

Ethical and Existential Developments in Contemporaneous American Medicine: Their Implications for Culture and Society

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Contemporaneous Western medicine is often depicted as a vast body of scientific knowledge, technical skills, medicaments, and machinery wielded by physician-led teams of hospital-based professionals and paraprofessionals, garbed in uniforms of starched white, surgical green, and auxiliary pink or blue. Underlying this image is the conception that medicine is shaped primarily by scientific and technological advances, and that its major impetus derives from a highly organized collective effort vigorously to preserve life, by attaining a progressive mastery over illness and preventable death.

However commonplace and accurate this notion of modern medicine may be in some regards, it is distorted and obsolete in others. It does not take into account a new and important set of developments in present-day medicine that seems to be gaining momentum. Over the course of the past fifteen years, in a number of European and American societies, concerned interest in ethical and existential issues related to biomedical progress and to the delivery of medical care has become both more manifest and legitimate in medical circles and in other professional and organized lay groups as well. This is a phenomenon that merits sociological attention for it suggests that a serious re-examination of certain basic cultural assumptions on which modern medicine is premised may be taking place.

This paper will identify some of the forms in which these moral and metaphysical problems are currently being raised in the medical sector of American (U.S.A.) society. It will also essay an interpretive analysis of the broader socio-cultural implications of the more general re-evaluative process that I believe is occurring in this fashion.

Recent advances in biology and medicine make it increasingly clear that we are rapidly acquiring greater powers to modify and perhaps control the capacities and activities of men by direct intervention into and manipulation of their bodies and minds. Certain means are already in use or at hand—for example, organ transplantation, pre-

natal diagnosis of genetic defects, and electrical stimulation of the brain. Others await the solution of relatively minor technical problems . . . still others depend upon further basic research. . . .

While holding forth the promise of continued improvement in medicine's abilities to cure disease and alleviate suffering, these developments also pose profound questions and troublesome problems. There are questions about who shall benefit from and who shall pay for the use of new technologies. . . . There will be questions about our duties to future generations and about the limits on what we can and cannot do to the unborn. . . . We shall face questions concerning the desirable limits of the voluntary manipulation of our own bodies and minds. . . . We shall face questions about the impact of biomedical technology on our social institutions. . . . We shall face serious questions of law and legal institutions . . . [and] problems of public policy. . . .

. . . as serious and vexing as these practical problems may be, there is yet another matter more profound. The biomedical technologies work directly on man's biological nature, including those aspects long regarded [as] most distinctively human. . . . The impact on our ideas of free will, birth, and death, and the good life is likely to be even more staggering than any actual manipulation performed with the new technologies. These are matters of great moment and we urgently need to take counsel from some of our best minds. . . .

The statement quoted above was not made by a physician, a scientist, or a philosopher. It was delivered by the Honorable Walter F. Mondale of Minnesota, a member of the United States Senate. He made these remarks from the floor of the Senate in 1971, as he introduced a bill to establish a National Advisory Commission on Health Science and Society. The measure was intended to provide for "study and evaluation of the ethical, social and legal implications of advances in biomedical research and technology." What is particularly significant about the Mondale proposal is that it demonstrates that involvement with the issues it cites is not confined to medical and academic milieux. Rather, these matters have entered political and public domains in American society.

The specific advances in biology and medicine to which Mondale alludes are those most generally invoked in the various contexts where such ethical, existential, and social questions are pondered. Actual and anticipated developments in genetic engineering and counseling, life support systems, birth technology, population

control, the implantation of human, animal, and artificial organs, as well as in the modification and control of human thought and behavior are principal foci of concern. Within this framework, special attention is concentrated on the implications of amniocentesis (a procedure for detecting certain genetic disorders *in utero*),¹ *in vitro* fertilization, the prospect of cloning (the asexual reproduction of an unlimited number of genetically identical individuals from a single parent), organ transplantation, the use of the artificial kidney machine, the development of an artificial heart, the modalities of the intensive care unit, the practice of psychosurgery, and the introduction of psychotropic drugs. Cross-cutting the consideration being given to these general and concrete areas of biomedical development, there is marked preoccupation with the ethicality of human experimentation under various conditions, with the proper definition of death and the human treatment of the dying, and with the presumed right of every individual and group to health and adequate health care. Certain moral and metaphysical themes recur in the discussions of all these aspects of the so-called new biology and medicine. Problems of uncertainty, meaning, of the quality of life and death, of scarcity, equity and distributive justice, of freedom and coercion, dignity and degradation, solidarity and societal community, and of the vigor with which one ought to intervene in the human condition are repeatedly mentioned.

The media and agencies through which these concerns are expressed are manifold. Articles and editorials on these topics not only appear frequently in medical and scientific journals,² but also in popular magazines and daily newspapers. In the course of the week

¹This technique involves the insertion of a hollow needle through the abdominal and uterine walls of a pregnant woman into the amniotic sac, and withdrawing fluid and cells shed by the fetus.

²In *Research on Human Subjects*, Barber et al. (1973: 2) comment that, "the recent increase of concern in the biomedical research community [about] the possible or actual abuse of the subjects of medical experimentation and medical innovation can be seen perhaps most clearly in the dramatic rise of medical journal articles devoted to facets of this problem." Barber et al. (1973: 2-3) report that in a survey they made of articles listed in *Index Medicus* over the period 1950 to 1969, those that dealt with the ethics of biomedical research on human subjects increased "in both the absolute number and the proportion of articles in this area.

The figure begins to get large in 1966."

of July 8 to July 15, 1973,³ for example, the *New York Times* published the following relevant items: two bulletin-type articles on the performance of two new heart transplants; two articles on recent cases of "euthanasia" or "mercy killing" that raise questions about the "right to die" and "death with dignity"; a long article reporting and analyzing a decision rendered by the Wayne County Circuit Court in Michigan that experimental psychosurgery may not be performed on persons confined against their will in state institutions, even when such a person's consent for this surgery is formally obtained; two feature articles with photographs, and an editorial on the ethical and legal implications of a case under investigation by three federal agencies and a Senate subcommittee, in which it is alleged that two mentally retarded black girls, ages 12 and 14, were sterilized by a federally funded family planning clinic in Montgomery, Alabama, without either their informed consent or that of their parents; another article with byline, announcing that based on comparable cases, the American Civil Liberties Union was filing a suit in federal district court, seeking to void as unconstitutional a North Carolina law allowing sterilization of "mentally defective" persons; a substantial article summarizing a report published in a journal of biomedical ethics concerning five experiments on human beings funded by grants from divisions of the Public Health Service that raise "disturbing ethical questions"; an article by one of the paper's medical writers on the "complex and not always obvious issues of medical research ethics" that have surfaced in a "recent spate" of stories of "abuse, real or potential," evoking "newly critical looks at medical ethics [by] Government and private citizens and new proposals for more effective controls"; and, finally, an article by the same writer on the re-designing of a national blood policy that is now under way in the United States with the goal of achieving an all-volunteer donor system in the next two years.

