

bees. (iii) Piranhas may present an ecological danger in southern states having waters warm enough for their survival, but not in the North. Furthermore, their danger to humans has been wildly exaggerated. Single fish can nip, but unless you plan to fill your swimming pool with them, the danger is no greater than keeping laboratory rats which also nip fingers.

There is much more I would like to say about Reed's proposed regulations under the Lacey Act, but I hope the NABT board will study them, and the damage they will do to education. If they are adopted, of all the wildlife children will ever be exposed to will be on TV films. And worst of all, Reed's proposals will really do nothing toward improving conditions in the exporting countries who will continue their old ways in exporting to Europe and Japan.

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Nathaniel P. Reed comments:

I wish De Lisle had given as much attention to the content of my speech as he apparently has to the widespread and grossly erroneous information being circulated throughout the commercial animal trade and the pet industry. Had he done so, he would have found that the proposal at issue does *not* involve a *ban* on the importation of *any* species—regardless of how injurious that species may be. The proposed regulations would insure that any vertebrate, mollusk or crustacean which poses a threat of injury to “. . . human beings, the interests of agriculture, horticulture, forestry, wildlife or the wildlife resources of the United States . . .” is imported only by responsible persons for justifiable purposes. Animals deemed to be “injurious” could still be imported into the U.S. under permits which can be issued for scientific, educational, medical, or zoological purposes.

These regulations would not prevent persons from possessing or moving their animals across state lines as long as such activities are not contrary to state (or other federal) law and would not prevent the teachers to whom he refers from using nor from importing boas for use in their classrooms (assuming the activities involved could be construed as “educational” in nature). The other examples he sets forth are equally irrelevant.

The proposed “Injurious Animal” regulations *will* have an impact on certain aspects of the live animal industry and, as noted earlier, have been grossly distorted by widespread rumors. For this reason we have prepared a “Fact Sheet” which any interested person can obtain from the Director, U.S. Fish and Wildlife Service, Washington, D. C. 20240.

RELIGION OR SCIENCE: WHICH IS IT?

ABT's publishing of Nicholas J. T. LoCascio and Sister Jean Dominici DeMaria's article “Ethics in the Control of Man” (*ABT* 36[3]:180) seems to me to

be continuing the confusion of religious with scientific viewpoints begun with the debate over creationism (to the utter detriment of both religion and science). Lest some of the statements the authors make be given an aura of scientific validity that even they would not wish to imply, some response is needed.

First, in an article which contains the word “ethics” in its title, it seems to me absolutely incredible that the authors could so completely misrepresent Garrett Hardin by such gross out-of-context lifting of the Beethoven fable. As the *ABT* reviewer of the Hardin book (*Stalking the Wild Taboo*, 1973: William Kaufmann, Inc.) out of which LoCascio and DeMaria took the passage, I do think *ABT* readers are entitled to see the *full* story from Hardin and not just the part the authors choose to show us:

Two physicians are talking shop. “Doctor,” says one, “I'd like your professional opinion. The question is, should the pregnancy have been terminated or not? The father was syphilitic. The mother was tuberculous. They had already had four children: the first was blind, the second died, the third was deaf and dumb, and the fourth was tuberculous. The woman was pregnant for the fifth time. As the attending physician, what would you have done?”

“I would have terminated the pregnancy.”

“Then you would have murdered Beethoven.”

The story has a terrific impact. Yet there's something wrong with it. Somehow logic has slipped a cog. Perhaps the most important counterpoint is this: after suitably altering the earlier details of the anecdote, one can quite legitimately substitute for the name “Beethoven,” the name “Hitler,” or “Caligula,” or “Genghis Khan.” To deny that these are legitimate substitutions is to imply that there is something inherently excellent about syphilitic, tuberculous parenthood, that such parents should be actually encouraged to have many children in order that many Beethovens may be born. I have yet to hear an abortion-prohibitionist urge this.

I think we are disturbed by this story because it makes us realize that if Beethoven had never been born we would never have known the difference. We would never have missed him. “What a loss!”—or is it? Can we have a loss of which we are unaware? Beethoven's mother, like all women no doubt, started life with about 30,000 immature eggs in her ovaries. She produced only seven children. Therefore 29,993 eggs, all potential human beings, must have perished. Should we weep for this “loss?” And what about the 100,000,000 sperm his father produced every day of his mature years—say, some 1,000,000,000,000 in all. If certain technical problems had been solved, Mr. Beethoven senior could have populated the world 1,200 times over all by himself. Does the fact that his million, million sperm did not meet and fertilize an equal number of eggs constitute a loss in any meaningful sense? Considering our population problem it would be hard to defend this thesis.

There is a bit more that Hardin has to say about the fallacy of the Beethoven fable, but that's enough to give *ABT* readers the *true* flavor of what he was saying. I think the authors might agree with me that it would have been fairer for them to at least acknowledge Hardin's true feelings in a footnote.

