

GENERAL SCIENCE

Scientists Organize for Peace

Leading scientists, campaigning to find a way to save humanity from the holocaust of nuclear war, hail the test ban treaty as a step in reducing international tensions.

By ELIZABETH MIREL

► SCIENTISTS have descended from their ivory towers.

They are worried about the future, over which their sciences have done so much to hang a flaming question mark.

From their fears has come a concern with peace.

The grim reality of their concern can be dated from Hiroshima—Aug. 6, 1945—when some 100,000 Japanese civilians were killed by the atomic bomb, when countless more were poisoned by radiation, and when the seeds of death were cast into the bodies of a still undetermined number of people.

On that day, it has been said, the scientists came to know sin.

Since that day, the number of scientists working for peace has mushroomed like the nuclear cloud itself.

Journeying from the laboratory into public life, scientists have demonstrated that to crusade for peace is to exercise a right of conscientious, freedom-loving citizens.

Many scientists hail the recent test ban treaty as a step to easing international tensions. It is believed that scientific activity has done much to change the climate from negative to positive on the test ban issue.

Not all scientists join in the drive for peace. Some, holding a traditional military position, wish to see nuclear testing continued.

But all these individuals and organizations have one thing in common. They are concerned about the way society is using science and they want to have a say in the matter.

Scientific Approaches

To get their points of view across, the scientists may use a number of overlapping approaches common to political pressure groups. The avenues to influence are:

1. Marshaling the opinion of colleagues.
2. Reaching the public.
3. Convincing decision-makers.

For reaching the academic community, the first approach, scientists rely mainly on professional meetings and informal discussion sessions. The behavioral science organizations have devoted several sessions at recent meetings to the issues of war and peace, disarmament and reduction of international tensions.

Communication of professors in many different fields is sought by a loosely organized group, the Congress of Scientists on Survival, New York. SOS, which recently held its second annual meeting, brought biologists, physicists, chemists, psychologists and political scientists together to talk over the problems of the nuclear age.

The purpose of the meeting, said SOS president Dr. Hudson Hoagland, is "to inform ourselves," by exchanging new ideas on world problems. Dr. Hoagland is also president of the American Academy of Arts and Sciences and executive director of the Worcester Foundation for Experimental Biology.

SOS decided not to be a peace action group, but to confine its role to serving as a forum for scientists.

In-Group Effectiveness

The effectiveness of in-group activities is not always visible to the naked eye. At their best, professional meetings set off a chain of events that leads to spreading of new research facts and theories on vital issues and culminates in action.

The Pugwash conferences on disarmament, an informal group of top scientists from nations of the East and West gathering to discuss the disarmament deadlock and other areas of international scientific concern, demonstrates such a chain.

Although no spectacular "breakthroughs" were achieved, it is believed the technical advances, particularly in detection methods, examined at the Pugwash conferences helped the U.S., Russia and Britain come to an agreement on a partial test ban. The ninth and tenth conferences were held in England in 1962.

The second approach, the attempt to reach the public, is often an outgrowth of professional meetings. Scientists who participate in conferences are frequently asked to speak to local groups on matters of current national and international interest.

Indeed, scientists have a responsibility to the public to express ideas in the fields of their competence, says Dr. H. Bentley Glass, Johns Hopkins University, Baltimore, biologist and a participant in the Pugwash conferences.

The scientist, he believes, is essentially a teacher who plays a crucial role in the transfer of information. But in so doing, Dr. Glass cautions, scientists "must draw a very sharp distinction between matters in which they can speak with scientific knowledge and matters in which they speak only with knowledge that any citizen has." Otherwise they are serving neither the public nor their science.

A peace group must "go public" if it is to survive beyond its average life expectancy of three to five years. And reaching the public through a total community rather than a fragmentary approach, Robert Gilmore, executive director of Turn Toward Peace, New York, believes, is crucial in developing a strong organization.

Although Mr. Gilmore's concern is with

non-academic persons, his point may be well taken by professionals who often have neither the desire nor the know-how to reach the people.

As a more direct—and perhaps for scientists more appropriate—means of voicing their views, many scientists try the third approach, to influence the decision-makers.

The techniques for this method vary considerably from group to group, and individual to individual.

