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Cloning and Arguing

by

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General as surprise may be, it is not necessarily uniform. Everybody was surprised, to say the least, when at the end of February, 1997, newspapers all over the world carried the photo of a sheep called Dolly. Many biologists gave interviews, stressing their surprise, among them Lee Segal, professor of biology at Princeton. His surprise had, however, something special to it. Word about Dolly prompted him not to send to the publisher the manuscript of his new book on biology. The reason for this was that the manuscript contained his emphatic assertion that the cloning of higher animals was impossible.

Such, at least, was the account in The New York Times, which, as in many other cases too, was not entirely correct. As I learned from Professor Segal's secretary, he referred only to a text still under reworking. Regardless of this, there is no doubt that he voiced the conviction of the great majority of biologists about the impossibility of cloning higher animals, and certainly any individual of the species known as man.

Biologists knew what they were saying. They had a long series of failures ever since 1938 when Hans Spemann proposed what he called a "fantastic experiment." The experiment, or cloning, seemed to belong to the world of fantasy. In 1952 an experiment using cells from
embryos of frogs failed almost at the start. In 1970 the same experiment succeeded only to the point of producing tadpoles. In 1981 two scientists claimed to have cloned a mouse, again using an embryo cell, but the next year two scientists reported that the experiment could not be duplicated. Several other scientists reported similar failures.

The situation did not change essentially when in 1994 Neal First tried to clone calves from embryos but was unable to push the division of cells beyond 128. Two years later the division of cells was pushed incredibly further, as demonstrated by the photos of Dolly.

Ian Wilmut, of the Rossslin Institute in Scotland, who produced Dolly, did so by taking a cell from the udder of an adult sheep, but unlike Dr. First, he put it into a dormant state, before transferring its nucleus into the egg cell of another sheep from which the nucleus had been removed. Wilmut's success had, however, been preceded by 277 failures.

Cause of Success Unknown

Even now it is not fully known why Dr. Wilmut succeeded. Biologists believe that shortly after the fertilized ovum begins to differentiate into cells, most of its 100,000 genes shut off. Only those genes remain active that are needed to let the various cells perform their special function, that is, whether to produce hair, skin, bone, muscle, blood and so forth.

It seems that by making a cell dormant, or almost inert, the mechanism which turns off the activities of most genes in the cell is neutralized. Such a cell is then placed into an unfertilized sheep egg cell from which its own genetic material has been removed. The fusion of the two cells makes the egg cell “think” that it has been fertilized. Then, so the theory goes, the chemical machinery of the egg cell activates the mammary cell genes into starting all over again, as if the two cells had been brought together for the first time as sperm and ovum. So much about the fact of cloning not only some low-grade living organisms, but a mammal, an organism close to the organism known as man.

This shows at least that in science it is very risky to claim that something is impossible. The history of science is full of refutation of such claims. Until Wohler produced synthetic urea in 1828, it had been generally believed that it was not possible to produce organic material
from inorganic. It is well to recall that the American astronomer Samuel Newcomb said around 1895 that engine-powered flying was a physical impossibility. In 1934, Rutherford declared that talk about the industrial utilization of nuclear energy was moonshine. In 1950 Vannevar Bush, the captain of American technology during World War II, insisted that it was impossible to construct intercontinental ballistic missiles.

But once Columbus crossed the Atlantic, many other ships followed. The cloning of sheep will be followed by the cloning of other animals. There will be many failures. Immediately after Dolly was unveiled, Dr. First at the University of Wisconsin attempted the cloning of a cow. The cloned cell died after it grew to 16 cells. It should have grown to 60-120 cells before it could have been transplanted into the uterus of another cow. Another biologist, Dr. Eyestone, produced embryos of cloned cows that survived 30 to 40 days. Still others started experimenting with pigs, because pigs' organs seem to be particularly useful for transplants in humans. And two scientists in Oregon reported that they had successfully cloned rhesus monkeys, which of all animals are genetically the closest to man.

