

COMMENCEMENT ADDRESS/ALBERT EINSTEIN COLLEGE OF MEDICINE

In my twenty-six years as President of Yeshiva University, which of course includes the Albert Einstein College of Medicine, the science of medicine and delivery of healthcare have changed radically. Seventeen years ago, our Dean, Dr. Dominick Purpura, referred to the massive challenges suddenly facing society as a "healthquake" -- a most felicitous neologism. This revolutionary development has had enormous consequences for medicine and for society, and its tremors are still powerful and will affect you, as well as your future patients, financially and in the very manner and style in which you conduct your professions.

You have been privileged to be mentored and trained by distinguished faculty who have tried to instill in you the values that will guide you throughout your personal and professional careers. Most of all, they have taught you to care as well as to cure. The Oath of Hippocrates and that of Maimonides add a humanistic attest to that sage advice.

But there is more to it than that. Albert Einstein College of Medicine is a major institution of Yeshiva University, whose mission is expressed in the two Hebrew words *Torah Umadda*, the millennial, classical Jewish tradition with its rich and vast literature, and contemporary civilization with its powerful technological advances, its political ideals, and its social structures. This combination should hold true not only for Jewish students or only for religious people, but for all of us, because it bids us to the moral dimension of what we do consider at all times. Professor Einstein himself gave his name and blessing to the medical school of Yeshiva University, and his moral stature has kept us attuned to the moral and ethical dimensions in your education. And that is what often agitates me and forms the cause if not substance of my remarks this morning.

My concerns are the relations between medicine, science, and morality. The current controversy over the cloning of humans and stem cell research is but one illustration of our problem -- but a very important one indeed. I refer to cloning only because it will reflect on the larger question of the role of morality in the pursuit of science and the practice of medicine.

Permit me to address the issue from a dual vantagepoint: that of a universal-ethical approach, with no religious presuppositions, and from the point of view of Judaism as derived from its classical sources. I hope that this latter treatment, brief as it will be, will go beyond parochial goals and emphasize the concerns of all human beings as we struggle to find our way in the thicket of conflicting roles and hidden fears of our new age, so that it may possibly edify even those of other or no religions.

For the sake of convenience, if not clarity, I will discuss the two related but not identical items: the cloning of a human being, and the breeding and use of stem cells for research.

So far, an interesting array of animals has been cloned: sheep, cows, bison, goats, cats, mice, and rabbits. The question is: What of humans? A number of scientists and ethicists ask: Why not? There should be restraint on research. Others, however, disagree strongly, and at present the United States government will not support any attempt at such cloning.

What are some of the reasons for the oppositions to cloning? France's Fukuyama, of *The End of History* fame, argues that cloning is "unnatural." It defies the natural order of things as we have known it since the beginning of time, and may well result in the popularity of a kind metaxsexual reproduction.

I am not convinced by this argument. The famous philosopher John Stuart Mill, in 1874, wrote that it is a mistake to assume that the natural is superior to the unnatural. Artificial insemination, in vitro fertilization, cesarean section, haircuts, cosmetics -- are all unnatural. Yet who would do without them?

About 1900 years before John Stuart Mill, the Midrash--a repository of the non-legal thinking of the rabbis going back some two-thousand years-- quotes Rabbi Akiva (d. 136 CE), one of the wisest of all the Sages of Israel-- who was approached by the Tyrant Rufus who asked him: "Rabbi, which is superior -- the works of man or the works of the Almighty?" R. Akiva answered, to the shock of his Roman interlocutor, "The work of flesh and blood is preferable to the work of the Holy One." Without further rhetorical elaboration, he whispered something to his students who came in carrying a sheaf of wheat and a loaf of bread. R. Akiva held the two items in each of his hands and showed them to the Roman, and said, "Here is the work of the Almighty, and here is the work of man; is not the bread more valuable than the untreated wheat?"

I am not, therefore, persuaded that cloning should be banned because it is unnatural. Even if it is, so what?

Dr. Leon Kass, an eminent medical doctor and philosopher who has been appointed by President Bush as the head of the Presidential Council of Bioethics, believes that cloning will initiate a mad race into a "post-human age." It is one in which we will begin to manufacture "designer babies," which will put us smack into the *Brave New World* of Aldous Huxley, which he wrote in 1932. Removing the birth of a human being from the mutual interaction of a man and a woman will result in a kind of dehumanization, the production of "people" with no science, no religion, no family, no art, no friendship. It will be, truly, an age of Frankenstein.

This is a concern which should not be taken lightly. With all the depersonalization and dehumanization rampant in our society, this may well prove to be the nadir of our bio-technically caused social development.

Some religious folk feel that cloning is form of rebellion against the Creator. However, I do not see any *prima facie* case to support that contention. The same argument might be made for every invention, every building, every new technological development. Only an Osama bin Laden would consider the World Trade Center an affront to God, and therefore deserving of destruction. My late, great teacher, Rabbi Joseph B. Soloveitchik, wrote that "Man reaching for the distant stars is acting in harmony with his nature which was created, willed, and directed by his Maker. It is a manifestation of obedience to rather than rebellion against God."

