

Point of View

Modern Medicine and the Rejection of Death

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Modern medicine strives for life: its declared aim is to defeat disease and to prolong patients' lives. But is rejection of death a necessary consequence of this medical goal?

I would like to examine this dilemma by looking at the problems raised by technology, and the goals of modern medicine, as opposed to traditional medicine.

Medicine is essentially a service rendered by one person to another who is confronted with the transcendentals of birth, disease and death. In contrast with traditional medicine, modern medicine requires complex technology such as computerised tomography, nuclear magnetic resonance imaging, ultrasonic lithotripters, angiography, mechanical ventilation, cardiac surgery and nuclear medicine. However, technology began to enter medicine comparatively recently, approximately at the time of Morton's successful demonstration of ether anaesthesia in 1846. Before that time, therapies available to physicians were few and mostly ineffective. Surgical operations were few, mainly superficial excisions and amputations, and carried a prohibitive mortality. Abdominal surgery was virtually impossible before anaesthesia. The relationship of bacteria to infection was unknown. Pharmacology was limited to a few drugs from natural sources; synthetic chemistry and scientific therapeutics were in their infancy. The use of X-rays, radioactivity, the hypodermic syringe, surgical instruments, and the stethoscope are all products of the nineteenth and twentieth centuries, and they mark the gradual entrance of technology into medicine. Mention must also be made of the relatively recent growth of knowledge in physiology, pathology and the systematic classification of diseases.

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The first characteristic of technology that modern medicine has acquired is its tremendous efficacy (as opposed to efficiency, which in engineering describes the ratio between energy input and work output of a system; modern medicine is not always efficient, in terms of cost-benefit ratio). In fact, there are so many effective diagnostic and therapeutic techniques available today that an individual physician feels able to manage only a small fraction of them. This has even been criticised as being counter-productive: 'the overspecialisation of medicine'. Although doctors had almost no power to alter the spontaneous course of diseases before the nineteenth century, the effectiveness of modern medicine in extending life is now taken for granted: I suggest it has already resulted in major changes for the human race and that it is one of the major forces shaping modern culture and existence.

It is mostly due to medical science that average life expectancy now exceeds seventy years, when a few centuries ago it was less than thirty years. Neonatal mortality exceeded fifty per cent, while today it approaches one per cent. The important change is that the majority of human beings now reach an advanced age, rather than that the maximum possible age has been extended.

One of the most dramatic demonstrations of the effectiveness of medicine is the increase in population. We now number five thousand million, and in a relatively short time will reach six thousand million. This growth has exacted a high cost in pollution and depredation of natural resources, and extermination of numerous species. It is evident that without the efficacy of modern medicine many of the problems brought about by overpopulation would not be nearly so severe.

Not only is the absolute number of people the highest ever, but for the first time, the elderly are becoming more numerous than the young. Until the modern era, most persons died at an early age from communicable diseases, malnutrition, pregnancy and labour, infection or trauma. Middle-aged persons found in medicine little help

for cardiovascular, respiratory or digestive ailments. Relatively few people survived long enough to die from malignancies or degenerative diseases. The situation has now changed profoundly. Cardiovascular diseases have replaced infection as the most common cause of death, and medicine has extended survival even for these patients.

The social and economic problems brought about by this change in age profile of the population are indeed enormous. Already there are two problems that have not been solved; retirement pensions and medical costs for the elderly. Retirement funds threaten to become insufficient when the inactive elderly surpass in number the active working force, especially as their medical costs are proportionately higher. The elderly, who have less capacity for work, paradoxically demand more from society.

A second characteristic of technology that has probably influenced modern medicine is its pragmatism, with predominance of objective over subjective values. Criteria for success may not include the patient's comfort, subjective feelings and aesthetic sense, but objective results, quantitatively expressed. The main criterion, and hence concern, is survival, expressed in months or years. What happens to the patient's quality of life, to his or her perception of self or to the welfare of the family, cannot be objectively measured and tends to be ignored. Although physicians usually act on experience and instinct, they feel uncomfortable if unable to 'show the hard data' to back up a clinical decision. Research data can appear to be more reliable than experience and subjective judgement.

The third characteristic is the dominance of numbers. In modern medicine numerical indices and values govern therapy and formulate diagnosis. The diagnosis of some diseases, such as diabetes, hypertension, hypercholesterolaemia and glaucoma, is based exclusively on numbers, without the need for symptoms. The efficacy of therapy may even be evaluated only by variations in numbers. It is a subject of caricature, but true nevertheless, that even patients are sometimes referred to by numbers: 'Bring 459-B to the operating room.'

Fourth is the interchangeability of components. One of the most difficult problems that had to be solved in the development of modern technology was the production of parts and components that were interchangeable, as opposed to traditional craftsmanship, where components were adapted to one another in forming unique products. It was Colt who for the first time produced revolvers based on interchangeable components and Ford

extended this concept to the mass production of motor cars on a movable assembly line.

