

Letters to the Editor

• Brief letters—one or two pages—are more likely to be printed than are long ones, which may be cut.

ABORTION ON REQUEST: THE BIOLOGIST'S VIEW

• The following refers to the article "Abortion on Request: the Physician's View," by Alan F. Guttmacher, M.D. (1972: *ABT* 34[9]:514). The emphases (italics) in the first two paragraphs are the present author's.

It is unfortunate that Dr. Guttmacher subtitled his piece "*the Physician's View*," when he knows very well that it is *a physician's view*. When he ends with ". . . to *the physician* the medical advantages of liberal abortion far outweigh other considerations" he is guilty of the distortion so characteristic of the abortion debate; and unfortunately it is characteristic of both sides of the battle.

But I am taking the same liberty, in referring to my opinion as herein expressed as "*the Biologist's View*."

Let us attempt an unemotional and realistic look at the abortion question. After all, if this serious and polarizing issue is ever to be resolved, it should be resolved upon a framework of facts, whenever available. Dr. Guttmacher gives illegal-abortion figures derived from the 1920s—that is, in the days before antibiotics—and from an unrepresentative group of women attending a birth-control clinic (a rather radical thing to do in those days); and he refers to the outdated ideas of St. Thomas Aquinas. Let us try to be more scientific.

Undoubtedly, it is a fact that the birth of a deformed child is a tragedy of the highest order. It is very difficult, even for the most resolute opponent of abortion, to repudiate the belief that a "cat cry" infant or one born with hydrocephaly or absence of limbs or severe retardation should not suffer the pangs of life. It is less difficult to deny that, because the survival of this child would mean that his parents would suffer, he should be aborted. Second-person effects, other than physical harm, cannot justify the destruction of life; but many believe that first-person effects, such as a child's inability to cope with the simplest of life's demands, may be legitimate grounds for abortion.

Another fact is that the two nations to which the United States abortion movement has looked for guidance and statistics—England and Japan—are now modifying their stands.

In England, an advisory group established to propose guidelines for research on aborted human fetuses has called for a reduction in the maximum age allowed for abortion, from 28 to 20 weeks (*New York Times* 25 May 1972).

In Japan, Prime Minister Eisaku Sato's cabinet approved a ministry suggestion to remove the "economic abortion" clause from Japan's abortion law (*San Francisco Chronicle* 16 June 1972). In our own country, the legislature of the state of New York—a leader in the legalization of abortion—reversed its stand in 1972 by overruling the liberal abortion law under which 400,000 abortions were performed, with 73 live-born fetuses reported (to June 30, 1972). However, one person—Governor Rockefeller—overruled the majority, and the New York law survived.

It would seem that, when we judge the abortion issue, we should look to those nations that have had experience with abortion-on-request laws for some time. If we do, we find that they are having second thoughts. Why? Could it be that governments are becoming aware that such is not the right path to follow? If the fetus is not human, why are there so many qualms about research on fetuses, about selling fetuses from hospital to hospital? The advisory panel in England reported that "there should be no monetary exchange for fetuses, or fetal tissues or fetal materials" (*New York Times* 25 May 1972).

Could it be that, now that we have had survival of babies born at 20 weeks of pregnancy, people are reconsidering the advisability of abortion? At one time, the baby was not considered human until birth. Later, as artificial incubators came into use, the time was set at eight months. Still later, the magic transformation was set at seven months and then at six and one-half months. Such arbitrary definitions, dependent on the availability of new machines, mock biologic reality. To say that one day or one week constitutes the difference between "human" and "nonhuman" life is to be conveniently arbitrary. This might be acceptable if no facts were available; but there *are* facts: biology provides them. Let us review these briefly. They are facts known to anyone who has taken a course in biology. When *does* human life begin?

1. To define "human" by any criteria other than the biologic is to base our opinion on speculation, faith, or subjectivity; that is, on unprovable criteria. Whenever possible, the unprovable should not be used in the legal wheels of a democracy.

2. The human conceptus, at whatever stage of development, is "living," by any definition of science.

3. All living things—rose bushes, frogs, spiders, birds, apple trees, or people—are classified as species by the biologist. And it is in part the hereditary makeup of any animal or plant that provides it with its species-specific traits. It is by analysis of such traits that the biologist is enabled to classify an organism.

4. The human being, from the time it is one-celled (the zygote) to the time it dies, perhaps some 70 years later, has the genes that characterize it as belonging to the species *Homo sapiens* and to no other. All other biologic differences result from this one basic difference.

