

The APS Amendment on Professional Responsibility

On 30 October 1971, Robert H. March, of the University of Wisconsin at Madison, submitted a petition to the Council of the American Physical Society, signed by 276 APS members and proposing an amendment to the APS Constitution. "The Amendment on Professional Responsibility" was printed in the January issue of the APS *Bulletin*, along with an invitation by PHYSICS TODAY to APS members for letters expressing opinions about the proposed amendment. Since then PHYSICS TODAY has received over sixty letters voicing widely divergent views on the proposed amendment. Below is a copy of the amendment and a sampling of the letters received (all those letters supporting the amendment without reservation plus a selection of those expressing various degrees of reservation).

The proposed amendment:

Under ARTICLE II add the italicized words: "ARTICLE II. The object of the Society shall be the advancement and diffusion of the knowledge of physics *in order to increase man's understanding of nature and to contribute to the enhancement of the quality of life for all people. The Society shall assist its members in the pursuit of these humane goals and it shall shun those activities which are judged to contribute harmfully to the welfare of mankind.*"

On behalf of 276 members of The American Physical Society, I have introduced the amendment to the APS constitution described in the January issue of the *Bulletin* of that Society. I urge the membership of APS to give this amendment their most careful consideration.

APS was born in a highly individualistic era, when the direction of scientific research was largely in the hands of the researchers themselves. Government support and control were negligible, and the ties with industry were weak and informal. The time lag from basic research to application was long enough to permit some contemplation of the consequences. Moral debates were often tinged with narrow religious sectarianism, while scientists shared a universal faith that any increase in man's knowledge of nature would be bound to improve his lot on earth.

Today we physicists spend hundreds of millions of Federal research dollars. Physics has strong institutional ties to government and industry. Much of our research is funded to implement specific policy goals, and many of these goals are formulated beyond the reach of public scrutiny. Few of us are so naïve as to have supreme confidence that the end results of our research will automatically benefit our fellow man. Yet our principal professional organization continues to live by a narrow statement of purpose that has often

been invoked to stifle public discussion of social questions.

"To not decide is to decide" is more than a hollow slogan. When the basic decisions that set the priorities in science, and determine how it shall be applied, are in the hands of powerful institutions, to rest on a claim of moral neutrality is to surrender our moral autonomy to these institutions. The individual conscience is a poor match for a powerful organization. As we have learned to work together in our professional lives, so must we learn to strive together to insure that the fruits of our efforts will be properly used.

Some members have expressed fears that the proposed amendment would lead to a witch hunt. Who is to judge whether the goals of scientific research are "humane?" Certainly not, in my view, a self-righteous committee; there is already too much centralization of decision-making in APS. Fortunately, the Society has no provision for expelling, or even censuring members, and this amendment is not intended to change that. The only kind of "judgment" that would have any meaning in a body like APS would be that formed by an overwhelming consensus of the entire membership, after full and open public discussion of the issues involved. Such discussion would, in fact, be an end in itself. It would help members to face the moral and social implications of their work, matters it is often more comfortable to ignore. Any member of the society who is engaged in activities widely abhorred among his colleagues should, at the very least, be prepared to defend his views publicly.

Discussion of the social implications of science would also bring before the general public matters that are now far removed from the democratic process.

The mechanism for instituting such discussions already exists, in the [APS] Forum on Physics and Society. The proposed amendment would add further legitimacy to the efforts of the Forum by acknowledging that its activities are an integral part of the goals

of the American Physical Society.

It has been argued that APS is the wrong vehicle for discussions of this sort. But only through our professional society can we marshal the emotional dedication we devote to our chosen life's work. If we cannot learn to accept our moral responsibilities as inseparable from our professional ones, the public will rightly dismiss us as morally crippled. Those of us who teach nonscientists are reminded daily of the public antipathy toward science. This antipathy is fed in part by the belief that we are on sale to the highest bidder, indifferent to the horrors we may create.

Most other professions with as much social impact as physics have long since publicly acknowledged their moral responsibility. Some have not. The Cosa Nostra, for example, piously claims ethical neutrality. I would prefer to see my profession in better company.