The numbers of books that have been published on such subjects and themes in the past ten years is impressive.⁴ Leading the

³This is the week when I happened to be writing this section of my paper. In that sense, it was chosen randomly.

⁴For an excellent review-essay of the scope and content of the burgeoning literature on ethical and existential aspect of medicine published during the decade 1960-1970, see J.R. Elkinton (1970).

list, in saliency and frequency, is a group of books on death and dying. (For some major works on this subject, see Reference Note A.) The most famous of these, written by a psychiatrist, Dr. Elizabeth Kubler-Ross, and published in 1969, had sold over 100,000 copies in the paperback edition alone by the end of 1972. Presenting firsthand case materials based on her intensive work with incurably ill and dying patients, Dr. Kubler-Ross delineates what she considers to be the five psychological stages through which a dying person characteristically evolves. She both explicitly and implicitly affirms that persons passing through these "final stages of life," can be our "teacher(s)," helping medical professionals, and all of us, not to "shy away from the 'hopelessly' sick," as she feels we are inclined to do in American society. Those who "get closer" to the dying, she asserts, will not only "help them during their final hours . . . they will learn much about the functioning of the human mind, the unique human aspects of our existence, and will emerge from the experience enriched . . . perhaps with fewer anxieties about their own finality."⁵ Less directly, Dr. Kubler-Ross's book also evokes questions about the rationality and humanity of our medical and cultural propensity to do everything possible to "save" and prolong life. If there is a phenomenon akin to a "death and dying movement" occurring in the United States, as we believe there may be, then Elizabeth Kubler-Ross is one of its charismatic leaders.⁶

Another important collection of books that has appeared in the last few years is devoted to the ethics and legal aspects of biomedical research on human subjects. (For prominent recent books in this area, see Reference Note B.) In all these books, the problem of the rights and adequate protection of subjects looms large, as does the question of how best to establish surveillance and social control over the activities of investigators, without unduly impeding research. A great deal of consideration is given to the necessity and difficulties of obtaining truly informed and voluntary consent from subjects. Special attention is focused on candidates

⁵Elizabeth Kubler-Ross (1969: Preface, no page given).

⁶Professor Diana Crane (who is also a member of the Department of Sociology of the University of Pennsylvania) and I are planning a paper on this phenomenon, tentatively entitled, "The Death and Dying Movement: A New Kind of Social Movement?"

for research who are already subject to particular kinds of dependence, disability, or constraint, such as children, persons who are mentally retarded or mentally ill, prisoners, the poor, and the minimally educated. The question of what constitutes the most just allocation of limited and costly experimental therapies is debated in these works, along with the issue of when a society may expose some of its members to risk or harm, in order to seek benefits for them, for others, or for the society as a whole. Each of these volumes cites and examines problematic instances of human experimentation that are known to have taken place.

Two other types of relevant books are being published in significant numbers: those dealing with ethical and existential aspects of specific biomedical developments, and those that treat a broad range of such moral and metaphysical issues as they apply to numerous medical phenomena. (For examples of these two types of works, see Reference Note C.)

A number of social patterns applicable to this flow of articles and books are worthy of note. To begin with, the authors of these works come from a broad spectrum of fields, including journalism, politics, the law, the clergy, philosophy, ethics, theology, social science, social work, nursing, and psychiatry, as well as medicine and biology. Secondly, a considerable amount of the research and reflection on which these writings are based has been sponsored or supported by established private foundations like the Ford, Robert Wood Johnson, Joseph P. Kennedy, Jr., Rockefeller, and Russell Sage Foundations, by scholarly bodies, such as the American Academy of Arts and Sciences, the New York Academy of Sciences, the United States National Academy of Sciences, and by some government agencies, notably, several branches of the National Institutes of Health and the National Endowment for the Humanities.

What is perhaps more striking is the fact that the interest and work that these publications reflect have brought into being a network of new organizations whose principal *raison d'être* is to deal with these matters. Among the most prominent in the United States are the Institute of Society, Ethics and the Life Sciences in Hastings-on-the-Hudson, New York; the Society for Health and Human Values in Philadelphia; the Foundation of Thanatology in New York City; the Euthanasia Society of America and the

Euthanasia Educational Fund, both in New York City; the Committee on the Life Sciences and Social Policy of the National Research Council, a division of the National Academy of Sciences in Washington, D.C.; and the Joseph and Rose Kennedy Institute for the Study of Human Reproduction and Bioethics, located at Georgetown University in Washington. With the exception of the two euthanasia societies, these groups, and others like them, have all been founded since 1969.⁷

Mention has been made of the National Advisory Commission on Health Science and Society proposed by Senator Walter Mondale. In addition, the health subcommittees both of the Senate and the House of Representatives have been transformed by their respective chairmen, Senator Edward M. Kennedy of Massachusetts and Representative Paul G. Rogers of Florida, into groups that are actively engaged in conducting investigations and hearings on medical issues of social, ethical, and existential import, in raising public consciousness about these matters, and in proposing legislation and other control mechanisms bearing upon them. It is of some consequence to observe that the medico-moral concerns to which Mondale, Kennedy, and Rogers are addressing themselves have sufficient public resonance to enhance the political following and prestige of these men in the eyes of their local and national constituencies. The most important piece of legislation that has thus far resulted from their activities is the National Research Act (H.R. 7724) which was passed by both houses of Congress, and signed into law by President Nixon on July 12, 1974. Title II of this act established a temporary two-year National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The commission, an advisory body to

⁷In the international sphere, there are some comparable developments. For example, the Council for International Organizations of Medical Science (CIOMS), a nongovernmental agency created in 1949 by the World Health Organization and Unesco to re-establish scientific communications after World War II, has now turned its primary attention to interdisciplinary conferences and publications on topics such as the "protection of human rights in the light of scientific and technological progress in biology and medicine" (Round Table Conference scheduled to be held in Geneva, November 14-16, 1973). Furthermore, the CIOMS has recommended that a new international entity be established to explore the "moral and social issues" raised by new and forthcoming developments in biomedicine.

the Department of Health, Education, and Welfare (HEW), is composed of eleven members who were named by HEW Secretary Caspar Weinberger on September 10, 1974. Their task is to study a number of ethical issues set forth in the law. These include fetal research, the problem of obtaining informed voluntary consent for investigations in which children, prisoners, or persons who are mentally ill or retarded are asked to participate as subjects, and the ethics of psychosurgery. When the two-year life span of the commission is ended, a permanent council to deal with these matters will come into being.⁸