LoCascio and DeMaria ask, “How much biology will be necessary to replace (if it were possible) the

love that engenders a human being?" Overlooking their confusion of a science (biology) with a non-scientific, undefined entity (love), I would ask if the authors truly believe that love is necessary to "engender" a human being? Is the child produced by rape engendered by love?

LoCascio and DeMaria write ". . . he [man] is emerging from the initial genetic package that is, potentially, all he ever will be." Shades of Shockley and Robert Ardrey! If the authors truly believe this, I would urge them to get up-to-date in their reading of the ethologic literature.

To turn the heat off LoCascio and DeMaria for the moment, and in attempting to kill two birds with one stone, let me now turn my attention to Paul R. Gastonguay's letter (*ABT* 35[6]:353) in response to Alan Guttmacher's views on abortion. I, too, join Guttmacher in commending Gastonguay for his call to keep religion out of the abortion debate (as far as state-imposed laws are concerned) and for his advocating contraception as a means of lowering the number of abortions necessary. But Guttmacher is partly wrong is assuming that only among physicians is there evidence that the majority favor liberalization of abortion laws. For instance, at the 1972 annual meetings of the Society for Developmental Biology held at Wesleyan University, virtually all the biologists in attendance signed a petition the last day of the meetings calling for the liberalization of abortion laws. Because developmental biology includes embryology, and thus would represent that area of biology most closely linked to the basic science related to abortion, the petition's strong support is highly significant. The petition was most timely in Connecticut, for it came at a time when "right to life" groups were claiming that biologists agreed with them. Particularly interesting was the fact that among the signers was a man who was then the incoming president of the Society . . . and a Roman Catholic. His signing does not, of course, necessarily imply that he personally approves of abortion, since his church does not. What it does imply is that he recognizes that his opposition is religious and thus, constitutionally, he has no right to impose his convictions on others. It also implies that he does not agree with Gastonguay that the "facts" of biology make it "provable" when human life begins.

Indeed, as good as much of the Gastonguay article is, the author's main thesis rests on his almost complete misconception of the nature of scientific facts, proof, and hypotheses. Concerning his remarkable statement "These are facts as scientifically provable as the biologic facts that verify the humanity of an embryo or a fetus" it would be difficult to imagine how one could get any more serious errors into such a short sentence. First, the "facts" he refers to are not scientific facts at all but rather merely inductive generalizations (and debatable ones at that). Second, it lies beyond the nature of science to "prove" anything at all: hypotheses may be supported, but they are never proven in the manner Gastonguay implies.

Third, biology has nothing whatsoever to say about the "humanity" of an embryo or a fetus, unless one is willing—as unfortunately some seem to be—to define humanity in terms of base sequences along nucleic acid molecules.

This is the third time I have taken authors to task for their articles in *ABT*; I must come across as a bit of an ogre. Actually, I'm really very easy to get along with! I hope to publish an article of my own in *ABT* soon, and then everybody can tear *me* to pieces.

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Nicholas J. T. LoCascio comments:

The Hardin quote was used out of context to dramatically indicate the lack of scientific infallibility. Geneticists can never know the true genetic makeup of an offspring, irrespective of the known genotypes of the parents involved. This passage, I am sure Dr. Baker will agree, was not used for a right to life platform nor to speculate that syphilis or tuberculosis is an advantageous environmental condition.

Baker has asked us to either list the base sequences of humanity or retract "How much biology will be necessary to replace (if it were possible) the love that engenders a human being?" from our article. Let us remember that all we know of the developmental process is the particular code for the protein(s) involved. We do not understand how the biochemical homeostatic balance is achieved nor what it is that preferentially turns on and off certain alleles to produce the various tissues, organs, and organ systems of our body. Psychiatric medicine and biological research are beginning to accept that certain equilibrium imbalances (of genetic origin) may account for schizophrenia (perhaps autism).

Let us not be so sacrosanct or archaic as to assume that because in 1974 we do not know the relationship of exact base sequences to ethological modes, they do not exist. If this were true, then we would have to be creationists, as he says, because the direct link between the gases of our ancient atmosphere and the present day society is only a theory.

Paul R. Gastonguay comments:

Baker says that I know not what a "fact" is. I said that the following were facts; he says that they are debatable. (i) Many large families are poor; (ii) many women are distressed to learn they are harboring a defective fetus; (iii) the human conceptus is alive; (iv) it is in part the heredity of an organism that provides it with its species-specific traits; (v) the human organism has the genes that characterize it as *Homo sapiens*. My definition of a fact differs from his.

I never defined "humanity" totally in terms of genes, but only *in part* in terms of genes, without which humanity could never become expressed.