ROBERT H. MARCH
*The University of Wisconsin
Madison, Wisconsin*

... I have two comments. First, I am disappointed that the APS Council did not propose such an amendment on its own initiative. And after such an amendment had been proposed to them, why then did the Council refuse to allow a vote on it until the vote was forced by obtaining 276 signatures? The Council at least could have shown some sensitivity to the deep feelings held by a significant fraction of the membership, even if that part of the membership is not represented on the Council.

I feel that our Society can no longer ignore the moral and social effects of our profession or, even worse, continue to train our students to believe that they have no moral or social responsibility professionally. Important reasons for supporting the amendment were well stated in the short after-din-

ner speech given by Pierre Noyes [SLAC] at the banquet of the 1971 Washington APS meeting. Noyes's speech, which followed the speech by President Nixon's science advisor, was considered newsworthy and reported in the national press (but not in *PHYSICS TODAY*—why?). Since the readers of *PHYSICS TODAY* have until now been deprived of this excellent speech, I now take the opportunity to quote those parts relevant to the question at hand. The following is all but the last paragraph of the speech delivered by Noyes on 28 April:

"Many members of our Society are individually opposed to the warfare being conducted by our government against the peoples of Southeast Asia. Most of us who know the facts are outraged by the perversion of science and technology to the creation of inhumane and illegal weapons—weapons calculated to maximize human suffering. Like it or not, our own profession is implicated. The country relies on us to provide the knowledge on which this technology rests, and to train those we instruct to believe that their responsibility ends with their technical competence. Some of us contribute directly to the military technology of this war, and we make that contribution with the support of our profession.

"One of the advanced techniques which has grown out of this situation is the electronic battlefield. Elaborate sensors, concealed over a wide area, send coded signals to helicopters which in turn relay these signals to a computer installation in Thailand. The computer then interprets the data and activates the most efficient means of bringing down a rain of destruction on the source of the disturbance. This system defines anything which *moves* as an *enemy*.

"When targets are known to be human we can use cluster bombs designed to put a lethal fragment into every square foot of an area of

twenty-five acres. These barbed fragments are designed to penetrate on an irregular course, making their surgical removal difficult if life survives. But a determined population can train surgeons and develop metal detectors to locate the fragments—thus saving some of those lives. But now the metal fragments have been replaced by plastic fragments. This plastic has the same x-ray density as human flesh, it is very difficult to detect by visual means, and of course cannot be detected by metal detectors.

"Another technological development is the stabilized platform which allows accurate fire from helicopters. An example of the accuracy this allows was given by the report of a helicopter pilot in Monday's [26 April] *New York Times*. Ordered to stop peasants fleeing from a village ("How?"—"Shoot them!"), he was able to kill 30 to 40 unarmed villagers.

"These sickening details are not isolated incidents. Massive evidence has been available for years that our manner of conducting warfare in Southeast Asia is the expression of a developing and hardening policy. We have found no way to fight a rural population while keeping the loss of American lives at an "acceptable" level—no way short of destroying them from the air by massive uses of technology—no way short of removing and imprisoning them.

"The acts, weapons and policies I have mentioned are but a small sample of what are direct violations of the supreme law of our land—for instance, the Hague and Geneva Conventions ratified by Congress. Those best qualified to know, prosecution and defense counsel who served in the Nuremberg, Tokyo and Manila War Crimes Trials, state categorically that our civilian and military leaders would be convicted on the basis of those precedents if brought to trial under the laws of the United States of America. Those in

"... our Society can no longer ignore the moral and social effects of our profession ..."

policy making positions have the positive legal obligation to force a change in policy, or to publicly resign in protest. Heads of civilian departments in the Japanese cabinet were convicted for failure to do so. Where the line should be drawn is a matter for a court to decide, but in my opinion our speaker tonight [Edward David] would be well advised to take the step of public resignation, in order to have a defense against future prosecution."

JAY OREAR
Cornell University

Why should APS assume a purpose its members have no special capability to fulfill? Physicists are no better than other men in judging what will "contribute harmfully to the welfare of mankind." Worse, to say that the Society "shall shun those activities" could be interpreted as applying political limitations to what will be published or who can be a member. This may not be the intention of those who prepared the proposed amendment; nevertheless, the possibility of abuse is there.

THOMAS W. KARRAS
Berwyn, Pennsylvania

The key word is "judged." Without naming the judge, the proposed amendment is meaningless.

