



Scientific Contribution

Biomechanical and phenomenological models of the body, the meaning of illness and quality of care

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Abstract. The predominant model of the body in modern western medicine is the machine. Practitioners of the biomechanical model reduce the patient to separate, individual body parts in order to diagnose and treat disease. Utilization of this model has led, in part, to a quality of care crisis in medicine, in which patients perceive physicians as not sufficiently compassionate or empathic towards their suffering. Alternative models of the body, such as the phenomenological model, have been proposed to address this crisis. According to the phenomenological model, the patient is viewed as an embodied person within a lived context and through this view the physician comes to understand the disruption illness causes in the patient's everyday world of meaning. In this paper, I explore the impact these two models of the patient's body have had on modern medical practice. To that end I first examine briefly the historical origins of the biomechanical and phenomenological models, providing a historical context for the discussion of each model's main features in terms of machine-world and life-world. Next, I discuss the impact each model has had on the patient-physician relationship, and then I examine briefly the future development of each model. The meaning of illness vis-à-vis each model of the patient's body is finally examined, especially in terms of how these two models affect the patient's interpretation of illness. The paper concludes with a discussion of the biomechanical and phenomenological models, in terms of the quality of care crisis in modern western medicine.

Key words: biomechanical, embodied person, lived body, meaning of illness, mechanized body, phenomenology, quality of care

Introduction

Although the biomechanical model of modern western medicine, especially within the US, has been heralded for enhancing the length and quality of human life, it has left many patients dissatisfied with the healthcare industry: "In spite of remarkable advances in medical therapy and in development of fantastic diagnostic devices, American society appears increasingly disenchanted with the physician" (Ingelfinger, 1978, p. 942).¹ According to Glick, society's dissatisfaction with modern medicine is based on "the delivery of care [that] has become more institutionalized and depersonalized" (1981, p. 1037). The overly enthusiastic appropriation of the biomechanical model has precipitated, over the past several decades, a perceived quality of care crisis by patients. Part – if not a major part – of the origin of this crisis is the model of the body, i.e., the mechanized body, used by modern western physicians to view the patient's body.

According to the biomechanical model, the human body is viewed as a material, mechanized object that is reducible to a collection of physical parts. From this perspective the patient's body is a machine composed of individual body parts, which can be fixed or even replaced with new ones when broken or lost. Obviously such a model of the body has had a profound impact on how the patient – and the society in which the patient resides – interprets illness, as well as on medical practice and on the patient-physician relationship. Illness, according to this model, is construed in terms of diseased or dysfunctional body parts separate from the overall integrity of the patient's body and lived context.

Working from the biomechanical model of the body, today's physician operates primarily as a mechanic or technician, whose clinical gaze is focused neither on the patient as a whole nor on the patient's lived context but exclusively on the diseased body or body part. Modern medical technology has played a critical role in the development of this model of the

patient's body and in the transformation of the patient-physician relationship, by providing the necessary instrumentation and techniques for reducing the patient to a mechanized body. According to this model, the patient's body is part of a medical machine-world – a collection of interconnected machines – used to diagnose and to treat the patient as body parts. This reductionistic model of the patient's body has led, in part, to a crisis in quality of care in modern medicine, even though it has produced many of today's modern medical miracles (Siegler and Epstein, 2003).

To address the quality of care crisis, competing or alternative models have been proposed to account for the patient's body – models that attempt to capture the wholeness or integrity of the patient's body, including the patient's lived context. Many of these holistic models of the human body are based on Eastern philosophical or religious traditions.² For example, Beinfield and Korngold proposed a model that reflects the garden-like nature of human embodiment based on the Chinese notion of *ch'i*, with the physician as gardener: "Like a gardener, the doctor observes the patient and perceives the signs and symptoms to determine the nature of the problem at hand" (1991, p. 38). Besides these holistic models, there have also been attempts to reform the biomechanical model of the body by humanizing it. Specifically, twentieth-century phenomenology has been utilized to transform the mechanized body into a lived one.³

The phenomenological model of the body as lived body or embodied person reclaims the person's wholeness or integrity, especially with respect to the lived context.⁴ The body, then, is not reduced or explained simply in terms of body parts; rather it is embedded in a life-world, composed of everyday lived (bodily) experience within an environmental context. According to this model, the patient is or exists as an integrated body, not simply as a collection of separate body parts. From a phenomenological perspective, the language and concepts used to describe the physical world are inadequate to account for the patient as an ill person.

