

## Chapter 13

# The Ethical Imperative of Holism in Medicine

Alfred I. Tauber

*Center for Philosophy and History of Science, Boston University, Boston, MA, USA*

### A morality play

*The setting - municipal hospital emergency ward. Dr Alfred Tauber is taking morning report from the resident on-call, Jim Watson.*

*Tauber: 'Good morning, Dr Watson. Tell me about the cases last night'.*

*Watson: 'Well, we were quite busy. There were seven people admitted to the hospital'.*

*Tauber: 'Fine. Tell me about them - but be brief!'.*

*Watson: 'Here, let me give you the list'. The resident hands Tauber the following roster:*

- (1) *16 year old Black man with a gunshot wound to the buttocks; no past medical history; taken to the operating room.*
- (2) *24 year old Arab woman with threatened pregnancy; admitted to High-Risk Obstetrics.*
- (3) *30 year Black man with priapism following sexual intercourse; admitted to the Urology Service.*
- (4) *12 year old Black girl with chest pain, shortness of breath; fortieth hospital admission; placed in the Intensive Care Unit.*
- (5) *5 year old child with jaundice; otherwise asymptomatic; admitted to Pediatrics.*
- (6) *40 year old Black woman with acute left-sided paralysis and slurred speech; admitted to the Neurology Service.*

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*Promises and Limits of Reductionism in the Biomedical Sciences*

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(7) *27 year old Black man with severe left hip pain; no trauma; no fever; admitted to Orthopedics.*

*Tauber: 'Hmm. Interesting. They each have the same disease'.*

*Watson: 'What! How do you know?'.*

*Tauber: 'Elementary, my dear Watson. Elementary'.<sup>1</sup>*

### **Introduction**

Medicine poses a particularly important case for the holism-reductionism debate. In many ways, the organismal basis of medicine, that is, the commitment to viewing and treating the patient in his biological entirety is a fundamental demand of clinical practice. We can hardly be satisfied with 'fixing' one problem and leaving any number of other dysfunctions to fend for themselves. In short, the physician is trained to address the biological entity as a whole - going from molecule to organ and finally to integrated systems. Integral to the physician's science is this commitment to 'holism', so while focusing on a particular derangement, the framing of any disease must account for all other systems which by necessity interact with it. This is one way of looking at the limits of reductionism, one that may fairly be regarded as the epistemological question, or expanded to methodological or theoretical reductionisms if taken by such classifications. However, here I wish to remind us that the holistic construct is ultimately, at least in medicine, a moral demand. The mandate to integrate does not stop at the physiological, but extends 'up' to the highest faculties of being human - the social, the psychological, the moral and the spiritual. So, in short, the epistemological challenges or limits of reductionism in the biological sciences and medicine are not my topic. Instead, I will present another basis for considering the legitimate claims of a holistic approach in medicine.

My basic claim is that medicine, by its very nature, demands a holistic understanding of the organism and a holistic approach to the care of the patient. This orientation is not only epistemological, indeed, it is also a moral imperative. This exposition first draws the historical outline of the Nineteenth century roots of reductionism and its parent philosophy, positivism. From that discussion, I will offer a sketch of how these philosophies altered the basic ethos of medicine and thereby posed what I take to be the essential crisis in contemporary medicine - the direction of its moral orientation. Within this context, I emphasize what I believe are the major implications of the debate about reductionism, and allude to an agenda to solve our impasse. Perhaps fittingly, given the place of this meeting, I acknowledge that Emmanuel Levinas has guided me in this venture (which is explored in greater detail in Tauber, 1999).

Before I proceed, however, note an important caveat about the opposition of holism and reductionism – there is an unsteady balance between holism and its constituent opposite, reductionism. Holism is ultimately defined in contrast, and in context, with the prevailing reductionism of the era: holism and reductionism are inexorably coupled and cannot be defined independently of each other, and thus as Charles Rosenberg wryly observes, ‘the more one looks at Twentieth-century holism, the more elusive it becomes, the more it dissolves and reconfigures itself into its opposite’ (Rosenberg, 1998, p. 348). So before becoming entangled in attempts at definition, let me state clearly that I will not be preoccupied with defining holism beyond the general rubric of ‘considering the patient as a person’. How and why that definition suffices will hopefully become clear as I develop the moral argument. The second key precept, one that undergirds my discussion, is that I do not argue *against* reductionism, but rather I embrace a pluralistic approach. In general, the case for holism is not an either/or proposition – accept holism rather than reductionism. I understand holism to warn against premature and unsophisticated reductionism, where the limits of a reductionist approach are either unknown or unacknowledged. In my discussion, the moral consequences of not balancing reductionism with its necessary alternative is emphasized.