Some are content to let their opinions "filter through" to the Administration. They work on the assumption that President Kennedy and his advisers, on the lookout for new ideas, are themselves prodigious readers and are in communication with others who also read voluminously. Thus concepts expressed in books and in certain newspapers, magazines and journals are bound to reach the decision-makers.

This is the only way some scientists can have their voices heard. Others, however, have more or less direct access to Administration ears.

It can start at a reception:

Dr. X, psychology professor, tells his pet theory on conflict resolution, or how to calm international tensions to Mr. Y, who works at the State Department under one of the Secretary's deputies. Mr. Y decides this is a good example of how psychological research can be used in world politics, so he hashes the idea over with his boss, Deputy Z. The deputy listens. Later, when the Secretary is concerned with handling a touchy political problem, Deputy Z may tell him about an alternative approach. Dr. X's name may or may not be mentioned, but when he reads of the Secretary's decision, he may notice some ideas that vaguely resemble his own and he will be satisfied.

Decision-Makers

A less circuitous route that has better guarantees of success is to confer directly with the decision-maker. In most instances, however, an official is likely to call to conference a scientist who holds a general outlook and philosophy similar to his own.

The fact that for every scientist in the Arms Control and Disarmament Agency, there are 2,800 in the Department of Defense indicates how soft is the voice of a disarmament scientist in the Government.

Scientists are approaching decision-makers in the legislative as well as in the executive branch of Government in their attempt to influence policy.

Giving Congressmen solid facts as well as opinions is proving to be an effective and respectable way of influencing policy.

Granddaddy of lobbying organizations for scientists is the Federation of American Scientists (FAS), Washington, D. C., founded in 1946. Its membership of 2,500 includes many who worked on the original atomic bomb.

Their first campaign, to keep the science of nuclear energy in the hands of civilians,

ended with the passing of the McMahon Bill and the creation of the Atomic Energy Commission.

Choosing their issues studiously, and maintaining scientific responsibility as well as public respectability, FAS is now working to ensure Senate ratification of the partial test ban treaty. The basis of this policy position is the technical judgment that the risks of nuclear destruction are greater than the risks of a test ban.

In pursuing the political approach, the behavioral sciences, now blossoming in the U.S., have a doubly hard battle. They must develop channels of communication with legislative or executive circles, but they must also overcome the stereotype of "those crazy psychologists," and educate the public and their own profession to the political relevance of behavioral studies.

Psychologists Active

Psychologists, mainly through the American Psychological Association's Committee on Psychology in National and International Affairs, Washington, D. C., seem to be more active than anthropologists and sociologists in the political sphere.

Dr. Lawrence Solomon, executive director of the Committee, has testified in congressional hearings, reporting, for example, the psychological studies relating to fallout shelters. A congressional fellowship program is underway. Instituted by the APA in cooperation with the American Political Science Association, its purpose is to acquaint psychologists with the political process and politicians with the usefulness of psychology.

Since the APA membership numbers some 20,000 psychologists of varying views, the Committee makes no sweeping policy statements, but speaks only in its area of expertise. Like the other scientist groups, the APA Committee is wary of being labeled "a peace action group." Basically, however, it wants to ensure that psychologists' knowledge of men's minds be turned to peaceful, "tension-reducing" purposes.

There are several other organizations working to influence the course of national and international events. The words and letters of their titles are downright poetical, but their aims are, by and large, practical.

Scientific Responsibility

Here are some of the groups:

Society for Social Responsibility in Science (SSRS), Gambier, Ohio, founded in 1947, states its purpose as: "to induce scientists to recognize a personal responsibility for the anticipated consequences of their work and to exercise their profession always for the benefit of humanity." They reject participation in scientific activity that has military applications.

Council for a Livable World, Washington, D. C., under a board of scientists, grew out of a suggestion by Dr. Leo Szilard, winner of the Atoms for Peace Award in 1959. Dr. Szilard, who helped develop the A-bomb and petitioned against its use on Japan, proposed a distinctly political organization to work toward disarmament agreements and abolishing war. One of the operations of the Council, founded in June 1962, is making contributions to congress-

sional candidates "who are concerned about the course of events," who have "insight into what needs to be done" and who will "press for improvements."

Universities Committee on the Problems of War and Peace, based at Wayne State University, Detroit, recently got off the ground with a full-page newspaper ad on the test ban. Organized in January 1963, the Committee has participants on 243 college campuses. It plans a definitely political project on Capitol Hill in which, ideally, every member of Congress will have a number of academic experts at his beck and call to advise him on special issues and problems. A "speaker's bureau" and special college courses on war and peace have been started.