The phenomenological model of the body has important implications also for the patient-physician relationship and for the patient's interpretation of illness. Laboring under this model the physician cares for the patient's health through an empathic clinical gaze, as well as other sensory modalities like listening and touch, in which the physician is genuinely aware of and compassionately concerned for the patient's illness and suffering. The clinician's empathic gaze, listening and touch are based on a common 'uncanny' or 'unhomelike' (*Unheimlich*) experience of the body

(see below). According to this model, the patient interprets illness and suffering in terms of a disruption of the embodied person's life-world and not simply in terms of an isolated, dysfunctional body part.

The question that faces modern medicine is whether the phenomenological model of the patient's body is adequate to address the quality of care crisis. To examine that question, I explore the impact these two models of the patient's body have had on modern medical practice. To that end, in two major sections on each model I first examine briefly in initial subsections their origins – providing a historical context for the discussion of each model's main features, in succeeding subsections. In those subsections, the biomechanical and phenomenological models of the body are explicated specifically in terms of machine-world and life-world, respectively. Subsections then follow in which I explore the impact of each model on the patient-physician relationship. Finally I discuss briefly the future development of each model, in concluding subsections to each main section on the biomechanical and phenomenological models. The stage is then set for examining, in another major section, the meaning of illness vis-à-vis each model of the patient's body in terms of how these two models affect the patient's interpretation of illness. I conclude the paper with a discussion of the biomechanical and phenomenological models, in terms of the quality of care crisis in modern western medicine.

The biomechanical model of the body

The origins of the biomechanical model

René Descartes is considered the traditional source for the mechanization of the human body. He split the mind from the body, and on the one hand imparted to the mind a person's identity and vitality while on the other hand he reduced the body to a machine made from inanimate material. For example, he states in the *Treatise on Man*: "I suppose the body to be just a statue or a machine made of earth" (Descartes, 1998, p. 99). Leder compares the Cartesian body to a corpse and argues that the Cartesian corpse has had an acute impact upon the practice of modern medicine: "Modern medicine, profoundly Cartesian in spirit, has continued to use the corpse as a methodological tool and regulative ideal" (1990, p. 146).

The acme of the human body's mechanization vis-à-vis medical practice was achieved by physicians motivated by Isaac Newton's mechanical philosophy.

For example, Archibald Pitcairn – one of the earliest physicians to appropriate Newton’s mechanical philosophy – argued for a “mathematical physick”, or medicine, in which “Physicians ought to propose the method of Astronomers as a pattern for their Imitation” (Brown, 1981, p. 216). After Newton, iatromechanism became the dominant approach to medical practice and has increasingly influenced its practice until the present. Today, the standard model for medical knowledge and practice is simply an extension and application of the Newtonian mechanical worldview.⁵

The mechanized body in a machine-world

Based on the Newtonian mechanical worldview, the body is transformed into a scientific object that is reduced to a collection of separate body parts. In other words, it is just a machine with interchangeable components. As Svenaeus observes: “The body becomes a hierarchical structure – an organism framed in a special language” (2000, p. 49). Thus, the body as parts is composed of different anatomical systems, such as the respiratory or cardiovascular systems. These systems are, in turn, composed of various organs, such as lungs and hearts, which are made up of epithelial, muscular, nervous, and glandular tissues. Finally, to complete the reduction, these tissues are composed of diverse cellular types that are made up of a variety of molecules. Moreover, it is critical to note that the reduced, mechanized body is generally stripped of its lived context: for the mechanized, scientific body is an abstract, universal thing that obeys or is subject to the physical and chemical laws of the natural sciences.

An important component of the development of the biomechanical model of the body is the rise of medical technology. Modern medical technology provides important objective and quantitative data concerning the patient’s disease state. According to McWhinney, “a constant theme [of medical technology] is the tendency for medicine to be dominated by the mechanistic values of objectivity, precision, and standardization” (1978, p. 299). This tendency fosters mechanization of the patient’s body on two accounts. First, it provides the artificial parts and pieces that replace or substitute for the macro parts (organs) or micro parts (molecules) of the patient’s body. Second, it provides a cadre of machines to which the patient’s body is connected, forming body-machine hybrids. Technology, then, has contributed significantly to the development of the medical machine-world – a world that physicians utilize to diagnose the diseased body part and to mend or replace it through pharmaceutical drugs or surgical procedures.