In all these efforts much will be learned that will prove very useful in the eventual cloning of a human. I feel it in my bones that the cloning of humans is already being attempted in various laboratories, even in countries where law forbids the cloning of man. And since there is no such law yet in the USA, biologists eager to be first with the cloning of man can take comfort from the fact that a new law is usually not retroactive.

So the race is on, in line with a basic feature of the scientific enterprise. Instead of a feature I should perhaps speak of a blot. The blot is the insatiable hunger for glory. In that respect scientists are close second to politicians, those proverbial victims of the illusion that glory somehow makes one immortal. Had such a hunger for glory not been at play, there would not have been a breakneck race to be the first with the discovery of the double helix structure of DNA. Simultaneous discoveries, ever more frequent in science, witness that hunger for a glory which goes only to the one who first crosses the finish line.

Worse, the glory to be the first is often coupled with huge financial rewards. At any rate, ethical concerns hardly ever proved to be a barrier to slowing down research, let alone stopping it. Thus Oppenheimer
defended the making of the atom bomb with the following remark: “It is my judgment in these things that when you see something that is technically sweet, you go ahead and do it and you argue about what to do about it only after you have had your technical success.” John von Neumann was hardly an unethical man. Born and raised as a Catholic he died as a Catholic. But as a scientist he knew full well what may be best called the “technological imperative.” He knew, to quote his words, that “technological possibilities are irresistible to man. If man can go to the moon, he will. If he can control the climate, he will.”

And this is precisely what a historian of technology said with an eye on cloning. One may disagree with his generalization that the history of science is the story of the domination of science by technology. But without doubt it has happened all too often that an available new technology has established “its own definitions and boundaries over settled human societies and ordered human perceptions.” Another historian of science, Daniel Kevles, who at Caltech directs the Program of Science, Ethics and Public Policy, argued on behalf of cloning on a distinctly pragmatic basis, regardless of his having claimed the moral high ground: “As with so many previous advances in biology, today’s affront to the gods may be tomorrow’s highly regarded—and highly demanded—agent of self-gratification or health.”

But biotechnology is bound to develop far beyond the point of mere cloning where the DNA in the chromosomes is not touched at all. Beyond merely duplicating the chromosomes, there lies the prospect of altering the DNA and thereby altering the organism itself. On hearing about Wilmut's success, James Watson, the co-discoverer of the double helix structure of DNA, quipped that cloning could have already been done in 1938. He also referred to an article of his published in 1971 in Atlantic Monthly, with the title, “Moving Toward the Clonal Man,” in which he meant more than cloning. He meant that new age of absolute biotechnology in which as he put it, two years ago in Princeton, only one kind of knowledge is necessary and useful, the science of genes.

Watson is clearly looking forward to a future where the DNA of individuals would be manipulated and with even less moral concern than the concern sparked by the mere cloning of humans. His confidence is certainly supported by the tenor of arguments that followed the possibilities opened up with the presentation of Dolly. Too many of the scientists with expertise in cloning displayed indeed an alarming lack
of concern for considerations that are ethical in the sense of being more than mere pragmatic guidelines.

They can take great comfort from the fact that no one would dispute the feasibility of cloning humans. No less comfort can they take from what is the gist of that document which is a most representative summary of the arguments for or against the cloning. The document is the 107-page-long final form of the Report which the 18-member National Bioethics Advisory Commission presented on June 14 to President Clinton, and it has a thrust that was aptly rendered in the remark, which Dr. Harold Shapiro, President of Princeton University and Chairman of the Commission, made on that occasion: “We all understand there are moral views that many of us have, which we do not want to translate into law out of respect for those who have totally different views. We are very sensitive to that issue.”

This amounted to a dichotomy between morality and legality, which deprived legality of being intrinsically ethical and debased morality to the level of sheer pragmatism. This is not to say that all members of the Commission were willing to countenance that dichotomy. Some, who were very much in the minority, kept emphasizing “the sanctity of life and traditional human values,” and insisted that cloning was radically different, say, from in vitro fertilization. Their view had to appear “extreme,” if set off against the view of those who invoked this country’s “strong tradition of not preventing scientific research and not intervening in people's right to reproduce.”