Interchangeability of components is extending the availability of spare parts for humans. Cardiac valves, pacemakers and artificial joints are used with increasing frequency. Will the future bring even more sophisticated replacements?

Fifth is the interchangeability of operators. As in the assembly line where anyone can be replaced, functions rather than individuals are important. When writing the roster for an anaesthesia service, the object is 'covering the lists', not observing the personal preferences or characteristics of each anaesthetist and surgeon. The popularity of group practice and institutional care is increasing, where the name of the physician may be unknown to the patient and even the patient's name unknown to the physician. This differs from traditional medical practice, where patients placed their trust in one specific physician, creating a very strong and personalised patient-doctor relationship. This foundered ultimately on the necessity for the physician to be always available.

Another aspect of technology that has entered medicine is repetition as opposed to uniqueness. Each human being is a unique individual; repetition, however, is a common feature of technology. Heidegger has stated, paraphrasing Nietzsche, that the essence of modern technology is 'the eternal return of the same in constant rotation'. The steam engine, lathe and rotary press epitomise the idea of invariable repetition and rotation. There is a classic movie scene in which Charlie Chaplin had to screw in place bolts in an endless assembly line; the humour and pathos of the scene come from the contradiction of a person being forced to act as a machine. Anaesthetists know how repetitive their techniques may become in the operating room; how the patient is anaesthetised with 4-5 mg/kg of thiopentone without his thinking whether the patient is Jean or John, whether she is or is not in love, whether he does or does not write poetry.

While modern medicine has prolonged life of human beings, it has also changed the perception of disease and of the body. In ancient times, disease was a mystery which affected the totality of the individual. In the mechanistic view of today, disease means just that some part of the body is not functioning properly; it must simply be repaired by the appropriate drugs or surgery, even the replacement of the damaged component with a biological or artificial spare part. Thus, the perception of 'self' becomes deeply altered; the 'self' has become independent from the parts of the body. The unity of the body, its 'individuality', and its mystery, have been violated — the body has become just one more object for technology.

The most intense application of technological medicine is probably found in operating rooms and intensive care areas, where as anaesthetists know only too well, the fight for survival becomes especially dramatic; so much so, in fact, that I often feel that it is exaggerated. It is commonplace to see very sick patients subjected to aggressive surgery on a marginal probability of eventual recovery. It is not rare to see patients kept alive by several modalities of life support well beyond the point of recovery. It is frequent to see expensive, frequently painful therapies applied to patients who have no reasonable chance of survival. The almost automatic utilisation of antibiotics, blood transfusions, even cardiac resuscitation, to patients who are known to be in terminal illness is unfortunately not exceptional. The patients eventually die some weeks, and many thousands of dollars, later. The horrifying thing to me is that most doctors do not perceive these facts as distortions of medical judgement, but as the right thing to do; because 'if we don't do it, the patient will die'. It seems irrelevant that the patient is going to die anyway. It appears that physicians are unable to accept that death could ever be a medically acceptable outcome; they feel that they have no alternative to this desperate fight for survival. There is a profound, unconscious, emotional rejection of death. Inasmuch as medicine is assumed to be curative, a patient's death brings to the physician a deep and unacceptable feeling of defeat.

This reluctance to admit death and the consequent automatic escalation of therapy have resulted in a very large increase in the cost of medicine. Health expenditure in the United States, for instance, exceeds eleven per cent of their national product, yet it is still not sufficient. Social medicine is facing serious financial crises everywhere. This is due in part to increased costs related to the larger number of elderly people; it is also due to the indiscriminate use of expensive diagnostic and therapeutic techniques, regardless of their cost-benefit ratio. There is a tragic exponential increase in cost as a patient approaches death; the closer to dying, the more expensive therapy becomes. This is unfortunately also true for the care of very premature babies.

Has medicine always rejected death, as it does now? I think that modern medicine, as well as modern society in general, rejects death and suffering much more than other cultures and times. The modern 'civilised' human being may have difficulty in accepting even the mere thought of death. Nor is he or she willing to accept pain; any moderate headache is reason enough for ingesting analgesics. Any minor anxiety justifies a tranquilliser. Suffering is not accepted as a normal

part of life: the subject of death is often a social taboo.

Ancient medicine had little power to suppress suffering or delay death, yet it was accepted. Is modern medicine so very different from 'classical' medicine? To some extent it is, because it now involves technology. However, there are aspects of ancient medical practice which clearly continue. I remember, for instance, the sense of relief and confidence that I felt when the doctor entered my sick daughter's room; it did not matter if he had no power to modify the course of the disease, the atmosphere changed and anxiety dissipated. It was as if all the uncertainties of disease were taken by the physician onto himself. This psychological perception of being helped by the mere presence of the physician constitutes in my view one of the most important roles that old and modern medicine share to this day.