The medical machine-world in which the patient’s body is located has developed tremendously over the last half of the twentieth century, from the stethoscope and microscope of an earlier era, to today’s heart–lung or dialysis machine and computerized or positron emission tomography. Certainly, this technology has been responsible for many of the “miracles” – like open heart surgery and the management of childhood leukemia – in modern medicine. However, it has also been used to redefine the patient’s body as mechanical. The result of this mechanization is three-fold, with respect to the patient’s body. The first has already been encountered – the fragmented body – the division of the body into individual, isolated parts. The second is the standardized body, which is a generic body to which the patient’s body *qua* clinical data is compared. The physician’s task is to shape or reshape the patient’s body to conform to the standard body deemed appropriate by the medical community. The third result of mechanization is the estranged body – the alienation of the patient’s body from the self and lived context and from other people. The patient no longer has control over the body; rather the medical profession takes ownership of the ill body or body part in an attempt to cure it.

The impact of the biomechanical model of the body for medical knowledge and practice is all too familiar. The patient’s body as a machine is separated from the patient’s self and lived context.⁶ The aim of scientific medicine *vis-à-vis* the patient’s reduced, mechanized body is to fix or replace the broken or missing part, generally without reference to the patient’s lived context – for patients’ bodies are nearly or essentially the same. By reducing the body to a collection of parts, argues MacIntyre, the patient as a person vanishes before the physician’s gaze: “to view the human being as an assemblage of bodily parts and processes is to deprive the patient *qua* patient of every moral as well as every social dimension” (1979, p. 90).

Patients as body parts become cogs in a medical machine-world – a world of interconnected machines in which the patient’s body is but another anonymous and exchangeable device. For example, a kidney dialysis machine is used to treat multiple patients under similar conditions; for patients are exchangeable mechanical devices within this machine-world. Since the patient as assembled body parts is just one more mechanical device in the medical machine-world, the patient becomes disembodied or invisible – for the patient’s body recedes into the background of this machine-world. For example, physicians often trust the outputs of machines monitoring a patient rather than the patient’s account of the illness experience.⁷ Rather than being an embodied person,

the patient often becomes a collection of test results derived from the employment of medical technology.

The patient–physician relationship

The biomechanical model of the body has also had a profound impact on the patient–physician relationship. Diagnosis and treatment of a patient’s diseased body are puzzles that concern the physician–scientist as a mechanic or a technician. As Bayles remarks, “The occupation of auto mechanic has arisen in society almost simultaneously with the progress of medicine...Despite one’s initial aversion to this analogy [physician as mechanic], it soon seems a very strong and informative one for the concepts of health and illness as well as the ethical relations involved” (1981, p. 665).⁸ As a mechanic, the physician’s clinical gaze is often myopic – focused on the diseased body part and to the exclusion of the patient’s overall experience of illness and suffering within a lived context. In addition, as Toombs explains, “the ‘medical gaze’ is directed to the inside of the body”, so that the “physician in a sense renders the outer appearance of the physical object-body transparent” (1993, pp. 78, 79). Toombs (1993) also notes that frequently the physician’s gaze is accompanied by the gaze of the machines used to diagnose and treat the patient’s body.

Besides the clinical glaze biomechanical physicians also acquire clinical data of the patient’s body through other sensory modalities, especially listening and touch. Clinical listening, like the clinical gaze, is focused almost exclusively on the diseased body part. The physician asks the patient a set of predetermined questions during the medical history in order to collect data concerning the patient’s disease. Infrequently are questions asked to gather information about the patient’s personal well-being. The physician generally considers information concerning the disease’s impact on the patient’s life as tangential or extraneous to diagnosis or even to treatment. The biomechanical physician’s clinical touch is also focused on the diseased body part, by prodding and palpating it. Moreover, that touch seldom represents direct contact between the patient and physician; rather, it is often mediated through technology, e.g., stethoscopes. Rarely do biomechanical physicians greet their patients by shaking their hand or reassure them by holding their hand.