### Historical roots

#### *Positivism*

The historical development of Western medicine as it became a product of the scientific ethos of the mid-Nineteenth century is well known. At that time, two philosophies of science – positivism and reductionism – emerged which decisively shifted the character of medicine towards a new scientific ideal. Neither were totally novel philosophical strategies, indeed each have venerable histories dating back to at least the early modern period, but by the 1850s they were articulated within a new context and were joined to set a new agenda for clinical medicine. By the end of the century, medical training had been transformed and application of a laboratory-based approach to therapeutics established revolutionary aspirations for medical practice. While there are strong social and political reasons for this shift (Foucault, 1963), I wish to emphasize the reification of the patient as a consequence of positivism, and highlight the moral consequences of that approach.

For the past century and a half, mainstream science has assumed a positivist stance, one which increasingly seeks to describe the world in non-personal terms (Simon, 1963; Kolakowski, 1968). Positivism carries several meanings and has been notoriously difficult to define, yet certain precepts

may be identified, especially as espoused in its Nineteenth century format. Foremost, it championed a new form of objectivity, one that radically removed the personal report to one that was universally accessible. Thus knowledge, to be 'true' and 'real', must be attested to by a community of observers who shared a common observation. This move from the private sphere of experience to a communal one had begun at the dawn of modern science, but in the mid-Nineteenth century this ideal of truth became clearly enunciated as a scientific principle. Thus positivism sought a collection of rules and evaluative criteria by which to distinguish true knowledge from what Wittgenstein famously called 'nonsense', a normative attitude which would regulate how we use such terms as 'knowledge', 'science', 'cognition' and 'information'.

As developed in the 1850s, positivism came to be understood as a philosophical belief which held that the methods of natural science offer the only viable way of thinking correctly about human affairs. Accordingly, empirical experience - processed with a self-conscious fear of subjective contamination - served as the basis of all knowledge. Facts, the products of sensory experience, and, by extrapolation, the data derived from machines and instruments built as extensions of that faculty, were first ascertained, and then classified.

Positivism contrasted with, indeed, was constructed in opposition to, the romantic view of the world by denying any cognitive value-to-value judgments. Experience, positivism maintained, contains no such qualities of men or events as 'noble', 'good', 'evil' or 'beautiful'. In radical reaction against the romantics, positivism sought instead to objectify nature, banishing human prejudice from scientific judgment. The total separation of observer from the object of observation - an epistemological ideal - reinforced the positivist disavowal of 'value' as part of the process of observation. One might interpret, but such evaluative judgments had no scientific (i.e. objective) standing. Simply put, where the romantics privileged human interpretation (exemplified by artistic imagination), the positivists championed mechanical objectivity (e.g. thermometer, voltmeter, chemical analysis, etc.) (Daston, 2000).

The radical separation of the observing/knowing subject and his object of scrutiny is the single most important characteristic of positivist epistemology. Because of this understanding, positivists claimed that science should rest on a foundation of neutral and dispassionate observation. The more careful the design of the experimental conditions, then the more precise the characterization of phenomena, and the more likely the diminution of subjective contaminants. Thus, the strict positivist confined himself/herself to phenomena and their ascertainable relationships through a rigorous

mechanical objectivity. In the life sciences, positivism exercised new standards in the study of physiology that applied the objective methodologies of chemistry and physics to organic processes. This approach allowed newly adopted laboratory techniques to establish physiology as a new discipline and gave birth to biochemistry, whose central tenets held that the fundamental principles of organic and inorganic chemistries were identical, differing only inasmuch as the molecular constituents of living organisms were governed by complex constraints of metabolism. This led to a new declaration for the application of a reductionist strategy to biology and medicine.