Their growing numbers and diverse backgrounds notwithstanding, the scholars, scientists, medical and legal practitioners, authors, foundation officials, organization members, and legislators seriously involved in considering ethical and existential aspects of biomedicine can be said to constitute a closely knit "social circle." Not only do they belong to overlapping groups and read each other's work attentively, but they participate in many of the same formal meetings, meet informally, communicate with one another through correspondence and by telephone, call upon one another as consultants, and recommend each other for relevant assignments and honors.⁹

The new institutional forms that are being summoned forth by these developments in contemporaneous medicine extend beyond the establishment of pertinent contemplative and action-oriented groups. Another kind of emergent phenomenon is the gradual formation of "bioethics," an incipient new discipline. Its contours are still not clear. In the words of Daniel Callahan (1973: 68), "Most of its practitioners have wandered into the field from somewhere else, more or less inventing it as they go. Its vague and problematic status in philosophy and theology is matched by its even more shaky standing in the life sciences." Callahan (1973: 73) goes on to advocate that if bioethics is to develop into a full and ac-

⁸For a competent and critical account of the history of the National Research Act, its development and its provisions, see Culliton (1974a).

⁹A systematic study of the sociometry of this circle, its patterns of communication, and their consequences for intellectual growth and policy formation in this area, such as Diana Crane carried out in two scientific communities, would be illuminating. See Crane (1972).

cepted field, it should be interdisciplinary and problem- and case-focused in the following regard:

. . . so designed, and its practitioners so trained that it will directly—at whatever cost to disciplinary elegance—serve those physicians and biologists whose position demands that they make practical decisions. This requires, ideally, a number of ingredients as part of the training . . . of the bioethicist: sociological understanding of the medical and biological communities; psychological understanding of the kinds of needs felt by researchers and clinicians, patients and physicians, and the varieties of pressures to which they are subject; historical understanding of the sources of regnant value theories and common practices; requisite scientific training; awareness of and facility with the usual methods of ethical analysis as understood in the philosophical and theological communities . . . and personal exposure to the kinds of ethical problems which arise in medicine and biology.

Although bioethics is still a tentative field, and its definition and legitimacy are under discussion, a comprehensive *Encyclopedia of Bioethics* already is in preparation. Its editor (Warren T. Reich, a former theology professor at Catholic University) and his staff are based at the Kennedy Institute of Georgetown University. Their advisory editors are drawn from multiple university, foundation, and government milieux. And the project is financed by the Kennedy Foundation and the National Endowment for the Humanities.¹⁰

Quite apart from the prognosis for bioethics as a discipline, a new conception of medical ethics seems to be unfolding in the medical profession. Increasingly, medical ethics is being viewed less exclusively as a code of professional etiquette. It is coming to be regarded as a component virtually of all medical decision making and to including the questions of how such decisions should be made and who should participate in them, as well as what ideally ought to be done in given cases. Even the conservative American

¹⁰An interesting history and sociology of science kind of question that might be posed here is whether there is any precedent or principle that would lead one to assume that the preparation of such an encyclopedia will help to establish a field that only potentially exists. For, normally, one would expect an encyclopedia to appear when a field is firmly rooted and recognized, with a sufficiently well-defined body of theory, methodology, and empirical data to be articulated.

Medical Association has expanded its ethical program to encompass these broader considerations, along with the dilemmas posed by recent biomedical advances.

But it is in medical schools that one sees the most significant activity in this regard. In 1970, for example, under the aegis of Drs. Robert M. Veatch and Willard Gaylin, both members of the Institute of Society, Ethics and the Life Sciences, the Columbia College of Physicians and Surgeons launched an experimental Medical Ethics Program (see Veatch and Gaylin, 1972). This Program included lectures, seminars, clinical case conferences, dinner-discussion meetings and intensive workshops for students in every stage of medical school training. An internship in medical ethics for several fourth-year students was also created; an interdisciplinary seminar on "the new biology and the law", that brought medical students together with students from Columbia Law School and the Union Theological Seminary was organized; and sessions on medical ethics for interested faculty and clinical staff were arranged. This Program has had wide repercussions. Its staff has made a survey of the teaching of medical ethics in medical schools throughout the country, has developed bibliographies and case studies that are available upon request, has acted as consultants to other medical schools, and, in June 1972, organized a National Conference on the Teaching of Medical Ethics. Although their survey revealed that in the curricula of most medical schools medical ethical issues are presented largely on an informal and somewhat *ad hoc* basis, institutional response to the Medical Ethics Program staff "suggests a rapidly developing interest in the [formal] teaching of medical ethics" (Veatch and Gaylin, 1972: 785). By October 1971, the program's staff already had been consulted by 29 American medical schools, in addition to faculty in biology, philosophy, religion, law, and social science departments; and about 150 representatives from medical school faculties attended the National Conference on the Teaching of Medical Ethics.

In my view, one of the most significant patterns that Veatch and Gaylin (1972: 783) report is that their whole undertaking was initiated by medical students:

Early in 1970 a group of students, upon hearing a lecture pointing out the ethical implications of the judgments made in the practice of

psychiatry, approached the curriculum committee of the school and members of the Institute of Society, Ethics and the Life Sciences and asked that a full program be established, one which would make ethical and social perspectives an integral part of their medical education. . . .

This is consistent with what I believe to be a fundamental shift in the outlook of American medical students. It has been remarked that medical students of the late 1960s and early 1970s appear to be more socially concerned than their predecessors. They are especially outspoken about the inadequacies and inequities in the nation's system of health care delivery, about the responsibility that they feel the established medical profession bears for the existence of these deficiencies and injustices, and about their own determination to play an active role as physicians in eliminating them. How deep these concerns and commitments of the "new" medical student go, and how enduring they will prove to be is a matter of some debate not only among medical educators, but also among students themselves (who are inclined to be self-critical in this, as well as in other matters). Whatever their long-term import, these medical student tendencies are sufficiently notable to have elicited continuing discussion about whether or not they will persist under the impact of students' medical educational experiences and the demands that their subsequent medical careers will make upon them.¹¹ Accompanying the ostensible social consciousness of pre-

¹¹Studies of the social backgrounds of men and women currently entering medical school, of the attitudes, values, sentiments and life experiences that led them to opt for medicine, and of the socio-psychological as well as cognitive learning that they undergo in the course of medical school, house officer training, and their early years of practice are very much needed. Whereas several such major studies of medical socialization were carried out in the 1950s, for reasons that merit investigation, no such studies that are comparable in depth and scope have been attempted more recently.