Diagnosis of the diseased body part depends on a technology that represents the patient’s body part in terms of a set of quantitative, objective, clinical data and observations: “modern medicine has now evolved to the point where diagnostic judgments based on ‘subjective’ evidence – the patient’s sensa-

tions and the physician’s own observations of the patient – are being supplanted by judgments based on ‘objective’ evidence, provided by laboratory procedures and by mechanical and electronic devices” (Reiser, 1978, p. ix). And from that diagnosis the physician often chooses the appropriate therapeutic modality, sometimes with little patient consultation. The concern of the physician is to save the patient’s body from the disease and ultimately from death. Accordingly, bodily death is defeat and is generally avoided at all costs.

Practicing under the biomechanical model of the body, the physician’s concern for the patient’s body and its parts is detached from the emotions of either the patient or the physician. If emotions enter into the patient–physician relationship, they too are reduced to a molecular mechanism. For example, Pert has championed the role of biochemical molecules in the expression of emotions and the maintenance of health: “biochemicals are the physiological substrates of emotion, the molecular underpinnings of what we experience as feelings, sensations, thoughts, drives, perhaps even spirit or soul” (1997, p. 130).

The final impact of the biomechanical model on the patient’s relationship to the physician is passivity on the part of the patient and dominance on the part of the physician. The physician is an authority figure with the technical knowledge, power, and expertise to save the patient’s body or body part. Thus, the physician’s relationship to the patient is one of superiority, both in terms of medical technology and access to that technology.

The future development of the biomechanical model

The biomechanical model of the body is developing towards two hybrid forms of the human body: the genetic body and the cyborg body. As mentioned above, the patient’s body is not only reduced to individual macro parts (organs) but also to micro parts (molecules). Of course the most important molecule, which has achieved iconic stature in western society, is the macromolecule responsible for the transfer of genetic information – DNA. The analysis of DNA and of the genes it composes has ushered in a new era of medicine, genomic medicine, especially in terms of the human genome project (Guttmacher and Collins, 2002). Medical scientists can now introduce foreign genes into the body to produce bodies that are genetic hybrids.

Besides the genetic hybrid body, there is also the hybrid that is part machine and part human – the cyborg. For example, Warwick (2000) had a silicon chip transponder implanted in his arm on 24 August 1998. The chip allowed his arm to be connected to a

computer, which was able to identify his position as he traveled through out the Department of Cybernetics at the University of Reading, UK, and which was then used to open doors and to turn on lights for him as he moved about the department. Both the machine–human and genetic hybrids represent important means by which to enhance the capabilities of the human body.

The phenomenological model of the body

The origins of the phenomenological model

During the twentieth century phenomenologists such as Edmund Husserl, Martin Heidegger, Jean-Paul Sartre, Maurice Merleau-Ponty and others, have radicalized everyday experiences of life by making them explicit and by so doing have explicated the meaning of such experiences through an analysis of their intentional structure. According to Husserl, western science faces a major crisis: positivist natural science fails to answer or even to address fundamental questions about human nature and existence. He argued that we must return to the ‘things themselves’ – to concrete phenomena – instead of turning towards their scientific and theoretical abstractions, in order to uncover their meaning. For what makes possible such abstractions is the concrete world in which we daily live. This everyday world or life-world is the ground or foundation upon which the meaning of human existence rests. According to Baron, “phenomenologists seek to reunite science with life and to explore the relationship between the abstract world of the sciences and the concrete world of human experience” (1985, p. 608).

Modern medicine is also facing a crisis similar to that faced earlier by science. However, for medicine the crisis revolves around the separation between the patient’s concrete world of illness and the physician’s abstract world of disease. Modern medicine’s crisis is one of quality of care; for the clinician’s gaze, listening or touch is generally towards the patient’s diseased body and only derivatively towards the patient’s suffering. Since the current quality of care crisis is largely due to the biomechanical model of the body it can be addressed by resituating the body within the context of the everyday life-world, instead of thrusting it into an artificial machine-world. Again to quote Baron: “If we can adopt a phenomenological perspective, we can try to enter the world of illness as lived by patients rather than confining ourselves to the world of disease as described by physicians” (1985, p. 609).

The embodied person in a life-world

Rather than reducing the patient’s body to atomic elements or abstracting it in terms of universals, phenomenologists embrace the patient as an embodied person in a life-world, in Husserlian terms, or as being-in-the-world, in Heideggerian terms.⁹ In other words, the patient is physically embodied, for the phenomenologist, as a self in a unique life-world. As Schwartz and Wiggins note, “The lifeworld is the sphere of prescientific activity...the realm of everyday social interaction and practical projects... The human being who inhabits and acts in the lifeworld is the embodied subject” (1985, p. 341). The life-world, then, is not the physical universe that science depicts; rather, it is the world of the everyday that is made up by personal activities and projects. It is the world that is lived bodily, through which meaning is imparted to life. The patient is embodied concretely in the here and now (phenomenological space and time) and not abstractly in a universal world that occupies no specific place and occurs at no particular time (physical space and time).