### *Reductionism*

Positivism's methodology was intimately linked to the assumption that all of nature was of one piece, and the study of life was potentially no different in kind than the study of chemical reactions, the movement of heavenly bodies, or the evolution of mountains. Thus, if all of nature was unified – constituted of the same elements and governed by the same fundamental laws – then the organic world was simply on a continuum with the inorganic. So, according to this set of beliefs, there was no essential difference between animate and inanimate physics and chemistry, and the organic world was therefore subject to the same kinds of study so successfully applied in physics.<sup>2</sup> The new problem was both to reduce the organic to the inorganic, that is, to exhibit the continuity of substance and operation, and concomitantly understand the distinct character of life processes. To accomplish this twofold agenda, positivism was soon coupled to another philosophy, namely reductionism. It is important for my argument to distinguish these two philosophies, and appreciate that while reductionism might be regarded as a product of the positivist program, it is, in my formulation about medicine, subordinate to the dominating question of objectification.

The reductionists were initially a group of German physiologists, led by Hermann Helmholtz, who in the 1840s openly declared their manifesto of scientific inquiry (Galaty, 1974). They did not argue that certain organic phenomena were not unique, only that all causes must have certain elements in common. They connected biology and physics by equating the ultimate basis of the respective explanations. Reductionism, specifically physical reductionism as opposed to the later development of genetic reductionism, was also a reaction to romanticism's lingering attachment to vitalism, that notion that life possessed a special 'life force'. Vitalism was seized upon because it belied the unity of nature offered by various mechanistic philosophies. The debate was largely resolved by three key discoveries, i.e.

Helmholtz's demonstration that heat generated by contracting muscle could be accounted for by chemical metabolism (1847) (sic - no special vitalistic force was necessary), Louis Pasteur showing, about a decade later, that bacteria could not arise through spontaneous (sic - vitalistic) generation, and finally Darwin, who in the *Origin of Species* (1859), presented the case for a blind materialism to explain the evolution of species. The appeal of vitalism was not totally extinguished by mid-century, but certainly a new scientific ethos had taken over the life sciences by 1890. In addition, medicine was radically changed as a result of these developments - in the United States the establishment of the research-based medical school, Johns Hopkins, the subordination of contenders to biomedicine through the Flexner Report (1910), and the enthusiastic application and still unrealized expectations for the elimination of infectious diseases each date to this period (Tauber, 1992).

The impact of reductionism, in my view, was to apply methodologically the underlying philosophical program of the positivists. This new objective attitude had a profound influence on the doctor-patient relationship, and even more importantly gave new meaning to illness and the body (Foucault, 1963, 1973). The holistic construct of Man and the medicine which served him were replaced by a fragmenting clinical science that, in its powerful ability to dissect the body into its molecular components, failed to address the person *qua* person. In other words, the laboratory context replaced the integrity of the individual with a different standard of fragmenting analysis.

However, the epistemological shift also carried a moral corollary. The repercussions of this movement away from a holistic approach to one that celebrated the reductive scrutiny left medicine with a deep contradiction. Initially designed to address the patient's illness as experienced in an array of meanings directly accessible to the sufferer, disease of a system or organ became the focus of concern, and medicine thereby made a Faustian pact with valueless science. Amending, and often at times foregoing integrated care - one that addressed the psychological and spiritual dimensions of illness as well as the pathophysiological - medicine too often was accused of losing its deepest commitment to the patient.

#### *The holist response*

Medicine, of course, was never monolithic, and well into our own century renewed challenges to reductive orthodoxy have appeared, even within mainstream conventional medicine: constitutionalism, psychosomatic medicine, neo-Hippocratic medicine, neo-humoralism, social medicine, Catholic humanism, and, in Europe, homeopathy and naturopathy (Lawrence

and Weisz, 1998). These 'holistic' systems have been espoused not only by various kinds of practitioners, but in noteworthy instances, championed by 'legitimate' basic scientists, e.g. Henry Head, Walter B. Cannon and Alexandre Besredka (Lawrence and Weisz, 1998). Through historical reflection, we can see that the discussions of today are directly linked to similar debates held between 1920 and 1950, which in turn were reframed arguments dating back to the Nineteenth century.