Majority Waffling

The majority of the commission felt confident, however, that it was possible to stake out a “moral” ground between those two extremes. But their very central recommendation flew in the face of this contention of theirs. For they recommended nothing more than that the cloning of humans be prohibited by law, though only for three to five years, and this prohibition be extended only if a further review of the matter would vouch for such a step. Clearly, these middle-grounders had no genuine ethical objection to the eventual cloning of humans. Indeed they could not brand as unethical the action of those who, in spite of a law, would go ahead with the cloning of humans. Convinced
as he was that there would be some such scientists, Dr. Shapiro could only brand their action as “unfortunate,” but not “unethical.”

In fact, one member of the Commission, Dr. Bernard Lo, Director of the Program in Medical Ethics at the University of California at San Francisco, admitted that physicians working at I.V.F. (in vitro fertility) flatly ignored the Commission's invitation to discuss matters. They were not, of course, encumbered by problems of publicity and possible damage suits, unlike the biomedical industry that took up the invitation. It also turned out that the Commission itself began to move toward considering a legislative ban only after Laurie Flynn expressed her utter befuddlement with the arguments: “I have not really understood why we would want to, in my view, kind of fail the common man test.” This was a reminder to the rest of the Commission that its function was not a purely academic exercise, but part of the broader political process within which any common man counted as much as any single academic. The ethical perspective loomed menacingly large in the wings, but still could not be admitted to the stage where the arguments went back and forth.

Very telling aspects of the true character of those arguments, especially the ones set forth by the middle-grounders became public when, a month or so earlier, preliminary conclusions of the Commission became public knowledge. Not once, however, was it disputed that the combination of money and scientific expertise can be used for doing the most repulsive things. Prof. First had such a combination in mind when he said in reference to a wealthy person who perhaps wanted to be cloned: “A private clinic could be set up and clone that person just as nice as could be. There are no rules or restrictions preventing it.” Please, note that he found nothing repulsive in the combination of the desires of a wealthy man to duplicate himself and in the eagerness of the scientist to cooperate to perform that cloning.

Those who know something about the dark side of human nature will not be shocked. The phrase, “nothing surprises me any more,” has never been more appropriate to use. But there is something even more shocking and in a sense surprising in the rest of Prof. First's comments. Prof. First, a member of the National Advisory Board on Ethics in Reproduction, reported that the Board found no merit in cloning for human society. The phrase “found no merit” is worth noting. It can have various meanings, such as undemonstrated, unjustified, useless,
trivial and so forth. But it never carries the meaning: it is repulsive, abhorrent, ethically wrong, let alone “gravely sinful.”

**Belief in Revealed God**

In all the arguing that goes on about the cloning of humans, only those brand the cloning of humans as something abhorrent, repulsive, or gravely unethical, that is, sinful, who believe in a personal God. And not merely in a personal God, but in a God who revealed Himself. They are either Orthodox Jews, or non-liberal Christians, or Muslims. However, all these, when they participate in public arguments about the ethical nature of the cloning of humans, are not supposed to refer to their religious beliefs.

To some extent this restriction is reasonable as the arguing about cloning humans takes place within a societal framework where many do not share religious views whatsoever. Even greater is the number of those who hold themselves religious without believing in some specific religious revelation. Examples are liberal Protestants and liberal Jews. Further, belief in religious revelation does not issue in a consensus about human nature. Orthodox Jews are hardly explicit about a human soul, which is the touchstone of truth for Catholics in arguing on purely rational grounds about the specific dignity of human nature. Traditional Protestants have kept their erstwhile diffidence about philosophical arguments. Moreover, Catholics for the most part fail to note that those purely rational arguments, are, for all their validity, rather ineffective when severed from the great historical facts of Revelation.