As embodied persons or lived bodies, persons create individual, unique life-worlds. The body, then, is personalized in a lived context or environment; for the person is not composed of separate body parts – according to the Cartesian model – but is an integrated bodily unit that is situated in a specific location and time. To quote Eliot Deutsch: “Persons have bodies to the degree to which they appropriate the physical conditions of their individuality and become integrated (and not merely unified) psychological beings” (1993, p. 5).

At the pre-reflective level, the person ‘ex-ists’ the body: “I am ‘embodied’ in the sense...that I *am* my body” (Toombs, 1993, p. 52). In other words, the body is the medium in which a person carries out intentionally daily tasks and activities and through which a person comes to know the body not through abstracting it but through living it. The body, then, is not some thing that a person possesses as an object; rather, it is a lived, integrated unity that is not readily divisible into a body on the one hand and a mind (or self) on the other. At the reflective level, the body may be grasped as an object distinct from the self; but it is still an object within a life-world. It is not an object of scientific investigation, i.e., as a theoretical or an abstract thing. In other words, the body is not experienced as molecules, cells, tissues, etc.; rather, it is an integrated unity through which a person ‘inhabits’ a life-world.¹⁰

The phenomenological model of the body has important implications for the patient’s experience of illness. Illness is not so much the dysfunction of a

mechanized body or body part within a machine-world as it is the disruption of an embodied person's life-world: "illness must be understood not simply as the physical dysfunction of the mechanistic, biological body but as the disorder of body, self and world (of one's being-in-the-world)" (Toombs, 1993, p. 81). Illness, then, results in an awareness of the body as separate and foreign that stands out over and against (ek-stasis) the normal course of life.¹¹ No longer does the suffering patient go about everyday life without conscious awareness of the body's constraints. That body, in terms of its spatial and temporal dimensions, imposes itself upon the patient in illness. Illness often expands the temporal scale and collapses the spatial domain in which the body is lived (Toombs, 1993). For example, a routine activity, such as combing one's hair, which took little time, takes much longer time when an arm is broken.

As a broken tool thwarts the builder's plans so the ill body disrupts the patient's plans. This is not to say that the body is a tool in the strict sense and that the ill body consequently is a broken tool, but the analogy of the ill body as a broken tool does capture the impact illness has on the patient's experience of the body: "it would be wrong to call the body parts tools since they are also part of *Dasein* as self. They are not only a part of the totality of tools, but also, as lived (*leibliche*), they belong to the projective power of the self" (Svenaesus, 2000, p. 109). The objectification of the phenomenological body, however, differs from the objectification of the biomechanical body. In the former the patient is an object but one that is situated in a unique life-world as an embodied person, while in the latter the patient is an object located in a common machine-world as a disembodied person.

The patient-physician relationship

The phenomenological model of the body also has important implications for the patient-physician relationship. The physician's clinical gaze is one of empathic care, which is directed not just at the diseased body part but also to the patient's suffering. Besides the empathic gaze the physician also listens empathically to the patient's story as narrated in the patient's own words and style (see below). The physician asks not only diagnostic questions during the medical history but also questions concerning the impact of the illness on the patient's daily life and what the disease means to the patient personally. Finally, the physician's clinical touch is empathic. Besides palpating the diseased body part, the physician also acknowledges the patient as a person through greeting the patient by shaking the hand or through reassuring the patient by holding the hand.

The physician is able to accomplish this empathic gaze, listening and touch because of a shared human condition – the 'uncanny' or 'unhomelike' (*Unheimlich*) nature of the body.¹² Although the body is one's own, there is a sense in which it is independent. In other words, the body is not always controllable; for a person is, after all, a contingent being. Even though a person may not be ill, the body often announces itself through moments that disrupt a person's life. By these experiences, a person becomes aware of the body's limitations: "Some reflection on this apprehension of the body as 'uncanny' under normal circumstances provides a clue as to the profound sense of bodily alienation which is intrinsic to the experience of illness" (Toombs, 1993, p. 100).