5. The "human" genes bring about human traits, subject to environmental influence, in successive

stages. Reproductive organs become functional at about age 12 years and cease in the female at about age 45. Body growth ceases at about age 20. Bed-wetting usually ceases sometime before age 2. Some teeth grow at about age 1 and are shed at about age 5. Necessary heart-wall closures and lung expansion occur at the time of birth. Brain activity begins at about 6 weeks' gestation. Heart action begins at about 25 days' gestation. Cell division begins a few hours after conception.

A "human" life thus consists of progressive stages of development, biologic and psychologic—stages that are in part initiated and controlled by the genetic endowment of cells. In other words, a human life is a *process*. To assert that constitutional privileges apply only to certain stages of this long process is to be speculative and uncertain. And to attempt to differentiate between a "human being" and a "human person" is an even more difficult and arbitrary exercise. The one-week-old baby is certainly not subject to our usual definition of the "person," yet it is never killed legally. It would seem that the only recourse is to interweave the U.S. Constitution's intent with biologic reality and not limit the right to life only to those stages of human development that we can see and readily recognize as our offspring.

Because of the variety of professions (law, medicine, theology, and others) that have attempted to define "human" life, there has resulted a panorama of definitions. Before the recent U.S. Supreme Court ruling on abortion, an embryo had been considered human in some U.S. states and not in others. Furthermore, the actual time of onset of human life was legally different in the different states. Either state lines affect the onset of humanity and of subjection to constitutional rights, or else we were terribly confused. One would have expected the Supreme Court to resolve this legal impasse. Instead, it ruled that there was no need to determine whether the fetus is human or not. Consequently, we still lack an answer, but we have adopted a legal stand. This can only result in a continuation of debate.

But what can we do? Must we continue to polarize people? Must we see professional men become totally illogical, argumentative, and disruptive on television talk-programs, on panels, in symposia? What is it about abortion that angers people, and so renders them unprofessional, on whatever side of the issue they stand?

Truly, a look through the eyes of the social worker, the obstetrician, and the magistrate finds many tragic instances: (i) needlessly large families in complete poverty and utter lack of love and child respect; (ii) women in psychiatric distress when they learn that they are harboring defective fetuses; and (iii) criminals whose lives reflect a lack of parental care and attention and an enormous amount of abuse. These are facts as scientifically provable as the biologic facts that verify the humanity of an embryo or a fetus. How, then, are we to reconcile the two? How can we solve the problems outlined above, without expanding the frame of mind now being created by

the practice of abortion for any and all reasons—a frame of mind that could have quite serious extrapolations in the new genetics and the new embryology, in genetic surgery, eugenic medicine, euthanasia, human experimentation, and so on?

It would appear that we should concentrate our efforts on long-term contraception, on prostaglandin research for preimplantation douches, and on the early identification of genetic defects (perhaps by precoital tests of sperm and ova).

Religion should not play a role in the abortion debate, for our democracy harbors many religions. The possession of a soul should not become a legal criterion for the existence of humanity, for many people do not believe in a soul or else sincerely believe that the aborted fetus is not yet ensouled. The fact that abortions are being performed illegally should not be advanced as a reason for legalizing the process, for that is analogous to legalizing everything that is done illegally.

Let us become as rational as we say we are. Let us respect the views of others. Let us not blind ourselves to the plight of pregnant teenagers, near-menopausal women, the poor, the mentally deficient "repeaters," or the psychotic. At the same time, let us put the choice clearly:

Should we abort the embryo carried by a woman who has decided that she has had enough children, and should this become national policy; or should we concentrate more energy and money on simple means of preventing conception, on genetic diagnosis and genetic counseling, on prenatal genetic surgery, and the like? In other words, should we, who are so scientifically enlightened, respect the life of the fetus as much as we have come to respect (at last) the life of the incarcerated, the aged, the poor, and the deformed?

Paul R. Gastonguay
Department of Biology
Stonehill College
North Easton, Mass. 02356

Alan F. Gutmacher comments:

It is useful to have Paul Gastonguay's thoughts on abortion. He has less grounds to title his discussion "The" Biologist's View than I had to call mine "The" Physician's View. All published polls on physicians' attitudes toward abortion show a substantial majority in favor of liberalization, while, as far as I know, no similar assessment of biologists' opinions has been recorded.

Gastonguay is in error when he writes that my "illegal abortion figures" were "derived from the 1920s" and "from an unrepresentative group of women attending a birth-control clinic." The experiences I referred to were gathered at the Johns Hopkins Hospital and city hospitals in Baltimore, 1925–52, and at Mt. Sinai Hospital, in New York, 1952–62. Not a single woman included in my discussion attended a birth-control clinic, as far as I know. If

they had, they may not have died from illegal abortion. Gastonguay is living in a dream world when he assumes that antibiotics have deprived illegal abortion of all mortality risk. Milton Helpert, chief medical examiner, reports 47 autopsies in New York City on women who were killed by illegal abortion during the two-year period 1969–70. Liberalization of abortion reduced this number to 13 in the first two years of the new statute. Christopher Tietze estimates that the modern risk is 100 deaths per 100,000 illegal operations. This does not take into account the illness and permanent sterility that may afflict those who survive.