A. R. TOBEY
Los Altos, California

Regarding the proposed amendment, two questions arise. First, who is

going to judge what "contributes to the enhancement of the quality of life," what "activities are judged to contribute harmfully to the welfare of mankind," or what is a "humane goal?" Is the council to judge? Is the membership to hold a ballot on the issues? Is each referee of a paper to judge whether that paper fulfills all these goals? Is each member to be screened by some sort of committee as to whether his work meets these criteria before he can join the Society? Who will judge?

Second, what criteria will be used to determine whether an action of the society is humane or harmful? For example, some people believe that eating meat is the most harmful activity a person can engage in, being a form of cannibalism. Shall we ban all meat from APS banquets?

As scientists we should precisely define terms such as "humane," "welfare of mankind" and "quality of life for all people" before inserting them in our constitution.

ALBERT R. MENARD III
University of Florida
Gainesville, Florida

.... The last part of the amendment, "... and it shall shun those activities ..." is so vague that it would certainly "contribute harmfully to the welfare" of APS. Has APS ever assisted activities that were harmful? What activities should be judged harmful? Is supporting the building of quarter-billion-dollar accelerators (while people are starving in the world) harmful? Is cooperation with the Defense Department or the Atomic Energy Commission harmful? Who will do the judging?

JOHN R. VIG
Eatontown, New Jersey

I want to record my firm opposition to The Amendment on Professional Responsibility.

The amendment would have us say that "The Society ... shall shun those

activities which are judged to contribute harmfully to the welfare of mankind." Because the object of the Society is "the advancement and diffusion of the knowledge of physics," we would clearly be saying that this activity, by itself, can contribute harmfully to mankind. The amendment further implies that physicists can make this judgment beforehand and that the Society itself is prepared to make them.

How pretentious can we get? On the one hand we would announce to the world that the advancement of our brand of knowledge is a threat, but on the other hand some of us are so wise that we can protect the unsuspecting world from our own witchcraft!

If we are going to be scientists—and indeed responsible citizens—I suggest that it would be better to put our energies into supporting a larger society that can accept the risks that new knowledge inevitably brings. With respect to APS, I hope that most members agree with me that it can never substitute for our individual moral judgments.

ROBERT W. MORSE

*Woods Hole Oceanographic Institution
Woods Hole, Massachusetts*

The last sentence of the amendment should terminate after the word "goals." The rest of the sentence implies a judgment that is extremely personal, and thus it does not belong in a constitution unless the apparatus for making that judgment is explicitly outlined and approved by all the members. . . .

C. T. ALONSO
Yale University

It seems to me that the State is becoming more powerful and the physicist more dependent upon the State. The salaries for research jobs come mostly from the government, and this undeniably pressures the physicist to serve the State to maintain his (or her) physical well being.

"... to rest on a claim of moral neutrality is to surrender our moral autonomy..."

In recognition of the ever growing forces that our powerful State imposes or can impose on the scientific community, and the need for a clear statement of our universalist humanitarian value base, I strongly support the proposed Amendment on Professional Responsibility. Especially important at this time in history is the statement that our society "shun those activities which are judged to contribute harmfully to the welfare of mankind."

WILLIAM B. ERICSON
*Grumman Aerospace Corp
Levittown, New York*

I applaud the humane spirit in which the "March" amendment to the constitution of the Society is offered. However, I am troubled by its ambiguity.

With the knife as an example, it is apparent that practically every invention and for that matter, every advance in science, can, and has been used both to benefit and to harm mankind. Who, then, is to render the judgment called for in the last sentence of the amendment?

I could support the amendment only if its last sentence were to end with a period placed after the word "goals."

C. KEITH McLANE
Boulder, Colorado

...The proposed amendment would do nothing less than change the Society into an essentially political organization. Certain activities would be judged (by unspecified mechanisms) to "contribute harmfully to the welfare of mankind." The prestige of the Society would be used to promote the moral

and philosophical judgments of some fraction of the membership, in the name of all members. . . .

ANTHONY J. PAWLICKI
*Indiana University
Bloomington, Indiana*

...Do the authors have in mind censoring individual members of the Society? Do they have in mind using the Society as a lobby? Or do they have in mind the use of sanctions against individuals, corporations, institutions or even nations? For example, would the Society refuse to sell journals to a South African library because to do so might encourage the perpetuation of a system that practices what most of us consider evil discrimination? Or would the Society blacklist a university for accepting a contract to do unclassified research because the sponsor was the Department of Defense? Or would the Society censure a corporation that accepted a contract from a municipal police agency? . . .