Scientists' Institute for Public Information, New York, founded last June, deals strictly in facts. Its aim is to spread accurate and understandable data on scientific problems through scientists speaking on the local level. According to the guiding principles of the Institute, such information is to be presented "unencumbered by political or moral judgments."

Peace Research Institute, Washington, D. C.; Center for the Study of Conflict Resolution, University of Michigan, Ann Arbor, and Committee on Research in International Conflict, Washington University, St. Louis, are among the few organizations established specifically to do or to support peace research. Such research may involve scientists from all disciplines and is generally dedicated to finding workable alternatives to nuclear annihilation.

The strongest voices of the scientific community—the National Academy of Sciences and the American Association for the Ad-

vancement of Science—have had comparatively little to say on the war-peace issue.

In representing the scientific community, the Washington, D. C., organizations speak for men whose views range the whole spectrum of political opinion and who can make these views known through other channels. Thus the National Academy through its Committee on Public Policy, and the American Association through its Committee on Science in the Promotion of Human Welfare rarely make policy statements, but confine themselves to setting forth the technical considerations and policy problems of broad issues, leaving final judgment to the individual.

Search for Peace

Although the National Academy has formally acknowledged that the search for lasting peace is the world's most urgent problem, it has no plans to get involved in any crusade for peace or disarmament.

The American Association for the Advancement of Science in December 1961 made a formal statement on science and human survival, explaining that the weapons of modern war are so devastating that an acceptable alternative to war is needed. Scientists were urged to "serve the social need for peace and find a means of protecting society that does not run the risk of destroying it." No new statement is planned.

No matter how their concern is expressed, however, it is to the continuing credit of the scientists that they persist in answering "Yes," to the biblical question: "Am I my brother's keeper?"

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Nobelists Support Treaty

► THIRTY-FIVE out of 56 U.S. Nobel Prize winners have joined to support the test ban treaty, now pending Senate ratification.

The Nobelists urge approval of the treaty believing that it "marks a significant if minimal first step in reducing the tensions of a continued nuclear arms race," and that it will enhance, rather than endanger, the security of the U. S. They called on the Senate to accept it as a "concrete expression of our country's desire for peace."

All U. S. Nobel Prize winners in all fields who could be reached were asked to sign. Five, whose names are being withheld, declined to sign on personal grounds.

The signers are winners of Nobel Prizes in Physics, Chemistry and Medicine and Physiology.

The statement and list of names were sent to the President of the Senate, Vice President Lyndon B. Johnson; to the chairman of the Foreign Relations Committee, and to the Senate Majority and Minority Leaders.

The poll of the Nobelists, inspired by President Kennedy's address to the nation on the test ban treaty, was started in the beginning of August.

Dr. I. I. Rabi of Columbia University,

often described as an "elder statesman of the scientific community," spoke for the distinguished group at a news conference in Washington, D. C. Dr. Rabi, who won the 1944 Nobel Prize in Physics, has been a member of the President's Science Advisory Committee since 1957 and is a member of the General Advisory Council of the Arms Control and Disarmament Agency.

Nobelists Dr. Edward M. Purcell, Harvard University physics professor, and Dr. James D. Watson, Harvard University biology professor, were also present to speak in favor of the treaty for the signers.

The signers to date are: Carl D. Anderson, Walter H. Brattain, Felix Bloch, Owen Chamberlain, Andre F. Cournand, John F. Enders, Joseph Erlanger, Edward A. Doisy, James Franck, Donald A. Glaser, Robert Hofstadter, Arthur Kornberg, Polykarp Kusch, Willis E. Lamb Jr., Tsung-Dao Lee, Fritz A. Lipmann, Hermann J. Muller, William P. Murphy, Severo Ochoa, Linus C. Pauling, Edward M. Purcell, Isidor I. Rabi, Dickinson W. Richards, Glenn T. Seaborg, Emilio Segre, William B. Shockley, Wendell M. Stanley, Otto Stern, Albert Szent-Gyorgyi, Edward L. Tatum, Harold C. Urey, Georg von Beckesy, Selman A. Waksman, James D. Watson, George H. Whipple.

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