My own comments about medical student attitudes and interests set forth in this paper are based upon the data I gathered as chief field worker for a study of the education and socialization of medical students conducted in the mid-1950s by the Columbia University Bureau of Applied Social Research. *The Student Physician* (Merton et al., 1975) was a product of that investigation. My observations on medical students in the late 1960s and early 1970s are less extensive and systematic. They grow out of my role as a sociologist in the Departments of Psychiatry and Medicine of the University of Pennsylvania, and from the numerous opportunities that I have to visit other medical schools as a consequence of my continuing research and teaching in the sociology of medicine.

sent-day medical students, and integrally related to it, is their manifest interest in ethical and existential aspects of medicine. Along with their concern about a more just allocation of material and immaterial medical resources in American society, one of the areas in which students' moral and metaphysical interests are most apparent is that of "death and dying." Their orientation is distinctly different from the attitudes toward death and the ambiance surrounding it that predominated in American medical schools twenty years ago. In a recent article, I have portrayed the contrast as follows (Parsons et al., 1972: 367-415):

. . . In the medical school climate of the 1950's . . . faculty virtually never raised questions with students like "what is death?" "why death?" or "in what deeper senses, if any, does death differ from life?" Even in situations conducive to such querying—notably, the anatomy laboratory, the autopsy, or in the face of students' early confrontation with terminally ill patients—instructors rarely initiated such discussions. And if a student made a timorous effort to do so, he was likely to be silenced by classmates and faculty alike with the quip, "that's too philosophical." Decoded, this meant "the matters of which you speak are not sufficiently rational, objective, scientific or pragmatic to fall within the proper domain of medicine, or of truly professional behavior." It was also characteristic of this decade that [medical students and their teachers] were more inclined to speak euphemistically about the death of a patient—"he [she] expired," "passed on," or "was transferred to Ward X"—than straightforwardly to state that death had occurred. In sharp contrast to such medical attitudes in the 1950's (at least in academic milieux where new physicians were being trained and scientific research emphasized), the late 1960's and early 1970's appear very "philosophical." . . .

In addition to new organizations, new intellectual disciplines and new perspectives on the part of medical students and educators, certain spokesmen for medical practitioners, some legislators and sectors of the lay public, the ethical and existential refocusing of medicine has been accompanied by three other institutional responses. These consist of new guidelines, or codes, several moratoria, and a number of legal decisions and statutes.

Perhaps the most momentous guideline issued thus far is the new criterion for judging a person dead that was formulated and proposed by Harvard Medical School's Ad Hoc Committee to Ex-

amine the Definition of Brain Death (1968), chaired by Dr. Henry K. Beecher, and consisting of nine physicians, a lawyer, a historian of science, and a theologian. The Harvard report opened with the statement that the Committee's "primary purpose [was] to define irreversible coma as a new criterion for death," and that there were two reasons why there was "a need for a definition":

- (1) Improvements in resuscitative and supportive measures have led to increased efforts to save those who are desperately injured. Sometimes these efforts have only partial success so that the result is an individual whose heart continues to beat but whose brain is irreversibly damaged. The burden is great on patients who suffer permanent loss of intellect, on their families, on the hospitals, and on those in need of hospital beds already occupied by these comatose patients.
- (2) Obsolete criteria for the definition of death can lead to controversy in obtaining organs for transplantation.

The report went on to identify and describe in detail the major characteristics of a state of irreversible coma, which indicates a "*permanently* [italicized in the report] nonfunctioning brain." These are: "unreceptivity and unresponsivity [to] externally applied stimuli and inner needs," "no spontaneous muscular movements or spontaneous respiration," and "the absence of elicitable responses." A flat or isoelectric electroencephalogram is held to be "of great confirmatory value." Furthermore, it is advocated that all the tests involved in these various determinations (which not only assess higher brain functions, but brain stem and spinal cord activity and spontaneous respiration, as well) should be "repeated at least 24 hours later with no change." In effect, the committee has recommended that the traditional method used by physicians for ascertaining and pronouncing death—the total cessation of all vital signs, that is, heart beat and respiration—be replaced by criteria for "cerebral death" or "brain death." Although this proposal has evoked a certain amount of commentary and some disquietude both in lay and professional circles, by and large, it has been well received, particularly in the medical community. "It is remarkable," Dr. David D. Rutstein of Harvard Medical School has observed with concern (1970: 386) that "a revolution in our cultural concept of death . . . this major ethical change . . . has occurred right before our eyes, and that this change is more and more widely accepted with little public discussion of its significance. This new

definition . . . raises more questions than it answers.”

A second important set of guidelines that has been set forth is that “relating to moral and ethical aspects of clinical investigation.” A policy statement formulated in 1966 by the National Institutes of Health (NIH) and Public Health Service (PHS) (see Curran, 1970: 402-454) mandated that all clinical research involving human subjects supported by the NIH or PHS should be submitted to peer review by a committee of colleagues from the principal investigator’s institution. That review should address itself to the rights and welfare of the human subjects involved, to the appropriateness of methods used to secure their informed consent, and to the risk-benefit ratio that the research entails. In 1971, these requirements were extended to all research on human subjects supported by any agency of the Department of Health, Education, and Welfare (HEW), the parent organization of the NIH and PHS. It is expected that over the next two years, the federal commission on ethics created by the National Research Act will supplement these general guidelines with more specific recommendations concerning psychosurgery, as well as clinical research on the fetus, the abortus, children, prisoners, and on the institutionalized mentally disabled. In principle, the commission has no regulatory authority, and its guidelines apply only to research funded by HEW. But its *de facto* influence on HEW and also on other agencies is expected to be considerable. For, the act requires that whenever the commission submits a recommendations to the Secretary of HEW, within 60 days, he must publish it in the *Federal Register* for comment. No more than 180 days later, the Secretary must act upon the recommendation, and if he decides to reject it, he must give his reasons for doing so, in writing. Although legally, the commission’s deliberations are only relevant to research funded by HEW, many members of Congress are eager to have guidelines developed that are broadly applicable to other governmental organizations. And the commission has been asked to devise a mechanism to make the rules pertaining to human experimentation uniform.

A third type of policy statement has been set forth. This concerns a formal determination of where, on the experiment-therapy spectrum, a therapeutic innovation can be said to fall at a given phase in its development, and how and when, in the light of its status, it ought (or ought not) to be utilized. The best example of this sort of guideline is the statements on human cardiac transplan-

tation issued by several different medical associations and government-affiliated medical groups (see Reference Note D). The over-all judgment on heart transplants that emerges from these position papers is that "the procedure of total cardiac replacement is so formidable, and uncertainties about the duration of life after replacement are so great, that physicians may be expected to be conservative about recommending it for an individual patient." Replacement cannot "as yet be regarded as an accepted form of therapy, or even an heroic one. It must be clearly viewed for what it is, a scientific exploration of the unknown, only the very first step of which is the actual feat of transplanting an organ." For this reason, "it may be reasonably assumed that imminent death will be the basic criterion for total cardiac replacement, at least in the near future." The "primary justification" for heart transplants at this time is deemed to be the "new knowledge of benefit to others in our society" that may come from it. In light of this view, and in recognition of the fact that "theologians, lawyers and other public-spirited persons, as well as physicians are discussing with deep concern the many new questions raised by the transplantation of vital organs," specific recommendations are made about the proper treatment of donors and recipients, the types of medical center qualified to undertake the operation, and the appropriate reporting of a transplantation both in medical journals and the mass media.