The term, 'holism' was coined by Jan Smuts in a bio-philosophical text entitled, *Evolution and Holism* (1926). He saw the initial challenge of wholes in terms of 'causation', recognizing that simple mechanical cause was inadequate to explain the behavior of complex systems. While few subsequent studies explicitly embraced this issue, the general tenor of his approach was explored well beyond evolutionary theory (e.g. embryology, physiology, ecology, etc.), and was applied to medicine. There, holism referred not only to the relational character of medical description and therapy, but to the scope of the medical gaze. In this format, holism's banner was employed primarily in epistemological discussion (Lawrence and Weisz, 1998), specifically the requirement for seeking a synthesis of increasingly fragmented knowledge to understand the character of integrated wholes. This was both an epistemological project and a moral one - the ethical imperative to maintain human relations always marked holism, in all of its various applications, in opposition to the underlying positivist orientation that sought to minimize the human element (Hughes, 1974). The conflict has been rightly seen as an extension of deeper cultural conflicts, and in some contexts, like France and Germany, the polemics extended quite clearly into the broadest of political and philosophical ideologies. This is hardly the place to pursue this aspect of the holism/reduction debate, other than to note its broad application beyond medicine proper, suggesting that the cultural forces at play in the specific medical setting are composed, at least in part, from contributing elements arising from other social and intellectual agendas. So while the holist rejoinder of the inter-war years has been well studied, it is perhaps less evident how our own era may reflect similar protestations and unease with the conditions of contemporary life that are reflected in the current espousal of alternative therapies.

### **The ethical challenge**

I believe the holistic rejoinder to reductionist medicine is both epistemological and moral. Here, I will focus my remarks on the latter aspect of the issue. From the moral perspective, we begin by acknowledging that the doctor-patient encounter is, by its very nature, a negotiated attempt to

co-ordinate, if not combine, different frames of reference - treating disease (medical science) and experiencing illness (the patient). From this point, it seems to me that the recurrent question plaguing a reductionist, positivistic clinical medicine is to what extent the mechanistic, dehumanizing experience of becoming a medical object of scrutiny and therapy can be mitigated by counterbalancing factors. I have argued that a response to this question must begin with re-evaluating the doctor-patient relationship and seeing it as fundamentally ethical in character (Tauber, 1999). My thesis, very simply, is that science and technology are in the employ of medicine's primary moral responsibility, and that the ethical dimension of care supervenes and orders all other aspects of medicine. By this I mean that the requirement of recovering the full personhood of the patient to again become an autonomous free-living individual is the fundamental telos of medicine. This is an ethical mandate, and from this perspective, science is fundamentally in the employ of a moral goal. From this perspective, a humane doctor-patient relationship remains a basic requirement of contemporary medicine (Tauber, 1999).

Here I want to draw the implications of this position for understanding the relationship of biomedical reductionism as the dominant positivist orientation to holism - in this case, the restitution of the intact person to his or her full personhood. I maintain the following:

- (1) In any clinical encounter, the experience of the suffering patient and his or her reification as a medical object requires a negotiation between the two points of view.
- (2) While the successful application of rational, scientific knowledge is expected, this application can only be framed by the particular context of care.
- (3) This so-called 'context of care' is fundamentally moral in character inasmuch as it is framed by the particular values and needs of the patient.
- (4) Based on those values, science has been developed to address disease, but the care of illness, the care of the suffering patient, requires more.

Ergo, effective medicine is compassionate medicine, and the reductive practice must be regarded, always, as only part of the therapeutic encounter. Note, there is no argument *against* reductionism per se, but there is a complaint lodged against radical positivism, where the patient is regarded as the disease, e.g. 'the cancer in bed 3', or 'the pneumonia in room 506'.

There are many implications and directions we might pursue, but I wish to focus on how ethics supervenes over epistemology in this discussion.

In a trivial sense, values direct knowing. For instance, we constantly choose to pay attention to certain elements of our experienced world and ignore the vast majority.<sup>3</sup> Values determine what we study and indeed, as Hilary Putnam has cogently argued (Putnam, 1990), even the positivist standards or aspirations of science are values, historically arrived at and chosen in everyday practice. In medicine, this adage is overwhelmingly self-evident and hardly needs recitation. However, the implications of this understanding apparently require restatement. From the socially based policy decisions of healthcare administrators to the attention paid to the individual patient, the healthcare delivered is allocated by a distillation of value choices. When the American government essentially ignored AIDS during most of the 1980s, that reflected a policy decision, one based on a value-laden ideological orientation. The implications were horrific, and its reversal, gratifying. Moving to the individual case, if a doctor in an intensive care unit chooses to replace an elderly man suffering from pneumonia with a 30 year old woman in coma, that is also a value-based decision.