E. J. WOODBURY
*Hughes Aircraft Co
Tarzana, California*

The ringer in the proposed change in the objective of APS (Article II) is the phrase "judged to contribute harmfully. . . ." Who will do the judging and on what basis? Is physics research to be constrained to those projects approved by a committee of sociologists? Or will the all too frequent university approach of bombing buildings be used to terminate work that does not conform to someone's ideological goals?

I find the present objective succinct but adequate.

L. S. BIRKS
*Naval Research Laboratory
Washington, D. C.*

I support the proposed amendment to the APS constitution.

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are expected to increase steadily; it is not unlikely that they will reach disastrous proportions. The language of the proposed amendment will soon be considered rather innocuous and insufficient. It is certainly nonpolitical. Misinterpretation of a law for political purposes is always a possibility. Only a wise choice of leadership can guard against that.

The only objection that can be raised against this amendment is that it may be premature. But physicists in the US have been carrying a heavy moral burden for more than a quarter century. Who else, therefore, should take the leadership in responsible action against harmful use of our natural environment?

F. ROHRICH
Syracuse University

To clarify the proposed amendment, please have Robert H. March *et al* point out which abstracts in the *Bulletin* would be shunned. I can't tell the bad ones from the good ones, and would like to know how he, or anyone, can.

If this naïve amendment is passed and taken seriously, it would consume the resources of our Society in an endless and useless debate.

J. S. HUEBNER
Michigan State University
East Lansing, Michigan

The primary, if not the sole purpose of the constitution, charter or certificate of incorporation of a society, whether this be the whole society of people or a specialized group, is or should be to spell out in detail the mechanisms for the governance and operation of the society. The document should not be a vehicle for the expression of ideals or policies, no matter how lofty and beneficent these may appear to be.

Nobody can be opposed to the proposed addenda to the object of the Society, in their proper context; these, obviously, are as laudable as "God, motherhood and apple pie." Some

"... the self-imposed censorship proposed ... is the same censorship that was demanded—for the same reasons—by Church and State in the past."

practical questions arise, however, as to the administration of the directives implied by the provisions of the amendment if they are to be taken as something more than the mere expression of certain ideals. What new obligations would the Society have to assume in order "to contribute to the enhancement of the quality of life?" Who is to judge that certain activities "contribute harmfully to the welfare of mankind?" Thousands of physicists on the staffs of numerous laboratories would be expelled from APS on the basis of a rigorous application of this rule by a board of review with (say) zealot tendencies. Provisions cannot be inserted in a constitutive document (as statements considered desirable at the time) and then be promptly forgotten and ignored. It is a truism to state that if it is not intended that the provisions be enforced they should not be incorporated in the document.

W. JAMES LYONS
[APS] Council Committee on the
Constitution, Bylaws and Regulations

... "and it shall shun those activities which are judged to contribute harmfully to the welfare of mankind." This phrase should be deleted or altered because it implies that it is possible to direct physical inquiry in such a way that only good results. ... A much more positive statement would be something to the effect of "The Society shall assist its members in the pursuit of these humane goals and it shall be concerned to see that humane applications of the

results of physics are made, rather than inhumane ones."

RICHARD H. BUBE
Stanford University

... If the amendment were to read something like "... and its use in contributing to the enhancement of the quality of life for all people," then a more positive and active direction could be given to the Society. This wording would acknowledge the fact that the membership of the Society (in addition to other professional societies) should have the improved welfare of mankind as an objective. A series of sponsored in-depth studies by Society members could be made of some of the critical problems facing mankind (for example, population, environmental quality, resource utilization and depletion, ocean pollution and so forth). Some attempt should be made in these studies to determine viable alternatives to current technological and policy directions and to analyze the effects of each option. It would appear that the body of the Society is well suited to perform such a task, given official sanction and support.