Toombs (1993, pp. 90–98) utilizes the above feature of this common experience, in which the uncanny body announces itself, to examine features of the patient's illness and to address the patient-physician relationship. These features include losses of wholeness, certainty, control, freedom to act, and the familiar world. The loss of wholeness is reflected in the breakdown of the patient's bodily integrity, which often leads to a loss of control over bodily functions and of the patient's life. Besides these losses, illness is also associated with a loss of freedom to do many of the activities the patient was once accustomed to doing. The loss of certainty pertains to the acknowledgement of the patient's mortality. Finally, illness leads to a loss of the familiar world in which the patient lives. By being made aware of these features of illness and how they influence the patient's life, physicians can more adequately attend to the patient's suffering rather than simply to the patient's pain caused by a diseased body part.

The future development of the phenomenological model

The future development of the phenomenological model of the body is two-fold. The first is towards transformation of the mechanized body – whether in its molecular or cyborg manifestations – into an embodied person. Embodiment is stretched to include the artificial enhancements of, or additions to, the body. As the mechanical body becomes more artificial, e.g., computer chips or foreign genes, the embodied person strives to incorporate modifications of and additions to the body into a unique life-world. Patients must reclaim their identity as embodied, not abstracted, persons and as integrated bodily units embedded in unique life-worlds.

The second development is the transformation of the empirical textual body – as represented by the texts obtained from the medical history and examination – into a lived body. Besides reducing the

patient to a mechanized body, scientific medicine has also reduced the patient to an empirical textual body that often replaces the physical presence of the patient (Daniel, 1986). The medical history represents the patient as an empirical text in which the physician gathers data by asking the patient questions, who then answers them with little extraneous input concerning the experience of illness. The medical examination also represents the patient as an empirical text, i.e., as a set of numbers obtained from laboratory tests or as a set of written descriptive phrases obtained from the physician's prodding and poking the patient's body.¹³ As Svenaeus argues: "If the body is a meaningful phenomenon...this is so because it is *lived*, an aspect of our being-in-the-world, and not because it is written" (2000, p. 139).

The meaning of illness

As discussed above, the type of model used to represent the body has a significant impact on the clinical encounter between patient and physician. For the biomechanical model of the body the patient is a machine and the physician is a mechanic, who attends to the pain associated with a broken or defective body part, in order to relieve that pain by mending or replacing the broken part. Both the patient and physician are cogs within a medical machine-world. For the phenomenological model of the body the patient is an integrated bodily unit within a life-world, as is the physician who attends empathically to the patient's illness and suffering. Significantly, when this latter model is understood and applied the patient may be healed without necessarily having the diseased body part cured. This state of affairs is the result of the profound impact these models have on the meaning patients attach to their illness.

Fragmented and narrative meanings of illness

According to the biomechanical model, the self as mind is separate from and above the experience of the body's disease state; and, the pain associated with the disease state, as experienced by the patient, is imposed from outside by the damaged or broken body part. Since the impact of this model upon the patient is fragmentation, in terms of both the patient's personhood and lived context, the meaning that results from the disease is also fragmented and is confined simply or exclusively to the defective or impaired body part. Moreover, the result of this fragmentation is alienation and estrangement of the diseased body part both from the patient's self and lived context. Moreover, the physician generally

provides the meaning for the patient's disease state, especially in terms of body parts, as a dysfunctional body-machine. Unless the diseased body part is cured, i.e., fixed or replaced, the physician has failed and cannot heal the patient – for healing is equated with curing the diseased body part.

Certainly the manipulability of the reduced, mechanized body is important for addressing the material issues, such as pain and death, associated with disease; but it is inadequate for understanding the suffering associated with the patient's illness. An important question that the physician must address is: Why does *this* patient suffer? The answer revolves around the meaning the patient attaches to the illness. It is the patient as an embodied person who provides the meaning for the illness and suffering rather than the physician or the medical profession. That meaning is situated in terms of the disruption in a patient's life-world and the meaning structure associated with it; for illness is not simply a diseased body part isolated from the patient's self or life-world. The aim of the healthcare system, not just physicians, should be not only to cure the patient's diseased part – if possible – but to help the patient resolve the disruption in the life-world and the anxiety associated with suffering from an illness. This can only be achieved by taking into account the meaning the patient attaches to illness and suffering.