From the community to the individual, medicine is embedded in a value system, and patients understand that they are subject to such underlying choices. They demand, and expect, that their physician will negotiate the maze of choices for them, be their advocate, and protect their interests. For instance, whether I administer an aggressive chemotherapy to an elderly patient depends on many factors beyond his/her physiology, and must include such factors as expected quality of life, support structures, other confounding medical problems, etc. These are choices that must be negotiated with the patient and family. Simply put, medicine is hardly objective in its applications, nor in its practices, and must engage the social world of the sufferer, as much as the biophysical and genetic domains of the body. The boundaries are not firmly demarcated. The positivist attitude simply will not suffice in the care of the patient. Furthermore, it is an encumbrance. Patients are social creatures as well as organic ones, and the caring physician must recognize that care is multidimensional.

The existential state of being a patient is perhaps an even more immediate domain of the moral. The loss of autonomy, the fear of the unknown, the dissolution of identity accompanying pain in its multifarious forms, the dehumanization of being subjected to the administrative processes of healthcare, and the psychological dependence each of these challenges fosters combine to make the physician the patient's advocate in a different way to the social one described above. Here, individual concerns are paramount, and the most immediate response must be a humane one.

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However, physicians are trained to be medical scientists and testaments to the conflict inherent in that orientation are legion.<sup>4</sup>

This positivist attitude is well-established in the biomedical world, and, to be sure, it was hard-won and hardly to be disparaged. However, at the same time, the price for objectifying disease has diluted, if not too often replaced medicine's ancient calling of care. I mean by 'care,' attention to each facet of the individual, namely, treating the patient as a person, as a whole. A medicine that fails to address those elements of personhood that have no scientific basis - the social, the emotional, the moral - is ultimately fractional and therefore incomplete. Only by the physician committing to comprehensive care can the multifarious elements of being ill be addressed effectively. There is no one else to assume that responsibility, and we must invoke the ethics of responsibility to re-define the entire enterprise.<sup>5</sup>

### Conclusion

I believe, at least in medicine, the argument between reductionism and holism is a hollow one. From the epistemological perspective, the organism as an integrated, functioning entity frames all approaches to the patient. Medicine is, by its very character, holistic in orientation, endeavoring to address all systems at once and to effect full function of each. This requires a global view of function, from molecule to intact organism. However, medicine is more than a science of an organic entity, and ultimately must be judged as how effectively it addresses the person, the individual with illness. Disease is an objectified account, but disease is only one component of illness, and all those other elements of dysfunction that might arise from disease also require care. In this sense, the patient has moved from being an entity - an organic construct - to one of personhood. This latter characterization is a moral one, one laden with values and choices. If one regards medicine as dealing finally with this larger conception of the patient, then reductionism must be viewed as a tool, albeit a powerful one when applied to certain questions, but only an instrument in the employ of another agenda. The ethical demand of medicine simply disallows satisfaction with the positivist stance, either in practice or as an aspiration. To accede to the resulting fragmentation of reductionism is to surrender medicine's ultimate concern, the care of the patient.

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## Notes

<sup>1</sup>Each of these patients has sickle cell disease (SCD), noteworthy as the first 'molecular disease'. First identified as arising from an abnormal hemoglobin in 1949 (Feldman and Tauber, 1997), the molecular anatomy and biochemical consequences of the amino acid substitution in the beta chain have been detailed in extraordinary detail. Indeed, it is fair to assign SCD as the reductionist model illness if, sometimes in the future, gene replacement effaces the faulty gene with a normal one. However, at present, SCD exemplifies the reductionist failure inasmuch as despite the singularity of the molecular lesion, the disease has protean manifestations, because the molecular defect is only the initiating cause of a complex clinical phenotype. Basically two syndromes arising from the sickling of hemoglobin dominate the clinical picture: hemolytic anemia (giving rise to jaundice, as in case 5) and various manifestations resulting from the obstruction of small blood vessels. Because the red cells are both non-pliable and 'sticky' (as a result of secondary changes to their exterior membranes), they are prone to forming 'plugs'. These obstructions then give rise to pain (due to impaired oxygen

delivery) and ultimately end-organ damage (again resulting from repeated or prolonged oxygen deprivation). Thus, cases (2), (3), (4), (6) (stroke) and (7) are each due to obstruction resulting from sickled red cells. Most interesting, perhaps, is the first case, where the patient is totally asymptomatic despite having the same molecular lesion as the others. Compensatory mechanisms apparently allow this individual to lead a 'normal' life, that is, if he can stay out of harm's way!