WALTER G. PLANET
Bowie, Maryland

I am in favor of leaving the constitution the way it is. Wars have been fought over interpretations of the seemingly innocuous words in the amendment; very few things, if any, contribute to the quality of life for all people. Philosophers have debated the welfare of mankind for thousands of years. Just think of the ways we could fragment APS if the amendment were accepted and taken seriously: Republican versus Democrat, socialism versus private enterprise, Christian versus Hindu versus Moslem versus atheist, technology versus antitechnology, just to name a few. Somedays we even disagree with ourselves of yesterday!

Under the present constitution we are all free to do as we choose. We can

join the particular groups that espouse our own versions of the good life, or we can be nonsocial if we wish. Let's leave it that way.

RALPH A. EVANS
*Research Triangle Institute
Triangle Park, North Carolina*

The "March" amendment as it now stands is rather poorly worded. I hope that if it should be voted down by the membership, this will not be taken to mean that the membership is opposed to having the Society concern itself with the social and political implications of physics. People may be voting against the wording rather than the true intent . . .

I, therefore, propose the following wording: "The object of the Society shall be the advancement and diffusion of the knowledge of physics and its uses, in order to help physicists increase man's understanding of nature, enhance the quality of life and avoid activities that are harmful to human welfare."

HOWARD WEISBERG
University of Pennsylvania

...There is hardly a field of knowledge that cannot be utilized to be harmful, if that is one's purpose. An example is the roosting habits of bats. During World War II it nearly happened that bats, fitted with small incendiary devices, were to be released over Tokyo. They habitually roost in the eaves and attics of houses and so would cause fires in the very flammable Japanese structures. Conversely, the experience with DDT shows how easily even a well motivated judgment can do great damage. At first sight the ecological arguments were persuasive in stopping distribution of DDT. Then the explosive growth of malaria in countries such as Ceylon (50 000 additional deaths in a single year) caused urgent reconsideration.

...The attempted suppression of the Copernican System, dramatized by

"Broadening the scope of APS . . . [in this way] is paradoxically an assault upon the freedom of the individual."

Galileo's ordeal, was, at the time, considered a sincere effort to shun activities harmful to human welfare. The Catholic Church had nothing against Galileo personally but the earth-centered universe was then very important to its conception of how to maintain a moral order. . . .

STUART T. MARTIN
*WCAX-TV
Burlington, Vermont*

... As each organization becomes a vehicle for many causes, the freedom of the individual to select those causes he wishes to support and to reject others becomes impaired. Broadening the scope of APS to include in its objectives "the enhancement of the quality of life for all people" is paradoxically an assault upon the freedom of the individual. No longer will we as individuals be able to pick the way in which we believe the quality of life for all people shall be enhanced by supporting those individual causes that fit our individual concepts of the quality of life. No longer will we have an opportunity to support the narrowly professional side of physics as a group and to split up, some favoring one social cause and some another, as individuals. . . .

PAUL R. CAMP
*University of Maine
Orono, Maine*

I believe that revision of Article II of the APS constitution will injure significantly the pursuit of the present limited mission of the Society, and that it contains the seeds of a more deplorable disaster.

Because Article III describes the conditions for membership solely in terms of interest, activity and training in physics, the membership of the Society is heterogeneous with respect to other characteristics, including motivation and values. The divisive controversies that will result from attempts to implement the proposed objectives will strain the common bond of physics that now unites the membership. It may result in a society that includes only an unrepresentative fraction of the country's physicists.

The revision contains no reference to the criteria to be used in implementing the proposed moral objectives. Because of the well known difficulties in predicting the future impact of research, I foresee the use of peripheral characteristics, such as the source of support and apparent interests of the sponsor, as criteria for distinguishing "good" from "evil" research.

Most importantly, the self-imposed censorship proposed by the revision of Article II is the same censorship that was demanded—for the same reasons—by Church and State in the past.

Do we wish to reaccept the relevance of moral judgments against which scientists have fought for centuries? If we point the way, may we not expect society to decide that these decisions are too important to be left to scientists?

ROBERT MAURER
*University of Illinois
Urbana, Illinois*

...Many of the most useful and valuable ideas have been pursued in the face of popular and professional disapproval. Martin Gardner's book *Fads and Fallacies in the Name of Science* contains much case material on this point. Physicists are seldom much cleverer than other people in anticipating the ultimate impact of their work, whether or not it violates their own moral and social concepts. . . .

ROYAL WELLER
Yankeeetown, Florida □