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Science and Theology: From a Medical Perspective

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Science and Theology: From a Medical Perspective

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Il est dangereux de trop faire voir a l'homme combien il est egal aux betes, sans lui montrer sa grandeur. Et il est encore dangereux de lui trop faire voir sa grandeur sans sa bassesse. Il est encore plus dangereux de lui laisser ignorer l'un et l'autre, mais il est tres avantageux de lui representer l'un et l'autre.

—Pascal[1]

I. Introduction

Science and theology are among the most powerful forces shaping human culture. Each, in its own way, is a source of meanings and morals. Each offers a theory of the Cosmos and humanity, of their origins, and of the way they relate to each other. Each does so, however, from different perspectives. Science sees homo sapiens as only one among the many species inhabiting the earth. Theology sees humanity as a unique creation of God, so unique that God's very Self, for a time, assumed human nature.

Between those perspectives there is a long history of tension — some genuine, some illusory. Yet, science and theology can never ignore each other. Both are focused on human life and its meanings. At this juncture point, they must insuitably confront each other. They must engage in dialogue without losing either its identity or perspectives to the others.

Medicine stands at the confluence of the perspectives of science and theology. It shares something of each. On the one hand, it sees human beings as healthy or disordered biological mechanisms, and, on the other, as suffering persons with special dignity. To heal, medicine must draw upon both science and theology, for illness afflicts a person's corporeality as well as the person's spirituality. Yet medicine, too, must retain its own perspective, or it cannot achieve the ends for which it exists.

This essay examines the conjunction of science and theology in the

healing act of medicine. It inquires into the ways the perspectives of science and theology impinge on the telos of medicine — a right and good healing act for a particular person.

Our inquiry will center on four questions:

1) What constitutes the medical perspective?
2) What are its historical and conceptual relationships to empirical science and theology?
3) How may science, primarily biology, enhance or distort the telos of medicine?
4) How may theology enhance or distort the telos of medicine?

Out of this inquiry, it should be clear that if medicine retains its identity as a certain kind of human activity, faithful to its own telos, it can serve as a synthesizing force which brings science and theology closer together. If that effort is successful, medicine will best serve its own purposes as a healing activity and contribute as well to the enrichment of biology and theology.

I shall use the term "science" to designate what is commonly termed "science" in contemporary parlance. That will serve to distinguish it from the more classical notion of science as any organized system of truths and from the terms "human sciences" and "divine sciences" which are used to separate theology from the other organized disciplines like the social, physical, biological, and mathematical sciences. Science, therefore, for purposes of this essay, refers to the organized systematic study of the real world by the methods of observation, quantification, and experimentation.

The term "medicine" also requires some explication. It refers to the application of knowledge from any of the sciences (human or divine) to the alleviation of suffering, or the cure, care, or prevention of human illness. The basic sciences of medicine — physiology, biochemistry, cell biology, etc. are, for this purpose, classified as sciences. They become part of medicine only in the moments of healing decisions and actions.

II. The Ends of Medicine

What gives specificity to the medical perspective is its telos, the end for which it exists, and to which its activities must be directed.[2] That telos can be defined proximately and distantly. Both are inherent in the doctor's healing relationship with the sick person.

The distant goal of all medical activity is health — the well-functioning of the whole human organism.[3] Health is essential to the realization of the ends of human existence and to the realization of the potentialities of human nature. The physician's encounter is, however, usually with disease and with a sick person seeking help. Disease must be treated before health can be attained.

A more proximate telos, therefore, is the prevention, cure, or containment of established illness and the alleviation of suffering. This is a necessary step towards the more distant goal of restoring health when it has been compromised by illness. This is the specific telos of the clinical

encounter between doctor and an individual patient as contrasted with the broader telos of medicine as a discipline.

The most proximate and specific of the ends of medicine is a right and good healing decision and a right and good healing action taken on behalf of an individual sick person. That immediate end is propadeutic to attaining the more distant ends of health, cure, or containment of a disease. This end defines the "moment of truth" when physician and patient together must decide what is best to do in a particular clinical context. This "moment" shapes the whole of medical ethics. It demands a fusion of technical competence with compassion, of the physician's cognitive with his/her affective faculties. It is the most concrete point of the confluence of empirical science and theology. It is this specific telos which defines what distinguishes medicine as a human activity and, therefore, constitutes the "medical perspective".