And yet, I am uneasy at the untrammelled permission for science and technology to go unchecked. It all depends *why* you are reaching for the stars -- to elevate or inspire ur fellow earthlings, or to discover some substance, or some position in the heavens, by which to dominate your fellow humans. If there are no strict guidelines, the odds are that, like a buttered piece of toast falling to the ground, mankind will fall on its face and discover that science has not bettered his condition but worsened it.

So, the major elements of society, with very important exceptions, seems divided and confused about this issue. I agree that it scares me too. Science is a powerful weapon, and if scientists continue to believe that they can be morally neutral, and therefore pursue their goals unimpeded by ethical constraints and concern for human welfare, then society must impose limits upon scientists. The attempt to clone a child is a quest for immortality -- but via immorality. (I am reminded by the Woody Allen assertion that, "I want to achieve immortality -- not by writing a great book or building a great bridge, but by not dying...") I am not ready to give scientists a blank check for the future of mankind. The Dean earlier this afternoon referred to the desecration of the profession of medicine by the Nazis who experimented on humans -- and I have personally met some of the pitiful remnants of their horrific acts. It was Robert Oppenheimer who, after the nuclear destruction of two Japanese cities at the end of World War II, declared that, "We scientists have known sin." And now we have Anthrax scares, bio warfare, and India and Pakistan and soon Iran and Iraq and more and more unstable regimes and terrorists groups trying to get their hands on nuclear bombs. Sin, indeed.

So, at a time when scientists and ethicists, moralists and philosophers, and authorities of various religious traditions cannot seem to come to agreement, my own feeling is that when the stakes are so high,

it is best to refrain from pursuing this avenue until the stormy weather calms down and the climate for such decision making improves.

So much for cloning humans. But there is a second issue which, while related, has its own focus of importance. Senator Brownback has introduced legislation banning the use of stem cells for therapeutic purposes, and Dr. Kass has announced his position, namely, that it is permissible to use stem cells only from adult humans, but not from embryos. His restriction comes from a "slippery slope" argument: the use of embryos for stem cells will lead to the cloning of children.

I am strongly opposed to this ban on the use of stem cells. The slippery slope argument cannot be used as an answer to every question. We are on the slippery slope anyway, because every new drug and every new technique is bound to have bad side effects. Is this a good enough reason to stop all pharmaceutical research? I fear that the "slippery slope" is itself on a slippery slope...

From the point of view of the Jewish legal tradition (Halakha), embryos that are five days old are not considered human, whereas the health of actual, living humans trumps the survival of only potential humans. "You shall live by them," is the Bible's injunction as it summarizes its "dos and don'ts" of its moral and ethical and ritual commandments. Morality, in this case, goes in the opposite direction: not only should stem cell research be permitted, but it should be required!

Of course, I have not covered all aspects of the important issues we have discussed and I did not intend to. Rather, let us go back to the larger issue: the role of medicine and science and their interaction with moral concerns. Wise public policy depends on good science. But cloning threatens the integrity of medical science and threatens to develop into medicine *versus* science. The *telos* or purpose of medicine is the enhancement of life and the quality of human experience. It is a moral mission above all. The *telos* of science is the discovery of truth whatever its nature and wherever it leads. And with it comes – technology.

Scientists have referred to the "technological imperative," which implies that because a particular technology means that we *can* do something, that we either *ought*, *must*, or *will* be done. Jacques Ellul has maintained that then technology becomes an end in itself rather than a means to an end – something which John Birem refers to as *teknosis*. This came to my attention in a rather trivial manner: some years ago, one automobile company developed a car with receding headlines. It was an innovation, it was "cute," but – who needed it? Apparently, the fact that it could be done was sufficient reason to do it...

This technological imperative runs counter to the "categorical imperative" of the philosopher Immanuel Kant, which is often expressed as: "Act so as to use humanity... always as an end and never as a means." That we *can* clone a human being does not mean that we *should* do it if it possibly results in harm to the human condition. To clone people to satisfy a couple who want to boast of their perfect child, or see themselves immortalized, is to use that child as a means to another's—their own—end.

As medical doctors medical scientists, you will face such problems in the course of your career. Many are issues which do not lend themselves to clear and easy solutions. But wrestle with them you must. I trust that your exposure to the faculty of this college, and your awareness of the mission of this university, will have imbued you with the incentive to value scientific research and join in that great human venture, *but* at the same time giving primacy to moral considerations, to the claims of wisdom over those of knowledge.

There is an ancient Jewish legend that when God wanted to create mankind he consulted His ministering angels, and they were equally divided in their advice. Thus, *chesed* or love came out for the creation of man, because people do acts of charity. *Emet*, truth, said that man should not be created because he is full of falsehood. *Tzedek*, justice, said that man should be created because he seeks justice. *Shalom*, peace, said he should not be created because people are contentious, always bickering. What did God do? He took truth and threw it to the earth (for so it is written, "Truth will grow from the earth"). Thus, the tie was broken, and God had His majority with Him, and so was man created.

Medicine belongs in the realm of *chesed*, because its mission is to bring relief and balm to the body and the spirit. Science is the search for *emet*, truth, and this can sometimes undo the creation of man.

This truth must be “cast to the earth.” That means that it must be the kind of truth that is not imposed upon humanity in any absolute sense, insensitive to other truths, but rather be a truth that can grow organically, from the earth up, so that it can assist in the further enlightened development of humanity and serve mankind as an end, never as a means.