utility and predictive power of biological causative mechanisms of disease with the primacy of experiential knowledge of disease.

All of this is not to say, however, that the experienced based model of disease does not pose its own dilemmas within the medical community and society at large. Let us now examine some of the more pressing issues which arise from the disease-as-experience model of medicine.

Three main concerns present themselves when considering the potential utility of the disease-as-experience model. The first concern regards the potential for abuse of the health care system by individuals who either by deception or by misperception submit themselves for medical care which their condition does not merit, thus draining resources from the system and from the patients who more urgently need those resources. The second dilemma which presents itself is the case of individuals who are currently hospitalized and institutionalized within the health care system without consent, or against their will. How, in a model where disease is based on patient experience, does one account for the times when society deems an individual to be ill, but the individual in question rejects this designation? The final and most disturbing flaw in the disease-as-experience model of medicine is the problem presented by diseases like HIV. Although HIV positive individuals can be asymptomatic for years, without rigorous and consistent health care and monitoring the HIV virus can quickly develop into AIDS, a life-threatening symptomatic condition. If HIV positive individuals do not experience themselves as ill, how is the disease-as-experience model of medicine to justify providing them with the health care they need to continue to experience an asymptomatic infection? The first problem, then, is individuals who are “not really” sick but wish to be treated as such, and the second involves individuals whom society deems as “sick” but who refuse to place themselves in the patient role. The third problem deals with the status of those afflictions which are currently conceptualized as asymptomatic diseases, and the role of preventative medicine within a disease-as-experience system of health care.

The easy answer to the first concern is that merely because there are individuals who will abuse the system does not make the system itself unacceptable. The current

model of disease-as-mechanism has its own share of these individuals in the form of hypochondriacs and those who seek drugs for recreational purposes, and yet society does not reject this system of medicine because it allows for the actions of these individuals. The more thorough answer to the problem of potential abuse, however, is that even while there is the potential, there are also ways of addressing such abuse. In the case of drug seeking behaviors, individuals experiencing disease or pain without known physiological markers ought not to be prescribed drugs without careful investigation- not because it is presumed that such pain is not “real”, but because it is probable that if the experience of pain is not due to strictly biological factors, then the prescription of drugs which have been designed to treat biologically produced pain will not be the most effective treatment regimen possible.

The sort of abuse performed by those who are currently described as hypochondriacs is a slightly more complex dilemma for the disease-as-experience model. In a system in which the existence of disease is based entirely on the patient’s experience of it, how does a physician inform an individual that he or she is “not really sick”? In what circumstances is this even logically possible within this system of defining disease? In this case, these circumstances would be met when a patient presents themselves to a physician describing problems which could be more effectively addressed as non-medical “problems of living” rather than disease. Even in this situation, however, the role of the doctor would not be to inform the patient that he or she is “not really sick”, but instead to examine with the patient his or her experience of disease until the patient is able to come terms with the situation in ways in which his or her experience no longer presents itself as diseased.

Take, for example, the case of a young girl entering into her first menstrual cycle. Without guidance of a caretaker, these events would take the form of a terrifying experience of disease including stomach pains and seemingly unexplained internal bleeding. If a girl in this situation were to present herself to a physician, rather than telling her that she was “not really sick”, utilizing the concept of disease-as-experience, the doctor would engage in a dialogue with the girl, and use his or her objective knowledge to place the events of a menstrual cycle in the larger framework of human fertility and the processes which allow for pregnancy. Given this larger framework, the girl who had previously experienced disease would be able to shift her perspective of this experience, and in doing so, experience it not as illness, but merely as part of living.

Disease-as-experience, then, does not mean that medical resources in the form of medication must be handed out to all those that demand them, but rather that each person’s experience of disease ought to be considered with the aim of finding the most *effective* way of alleviating *that experience*. Sometimes this will include pharmacotherapy and the tools of biomedicine, sometimes it will require the time, energy, and consideration more closely associated with psychiatry. Other times, it will involve merely the reassurance that a given experience is a common occurrence from which no further consequences can be expected- this allows the patient to change his or her perspective of their experience of disease, and thus the experience itself from a diseased state to a state of wellness. Thus, one does not need a molecular mechanism to act as gatekeeper to the health-care system to prevent abuse, merely the retraining of ourselves and our health care providers.