The proximate telos of the clinical encounter is reached through two activities of the doctor-*qua*-doctor that are conceptually distinct, but existentially linked.

The *first* activity is technical. It consists in taking decisions and initiating actions which are scientifically correct and technically sound. To attain this end the physician must draw on both the method and content of empirical science. Competence consists in observing the canons or virtues of "good" science —objectivity, precision, quantification, logical observation and inference, etc.

The *second* component of the clinical encounter is moral in nature. It consists in a decision and action which are good for *this* patient, i.e., in the patient's best interests, and congruent, not only with the patient's medical good, but his or her good as a human being and as a being with a spiritual destiny.[4] To attain this end the physician must use the methods of ethics, and satisfy the canons of analytical and normative ethics, philosophical as well as theological. Competence here implies a capacity to make good moral judgments.

The physician-*qua*-physician is under moral obligation to realize both components of the immediate telos of medical activity. At the very beginning of any clinical encounter, the physician voluntarily offers to help. In that offer there is the implicit promise to be competent, and to use that competence in the patient's interest. This promise generates the moral obligations of medicine and, thus, the content of medical ethics.

Both activities leading to the medical telos culminate in an action, in what *ought* to be done to meet the specific needs of *this* person. A right and good healing and helping decision is the necessary prelude to a right and good healing action. Medicine is thus a *praxis,* not a *theoria.* It has its end within itself.[5] It is not science, but an art, informed both by science and ethics.[6]

If we examine the relationships between science and theology from the medical perspective — its telos-tending specific activities — then it is clear that they come together in the moment of clinical truth — the decision and act aimed as human healing of particular persons. The technical component

of this act derives from science and the moral component from philosophy and theology. We have considered the philosophical component elsewhere,[7] and will confine the rest of this essay to the synthesis of science and theology in the medical act. This is a deliberately selective view of the relationship of science and theology. But it also has something to contribute to the larger issue of their relationship which can only be implied in this essay.

III. Historical, conceptual and methodological intersections.

In his *Metaphysics,* Aristotle tells us, ". . . the human race also lives by art and reasonings."[8] And indeed, from its beginnings, the human race has sought by art to control its surroundings, and by reasoning, to understand them — to grasp the meanings of the cosmos, and its origins, as well as our relationships to the cosmos, God and our fellow human beings.

For the greater part of human history, religion and its reasoned examination as theology were the major sources of meaning and morals. 2500 years ago philosophy emerged as an independent effort asserting the power of unaided human reason to grasp the fabric of reality. Much later, empirical science challenged both religion and philosophy by asserting the supremacy of observation, and experiment over speculative reason as the means for apprehending the real world and its meanings.

Modern physics and chemistry have given us unprecedented control over the physical world. In this century, biology has come to rival chemistry and physics and opened up the additional possibility of human control over human nature itself. As the capabilities of science have expanded the locus of meanings and morals has moved for many people from philosophy and theology to science. Even those who abjure this move must today somehow reconcile philosophy, theology, and science.

In this history, medicine has occupied a peculiar position. At first it was identified entirely with religion. Physicians then were priests of one healing cult or another. Many of the early philosophers were physicians. When philosophy disengaged from religion, it carried much of medicine with it. In the Hippocratic era, medicine then freed itself from philosophy,[9] and grounded itself in clinical and empirical observation of sick persons. For a long time after, medicine and science were almost synonymous. But with the robust theoretical substrata it gained in the time of Galileo, Descartes, Bacon, and Newton, physical science increasingly gathered independent strength. Since Darwin, Mendel, and Watson and Crick, biological science, too, has left its medical womb. As molecular biology, it now rivals chemistry and physics as a cultural force and as a means of control of the conditions of human existence.

Medicine has grown enormously in capability by drawing on the progress of the physical and biological sciences. But medicine is itself neither science nor religion. It still retains something of its pristine associations with them. Yet, it differs from each in certain specific ways.

Medicine is not a true science, not *a recta ratio speculabilium*.[8] It does not seek knowledge as an end in itself. Rather, medicine is scientific knowledge dedicated to an end beyond itself. It is a *praxis*, not a *theoria*. It is a *recta ratio sanandi*. It exists because humans become ill and need to be healed. It is an art informed by science. It must draw on the method and content of chemistry, physics, and biology. To be correct, the classical steps of diagnosis, prognosis, prevention, and therapeutics must meet the criteria of scientific probity. But knowledge of the science "basic" to medicine does not constitute medicine. Medicine comes into existence *qua* medicine only when scientific knowledge is focused on a decision that is good for a particular patient. Its telos is the control of a specific segment of biological reality presented by a sick person.