This period of "deep concern" about the issues raised by human experimentation and by biomedical advances like the increasing ability to maintain certain signs of life artificially, or to transplant human organs has also generated moratoria of several kinds. The first of these is what Judith P. Swazey and I have called clinical moratoria: the suspension of the use of a still experimental medical or surgical procedure on patients. This type of moratorium usually occurs in the stage of development of a new treatment when the uncertainties and risks associated with it are very high and become starkly apparent. Often, the patient mortality rate seems unbearable or unjustifiable. Pressure for such a moratorium can come from physician-investigators' own reactions to the situation and/or from "external" sources (from their colleagues, the institution in which they work, patients and their families, organizations sponsoring their research, and, less frequently, from the courts).

One important instance of such a moratorium (that we have

personally had an opportunity to study) is the virtual cessation of human heart transplants (see Fox and Swazey, 1974: 122-148). As compared with 1968, for example, which was heralded by the mass media as the "Year of the Transplant," because 105 cardiac transplantations were performed throughout the world in that year alone, 1974 is a time when only an occasional heart transplant is done. The very high mortality rate of the persons who have undergone this procedure and their relatively short period of survival have been primary factors in the demise of the operation. The pressures that resulted in this moratorium came principally from within the medical profession itself, from prospective donors, recipients and their families, and from the mass media's continual publishing of heart transplant "box scores."

I have already identified another, more recent moratorium that was enacted into state law in July 1973 in a Michigan circuit court. Here, three judges rendered a unanimous opinion against the experimental performance of psychosurgery on persons involuntarily confined to state institutions. The judges based their opinion on the fact that brain surgery to attempt the correction of behavioral abnormalities like murderous aggression is "clearly experimental, poses substantial danger to research subjects, and carries substantial unknown risks," such as the blunting of emotions, the deadening of memory, the reduction of affect, and limitation of ability to generate new ideas. Furthermore, the judges reasoned, there is "no persuasive showing" that, in its present stage of development, this neurosurgical procedure would have its intended beneficial effects. In addition to the "unfavorable risk-benefit ratio" involved, it was concluded that the procedure ought not to be performed in the kind of case under consideration, because an involuntarily confined mental patient, living in an "inherently coercive atmosphere," has been intrinsically deprived of the basic conditions that are requisite to voluntary consent.¹²

This ruling is related to another type of moratorium that is being considered: the halting of medical experimentation on certain

¹²As already indicated, the ethics of psychosurgery is one of the major questions that the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, created by the National Research Act, has been asked to study. Until their deliberations are completed, HEW is maintaining the position that psychosurgery is a highly experimental procedure, which should be done only under the most rigorously defined and controlled circumstances.

categories of persons. In this case, what is being contemplated is calling a moratorium on research conducted on "captives" of the state—prisoners, as well as involuntarily committed mental patients—in order to provide optimal conditions for re-evaluating the circumstances, if any, under which such research might be justified. The major impetus for this moratorium has been coming from the Senate Health Subcommittee, while a serious review of research on prisoners, mentally ill and mentally retarded persons, and on children is under way at the National Institutes of Health as part of their general inquiry into ethical guidelines for clinical research.¹³ The federal commission on ethics created by the National Research Act has also been asked to examine this question.

Two other moratoria which have developed are concerned with embryonic human life, in both the literal and figurative senses of the term. The first of these moratoria, a ban on fetal research, was officially declared by Title II of the National Research Act. The act charges the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research with the task of studying the nature, extent, and purposes of research involving living fetuses, as well as alternative ways of achieving these purposes. The commission has been given four months to complete this study, and to make recommendations to the Secretary of HEW. Until regulations are issued governing fetal re-

¹³Concern over the conditions under which serious medical procedures ought to be carried out on persons whose ability to give informed voluntary consent may be constrained by institutional pressures to which they are subject, has spread beyond the realm of human experimentation. For example, this issue is being vigorously debated in connection with the controversy over the way in which sterilization has been carried out on girls and women in HEW-sponsored welfare programs. Earlier in this article, mention was made of the case of two mentally retarded, teen aged, Black, Alabama girls whose family was on relief, and who were sterilized without their own or their parents' understanding of the procedure or its consequences. Since the disclosure of that case, numerous others like it have been revealed. The American Civil Liberties Union, Ralph Nader's Health Research Group, the Mental Health Law Project, and at least fourteen other women's and civil rights groups, as well as some state legislators and the Senate Health Committee have all entered this arena of dispute. In response to the growing argument, the HEW has been trying to draft a set of acceptable regulations that would permit federal funds to be used for nontherapeutic sterilization, without violating informed voluntary consent or other civil and client rights. A number of lawsuits involving sterilization are in process. For a useful summary of the sterilization controversy, see Coburn (1974).

search, HEW has decreed that its health agencies, grantees, and contractors "may not conduct or support research in the United States or abroad on a living human fetus, before or after the induced abortion of such fetus, unless such research is done for the purpose of assuring the survival of such a fetus."

This moratorium grows partly out of the fact that many more abortions are now being legally performed by reputable physicians, as a consequence of a recent United States Supreme Court decision (*Roe v. Wade*, 1973) in which it was stated that there exists "no compelling State interest" to warrant intervention in abortion decisions during the first two trimesters of pregnancy. The purpose of the moratorium is to give relevant experts the time and responsibility systematically to reflect on how to deal with the complex ethical and existential questions that increasing opportunities to conduct experiments on, or manipulate human fetuses have begun to raise. When does life begin? When does a living human embryo acquire "protectable humanity" (Kass, 1972: 32)? Is there any morally viable way in which proper consent for experimentation on human fetuses can be obtained? From whom should such consent be sought: from the would-have-been mother and/or father, for example? To whom does the aborted fetus "belong," or, at least, to whom should it be entrusted?