Those arguments are epistemological and metaphysical. They rest on considerations about language, symbol making, concept formation, about universals, about the reality of free will, about the sense of enduring self-identity, about consciousness, about existence statements, about search for explanation of what is specific in things, and ultimately about their totality, the universe. Then there are ethical considerations, such as the sense of a distinction between what is morally good and what is evil, considerations about a need for ultimate justice, so conspicuously missing in this world of tragic inequalities and injustices. Only if man has an immortal soul, with eternal retribution for good or evil, can he look at the word justice as more than a mere word, good as long as one is not victimized. One can further point out

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that without accepting a genuine uniqueness of man, it is not possible to defend democracy itself or to pass judgment on totalitarian regimes, including the Nazis and deplore, say the Holocaust as an unconditional, absolute moral evil.

The reason for this lies with pragmatism, which remains the only recourse for those who have rejected traditional Western thought. Yet on the basis of pragmatism one cannot argue that the Nazi atrocities constituted an absolute moral crime against humanity. Nor does pragmatism provide a strict argument for condemning the extermination of six million kulaks and of another 14 million other victims of Stalin. Pragmatism has nothing convincing to offer in the way of condemning unconditionally the extermination of some 20 million, which Mao's Cultural Revolution found pragmatically necessary for its own purposes. Such and other relatively lesser crimes committed against humanity, say, by Pol Pot, Mobutu, and others can be condemned in a genuinely ethical tribunal only if there is a human nature, essentially different from mere animal nature.

The foregoing arguments will not cut ice even with those who profess noble versions of pragmatism. Further, the thinking of more than half of the members of the Board appears to be dominated by a consideration that is nobly pragmatic only on the surface. Beneath that surface there lie various "religious" ideologies, such as secularism, scientific materialism, evolutionary wisdom, agnosticism and so forth. All these find a marvelous cover-up in pragmatism, for which ultimately only success counts at a thorough disregard of genuinely ethical considerations.

This was clear already when, prior to the problems raised by the possible cloning of humans, the Board had to advise the President and Congress on the fertilization of human eggs for the purposes of mere research. The Board did indeed advise that this should be done. One member of the Board, Ronald Green, professor of ethics at Dartmouth, said that this was one of the several "very thoughtful recommendations" made by the Board. Please, note the expression, "very thoughtful." It represents the same evasion as the phrase already quoted, "found no merit."

Let me cite another phrase, equally evasive, by another member of the Board, R. Alta Charo, professor of law at the University of Wisconsin. She recalled that when the President and Congress roundly
rejected the suggestions of the Board that human embryos be produced for research, she learned a “valuable lesson.” It taught her and other members of the Board that ethics is not plain logic. On the one hand, the Board “relied on logic to make its case that research with early human embryos was ethically acceptable.” About that logic she said it was “airtight, but it did not change anybody’s mind and there was a lot of resentment.” On the other hand, she and others realized that “logical arguments are only rationalizations for gut feelings or religious viewpoints.” Then she concluded: “I don’t think we can make good suggestions unless we can understand what is compelling for the public.”

The phrase “compelling for the public” is another illustration of the verbal technique for evading truth, ethical truth. Modern society, or the public, is ever more ready to modify what it finds compelling to oppose or not to oppose. Fifty years ago modern society found it compelling to reject abortion as unethical. Today at least half of Western society finds it compelling to approve abortion, another fourth of that society finds it compelling to compromise, and no more than a fourth, if that many at all, would find it compelling to reject abortion as something intrinsically unethical. Therefore as long as society finds it compelling to approve of abortion it has no logical grounds to oppose the production of human embryos for experimentation. Prof. Charo was therefore logical, but not entirely. She failed to see that there can be much logic in at least some of those “gut feelings and religious viewpoints.” Those who claim dignity only when it suits them, fail to see logic in the arguments against the cloning of humans.

**Recommendations of the Board**

For when no logic is seen in “gut feelings and religious viewpoints,” the door opens wide to a purely pragmatic approach, such as the Board’s final recommendation of a temporary moratorium. In other words, attention was focused on the fact that in Wilmut’s case one successful healthy clone implied several dozen sheep fetuses with severe malfunctions. The moratorium on cloning humans was to last until the technology of cloning developed to the point where hardly a single human fetus with severe malfunctions would be produced by cloning.