The "good" of the sick person is more than his medical good, more than doing what "good" medicine dictates. Medicine must direct its art to the good of a human person and his perception of his own good as an embodied soul. Medicine is thus a moral enterprise. Yet it lacks within itself the method and content for moral judgment. For this it is dependent upon philosophical and theological ethics.

In the "moment of truth", scientific and moral judgments must complement each other. Thus, from the narrow perspective of medicine, science and theology are instrumental. They are necessary if the doctor is to achieve his healing purposes. Yet both are constrained by the degree to which they enhance or frustrate the telos of medicine. Their ends do not replace or subvert the telos of the clinical encounter. The physician must avoid the double jeopardy of biologizing or theologizing the art of healing, both of which compromise the art itself.

Let us turn now to the ways science and, then, theology may enhance or inhibit the telos of medicine.

IV. Empirical science and the telos of medicine

To be sure, the physician must be something of a scientist, i.e., he or she must proceed by the method of observation, hypothesis formation, empirical trial and error, experimental verification and falsification. She must feel, smell, observe, weigh, measure and manipulate. As scientist, she must, therefore, "objectify", that is, stand at a distance from, her patient's body and psyche and, even at times, his soul, insofar as spiritual crises have their bodily expression.

As scientist, the physician must observe the "internal morality" of science — the virtues without which science cannot achieve its telos. These are the dispositions, skills and attitudes intrinsic to good science — the virtues of objectivity, accuracy of observation, integrity in reporting data, willingness to consider contrary evidence and sharing knowledge freely. These virtues are necessary in the first steps of the clinical encounter — deciding what is wrong, projecting the future of the disease and selecting a treatment. Fidelity to the virtues of science assures that medicine transcends mere empiricism.

The obvious power of science in assuring technical competence can come to dominate the physician's thinking. When that happens, medicine is reduced to applied biology, distorting the healing telos of medicine itself, which transcends humankind's biological nature. This biologization of medicine may distort medicine in three ways: 1) overemphasis on reductionism; 2) acceptance of a positivistic epistemology; and, 3) a confusion of ethics with biology.

a) Over-emphasis on reductionism

Ever since Descartes's attempt to mathematicize all phenomena and reduce them to their chemical and physical substrata, medicine has been both blessed and plagued by reductionism. As a means of exploring the most fundamental cellular and molecular mechanisms of disease, reductionism has served medicine well. It has been indispensable to medical progress. Its virtues need no extended discussion here in this era of molecular, cellular, and sub-cellular biology. But, as a guiding principle for the whole medical endeavor, reductionism has serious shortcomings.

The phenomena of illness and healing defy a reductionistic approach. Illness in a human person is more than a simple summation of distorted discrete molecular events or even a failure of biological "systems". The personal experience of illness involves an assault on the whole life of a person, something never fully explicable in reductionist terms. Healing requires that the patient be made "whole" again. Healing requires synthesis, repairing as much as possible of the totality of damage illness inflicts on the humanity of the patient. This is something more than a reassemblage of damaged parts. Reductionism is analytic. It is a necessary first step in advancing toward the telos of medicine, but it is totally insufficient for healing. Healing involves restructuring the patient's life, restoring the balance between the biological, social, psychic, and spiritual components of that life. It is, quintessentially, a complex re-synthesis of a human life, an entity with a past, a present, and a future.

b) A positivist epistemology

The second danger of biologization is the positivist epistemology it fosters. While positivism as a philosophical system has been cast into serious doubt, it persists as the dominant philosophy in medical research, practice, and education. Without realizing it, many physicians are positivists — believing that there is no knowledge worth having except empirically verifiable scientific knowledge. They have little faith in reason as a means of arriving at truth. On that view, what is not palpable, visible, or measurable simply has no meaning.

To be sure, an anti-speculative bias is healthy in those aspects of the practice of medicine approachable by the scientific method. But it is destructive and dangerous to the moral component of the telos of

medicine. Discerning what is right and wrong, good and bad in a set of proposed actions for a specific patient is an exercise of ethics, not science. A Positivist philosophy, however, would deny the possibility of either certitude or universal norms in ethics.