Certain states and cities have taken local measures to enforce a moratorium on fetal research. A law passed in California in 1973 forbids scientific experiments on human fetuses. Cleveland, Ohio, now has an ordinance that prohibits research on products of aborted human conception, or the medical use of these products. And on April 11, 1974, in Boston, Massachusetts, four physicians at Boston City Hospital were indicted by a county grand jury who accused them of violating an 1814 Massachusetts grave-robbing law, because they had studied the effect of two antibiotics on aborted fetuses, as well as on the women who had been pregnant with them.¹⁴

¹⁴For a detailed account of the Boston "grave-robbing" case, see Culliton (1974b). Among the factors that brought it to the attention of the district attorney's office, the public, and the court were the political activities of a local branch of the National Right to Life Committee. This is an organized antiabortion movement, headed by the Reverend Warren A. Schaller, Jr., an Episcopal priest. The committee was incorporated as a nonprofit organization in 1973, after several years of

There is a second moratorium associated with the issues raised by fetal research, which has been developing. This is an incipient moratorium, rather than one that has already been formally declared, and it applies to *in vitro* fertilization: the implantation into a woman's uterine cavity of human egg cells that have been fertilized by human sperm in the test tube.

Various biologists, physicians, theologians, and philosophers, as well as members of the right to life movement have actively worked to deter this line of biomedical research. The *Journal of the American Medical Association* has gone so far as to publish a statement advocating a complete "moratorium on experiments that would attempt to implant an *in vitro*-conceptus into a woman's womb." Such individuals and groups have asserted that a ban on embryo implants ought to be enacted in order to avert the social, moral, and metaphysical problems that they anticipate would ensue from the successful application of a "new method for making babies" (Kass, 1972: 19). Among the objections to *in vitro* fertilization that have been raised, two are especially prominent. It has been contended that reproduction is human, personal, and moral only when conception results from so-called ordinary, heterosexual intercourse (preferably within the confines of marriage). It has also been argued that because it is an "artificial," "engineered" mode of reproduction, *in vitro* fertilization may be

formal affiliation with the United States Catholic Conference. The 1973 Supreme Court decision on abortion added momentum to the right to life movement. It has been particularly vigorous and influential in Boston, in political and Roman Catholic milieux.

Another medical area in which ethical and existential issues closely associated with some of those raised by experimentation with human fetuses has been surfacing concerns the decisions made in special-care nurseries about whether or not to treat infants born with severe genetic defects. In an article entitled "Moral and ethical dilemmas in the special-care nursery," which has attracted a great deal of professional and public attention, Dr. Raymond S. Duff and Dr. A.G.M. Campbell (1973) confront the question, "who decides for a child":

. It may be acceptable for a person to reject treatment and bring about his own death. But it is a quite different situation when others are doing this for him. We do not know how often families and their physicians will make just decisions for severely handicapped children. Clearly, this issue is central in evaluation of the process of decision making that we have described. But we also ask, if these parties cannot make such decisions justly, who can?

conducive to the development of fetal anomalies and aberrations that could be difficult to prevent, remedy, or eliminate.¹⁵

One other genre of moratorium on biomedical research that has recently been invoked is perhaps the rarest of them all. Unlike the other moratoria, it does not concern clinical research that is conducted on human subjects. Rather, it addresses itself to certain kinds of experiments that involve the genetic manipulation of living cells and viruses, which a group of distinguished molecular biologists feel could have unpredictably hazardous "bioconsequences" for man. These scientists form the Committee on Recombinant DNA Molecules of the Assembly of Life Sciences of the National Research Council, which is under the aegis of the Na-

¹⁵Some writers, like Leon Kass, who take this point of view also believe that because a "test-tube" embryo is so willfully created and "wanted," it may be more immoral to resort to abortion to destroy such a fetus (if, for example, it is seriously defective), than it would be if the fetus were conceived through sexual intercourse.

It should be mentioned here that in July of this year, at the annual scientific meeting of the British Medical Association at Hull, in Yorkshire, Dr. Douglas Bevis, a professor of gynecology and obstetrics at Leeds University, handed out a press release in which he announced that human embryos, conceived *in vitro* had been successfully implanted in the wombs of three women, who had given birth to normal babies. According to his report, the women had been infertile due to diseased, blocked, or missing Fallopian tubes. Eggs had been surgically removed from the women, fertilized in test tubes with their husbands' sperm, and subsequently reimplanted in the women's wombs. Dr. Bevis said that out of the thirty such attempts he had made, these were the only successful ones. The babies were said to range in age from twelve to eighteen months, and to be developing normally. By and large, medical scientists and physicians in Britain and abroad responded to this report with a mixture of skepticism and criticism. The fact that Dr. Bevis had worked in secret, had never published his findings in a medical scientific paper, and refused to reveal the identities or whereabouts of the infants and their parents, in the name of safeguarding their privacy, contributed to the disbelief and disapproval of the medical scientific community. The frustrated competitive ambitions of some clinical researchers who had aspired to be "first" in this area may also have been involved in the adverse reaction. But the apprehension that physicians and scientists expressed over the biological and moral consequences that might ensue from such an accomplishment, whenever it might occur, sounded genuine. In a later news report, Dr. Bevis was quoted as expressing chagrin over the reaction that his original press release had evoked. He affirmed that because of it, he was seriously considering calling a halt to this aspect of his work. If, in fact, he has now done so, his act can be thought of as a personally imposed moratorium, brought about by the disapproving attitudes of the medical profession, conveyed to Dr. Bevis largely through the media of mass communication.

tional Academy of Sciences. They have asked "scientists throughout the world" to join them in "voluntarily deferring" research which would insert either new bacterial or viral genetic material into bacteria (such as *Escherichia coli*, which commonly resides in the human intestinal tract), that could infect human beings. Their appeal was issued in the form of a cosigned statement that was published in July, 1974, in *Science*, and also in *Nature* (Berg et al., 1974: 303). They have appealed to all investigators working in this area temporarily to halt these types of research "until attempts have been made to evaluate the hazards and some resolution of the outstanding questions has been achieved." They have also recommended that experiments that entail inserting animal genes into bacteria "should not be undertaken lightly." According to *Science*, this is "apparently the first time that biologists have publicly called attention to the possible public hazards of their own research" since 1969, and that they "have ever suggested that their own line of investigation should be halted" (Wade, 1974: 332).

A final indicator of the degree to which not only the American medical profession but the society at large has been deliberating ethical and existential issues associated with biomedicine is some of the legislation concerned with life and death matters that has been drafted in the last few years. The Kansas Death Statute, the Uniform Anatomical Gift Act and the United States Supreme Court decision on the Texas abortion case of *Roe v. Wade* represent three such major pieces of legislation.

In 1970, the state of Kansas (1970) adopted "An Act relating to and defining death," which was the first attempt legislatively to reformulate the standards for determining death. The Kansas statute sets forth and grants equal validity to two "alternative definitions of death": the traditional notion that a person is "medically and legally dead" if a physician determines "there is the absence of spontaneous respiratory and cardiac function and . . . attempts as resuscitation are considered hopeless"; and the new, irreversible coma criterion of death, which turns on the absence of spontaneous brain function if during "reasonable attempts" either to maintain or restore spontaneous circulatory or respiratory function, "it appears that further attempts at resuscitation or supportive maintenance will not succeed." The statute has received a great deal of attention. It has served as a model for similar legislation enacted in

the state of Maryland in 1972, as well as for statutes now under consideration in a number of other jurisdictions. It has also been vigorously criticized for its dualistic approach to death, for the fact that it implies that a special definition of death, "brain death," has been developed to facilitate cadaveric organ transplantation, and because it mixes the question "When is the patient dead?" with "When may the doctor turn off the respirator?" and "When may a patient be allowed to die?" (see Capron and Kass, 1972: 104-111).