Gastonguay approaches the question as to when human life begins with more assurance than many. I should like to call his attention to the conclusions of the United States Supreme Court, after extensive research, as set forth on p. 44 of the majority opinion, 22 January 1973: "Those trained in the respective disciplines of medicine, philosophy and theology are unable to arrive at any consensus."

There is much in Gastonguay's thoughtful essay that I applaud; for example, "religion should not play a role in the abortion debate" and "we should concentrate our efforts on long-term contraception, on prostaglandin research."

The thoughtful airing of different views on the abortion issue is a valuable service of this magazine. In the words of the Supreme Court, as a practicing obstetrician-gynecologist, my opinions evolved from "exposure to the raw edges of human existence," which influenced and colored my "thinking and conclusions about abortion." Gastonguay sees the problem from the protected environment of the teacher of biology. If our professional vocations had been reversed, perhaps our opinions would be reversed.

TEILHARD DE CHARDIN

- The following letter refers to the article "Evolution Is God's Method of Creation," by Sister Julia van Denack (*ABT*, 35[4]:216). We cannot arbitrate the matter of quotation. However, we note that Dobzhansky's remark "Evolution is God's, or Nature's, method of Creation" (p. 127 of the article) was taken without change from the copy of the speech submitted to us. Also, it occurs to us that Sister van Denack may have compounded that remark with Dobzhansky's assertion, at the close (p. 129), that Teilhard was "one of the great thinkers of our age" (among other laudatory expressions).

It is indeed fortunate that some of Sister Julia van Denack's students "may not always accept Teilhard's teaching," for, although interesting, it is hopelessly teleologic and most certainly *not* "a milestone in evolutionary biology." Further, to quote Dobzhansky where she does is highly misleading: he may agree with Teilhard that evolution is God's method of creation, but I suspect he would reject outright Teilhard's proposed mechanism, which is merely natural theology, not science. Indeed, I did not hear

Dobzhansky make the statement she attributes to him in his speech, and most certainly it does not appear in that form in the published article.

As H. James Birx of Canisius College (founded as a Roman Catholic institution, I believe) put it in *AIBS Education Division News* (2[4]:7):

Teilhard's bold but tentative and personal vision of man's past and future rests upon: (1) Spiritualism, (2) Critical Thresholds, (3) Law of increasing centro-Complexity-Consciousness, (4) Omega Point. Each of these assumptions is not empirically verifiable. His spiritualism is incompatible with materialism or naturalism, which holds to the recent emergence of mental activity dependent upon a physical nervous system and brain. Likewise, critical thresholds distort the historical continuity of Nature as well as simplify the great similarities between man and the other primates, especially the great apes. The alleged Law of Complexity-Consciousness is merely a synthetic generalization and therefore cannot be admissible as an *a priori* condition of existence. Lastly, the Omega Point is clearly assumptive reasoning. It rests upon the logical extension of Teilhard's three other conceptions. In short, we are given natural theology within a converging evolutionary framework and not a rigorous phenomenology of emergent evolution.

In summary, the Teilhardian synthesis is evolutive and monistic, but closed, scientifically unwarranted in part, and philosophically unconvincing. Caution must be taken in teaching any particular process thinker [*sic*]. Primary concern must be given to the corpus of established facts and logical procedure.

Further, one might ask, if "Christogenesis" is the way to "direct man to God," what happens to the poor Jew, Buddhist, Moslem, atheist, etc.? Are they to be dropped off the Teilhardian evolutionary tree, to be lost like the trilobites?

Finally, included in her listing of important "events" in the life of Pierre Teilhard de Chardin should surely be the rather brutal treatment he received at the hands of his church, which culminated in refusal to allow him to publish *The Phenomenon of Man*. (It was not published until after his death.)

In brief, Sister van Denack's article is poor science, poor religion, and a poor tribute to a rather remarkable man who deserves better treatment. I suspect that if she will reread Teilhard and then reread her article she might agree with me.

Jeffrey J. W. Baker
Chairman, Science Program
Wesleyan University
Middletown, Conn. 06457

Sister Julia Van Denack comments:

It is not clear whether J. J. W. Baker's remarks are directed against my method of teaching Teilhard's thought (which was the burden of the article) or against Teilhard's teaching itself. I merely attempted a simple, understandable explanation of Teilhard's cosmogenesis—of his synthesis of creation and evolution. Whether it is labeled natural theology, science, or religion was not my point. Baker's criticism,