The second dilemma which presents itself in the consideration of disease-as-mechanism is a still more complicated predicament. Under what circumstances can society be allowed to assign the status of patient to an individual without that individual's consent? When is society allowed to determine that an individual's experience is one of disease if the individual himself or herself rejects this determination? At first, it appears that there are no circumstances under which a system of disease-as-experience can logically allow this sort of behavior. Eliminating society's authority to categorize socially aberrant individuals as diseased immediately raises concerns regarding the situations of those individuals who are currently being kept in involuntary hospitalizations, such as suicidal patients and individuals who are mentally insane. At the moment, society deems it fit that individuals, who outside of medical facilities might be a danger to themselves or others, are kept at times against their will and subjected to medical treatment. Would adopting a model of disease-as-experience make this practice within society a logically and morally untenable one?

The answer is that in some cases it would. Although it is clearly not the only solution possible, I propose the following answer to the dilemma: an individual can only manifest his or her own experience of disease or wellness if he or she is an autonomous entity. That is, if an individual can be shown to lack the autonomy to independently judge whether or not his or her subjective experience of living is in a diseased state or not, then I see it as the role of society and in particular the medical profession to make such judgments for the individual until such time as he or she develops or regains the ability to make them for himself or herself.

The most non-controversial example of this lies in the case of young children and infants. Prior to the development of our cognitive abilities, human beings are unable to make judgments with regards to whether one's experience is one of illness or not. No one, however, would argue that infants cannot get sick. Rather, we infer by observing their behavior and taking note of objective signs that an infant's experience, were he or she able to judge it as such, would be experienced as illness. On the basis of this inference, parents take their infants to the pediatrician. Alternatively, one can infer from behavioral signs that the experience of an infant is one that, were it the observer's experience, he or she would judge it to be an experience of illness, and determine the child's state of health in this manner.

The same substitution of judgment can be made for developmentally delayed adults or clinically insane individuals, if one can successfully argue in any given individual's case that the individual in question lacks the ability to judge an experience to be one of health or illness. This, however, does not mean that all individuals who are currently hospitalized against their own volition will meet these criteria. Indeed, I think it is probable that many individuals, such as the depressed and those who harbor suicidal tendencies, and who are currently subject to involuntary hospitalization would, under the system of disease-as-experience, be released- even if this means their choosing to end their lives afterwards.

This proposed solution, then, hands a mixed bag to those individuals who have not acquiesced to the patient role and yet society has labeled and treated as ill. In some cases these individuals will be reaffirmed to be ill despite a lack of patient experienced authentication of this illness, but it will probably also be the case that some individuals

who currently are kept hospitalized against their will under this proposed system of health care ought to be released and allowed to live as they so choose, despite the disapproving judgment of their choices made by society at large. This change is necessarily a part of the recreation of the medical model by the conception of disease-as-experience, and it seems it cannot be avoided. Nor, necessarily, should it. To change the predominating medical philosophy and see no resulting change in society indicates that no real change has been made at all. Shifting to a disease-as-experience model of medicine would not be a change in name only, but rather making this shift would result in some dramatic changes in societal norms.

The final problem which presents itself when considering the implementation of disease-as-experience as the medical model of disease is with regards to the medical status of individuals who have what are currently classified as asymptomatic diseases. An example of this sort of disease is seen in HIV positive individuals.

In mechanistic terms, being HIV positive means that within one's body there is a proliferation of the Human Immunodeficiency Virus. This visualizable molecular abnormality satisfies the current requirements of Western society's model of medicine to be considered a mechanism of disease. As individuals with mechanistically based diseases, HIV positive patients, within the eyes of society, have a legitimate claim to medical care. Through this medical care—the prescription of retro antiviral medication, careful monitoring of the HIV levels present within the body, et cetera—individuals who are HIV positive can live for decades without experiencing any symptomatic, experiential, manifestation of their viral content. HIV positive individuals who do not have access to this medical care, however, are exposed to a greater risk of developing

AIDS, which, unlike HIV, is a highly symptomatic illness that ultimately results in death. The disease-as-mechanism model of medicine allows HIV positive individuals to be categorized as patients within the medical system, and thus opens up to them opportunities for health care which can potentially prevent their asymptomatic disease from ever developing into an experience of illness. Disease-as-experience, strictly speaking, does not enfranchise individuals with asymptomatic illnesses, like those who are HIV positive, with the status of having a disease. As such a health-care system run on the disease-as-experience model may deny these individuals access to medical care which has the potential to prevent them from suffering a drawn out, experienced, terminal disease.