A five-year-old dog is different from a prenatal dog; so is a fifty-year-old biology professor different from a fifty-day-old embryo. "Dogness" and "humanness" progressively change, in response to the environment and to the successive expression of gene sets; but such changes never change a nondog into a dog, or a nonhuman into a human. If the human embryo is not human, what is it? If we abort it, let's have the guts to admit to what we are aborting.

AN UNINVITING VIEW?

I would like to share with you the following conclusions that I have reached concerning what, about Professor Val Woodward's article "Science Ideology: A View from Indochina" (*ABT* 36[1]:21 and [2]:87) makes it so—well, so uninviting.

It is not purely its vulgarity. To be vulgar, after all, is to be common; and that which Professor Woodward presents is, and has been for some time, all too common—particularly in the academic community. Woodward covers with the gloss of scientific purpose, demi-jargon, and "documentation" all that which has been Philistine on campus for the last several semesters.

Further, the good professor's intolerance, taken alone, is not terribly disconcerting, though it is intolerance of a particularly insidious species, intolerance that wears the cloak of tolerance, an intolerance that is quick to relate the concinnity of Communist Vietnam while quick to take issue with the real or imagined shortcomings of our own country, our own system, our own institutions. The tone of the article suggests Woodward as priest, robes of righteousness all wrapped about, dispensing like blessings all the homilies and clichés of the hemophilic liberal. "War Crimes Commission of the Democratic Republic of Vietnam" indeed! Somehow one suspects very strongly that such war crimes as the execution of thousands of Vietnamese in the Hue following the Tet offensive were not investigated by this group. Dr. Woodward's intolerance is of the variety that veers him toward the wide-eyed and breathless acceptance of the word of an official of a petty communist puppet state—the "president of the DRVN supreme court," for instance—while at the same time he is quick to question the "military propagandists" of his own country.

Dr. Woodward's commentary on medicine in the "Democratic" Republic of Vietnam merits consideration also. "No one," he assures us, "will ever be mystified or oppressed by professional medicine in the Democratic Republic of Vietnam." If the condition of certain of our prisoners of war who returned is any indication, there is not much "professional medicine" to be mystified or repressed by, north of the DMZ. Or perhaps there is, and selectivity in its use does in fact represent the "ethnic weapon" that Dr. Woodward evidences such concern about. Then again, perhaps the Communist North Vietnamese's forte lies

not in the medical field, but in the field of political purge. After all, Uncle Ho and his heirs did (and do) have rather bloody hands, having put hundreds of thousands of their own countrymen to death for purely political reasons.

On reading Professor Woodward's optative revelations concerning the "facts" that we have been engaged in the practice of making "patch bomblets" loaded with ground glass for the purpose of maiming the barefoot and hapless peasants of South Vietnam and that we have disguised our antipersonnel mines as "dog turds," to be picked up by innocent farmers searching for fertilizer, I began an informal survey of friends, students, and acquaintances of mine who are or have been in the military service and have served in Vietnam for from one to four years and asked about their knowledge of such weapons. These persons, some dozen or so including NCO's, junior and senior officers who represented various combat arms, and including several with special expertise in weaponry, have never seen nor heard of such items. It would seem that they find their existence only in the overheated imagination of a few. Professor Woodward informs us that "anti-ethnic weapons (agents that act selectively against persons of one racial origin but not on persons of another) have not been used at all." Lest, though, we detect some glimmering of mercy, some suggestion of restraint in the conduct of United States foreign policy, the author hastens to add that "the best explanation for the omission of this genocidal technique is simply that we don't have any such agent." (And that, sir, is precisely the same reason that pigs don't fly: they lack the wings.) Imagine! The uniformed and medal-bedecked general and his bloated and malevolent co-villain, a captain of industry pouring over, what else?—Val Woodward's article. "And these—these *ethnic* weapons," intones the industrialist to his henchman, "ah, but if we only did have them!" It is amazing, though, isn't it, how quickly a visit to Hanoi confers on the traveler an expertise on the conduct of war; on U.S. weaponry, motives and foreign policy; on ideology; and on the latest goings-on in Communist Vietnam?

And about that trip to Hanoi: now some might say that one who has given aid and comfort to the enemy has committed a serious offense—one worthy of hanging perhaps. I would consider this excessive, though. Society doesn't punish the commonplace, and such trips, though they were theatrical, were all too common. With a few more of the varied and sundry Nutty Buddies trotting off to Hanoi, therefrom to save the world, Whatsizname could've put out a book called *Communist Vietnam on \$5.00 per Day*. He'd have made a fortune.

And finally, not even Professor Woodward's turgidity of style and meandering of theme are in and of themselves particularly offensive. Indeed the turgidity and meandering evoke the hope, however faint, that Dr. Woodward's article represents not sincere but misguided political expression, but a great and gasping effort for the author to void him-