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Within five years, so went the final recommendation of the Board, public revulsion would abate and the pragmatic success of cloning would make compelling the cloning of humans. Such an argumentation means that the ethical merit of cloning humans is merely the function of the measure of technological success, or perhaps of the effectiveness of molding public opinion by holding high that success. Such a brainwashing can easily be accomplished in a society which puts so high a premium on success of any kind. This worship of success is not absent in the Christian, and not even in the Catholic, segment of society.

Members of the Board admitted that cloning in private clinics not subsidized by Federal money could be stopped only by a Federal law. But even if such a law were enacted, it should be abrogated, they said, once the technology of cloning became a safe procedure. One member of the committee, Dr. Bernard Lo, admitted that “there is no easy way to dismiss the religious, almost mythical argument that it [the cloning of humans] was deeply objectionable, an affront to human dignity.” This could be true only if Dr. Lo and the great majority of the Board had a non-easy, that is, hard or difficult or complex way to dismiss that argument. But what was that difficult way of arguing? It consisted in a grim resolve to fall back on pragmatism. But a grim resolve is not an argument, let alone a hard-won argument. Instead of demonstrating that there was no “compelling reason” why cloning should be banned, Dr. Lo merely reaffirmed that was no such reason.

Other members of the Board interviewed in The New York Times were even more open in saying that the ethical issue about cloning ceased in the measure in which the science of cloning was perfected. Thus Dr. Retaugh Graves Dumas, vice provost for health affairs at the University of Michigan, put forward the following “moral argument” on behalf of cloning: “It is immoral not to have access to the best technology we could muster. It would be a shame to prohibit cloning forever.” In other words, pragmatism makes it possible to reverse totally the role of those who should feel ashamed and those who should not. And why? Because there are no “compelling arguments.” The phrase “compelling arguments” is simply a device to avoid the task of arguing in all earnestness. But it also shows that arguments are much more than sheer logic. Logic, which is about various degrees of identity relations among concepts, cannot even assure man that there is
plain external reality in front of him. For the phrase, "I know that a table is there", does not establish a logical identity between the mind and the table. Yet the assertion of the reality of the table remains fully rational.

Nothing of such elementary facets of the mind in face with reality are in view in the argumentation of those who will be mostly listened to by the political authorities who must decide whether to make or not to make it a legal offense to clone humans. Those authorities, I mean the legislators and other elected officials, are a representative cross-section of society. And since much of society's thinking is pragmatic, society and its elected representatives will follow the line of pragmatism, which is to gratify self-satisfaction and mere bodily health.

Legal Taken for Ethical

Society now largely takes the view that what is legal is also ethical. And ultimately what is legal is decided by the Courts. Now to speak of the USA alone, there the Supreme Court ruled in 1980 that patenting genetically created life was legal. Therefore, long before cloning had become an ethical issue for scientific technology, the Court made a ruling which implied that cloning, too, would be considered legal and therefore ethical.

The cloning of humans can and will become legal, but unless morality is equal to legality, it will not become ethical. For unless there is in man more than matter, there is no valid ethics, but only rules of convenience. If the Vatican declared, already in 1984, the cloning of humans to be gravely unethical, it is only because Rome stands for that Christian view that man has a soul that no scalpel or microtome can touch.

Indeed, in that view even a cloned human being will have a soul. Outwardly that being may not be more than an identical twin, but it has an individual soul different from the soul of the other twin. Therefore such a cloned human being should be treated by society in a truly human way. But the question is whether by the time—perhaps within another generation—there are cloned humans ready to go to school in significant numbers, society still will be sufficiently human. For if the present is already very chaotic from the ethical viewpoint, incredibly more chaotic will be that not too distant future where the juggernaut of
biotechnology will be roaming freely. “Nothing suggests,” that historian of technology said, “that the President or Congress has the power—or ultimately the will—to defy that relentless juggernaut. It will be a chaotic future. Better get used to it.”

It is certain that mere pragmatism is not a preparation for getting used to that future. Pragmatism has no compelling reasons except to be pragmatic about reasoning. For compelling reasons we must turn elsewhere, indeed to the very source that created in the Western world a consensus about compelling reasons, a consensus which has for some time been eroding and whose last pillars are now being disassembled by the latest versions of the oracles of Delphi. I mean the new breed of academics, called ethicists, with high visibility in universities, medical schools and hospitals. Like the oracles of Delphi, they are past masters in evasiveness.