On this view, medical ethics is really not open to rational discourse. It is simply a matter of personal opinion or sentiment, the differences being pragmatically negotiated between physician and patient. On that view, the profound moral implications of the complex interventions made possible by medical technology (e.g., the various reproductive technologies, genetic manipulations, transplantations of organs, behavior modification) are viewed in an amoral or totally relativistic context. All things become permissible. The only virtues that count are the limited virtues of "good" science. What *can* be done equates with what *should* be done, so long as people want it, it is done competently, and it is affordable.

c) Conflating Ethics and Biology

The third danger of biologization is the *philosophical anthropology* it engenders — the view that humanity's essential and whole nature is subsumed in its existence as a biological organism. Since medical ethics, like all ethics, is ultimately grounded in a philosophy of human beings, it is essential that the limitations of a biological anthropology be judged from the perspective of the telos of medicine.

Some have contended that "bioethics" should be grounded wholly in biology.[10] On this view, the good is defined strictly in biological terms, i.e., in terms of what improves or assures the survival or variety of the gene pool, or improves the "quality" of the human species. Ever since the Darwinian and Mendelian revolutions, there have been attempts to ground ethics in evolutionary biology. These efforts began in the 19th century with Herbert Spencer and Ernst Haeckel and are carried to more sophisticated levels in contemporary work of Dawkins, Alexander, Monod, and Wilson.[11] They all share a common belief in natural selection, genetic determinism, and the denial of an unchanging objective order of morality. They all ultimately make biology the determinant of what is good for individuals and the species.

A brief look at one example, i.e., Wilson's sociobiological perspective, will exemplify the distortions a biologized medicine would suffer.[12] Wilson sees ethics and religion as surviving and useful because they have some adaptive value. However, he makes ethics really a branch of neurology, located in the interaction of genes, culture, and environment, and expressed in the human limbic system. Wilson holds:

> What, we are then compelled to ask, made the hypothalamus and the limbic system? They evolved by natural selection. That simple biological statement must be pursued to explain ethics and ethical philosophers if not epistemology and epistemologists at all depths.[13]
>
> Scientists and humanists should consider together the possibility that the time

has come for ethics to be removed temporarily from the hands of philosophers and biologized.[14]

Presumably when ethicists have recognized its biological basis, they will again be permitted to do ethics! Wilson is not so kind to religion:

> The possibility of explaining religion by the mechanistic models of evolution . . . will be crucial. If religion . . . can be explained as a product of the brain's evolution, its power as an external morality will be gone forever.[15]

This version of "bioethics" makes biology the justification and judge of all that is right and good. Moral decisions are those that favor survival, purification, or improvement of the gene pool, or simply are congruent with the gentically-determined electro-chemistry of the limbic system. The logical extrapolations of medical ethics built on such a framework are antipathetic indeed to any spiritual view of human nature. For example, a thoroughly biologized medicine could not only justify, but promote the elimination of the "bad" genes and their possessors by ante-natal diagnosis followed by abortion, by involuntary euthanasia of the handicapped and disabled, and by sterilization to prevent procreation by and propagation of "bad" genes. Every form of genetic experimentation on adults and embryos as well as all the variations of reproductive technology, would be licit. Engineering future generations — the ultimate Promethean quest — could be promoted to "improve" the intelligence, memory, skin color, height, or any other human characteristic that had survival value.

This kind of bioethics, without the restraint of philosophical or theological moral principles, is particularly corrosive of the healing purpose of medicine. Biologized medicine becomes the instrument of biology. Healing and helping — the telos of medicine — would be radically transformed. Healing might mean killing as it did in pre-holocaust and holocaust Germany where the explicit evolutionary ethics of Ernst Haeckel was carried to its logical conclusion.[16] The good of the patient would not be the central concern of the physician but the good of the species and the race. An ethics of medicine based in a biological anthropology is technology without conscience. It inverts the entire value system upon which medicine is built. We must never forget that this inversion made the medical profession the willing helpmate of Hitler's aim to purify the German Volk of its contamination by Jewish blood. For Hitler, medicine was a necessary instrument in the pursuit of biocracy.[17]

These possibilities for the distortion of medicine must not constitute arguments against all biological research. In genetic research or practice, it is not biology which enslaves or dehumanizes, but biology transformed into ideology and metabiology. Legitimate biological experimentation and its application in medicine are necessary for medical progress. Gene therapy, for example, has great potential for human good. But such research must be pursued with ethical restraint. Biological investigations must meet the tests of moral acceptability extended to biology and established by theology and philosophy, precisely the disciplines which Wilson wishes to eliminate.