<sup>2</sup>Considering the penchant for defining organic processes at their elemental level, it is perhaps ironic to note that the battle over vitalism, and the character of the organic world more generally, may be regarded as an aspect of the quest for a single unity of the world. This was a fundamental romantic tenet, so in at least one sense, the romantic notion of vitalism was overturned, but on the other hand, the more important precept of nature's unity was reconfirmed by the reductionists, and adamantly so. However, in the process, an insidious shift had occurred. Man had been displaced from his metaphysical perch and had assumed a more democratized, or perhaps better, universalized standing. Medicine was to treat the body essentially composed as a machine, governed by uniform chemistry, and thus susceptible to mechanical repair.

<sup>3</sup>The limits and consequences of epistemological selection is hardly a new problem, and I think the issue was best described by William James almost a century ago:

*We work over the contents of the world selectively. It is overflowing with disorderly arrangements from our point of view, but order is the only thing we care for and look at, and by choosing, one can always find some sort of orderly arrangement in the midst of any chaos . . . . [Nature] is a vast plenum in which our attention draws capricious lines in innumerable directions. We count and name whatever lies upon the special lines we trace, whilst the other things and the untraced lines are neither named nor counted. There are in reality infinitely more things 'unadapted' to each other in this world than there are things 'adapted', infinitely more things with irregular relations than with regular relations between them. But we look for the regular kind of thing exclusively, and ingeniously discover and preserve it in our memory. It accumulates with other regular kinds, until the collection of them fills our encyclopedias. Yet all the while between and around them lies an infinite anonymous chaos of objects that no one ever thought of together, of relations that never yet attracted our attention (James, 1902, 1987, p. 394).*

<sup>4</sup>The issue is succinctly stated in a recent book review about schizophrenia:

*Despite their reputation for vanity, many mental health professionals, and medical students in particular, fail to recognize their own importance. They 'come and go among patients as if their knowledge and skills were all that counted, their persons not at all'. The remark is pertinent, for it points to the underlying vision that drives the profession. The medical students are not looking for personal engagement with the patient. They don't really want their 'person' to make a difference. That is not the 'importance' they are after. Rather they want to learn (why not?) to heal the patient with a precise and controlled intervention, the exact dosage of the exact drug chosen after an exact diagnosis based on meticulous and exact analysis of spinal fluids and brain scans. They are in thrall, that is, to the great and credible dream of Western medicine (Parks, 2000, p. 15).*

<sup>5</sup>Here we turn to Levinas. I can hardly do justice to summarizing the philosophy of Levinas, but suffice it to note that he based his philosophy on the demand of the other that requires a response, an ethical answering, and in that response a moral attitude is established. The encounter alone defines both parties - in this case, physician and patient. I have argued elsewhere (Tauber, 1999) how this act of response in the medical setting need not be negotiated or otherwise sought after, but is intrinsic to the medical setting. The physician assumes, as given, a posture of response as part of his or her professional identity, and so beyond the richness of the doctor-patient relationship for exploring the implications of Levinas' moral philosophy, it serves as a ready structure by which to frame my own views about holism, for if one accepts this general formulation, it seems self-evident, at least to me, that the epistemological discourse in medicine must assume a position relative to the overriding ethical concern. In this sense, ethics supervenes all other voices of medicine. And in terms of our topic, we might well appreciate that the issue of holism has now moved from an argument between different approaches to knowledge, to one whereby knowledge might be judged.

## QUESTIONS AND DISCUSSION

*Ken Schaffner:* Fred, I liked the presentation. I noticed when you covered a variety of people who had addressed holistic perspectives that you did not mention George Engel's biocycle social model. I found that model, which is contrasted in the literature with the so-called biomedical model which is

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reductionistic, a kind of a useful framework, although limited. I think what your presentation adds to that is both the ethical dimension which is really not part, as I understand it, of the biocycle social model. There is a social element, and an economic element, but not an ethical or a normative ethical element, nor does he have the doctor-patient negotiation which you were describing which is an important element of humaneness. The question I have is whether you've found a lot of people used to pay lip service to the biocycle social model, whether you found it at all useful or limiting as I just mentioned, or completely useless?