The physician enters the patient's world of illness and suffering and learns what it means to the patient by listening empathically to the illness narrative. Kleinman has championed the importance of the patient's narrative and the responsibility of the physician to take it into account, during the healing process:

The work of the practitioner includes the sensitive solicitation of the patient's and the family's stories of the illness, the assembling of a mini-ethnography of the changing contexts of chronicity, informed negotiation with alternative lay perspectives on care, and what amounts to a brief medical psychotherapy for the multiple, ongoing threats and losses that make chronic illness so profoundly disruptive (1988, p. 10).

The meaning that a patient attaches to illness and suffering, especially chronic or fatal illness, is critical for the healing process – and that meaning is accessible through the patient's illness story. Consequently, it is imperative that the physician take this story seriously when diagnosing and treating the patient. As Rita Charon claims, "narrative medicine can give physicians and surgeons the skills, methods, and texts to learn how to imbue the facts and objects of health and

illness with their consequences and meanings for individual patients and physicians” (2001, p. 1898).

The body as territory and as wonder

In *At the Will of the Body*, Frank (2002) illustrates the impact the biomechanical and phenomenological models of the body have on the patient’s experience and meaning of illness. He begins the chapter, entitled “The Body as Territory and as Wonder”, with the words spoken to him by the physician initially testing Frank for cancer. According to Frank, the physician claimed that the test results indicated: “This will have to be investigated” (2002, p. 50). Frank correctly assesses that the word ‘this’ did not refer to Frank as a person but to the body part as a disease candidate.

Frank next explores two stories concerning the patient’s body: one of territory and one of wonder. As territory, the patient’s body is envisioned as property – generally the property of the medical profession. According to Frank, the patient or the patient’s body becomes colonized by physicians: “When a person becomes a patient, physicians take over her body, and their understanding of the body separates it from the rest of life” (2002, p. 52). Besides the colonization in which the physician assumes “center stage” the patient, according to Frank, is also disembodied: “the person within my body was sent out into the audience to watch passively” (2002, p. 53). The end result of colonization and disembodiment is loss of the patient’s self. But how does the patient regain the self? According to Frank, it is through wonderment at the body.

In contrast to the story of territory – and the reduced, mechanized body it assumes – Frank asserts that the approach to the patient’s body should be one of wonder. Rather than trying to control the body, especially by the medical profession’s attempt to manage the diseased body part with its technology, Frank asserts: “One lesson I have learned from illness is that giving up the idea of control, by either myself or doctors, made me more content” (2002, p. 59). “Wondering at the body,” for Frank, “means trusting it and acknowledging its control” (2002, p. 59). Frank does not intend to contrast wonder with therapy, but he seeks to reorient the relationship between the two: “wonder is an attitude in which treatment can best proceed” (2002, p. 59). Through this wonderment at the body, Frank regains his embodied self: “Illness taught me that beyond anything I can do, the body simply is. In the wisdom of my body’s being I find myself, over and over again” (2002, p. 63). Wonderment at the body, then, allows

Frank to apprehend that he is an embodied person, who brings meaning to his life-world – whether in health or in illness. To reduce the body at any time to body parts, is to lose the integrity of lived experience as an embodied person.

Conclusion

From the biomechanical point of view, the patient’s body is often perceived as a material object that can be reduced to a system of physical parts. That body is viewed as a machine composed of individual body parts, which can be fixed or exchanged with new parts, when broken. By reducing the patient’s body to an assemblage of body parts, the patient *qua* person vanishes. Such a model of the patient’s body has a profound impact on the patient–physician relationship. Physicians become mechanics or technicians, whose clinical gaze, listening and touch are often focused exclusively on the diseased body part and not on the patient as a whole. Modern technology has played a critical role in the development of this model of the patient’s body and in the transformation of the patient–physician relationship, by providing the necessary instrumentation and techniques for reducing the patient to a mechanized body. This model has been responsible, in part, for the quality of care crisis plaguing modern western medicine, in which patients perceive that they are not treated in a sufficiently compassionate or empathic manner – often leading to further patient suffering.

In response to the quality of care crisis in modern medicine, alternative models have been proposed to account for the patient’s body – models that attempt to capture the patient’s wholeness as a lived body or an embodied person within a lived context. The phenomenological model of the patient as embodied person reclaims this wholeness as a significant component of the patient’s experience of illness and suffering. Specifically the patient’s body is embedded in a life-world, composed of the patient’s everyday bodily experience. Laboring under this model the physician cares for the patient’s health through an empathic clinical gaze, listening and touch, in which the physician becomes aware of the impact illness has upon the patient’s daily life.