Biology might conceivably explain how ethical beliefs evolved. But it cannot justify the content of those beliefs, nor distinguish the morally defensible from the morally offensive. Explanations are not the same as meanings. Biology gives proximate explanations of the phenomena of health and disease; philosophy discerns their moral implications; theology, their ultimate meanings. Each is essential if humans are not to be overwhelmed by any member of this intellectual trioka.

V. Theology and the telos of medicine

For the moral component of the telos of medicine, the physician must draw on two non-empirical disciplines — philosophy and theology — each of which is fitted by method and content to moral judgments as biology is not.

Philosophical ethics uses unaided human reason to analyze and clarify moral problems, establish principles and norms as they relate to the healing relationship, and to resolve conflicts between and among participants in clinical moral decisions. Philosophical ethics is the dominant discipline in secular medical ethics today. For the non-believer, it is the only source of moral guidance. For those with a faith commitment, philosophical ethics is necessary but not sufficient if the fullness of the ends of medicine is to be attained.

For the Christian, theological ethics provides sources of moral justification unacceptable to the non-believer, i.e., the Scriptures, as well as the tradition and the magisterial teaching authority of the institutional Church. Some Protestant and Catholic theologians have questioned whether or not Christian ethics adds to the normative content of philosophical ethics.[18] We have commented on this question elsewhere.[19] We argue that theological ethics adds the dimension of charity as indispensable for the most complete fulfillment of ethics and the specific telos of the healing relationship.

For one thing, theological ethics is firmly rooted in a distinctive anthropology. It is a Christocentric anthropology — a Christian humanism and personalism. On that view, human beings are creatures of God, brothers and sisters to one another, of inestimable worth deserving of the utmost solicitude and care.[20] Humanity is not just one of the 10^7 living species in the biosphere. In Christian theology, the sick person has a special claim on his brothers and sisters, a claim based on the example of the healing mission of Jesus, Himself. Without ever denying or decrying humanity's biological nature, Christian theology assures us of its "grandeur" as well, to use Pascal's word.

Theological ethics is, like philosophical ethics, a reasoned discipline. But it is also, in another sense, an ethics beyond ethics, based less on formal argumentation than on the inspiration of the beatitudes. Its ordering principle is charity. Charity shapes the Christian's interpretation of the principles of philosophical ethics and their application. Thus the *prima*

facie principles of philosophical ethics, beneficence, autonomy and justice are given special meanings when seen from the perspective of Christianity.

Beneficence, for example, is never limited to simple non-maleficence. For the Christian, it means serving the good of the patient even at some cost and risk to oneself. Some degree of effacement of self-interest is, thus, a duty of the Christian physician. The heroic sacrifice of Mother Teresa is not required of all Christians. But there can be no justification for such abnegations of beneficence as refusing to treat a patient with AIDS for fear of contagion, or a poor patient for fear of financial loss, or a complicated case for fear of a malpractice suit. Nor can there be any justification in Christian ethics for medical profiteering, entrepreneurism, or market-place mentality.

Autonomy, or more properly respect for persons, is on the Christian view, more than a legal right to privacy. It is deeply rooted in the respect we owe all persons as creatures of God, accountable to God for the way we form and follow our own consciences. To violate the patient's autonomy is to violate his or her very humanity. Yet the patient's autonomy may never be so absolute that she or he can ask that his or her life be terminated directly, even when suffering is overwhelming. Nor can a pregnant woman assert her "autonomy" or rights to privacy by seeking abortion or refusing treatment that may be beneficial to the foetus even at some risk or discomfort to herself. Nor can a husband afflicated with AIDS demand that the doctor conceal this fact from his spouse. Nor can the scientist claim the absolute autonomy of her discipline to experiment with the human embryo, or the living aborted foetus. Nor are such convenient ontological distortions as the pre-embryo to be used to justify non-therapeutic fetal research.

On the other hand, to accept death when it is inevitable, to elect not to prolong the dying process, or to sacrifice one's life for another are permissible expressions of autonomy. They can, under certain circumstances, be raised to the level of grace and charity.

