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Freedom of Inquiry

The First Amendment to the Constitution explicitly forbids the Congress from abridging the freedoms of speech and of the press. It imposes no comparable constraint abridging freedom to learn, to teach, or to inquire; yet these may be construed to be implicit freedoms and indeed seem to be of a comparable quality. All of these freedoms are, in fact, abridged from time to time, subject to the test of a real and present danger. In the absence of such demonstrable danger, the accepted position is and should be jealously to guard the constitutionally guaranteed freedoms, both those expressed and those implied.

Abridgments of freedom of speech and of the press have frequently occurred and have been contested. News media report movements in many communities to limit freedom to teach, especially in areas such as sex education. Analogously we encounter today serious questions, arising in part from scientists themselves, about the appropriateness of pursuing certain lines of scientific inquiry.

Some of the consequences of constraining freedom of inquiry are well known. Jacob Bronowski recently reminded us that the loss of Italy's lead position in the Renaissance of science followed immediately upon and doubtless was caused by the adverse judgment of the Inquisition against Galileo, which forbade certain lines of inquiry. In an otherwise impressive forward march of science in the Soviet Union, a generation of genetics research was lost by the constraints resulting from Lysenkoism. Such losses must enter into the cost-benefit analysis in determining whether to encourage, permit, discourage, or forbid a particular line of investigation.

Among the lines of research against which voices have recently been raised are the following:

1) What are the genetic contributions to intelligence?

2) What kinds of experiments may properly be performed on informed consenting adults? Minors? Fetuses? Prisoners?

3) May one screen infants for a variety of genetic defects, some with known, others with currently unknown clinical consequences?

4) Under what circumstances may one tamper with the genetic process, as by the introduction of foreign genetic material into the genome?

5) When may one meddle with human conception and pregnancy as by artificial insemination, abortion, cloning, in vitro fertilization, or the use of surrogate mothers?

In arriving at considered judgments on these and a number of other problems, it is suggested that we treat freedom of inquiry as we have learned to treat freedom of speech—that is, agree to abstain when there is a real and present danger. By this test, the fact that the problem may be difficult, or that its solution may prove politically embarrassing or unpopular, is insufficient ground for invoking constraint. Indeed, a science that shies away from a line of inquiry merely because the result may be difficult to manage is in a sorry state.

Each man or woman will assess whether a real and present danger exists in each particular line of inquiry. The judgment will be difficult but not entirely unfamiliar. It is the same judgment we make in assessing every instance of censorship that comes to our attention. Is the danger in pursuing a particular line of research of such a magnitude that, in another context, we would willingly abdicate freedom of speech?

Judgments will surely be individual. For example, I acknowledge the danger inherent in some of the scenarios composed for the fabrication of certain types of DNA recombinant molecules. On the other hand, it strikes me that screening infants for abnormal karyotypes presents only such difficulties and problems as practicing physicians cope with on a daily basis. The wise physician must try to minimize the adverse consequences of unfavorable diagnosis.

It is fashionable to criticize the ethics and humanity of scientists, as in other times we have criticized the writers or painters. If history is any guide, this too shall pass. Then we may arrive at the balanced state where all questions may be asked save those which pose a real danger to the community, the environment, or the individual.—DEWITT STETTEN, JR., *Deputy Director for Science, National Institutes of Health, Bethesda, Maryland 20014*