The Uniform Anatomical Gift Act is a statute designed to insure the provision of a more adequate supply of cadaver organs for transplantation than has been possible under traditional American law.¹⁶ In this common law heritage, courts have ruled that in order for the next of kin adequately to discharge his (her) responsibility for proper burial of the deceased, that relative has the right to receive the body in the same condition as it was at the time that death occurred. Furthermore, in keeping with Judeo-Christian views on the sacredness of the body and respect for the dead, the body of a deceased person is not to be regarded as an item of commerce, to be bought, sold, or used to pay off debts. Courts expressed these premises by stating that there are no "property rights" in the body of the deceased. From this, there developed the ruling that a person could not direct the manner of his burial, because the body is not property and therefore not part of his estate.

In recent years, partly as a consequence of advances in the transplantation of corneal and other tissues, these views have come under increasing criticism. In the 1950s, donation statutes were enacted in several states which allowed an individual to determine what was to be done with his remains and to authorize donation for medical purposes. However, "most statutes failed to recognize the unique time requirements for organ and tissue removal and frequently viewed the act of donation as merely an extension of the testamentary disposition of property" (Sadler and Sadler, 1973: 16). The Uniform Anatomical Gift Act is the product of a three-year investigation into the matter of cadaver organ procurement that was conducted by a Special Committee of the Na-

¹⁶For the account of the legal background of the Uniform Anatomical Gift Act and its provisions that follows, I am indebted to the writings of Blair L. Sadler and Alfred M. Sadler, Jr., especially their co-authored article, "Providing cadaver organs: three legal alternatives," 1973.

tional Conference of Commissioners on Uniform State Laws. The study was initiated in 1965. On July 30, 1968, the act was approved by the commission. It was endorsed by the American Bar Association on August 7 of the same year, and subsequently received support from virtually every relevant medical organization.

Blair and Alfred Sadler (1973: 25), who played a major role in drafting the Uniform Anatomical Gift Act, summarize its key provisions as follows:

Under the Uniform Act, a person of sound mind and 18 years of age or more may give all or part of his body for any purpose later specified in the Act, the gift to take effect after death. In the absence of a contrary statement by the deceased before death, the next of kin (in a specified order of priority) are authorized to donate all or part of the body of the deceased. The individual's interests are paramount to the next of kin's. Consequently, if a physician obtains adequate consent from an individual via the card mechanism [a donor card], he need not consult the next of kin for this purpose. The consent mechanism is greatly simplified under the Act and includes any written instrument such as a card carried on the donor's person, signed by the donor, and witnessed by two people. Consent by the next of kin can be obtained by an unwitnessed document or by recorded telegraphic or telephonic message.

The act forms the basis of new laws that have now been adopted in 51 jurisdictions, including the District of Columbia. It has "enjoyed unprecedented success," for, "never in the 78-year history of the National Conference of Commissioners on Uniform State Laws has a uniform act been so widely adopted during the first three years of consideration by state legislatures" (Sadler and Sadler, 1973: 25). When one considers the existentially fundamental and sacrosanct nature of what this act has legislatively influenced or altered, the ease and rapidity with which it has been widely accepted is all the more remarkable. Like the Kansas statute, it represents a basic change in conceptions of death and of the human body. It also places the desires and commitments of the individual with respect to his body at death above those held by members of his family (including inhibiting traditional religious sentiments that his relatives may hold in this connection). The act not only makes it easily possible for many individuals to make a sacrificial gift of life-in-death, but it also implicitly encourages

them to do so. And it legally sanctions a new and ultimate way of expressing the Judeo-Christian injunction to be "our brothers' [and our] strangers' keepers" (Titmuss, 1971).

The Supreme Court abortion decision handed down on January 22, 1973, has been called one of the most controversial decisions of this century. Its core rulings are as follows:

1. A state criminal abortion statute of the current Texas type, that excepts from criminality only a *life saving* [italics in text] procedure on behalf of the mother without regard to pregnancy stage and without recognition of the other interests involved, is violative of the Due Process Clause of the Fourteenth Amendment.

- (a) For the stage prior to approximately the end of the first trimester, the abortion decision and its effectuation must be left to the medical judgment of the pregnant woman's attending physician.

- (b) For the stage subsequent to approximately the end of the first trimester, the State, in promoting its interest in the health of the mother, may, if it chooses, regulate the abortion procedure in ways that are reasonably related to maternal health.

- (c) For the stage subsequent to viability the State, in promoting its interest in the potentiality of human life, may, if it chooses, regulate, and even proscribe, abortion except where it is necessary, in appropriate medical judgment, for the preservation of the life or health of the mother.

The full legal and moral implications of this decision are too complex to discuss here. But several aspects of the ruling should at least be singled out, because they bear so directly on the matters we are considering. To begin with, although ostensibly the Court's decision grants a woman what it deems a "right" to abortion, it not only regulates this right, but also equivocates about it. For, while affirming the right, throughout its exposition, the Court recurrently declares that abortion is "inherently and primarily, a medical decision" to be "left to the medical judgment of the pregnant woman's attending physician." Furthermore, after the first six months of pregnancy, the life of the fetus, termed here "the potentiality of human life," is given precedence over all other considerations short of "the preservation of the life or health of the mother" herself. In these ways, the Court has adhered to the conviction about the sanctity of life and the importance of safeguarding it, that is so strongly upheld in the traditional legal as well as value system of American society.

The definition of health developed by the Court is a broad one. It has been extended to include "the stigma of unwed motherhood," "the distress for all concerned associated with the unwanted child," and an unspecified complex of conditions referred to as "the full setting of the case." The fact that such psychological and social considerations have been incorporated into this legal conception of health can be expected to have influence that extends beyond the abortion situation.

From our perspective, the dimension of the Court's decision that is the most significant and debatable is its implicitly expressed point of view on when human life begins. In his majority opinion, Associate Justices Harry A. Blackmun disclaims that the Court has done so. "We need not resolve the difficult question of when life begins," he states. "When those trained in the respective disciplines of medicine, philosophy, and theology are unable to arrive at any consensus, the judiciary, at this point in the development of man's knowledge, is not in a position to speculate as to the answer." However, in fact, the Court's decision does more than speculate. It says by implication that life does not begin during the first two trimesters. And it suggests that it begins in "the stage subsequent to viability" when it mandates the state, "if it chooses," not only to regulate, to to "even proscribe" abortion thereafter. The Court's position on the point at which personhood comes into being is more blurred. It reaffirms that "the word 'person,' as used in the Fourteenth Amendment, does not include 'the unborn'; but it does not distinguish the commencement of human life from the inception of personhood.