On the Christian view, the prima facie principle of justice likewise becomes transformed. It becomes charitable justice, not simply the arithmetic rendering to each what is owed in legal or contractual terms. Charitable justice goes beyond legal justice.[21] It renders more than may strictly be owed. It takes into account the vulnerability and needs especially of the poor, the sick, and the retarded. It transcends the patient's social worth, status, merit or utility. Indeed, charitable justice implies a "preferential option" in favor of those on the margins of life.[22] Theirs is a claim in charity on the whole Christian community and especially on physicians and nurses who are ordained to care for the sick.

Christocentric Ethic

A Christocentric ethic does not simple enable us to analyze the good, but it demands that we *be* good. It thus provides an inescapable reason and motivation to act virtuously and morally, something difficult to

demonstrate by philosophical argumentation alone. A theological ethic closes the gap between recognizing the good and the motivation to do the good. This is particularly important today when self-interest is defended and even exalted by those who encourage for-profit medicine, entrepreneurism, competition among health providers, and the commercialization of every facet of medicine. Many physicians today feel justified ethically in laying aside their moral obligations on the grounds of survival and exigency. Such a position would be difficult to justify on grounds of Christian ethics.

Christian theology is based in a Christian humanism that counterbalances the predominantly consequentialist bias of contemporary medical ethics. This is not to deny the motives of individual consequentialists, nor even the applicability in certain cases of consequentialist arguments. But, in terms of a Christian anthropology, certain acts are intrinsically wrong whatever their consequences —abortion, direct voluntary or direct involuntary euthanasia, experimentation with the human embryo, transspecies genetic experimentation involving human genes, surrogate motherhood and many of the possible permutations and combinations of modern reproductive technologies.[23]

Ethics based in a Christian anthropology is the surest safeguard against the dangers inherent in the biologization of medicine discussed in the preceding section. It is inconsistent with treating a human being merely as an organism or an object for experimentation. It opposes any tendency to base ethics in biology whether behavioristic, sociobiological or psychobiological.

Theological Ethics

Finally, a theologically inspired medical ethics gives meaning to suffering — something difficult or impossible to demonstrate on philosophical grounds alone. Thus, it fills a void in modern medicine. It rescues death, dying, and suffering from the desert of "meaningless" events. Suffering on the Christian view is a means of atonement, reconciliation, sacrifice, and example. Its impact on family, friends and community is not without consequence. Suffering is the final call by Christ to the same *via crucis* He traversed for us, and we must traverse for Him and our fellows. The meanings of suffering cannot be deduced from the formal syllogisms of philosophic ethics.

Theological ethics bears directly on what it is to be a healer and helper of the sick. It converts a health career into a vocation, a special kind of life, and a way of salvation.[24] It is the health professional's special way to salvation. That call tempers self-interest and the normal and understandable fatigue, anger, resentment, and emotional distress which can accompany the practice of responsible medicine. It tempers, too, the hostility to the noncompliant, self-abusing, sociopathic patients who can, at times, try the patience and charity of even the most conscientious physician or nurse.

For these reasons, theology is indispensable to the richest fulfillment of the moral component of the telos of medicine. This is not to say that those with faith commitments are automatically better physicians morally, nor that they automatically make better clinical decisions. It means only that they are called to a higher set of obligations, obligations which transcend the arguments of philosophical ethics. Christian health professionals who fail in those obligations suffer spiritual diminution. They blind themselves to enriched and expanded ways of healing that do not follow from philosophical ethics alone.

In none of this do I wish to undervalue the importance of philosophical ethics. Catholic tradition, in contrast with some Protestant traditions, has always respected both faith and reason seeing them as complementary and not inherently contradictory. Philosophical as well as theological ethics are essential to the moral dimensions of the healing relationship.

Essential as it is, theology, like biology, when distorted, can distort medicine's healing telos. Medicine can be "theologized" in a variety of ways, some of them common to theology per se, and some of them specific to particular theologies. Here I speak of theology in general not just Roman Catholic moral theology.