Finally, these two models of the body have a profound impact on the patient’s attempt to find meaning in illness. For the mechanized body the medical profession often supplies the meaning for the patient’s diseased parts, while for the embodied person the patient generally supplies meaning in terms of a disrupted life-world. It is this access to the disrupted life-world that allows the physician to

understand and to respond compassionately and empathically to the suffering associated with the patient's illness. The phenomenological model of the body affords physicians with the opportunity to provide the quality of care patients deserve and expect from modern western medicine.

At the root, the meaning of illness is an ontological issue best approached phenomenologically, i.e., illness involves making possible or articulating a patient's life-world or being-in-the-world. In terms of Heidegger's notion of care (*Sorge*), the meaning-structure of illness, as a disruption in being-in-the world, is made possible and articulated with respect to a person's concern as a being thrown into a world that is often strangely unfamiliar or 'unhomelike' (*Unheimlich*).¹⁴ This is certainly the case when a patient is diagnosed with a fatal illness or must live with a debilitating illness. As an embodied person, the patient comes to know the authentic and genuine self as limited and finite, especially in the face of death or chronic illness.¹⁵ The face of death and the face of illness, as well as the anxiety (*Angst*) over them, are often the bases for a disruption of the patient's life-world or being-in-the-world. By resolving the anxiety surrounding the patient's illness through reestablishing the patient's 'homelikeness' (*Heimlichkeit*), the patient is healed even though the diseased body part may not be cured. Physicians must learn to utilize effectively in the healing process the patient's anxious care and concern about bodily existence.

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Notes

1. For additional discussion of the erosion of modern western medicine's image, see Burnham (1982).
2. An important assumption underlying work on the medical body is Leder's notion of a "positive

feedback loop" between a culture and its conception of the body: "The body's practices and self-interpretations are always already shaped by culture. Conversely, culture is always shaped out of the stuff of bodies, arising in response to corporeal needs and desires" (1990, p. 151).

3. Although phenomenology appears to be incommensurable with the analytic tradition in philosophy, there are important connections between them; see, e.g., Leder (1990, p. 155).
4. Although the notions of embodied person and lived body are not synonymous, they are used interchangeably through out the paper.
5. The Newtonian mechanical model has been extended today in terms of genetic and cybernetic bodies (see below).
6. The notions of self and person, although not identical, are taken as similar and unproblematic for the present discussion. For further discussion of the self, especially in terms of phenomenology, see Zaner (1981).
7. A powerful illustration of the patient receding into the background of modern medical technology is the case of 'Barbara'. In an episode of *Medicine at the Crossroads* (Thirteen/WNET, 1993) entitled 'Code of Silence', a team of physicians checks the condition of Barbara – a quadriplegic patient. While the attending physician informs the team of the patient's vital statistics, the patient is desperately trying to tell the physician that she is short of breath. The physician does not initially hear her because his attention is on the various machine monitors to which the patient is connected. Once he does hear her, however, he informs her that she is all right because the monitor that displays the oxygen saturation of the blood reads 100%.
8. Bayles (1981) eventually does critique the analogy between auto mechanic and physician and argues that the patient-physician relationship should be founded on a fiduciary model.
9. For further discussion of Husserl's life-world and Heidegger's being-in-the-world in the realm of medical knowledge and practice, see Svenaeus (2000, p. 84).
10. Leder makes a similar point: "[skills and habits] are enveloped within the structure of the taken-for-granted body from which I inhabit the world" (1990, p. 32).
11. See Leder (1990, pp. 11–35), for additional discussion on the "ecstatic body".
12. For further discussion of 'Unheimlich', see Zaner (1981, pp. 47–66).
13. The empirical text of the patient's body obtained from the medical history and examination must be contrasted to the narrative text of the patient's illness story. This latter text is important for the practice of a more humanistic medicine (Kleinman, 1988; Charon, 2001).
14. See Svenaeus (2000, pp. 90–100), for a more thorough discussion of 'unhomelikeness' (*Unheimlichkeit*) and 'homelikeness' (*Heimlichkeit*).
15. For a similar discussion but in terms of the "disappearing body", see Leder (1990, pp. 69–99).

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