We have come a long way from that supreme Master of ethics, who once warned: “Let your yes be yes and your no be no.” But Jesus is to be recalled for another reason as well, which is implied in my repeated references to “compelling reasons.” For in his dramatic account of the banquet in the Kingdom of God, to which the invited refuse to come, he says that all those who are found in the highways and along the hedgerows must be compelled to come in (Lk 15:23).

This compulsion is simply evangelization. It has been done mainly by virtue of its being intrinsically compelling, though because of historical circumstances it also took the form of external compulsion. Messengers of evangelization can only rejoice that long gone are the times when people could be driven to the baptismal font. But evangelization as a relentless presentation of compelling reasons will go on. For there will always be such who hear in their soul the echo of Paul's words: “Woe to me, if I do not evangelize.”

Would that such souls were very numerous and properly intelligent whenever they have to descend into the arena of mere reason. There they cannot refer to some facts of history, which, like facts in general, have a greater persuasiveness than abstract reasoning, however valid. They must articulate those arguments with consummate philosophical skill. This demands far more than a recourse to some choice phrase, such as Flynn's reference to “the common man test.” But in articulating those arguments they must not forget that the strength which they see
in them derives from their own openness to certain facts of history, salvation history, that is.

They cannot assume this strength to operate in their opponents in the cloning debate. Actually, a very different strength is at work in their opponents in the cloning debate as they present their own arguments. They are evangelizers in their own way, though very careful not to make it appear so. Here, too, they resort to words artfully left in vagueness. A case in point is the letter which the Commission sent to the President together with the Report. There, a covert appeal was made to a need for evangelization, though under the cover of further need for education, the specifics of which anyone could interpret according to his or her ideology. According to the letter, the members of the Commission “feel quite strongly that most of the legal and moral issues raised can only be resolved, even temporarily, by a great deal more widespread deliberation and education.”

Rightly so. The question is, what kind of education should prevail? There is an education steeped in genuine Christian faith, which, let it be recalled ought to be always supported with fully rational argument. Did not Saint Paul warn in Romans (12:1) that Christian faith should be a rational service? Then there is an education within which phrases, such as President Clinton’s affirmation of “the miracle of human life and the God-given individuality of each person”, become hollow in the measure in which the credibility of those voicing such phrases is no longer marketable. And there is an education by militant secular humanism, viewing gleefully the juggernaut of biotechnology. The crudely pragmatic future it wants to bring about will be contained only in the measure in which men and women are exposed to compelling reasons about Jesus Christ. Public arguments about cloning are already sidetracked into the blind alley of pragmatism. The only hope lies with a re-evangelization of Christians, and especially of Catholics, with the help of a catechism that will not ask them to reinvent eternal truths.

These truths, revealed truths, cannot readily penetrate adult minds that prefer arguments to the love of truth, in order to evade Truth writ large. Those truths have been available now for many generations in forms that can readily be put even in the mouths of babes. They, by nature, know that unless one becomes as receptive as a child, one shall not enter the Kingdom of God. This kingdom is the only alternative to the kingdom of academic and societal sophistication where “compelling
reasons” mean a heavy reliance on conveniently glib phrases that most do not dare to probe into. They don't dare because their conviction largely consists in the conviction that one need not be convinced about anything.

The cloning of humans will come, it may already be under way, and will go on. Arguments in support of cloning need not be strong as long as they are supported by a strong downward stream towards societal lowlands where permissiveness is the sole ethical norm. Arguments against cloning need not be directed at the champions of cloning, not even at the many muddle-headed middle-grounders, who often remind one of goats put in charge of the cabbage field. Arguments against cloning should benefit only those, who mostly because of their faith in higher realities, would recoil at the prospect of failing the test of the common man, who is the only everlasting man that cannot be cloned but only created. Their recoil or rather revulsion becomes truly human only when fully rational too, that is, fully equipped with the art of arguing.