One common tendency is to exalt humanity's spiritual nature and needs — its "grandeur" — at the expense of its corporeality and its biological nature. In the past, theology has, at times, focused so intensely on the next world that the immediate corporeal needs of the sick have been neglected. The most extreme form is the radical Fideism of certain Fundamentalist sects which see illness as God's direct, and intended, test or punishment, for individual humans.[25] Here we find the view that only God or God's chosen ministers may heal, and that to invoke human science is to intrude on God's will. Some, for example, oppose treatment of AIDS on this ground since they see it as God's punishment for sexual aberration. Others reject all operations, medications, or immunizations as interferences with God's will. They educe precise injunctions and medical prescriptions from literal interpretations of the Scriptures or accept only "natural" remedies, such as herbs and minerals.

Fideism's Suspicion of Science

A more subtle expression of Fideism, but almost as dangerous, is its suspicion of science and scientists. Some theologians still fear scientific knowledge as "secular" prying into the workings of creation. They fear that all research is a blasphemous usurpation of the role of God or a seeking for evidences that God does not exist. All scientific research, particularly basic and fundamental research, is thus construed as an intrusion on God's province.

Those who harbor these fears say there are things man should not know. The "secrets" of creation should remain inviolable. This is evident, in the almost reflexic objections of some clergymen to research in genetics,

reproductive technologies, or psychopathology, or in their refusal to even examine the idea of evolution. Despite repeated assertions to the contrary by recent Pontiffs including John Paul II, and the specific denial of an anti-technologic bias in the recent "Instruction" on reproductive technologies, a distressing number of Roman Catholics continue to see science and scientists as threats to faith.[26,27]

Another form of "theologization" is the misuse of theology to pass judgment on factual or scientific evidence when they seem to contradict religious beliefs. Classical examples are the Galileo affair, or the condemnation without critical examination of the whole corpus of works by Darwin, Mendel, Freud, or of modern cosmology or paleontology. The relevant phenomena and data are not examined critically as they should be, using the appropriate methods of science which are designed to deal with verification or falsifiability. Rather any idea is condemned which is not specifically mentioned in the Bible. This is to forget that the Bible is a guide to salvation, not to cosmology or biology.

In another direction, theology may be abused in medicine by a self-righteous and uncharitable attitude toward those whose beliefs differ from one's own. Illness, suffering, pain, and human destiny are interpreted differently in different cultures, religions and societies. Physicians with faith commitments are not always charitable with the beliefs of sick persons. Some of them feel entitled, and even duty-bound, to take advantage of the dependence, anxiety and vulnerability of the sick to sermonize, condemn, or proselytize. To do so, violates the trust inherent in the healing relationship and the obligation to respect the spiritual good of the patient as the patient sees it. The physician cannot rightly violate that relationship even if he is convinced of the unassailable probity of his own belief system. To tolerate a wrong belief in a sick person is not the same as giving sanction to that belief or to a relativistic ethics. The physician is free to disengage him- or herself from the relationship when a patient's belief violates the physician's own. The physician is not free to use the patient's vulnerability to impose his or her beliefs on the patient.

A final example of the way a distorted theology can impinge on the moral dimensions of medicine is by depreciation of the philosophical and rational elements in medical ethics. The same fears that motivate the antipathy to science motivate the fear of philosophical ethics. Guidance is sought instead in discernment, process philosophy, or "agape". These alternative routes to moral choice purportedly temper the constraints of moral principles and rules which are judged too rigid or arid to encompass all the subtleties of moral choice. Alternatives to principle-based ethics have something to contribute. I have elsewhere defined the dimensions of a proper agapeistic ethic.

However commendable these efforts to expand our intuitive grasp of the right and good may be, they run the serious risk of subjectivity, relativism and situationism. A case in point is the situationism of Joseph Fletcher, a Protestant Christian who holds that the Gospel idea of agape, "loving

action", in his reading, is the only moral guide we need.[28] But then we face the problem of defining "loving action." Fletcher locates that definition in the particularities of *this* patient — right and good arising out of the consequences in a particular case. On this view, abortion, euthanasia, or withdrawing food and fluid depend upon our subjective sense of what is a "loving action." Such an interpretation of the Gospel of love can distort medicine. Improperly used, and divorced from the constraints of reason, principle and rules, agapeistic ethics creates confusion in the making of moral choices necessary in clinical ethics.

Theologization is a lesser danger than biologization. Theology is itself constrained by the source of its own inspiration — by scripture, tradition, and in the case of Roman Catholic theology, the magisterial teachings. Biology has no external constraints except social pressure which is variable, constantly changing and without grounding in any objective order of morality. Moreover, most of the dangers of theologization come from abuses of theology, itself. They do not occur if canons of good theology are observed.