*Fred Tauber:* I'm glad you added that. It is clear that American medicine at least, and that is the only context I know, is becoming increasingly sensitive to the issues I have raised. Medical students are being increasingly trained to incorporate these social factors and the moral ones, not to the extent that I think is appropriate because the professionalisation of the physician is primarily in the reductive biomedical mode, and these other things are considered auxiliary. They're considered necessary but they are always subordinated to the technical mastery of disease and therapeutics. And so I take, what I assume to be a radical approach, of putting ethics first, because I think that, unless that is done, the entire moral structure of the enterprise is distorted. But young physicians who are training need to master an extraordinary body of knowledge, and they are preoccupied by that. Established physicians complain when I give such a lecture that they don't have time to address the social, emotional and spiritual issues of their patients driven by the administrative concerns of healthcare delivery. So there's a conspiracy, not only with the scientific attitude, but there's the administrative restriction which makes humane care increasingly difficult.

*David Hull:* You have just raised the point that I was going to raise with respect to both research scientists and physicians, and that is time. The reductionist scientist knows he should replicate his own experiments, not to mention those of other scientists, but no one has the time to do what they know that they ought to do. This is true of physicians as well. We hear about all this good stuff that physicians should do when they can spend only 2.3 minutes per patient. I have never met a doctor who did not say that he wished he could do better, but given the contingencies of how medicine is practiced, he has no time.

*Fred Tauber:* I think the physician is becoming increasingly a patient advocate. One has to be radical and oppose those forces. There are beginning to be movements in the United States of physician collective bargaining, not only for increased personal wealth, but in terms of how care is administered, and one of the primary issues is to devote more time to each patient. It's

going to take a major political move to change the medical orientation as it exists today.

*Eugene Dowdle:* You have not mentioned the effects of Medical Aid schemes on physician-physician and physician-patient relationships. One of the keystones of the Oslerian ethic was the sense of collegiality that bound the medical profession and provided, indirectly, a form of peer review that was of benefit to both patients and to medical practitioners. Medical Aid schemes, by their monetarising effects, have done much to damage those professional bonds.

Furthermore, now that we have a situation where a Medical Aid scheme pays, over-servicing, kick-backs, and excessive demands on resources have now become prevalent. There was, for example, a time when a careful history and physical examination with, perhaps, one or two inexpensive investigations, together with aspirin and the passage of time, were sufficient to identify the small percentage of patients with headache as a presenting symptom, who required more intensive or detailed investigation. Now the patient is subjected to a CAT scan, an MRI scan and, often, a lumbar puncture on the first visit in an expensive approach that reduced clinical assessment to a technological exercise.

On the other hand, you rightly emphasised the problems that arise when dealing with patients whose value systems or cultural backgrounds are different. In Africa, one is frequently confronted by patients whose faith in sangomas, or witch doctors, is profound and whose language presents a barrier that requires the intervention of an interpreter and hence the loss of the interpersonal relationship that the holistic approach requires. Under these circumstances, reductionism is often the easiest answer to providing a good deal by Western standards.

*Fred Tauber:* Well, you've raised many points. I'd like to address the first issue about the headache. The reason that the patient has a CAT scan, etc. is because the element of trust has been dissolved, and we practise what is called defensive medicine. In other words, in the very few instances where one might be missing, let's say a tumour, if you will, or a subdural haematoma, you're concerned about being charged with malpractice. Your best medical judgement is that the patient does not need a CAT scan, but the possible consequences from a legal point of view are so horrific that physicians very often over-prescribe tests in order to defend themselves against liability. So the trust issue is really at the bottom of that as far as I'm concerned, and the medical aids of course also are an interference, if you will, between the doctor and the patient. In regards to the different cultures, there is a wonderful book written by Anne Fadiman called *The Spirit Catches You and You Fall Down*. It's a story of a young girl with epilepsy - she's

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Hmong, which is the Laotian Chinese nomadic group that has come to the United States in great numbers. The book is about the negotiation between the physicians and the family in treating the epilepsy, and it failed. There was no negotiation because the family couldn't understand the medical approach, and the doctors didn't understand what they were doing. It's a wonderful case study, if you will, for what happens when the negotiation fails. Now, as it turns out, it's problematic as to whether medicine would have been effective in her case or not, which is what makes the book particularly ironic and interesting. But the general point to be made is that it can be very difficult to make the negotiation, but ultimately it's the values of the patient that are going to determine what kind of care is going to be given, and that's what a physician always has to respect.