Another essential characteristic shared by ancient and modern medicine is the capacity to formulate a prognosis. The physician's ability to predict that this patient will recover, or that another patient is very sick indeed and may even die is intrinsic to medicine as the prescribing of drugs. This knowledge regarding disease and death is in itself something that people expect from a physician. The medical doctor had in the past a very important role in predicting death, and in helping patients and families to overcome this transcendental step. Modern medicine has abandoned, I think, its role regarding death. Physicians speak only of survival. If a patient dies, doctors all too frequently leave other people to deal with the important or trivial problems that the family has to face. I believe that this should not be so. I submit that, while striving for a very high technological efficacy, we should also maintain this old historic role of medicine, comforting families and patients into accepting death, even in some instances advising against therapy. Abstaining from using all available therapeutic resources is the burden and the privilege of the medical profession, it is not 'something to be decided only by the family', because the families do not have the necessary information nor the specialised training, and they almost invariably would accept any possibility that is offered, even if unreasonable. Therapies are now far too powerful to let the layman decide upon their use without adequate assistance, and physicians themselves should not apply without them arguing their merits, as the costs involved and the potential consequences may be profound. In the past, it was easy to 'fight up to the last ditch' because the efficacy of therapy was so pathetically small; medicine today is enormously more powerful, yet it uses the same system of ethics that belonged to traditional medicine. It is in part

the responsibility of physicians to define new ethical rules, adapted to this new power and answering as far as possible the new dilemmas brought about by technology.

The absolute value of individual life and the extreme rejection of suffering are not constant through history, but rather a characteristic of the modern age. It is very important to understand the origin of this perception, as other cultures do not share the extremely high value attributed by the western civilisation to individual life. In fact, during the Middle Ages this value was not very high, even in Europe. Accepting death was less difficult, therefore, than it is today.

It was Nietzsche who said the critical words, 'Don't you know that God is dead?' In other times, the value of individual life was small, compared with the welfare of the group. Compared with God, human individual life amounted to nothing. Death of the individual was not only acceptable but preferable, if one really believed that life on earth was merely the way towards eternal life, and death was just the necessary transit. During the Middle Ages, religion was not relegated to the temples or observed only on the Sabbath; it was an everyday, omnipresent factor in all decisions and in all perceptions. Disease, suffering and death were all seen in a religious perspective. It was probably in the Renaissance that the process of un-divinisation of the natural world and life started. It is not so much that people lost religious faith but rather that they removed the supernatural from ordinary life decisions. The world became 'secularised' and this has progressed up to the present day.

Death, when felt as a transition towards eternal life, was better accepted then than it is today, where it is considered by many to be the absolute end of the individual. It was also easier to accept suffering when people believed that it had been purposefully sent by God: suffering on earth would be compensated for with eternal happiness and bliss and would also become a part of the redemptive work of Christ. If suffering is deprived of transcendental value and is reduced to a totally unjustified nuisance, then it becomes understandable that people will try to eliminate it as much as feasible.

The obliteration of God and the loss of faith in an eternal, better life contributed to the generation of a new paradigm: the individual. It was probably in classical Greece that the individual was first placed as the frame of reference for understanding nature, assuming that human reason was capable of metaphysically understanding the universe. Following the Middle Ages, the absolute value of individual subjectivity as the frame of reference was revived and exalted by Descartes, who elevated conscious reasoning to a higher rank than existence itself by proposing that the very existence of the universe was dependent on the reasoned awareness of the observer. The value of the individual increased, therefore, towards the infinite; it is common belief today that the value of human life is immeasurable. In this perspective, the individual's life on earth being the only real life, and the value of the individual life being unlimited, it is understandable that physicians are forced to put so much effort into keeping people alive. Doctors and families alike feel that any expense is justified if spent in the prolongation of an individual life.

I strongly believe that the value of individual life is not infinite. If it were so, it would be quite logical for all the health resources of the whole world to be spent on just one person. I feel that individual life acquires its real value when it serves the rest; it has a purpose. If my life stops being useful, even for my own enjoyment, it is perfectly ridiculous to artificially prolong my peculiar biochemistry. I want to die, when the time comes, in my own bed, comforted by the judicious use of medical expertise but not forced into a sterile prolongation of my agony.

In summary, I submit that the essence of modern medicine has indeed changed, due to the introduction of technology and a new and possibly exaggerated emphasis on the value of individual life, which distorts clinical judgement and promotes unreasonable therapeutic efforts. Traditional medicine remains humanly necessary, not only for alleviating suffering and fear, but for the prediction and acceptance of death.