IV. The medical perspective enhancing science and theology.

The peculiar and privileged position of medicine at the confluence of empirical science and theology offers it an opportunity to ameliorate the traditional antagonism between them which still persists in so many minds. The dual nature of the telos of medicine — scientific on the one hand, and moral on the other — underscores the necessity to keep science and theology, their methods, sources of proof, and epistemic foundations distinct from each other. Each deals with an aspect of reality and knowledge specific to its own ends. Neither discipline should be subsumed by the other. Nor should either subsume the telos of medicine regardless of how necessary each may be for some facet of that telos.

If truth is of one piece, as good theology must hold, then the apparent conflicts between science and theology will ultimately be resolved. In the interim, we must use human reason as well as faith in dealing with the apparent conflicts, assigning to each its proper sphere. Seen from the perspective of medicine, the dangers of confusing the methods of science and theology are clearly manifest, as is the necessity of their interaction in the moment of clinical decision.

Theology need not fear expansion of our knowledge of the world or of human beings. If we believe that the world is God's creation, then He built within it the laws that guide it. The more we learn of those laws, the more we learn of God. It is not knowledge that hurts us but its use without ethical constraint. Knowledge obtained by violating ethical limits is immoral if the method used to obtain it is immoral, like experimentation with the human "pre-embryo" or human experimentation without consent or with deception.

The scientist is as impelled by the search for truth as the theologian. They

share a common devotion though their methods may differ. Christians have a responsibility to understand science before offering a critique of its discoveries and ways. The threats theology perceived in physics in the past do not seem as formidable today, as physics itself has matured as a discipline. The determinist and mechanist Enlightenment view of the Cosmos is not compatible with modern physics.[29] Relativity theory does not support nor entail a relativistic viewpoint either in physics or morals.[30] A more sophisticated view of both physics and theology has increased the respect each has for the other.

Biology, on the other hand, is less mature conceptually and theoretically than physics. Its relationships with theology are not as well developed. It is reasonable to expect amelioration in their relationships, but probably not in the immediate future. Medicine, given its peculiar position at the juncture of biological science, philosophy, and theology, may well serve to hasten this reconciliation. Needless to say, long before there may be any theoretical reconciliation, there must be a reconciliation in the order of praxis since medicine cannot suspend its healing function until science and theology are reconciled to each other.

To expound the knowledge of the "new" biology, to accept it, and to use it in medicine in no way diminishes the role of God in healing. the author of the book of Sirach put it best: "From God, the doctor has his wisdom"; "God makes the Earth yield healing herbs which the prudent man should not neglect;" "He endows men with the knowledge to glory in his mighty works".[31]

By the nature of its healing telos, medicine must "see" man as biological organism — as "bete" and as spiritual being — as possessed of "grandeur", to paraphrase Pascal. But medicine cannot heal if it is subsumed by a distorted biological or theological perspective. That would destroy its unique telos. Only by drawing on what theology *qua* theology and biology *qua* biology can offer to healing can medicine achieve its own ends.

Medicine, therefore, perhaps more than any other discipline, can help us to see man as an ontological unity. It can contribute much to the work of biology and theology. It offers to theology the richness of the phenomenology of illness, suffering, dying and death. It offers to biology the way illness and disease modify and alter the operations of biological, chemical and physical operation of the human body and psyche. It puts biology into ethical perspective and theology into scientific perspective.

Medicine learns from, and uses, empirical science and theology; theology and science can use and learn from medicine. The explosion of medical knowledge may yet prove to be the essential cementing force that can ease some of the ancient tensions between the twin poles of man's nature.

This task of medicine is supremely difficult yet inescapable. Sitting, as it does, at the confluence of science and theology it must heed the words of Stephen Jay Gould:

> Science can no more answer the questions of how we ought to live than religion can decree the age of the earth.[32]

It must not confuse religion and science, nor be subsumed by either. Perhaps the wisest advice is that of John Paul II when speaking of the kingship of man over the world:

> The fundamental meaning of 'kingship' and of this 'dominion' of man over the visible world, which is given him as task by the Creator, consists in the priority of ethics over technology, the preeminence of people over things, and the superiority of spirit over matter.[33]

If the physician heeds these distinctions, he or she will serve his or her patients scientifically and ethically, and will reconcile science and theology in the existential act of healing.

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