*Terrance Brown:* The point that I wanted to raise has to do with the issue of opposing value-laden systems with scientific methods. Science is terribly value-laden. If we look at the evolution of intelligence itself, both phylogenetically and autogenetically, what you see is that you have a powerful system of decision-making which is based upon values, which we experience as feelings or affects, and that this remains throughout human life by far the most important decision-making system. Rationality is actually possible in only very very small areas of human experience. Every one of us gets through the day making decisions about the adaptability of what we eat. Nobody really knows if that thing on the plate is going to kill us or if it's going to help us - we are hungry, it smells good and we eat it. There's no science of choosing a wife, there's no real science of deciding whether to prolong a life that may not be of any quality. The power of the value system or the affective system to make decisions is so much greater than the power of reason, and one of the very interesting things that you see in the developmental psychology of intelligence is how objective values are constructed, they are never complete, how they are differentiated from what's called generally subjective value by the construction of logical necessity, which is very long and slow.

*Robert Richards:* Not only, I presume, do doctors refer to patients by their disease, but doctors refer to one another by their technical abilities, with the 'knife', for example, as a surgeon. If you were a hospital administrator (and I know what the answer to this question is going to be, but I'd like to hear it anyway) and you have to make a decision not unlike individuals in a university department have to make a decision about hiring, and you have the 'knife' who has that kind of technical expertise, but not noticeably is this person an ethical paragon. You have to weigh different values, and I guess

the question is how do you weigh those values? That's one question. The other is, I presume, both in Europe with various social medicine regimes and in the United States now with HMO regimes, that the kind of model you have of the physician is not the one that's held dear by corporations that run HMOs.

*Fred Tauber:* HMOs have the bottom-line 'dollar' as their telos and physicians have a different ethical structure governing what they do, so there's obviously a conflict. I would say that if you have to hire a 'knife' you would look for the 'knife' who is going to be the most humane. If you don't have the choice, obviously you are going to hire the 'knife' as he or she is.

*Robert Richards:* Presume you have just chosen one path almost immediately, namely you hire the 'knife'.

*Fred Tauber:* Well, you obviously you need a 'knife'.

*Robert Richards:* But I mean a good 'knife', as opposed to just an OK 'knife', but he might be a very nice person.

*Fred Tauber:* Well, I don't accept those choices!

*David Hull:* In our society and many societies, the individual is paramount. He or she gets to decide what happens. But former students of mine have come from cultures where the family is the most important, not the individual. They are just part of the family, and the family could decide against the individual and expect the doctor to go with the family's decision not the individual's decision. What do you do?

*Fred Tauber:* If the individual buys into that family ethical structure then you obviously have the problem solved. If he in fact is going to choose a more autonomous model, then presumably you would follow the individual. I will give you an example. I just had a patient about a week ago, a Jehovah's Witness. Jehovah's Witnesses do not take blood products and this patient needed blood products. Because the Church was negotiating for him, we were going to follow the Church's dictates. Then he became increasingly alarmed as he recognised he would probably die, and he chose in fact to become autonomous and we gave him the blood. So the dynamic, at least in America, shifts dramatically because the structure really can fall apart very quickly.

*Ken Schaffner:* Could I just add a quick comment to that. I have seen lots of cases of this sort that David referred to because they seem to be endemic in Washington DC.

*Fred Tauber:* Ken serves on the Ethics Committee.

*Ken Schaffner:* Though I don't practise, and I don't do very much ethics consultation, I have done it in the past. It's a useful vehicle to have a group

of people who are trained in bioethics and know the dimensions of the hospital rules, as well as the cultures that are involved, to get involved in some of these discussions and sometimes to be able to mediate, but sometimes it just falls apart.

With Islamic husbands and Islamic wives, I've seen things just fissure, but in other cases they have been able to come to some kind of an appropriate compromise.