One possible solution to this dilemma lies in the role one might expect preventative medicine to play in the model of disease-as-experience. As has already been suggested, shifting to a disease-as-experience based model does not necessarily mean disregarding causal mechanisms as unimportant. It merely shifts the significance of such mechanisms away from descriptive roles and towards prescriptive roles. Part of what attracted Western society to the disease-as-mechanism model of medicine in the first place was the incredible predictive power commanded by the physical sciences. This predictive power, it seems, ought to be the basis of the justification of preventative medicine under the system of disease-as-experience. That is, while the presence of a mechanism of potential disease alone does not justify asserting the existence of disease itself without an accompanying experience of illness, the predictive power of the physical sciences is able to make the claim that there is an increased probability, given the mechanistic evidence produced by the body, that an individual will in the future

experience an illness of such-and-such variety, and furthermore, this experience of illness may be prevented by making these-or-those interventions. In giving mechanistically-based science the authority to determine the *probability* that an individual will, in the future, become experientially diseased, one can hold open a place for preventative medicine within the model of disease-as-experience.

This solution, however, is far from perfect, and it presents to the medical community its own set of problems. In some ways, it goes so far as to conceptually compromise the independence from mechanism-based medicine that was the goal of shifting to a disease-as-experience model in the first place. By proposing the practice of preventative medicine be justified by the presence of mechanism of potential disease, we risk slipping back into the old thought processes of the disease-as-mechanism system of health care. By implementing this proposed solution to the problem posed by preventative medicine, we verbally relocate the significance of causal mechanism to determining the “potential” for illness, rather than the illness itself, but its role as gatekeeper to the health care system remains the same as it is within the disease-as-mechanism model of medicine.

Furthermore, this proposed solution does not guarantee that the medical claims of individuals with asymptomatic mechanisms of potential disease will be legitimated by a disease-as-experience oriented society. The argument that there is the potential for experienced illness and therefore a claim to medical services leaves itself open to the criticism that there are others who are *already* dealing with experienced diseases, and that medical resources ought to be first allocated to these patients rather than individuals for whom experienced illness is merely a future potentiality.

IV. Conclusion

In summary, then, the conceptualization of disease-as-experience offers an alternative to the definition of disease-as-mechanism currently embraced in Western society and medicine. The system of medicine developed around the idea of disease-as-mechanism rests on a fundamentally hypocritical process in which the presence of causative mechanisms is used to indicate the presence of disease, and yet the primary manner in which disease is determined to be present occurs prior to the search for causative mechanisms and is based in the subjective experiences of the individual patient. From this fundamental hypocrisy spring many internal inconsistencies within the medical field formed by the disease-as-mechanism concept, each of which results in its own marginalized population within the health care system. Individuals who experience illness but are unable to produce evidence supporting the existence of a causative mechanism or whose experiences of illness are caused by non-biological factors which are not recognized as a legitimate mechanism of disease find themselves without health insurance coverage for their illnesses and categorized by society as being somehow at fault for their experiences.

The disease-as-experience model of illness solves these problems both individually by broadening the definition of what may or may not serve as a causative mechanism of disease and refocusing the aim of medical intervention towards the alleviation of suffering rather than accounting for and correcting mechanistic malfunctions, and as a whole by resolving the fundamental hypocrisy on which the

concept of disease-as-mechanism is based. By placing experience, not causal mechanism, as the primary factor in determining the presence of disease, disease-as-experience restores to the medical field the logical sequence of events in which one first experiences illness, determines from this experience that one has a disease, and from there seeks a causative mechanism for the purpose of treatment.

This is not to say that the model of disease-as-experience does not have its own sources of concern regarding its utility as a model of disease off of which one might base a system of medical care. Any such concept raises concerns about how an individual may abuse the resulting health care system, and the concept of disease as experience is no exception. Additionally, the concept of disease-as-experiences raises questions regarding the level of responsibility it places on the individual patient in identifying disease, and what happens when there is a disagreement between an individual and society at large over whether or not the individual in question is. Most pressingly, adopting a definition of disease-as-experience raises concerns for the well-being and continued medical support of individuals affected by what are currently considered asymptomatic diseases.

Overall, however, it appears that the model of disease-as-experience solves more problems than it creates, and those problems which do result are at least problems of utility, rather than the problems of internal consistency which plague the conception of disease-as-mechanism. Given the considerations above, the concept of disease-as-experience seems to provide both a logical and fairly pragmatic solution to the problems which develop out of the current medical system based upon the concept of disease-as-mechanism.

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