What emerges from the overview sketched out in these pages is a picture of a contemporaneous system of medicine that has reached a stage of development characterized by diffuse ethical and existential self-consciousness. This state of awareness involves the searching out of ways in which certain moral principles and metaphysical assumptions on which American society is traditionally based have been imperfectly realized, or violated. It also entails a reaffirmation of these premises and the initiation of various forms of social action intended to modify the medical system, so that it will more fully actualize its stated ideals. Among the major values and beliefs that are being reasserted are the right

of every individual to some modicum of integrity, dignity, autonomy, and fulfillment; the right of all men, women, and children, independently of their personal endowment or social status, to have equal access to conditions, like the alleviation of illness-induced suffering, that are indispensable to their personal and collective humanity; and the right freely to give of one's self to others in life-enhancing ways.

In other regards, this ethical and existential *prise de conscience* in American medicine is accompanied by what appear to be major shifts in fundamental conceptions about health and illness, life and death. Increasingly, health is being defined as a universal human right, rather than as a privilege, a sign of grace, or an aleatory consequence of good fortune. Both health and illness are coming to be viewed in a more societal and less individualistic framework. Along with the absence of adequate medical care, lack of good health and affliction with illness are now more frequently attributed to society-borne stresses, deprivations, and injustices than they were in the past. A discernible modification is also occurring in the absolute nature of the cultural commandment to preserve life. While the sacredness of human life and its preservation continue to be affirmed, the new operational definition of death, the assertion, however qualified, of the right to abortion and the mounting insistence both on "the right to die" and on "death with dignity" all suggest that medicine is moving from an ethic based on the unconditional "sanctity of life" to one premised on the "quality of life."¹⁷ Furthermore, the reconceptualization of death as "brain death" and the Supreme Court decision on abortion are important crystallized expressions of the point that American society has now reached, in what seems to be a gradual movement toward revised definitions of viable life, personhood, and "humanity."

Finally, numerous of the phenomena that I have identified and discussed suggest that there is a peaking of doubt over the uncondi-

¹⁷This opinion was offered by the ethical scholar, Joseph Fletcher, in the course of a keynote address that he delivered at the National Conference on the Teaching of Medical Ethics, held at the Tarrytown Conference Center, Tarrytown, New York, on June 1-3, 1972. The conference was co-sponsored by the Institute of Society, Ethics and the Life Sciences and the Columbia University College of Physicians and Surgeons.

tional virtue of still another important value-component of American medicine. The debates over how much ought to be done to maintain the life of terminally ill or dying patients, for example, the proposed moratorium on experimentation with *in vitro* fertilization, the apprehension about what the consequences of prospective developments in genetic engineering and behavior control may prove to be, all constitute challenges to the energetic, often aggressive meliorism for which American medicine is known. This blend of activism and meliorism rests on the assumption that out of unrestrictedly vigorous efforts to advance and apply biomedical knowledge and technique will come indisputable gains in human capacities, health and longevity, and in the alleviation of suffering. That conviction is now being thrown into question by many biologists and physicians, as well as by members of other professions, of government agencies, and of the general public. There is palpable skepticism about whether we have the "ultimate wisdom," to deal with the fact that "recent advances in biology and medicine suggest . . . we may be rapidly acquiring the power to modify and control the capacities and activities of men by direct intervention and manipulation of their bodies and minds" (Kass, 1971: 779, 786):

If we can recognize that biomedical advances carry significant social costs, we may be willing to adopt a less permissive, more critical stance toward new developments. We need to reexamine our prejudice not only that all biomedical innovation is progress, but also that it is inevitable. Precedent certainly favors the view that what can be done will be done, but is this necessarily so? Ought we not to be suspicious when technologists speak of coming developments as automatic, not subject to human control? Is there not something contradictory in the notion that we have the power to control all the untoward consequences of a technology, but lack the power to determine whether it should be developed in the first place? . . .

Although the danger of excessively deterring medical progress is continuously reiterated, as the various moratoria cited suggest, the present trend is clearly in the direction of greater regulation of actual and incipient biomedical developments. The origins of this tendency are complex, but one of the important factors contributing to it is the growing belief that heroic medical scientific and technical

efforts to improve "man's estate" are not unequivocally admirable or good, and that some of their consequences may be seriously harmful to collective as well as individual human existence.

The data presented suggest that modern American medicine is entering a new evolutionary stage. Organized concern about ethical and existential matters has become one of its salient features. The prominence and legitimacy of medicine's interest in these issues, and the involvement of many non-medical groups in them indicate that a new rapprochement is taking place in the profession and the society. The overweening emphasis on scientific and technological phenomena that has characterized modern medicine, and its insistence on separating these so-called objective considerations from more "subjective" and "philosophical" orientations toward health and illness, life and death, seem to be giving way to a closer integration between the two dimensions. Some of the ethical and existential issues under consideration in medicine entail reaffirmations of ultimate values in American culture and society. Others involve either a modulation or a broader generalization of such basic values. In two critical respects, the ethical and existential reorientation that is occurring implies a sharper break with cultural tradition, and seems to presage more radical socio-cultural change. We refer here to the major shifts away from some of the principles on which are founded the ethic of the sanctity of life and the ethic of progress.

It is tempting to assume that these value shifts and changes are predominantly, if not exclusively, caused by recent biomedical developments. And, indeed, this allegation is frequently made in the relevant literature. However, such an interpretation does not take note of the fact that in many other domains of American society, there is increasing preoccupation with the same questions of values, beliefs, and meaning that have been raised in the medical sector. Concern about the quality, dignity, and meaningfulness of life, about "assaults" on nature and the human condition, about distributive justice, equity, universalism, solidarity, community, and the "theme of the gift" (Mauss, 1954: 66) also have been prominent, for example, in the civil rights, peace, anti-poverty, ecology, and population control movements visible on the

American scene.¹⁸ From my perspective, these are but some of the phenomena which suggest that the ethical and existential developments in contemporaneous medicine examined in this paper may be part of a broader process of change that is carrying American society into a new stage of modernity.

¹⁸Many of the participants in these social movements have been young people, relatively affluent and well-educated. Once again, this raises the question whether or not the "new" youth will prove to be effective agents of change. It also suggests the intriguing hypothesis that one of the prerequisites for widespread collective involvement in the kinds of moral and metaphysical issues dealt with here is a sufficient level of prosperity and fulfillment to free whole groups in a society from primordial anxieties about food, shelter, employment, and the like.

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