

# Science for the People



## Science Is Not Neutral

### THEME OF AAAS ACTIVISTS : SCIENCE FOR THE PEOPLE

The 136th annual meeting of the AAAS held recently in Boston provided a group of us the opportunity to challenge and change the political consciousness of many members of the scientific community. Our AAAS action group was composed of scientists, engineers, and other concerned individuals who feel that scientists must organize with other working people to bring about the political change necessary to prevent the further misuse of science and scientists' skills. Further, we think that most scientists have thought in a way which has prevented them from understanding how the present society affects their and other people's lives.

### EMΦ (science mind-fuck)

The frame of mind we are attacking is based on several prevailing myths. The scientist typically feels that science is morally or politically neutral and that his work, being an end in itself, should require no further justification to society. He thinks himself an objective, rational individual and a member of a rather select intellectual class. He regards himself as a professional.

The scientist often feels that social problems arise from incompetence and irrationality, and believes that, as in the case of technical problems, his own expertise can be applied to their solution. Thus his unique ability to understand, apply, and develop new technology makes the scientist not only a necessary, but also an enlightened and influential member of decision-making bodies. We think that these views of science and the scientist's social role are unrealistic.

**To SESPA MEMBERS:** Beginning with this issue, the SESPA NEWSLETTER will be prepared by the Boston Area SESPA. This issue, you may say, looks and reads rather differently than previous ones. Right on. That's because we, in Boston SESPA, have a different perspective on how to solve the problems that inspired the formation of our group. However, this is our newsletter - meaning all of us - so we urge you to send us articles and/or letters commenting on this issue, other matters of concern to the membership, and especially descriptions of ongoing activities and actions.

**To SCIENCE FOR THE PEOPLE people:** SCIENCE FOR THE PEOPLE, as you know, was born as a result of the activities of a number of scientists, engineers, and other concerned individuals - including you - at the AAAS meeting in late December. We decided then that we would attempt to stay in contact and continue our activities. To facilitate this, we in the Boston area are participating under the aegis of SESPA whose newsletter we are sending you. This issue reviews what happened at the AAAS, a little bit of what's going on now here in Boston, and what we hope to do in the future.

**To SESPA and SCIENCE FOR THE PEOPLE people:** We need money! The resources we had - previous contributions by SESPA members and the money derived from selling SCIENCE FOR THE PEOPLE buttons and posters at the AAAS - enabled us to send out this issue. To continue the exchange of ideas and information which, we hope, this newsletter represents to you we need some of your money - \$10 for non-students, \$4 for students, (or if you're in dire straits, whatever you can afford). A contribution and membership blank is on the back of this issue. Please send us the names and addresses of other people who would like to receive this newsletter.

**BUTTONS:** Those of you who would like to buy buttons bearing the symbol of the AAAS Science for the People action group, in red, white, and black, as illustrated at the top of the front page of this paper should send a request to:

Herb Fox  
Bolt Beranek and Newman  
50 Moulton Street  
Cambridge, Mass.

The buttons cost 50¢ but may be obtained in large (more than 50) quantities at a lower price.

Though research is carried out according to certain scientific criteria, the context in which this research is done is anything but neutral. Not only the kind of science which is done but the use to which it is put is dependent upon the technological needs of those who support science. For example, the Department of War funds research in those technical areas which it feels are of military significance. The advances made are used for military weaponry, the researcher's expertise is used for weapons development, and the graduate students are trained in areas of military technology. But what is obvious in the case of the DOW is true in general. Science responds to the technological needs of the dominant social and economic class in a society. It serves those who control the development of technology and use it to further their own ends.

In the United States scientific research is promoted by the government and large corporate enterprise to benefit big business. Its use has resulted in highly sophisticated instruments of death and destruction, tremendous waste of natural human resources, the fouling and despoilation of the environment, and the increased alienation and manipulation of the people. The standard of living for the few has increased but the distribution of the world's wealth becomes more lopsided and the destruction of goods which millions need increases. Science does not serve the people's needs, it serves



corporate needs. To claim, therefore, that science is neutral is merely to ignore the social and economic context in which science is done. If we are concerned about human welfare, we must question the role of the scientific establishment in this society. We must see that science serves the people.

### We Scientists Are Workers

But how can science be directed toward increasing human welfare? Scientists certainly have no control over how their work is used. They even have little control over the work they can do. Many university scientists, for example, who would like to convert to more socially useful research cannot get funding for such work. Industrial scientists are constrained by the requirements of their employer. In fact, if the scientist does not produce what is expected of him, he is out of a job. He is merely a paid technician - a worker like any other salaried employee, only with more training and money. Scientists and engineers on the west coast have found working conditions so oppressive that they have found it necessary to organize unions.

Though the scientist and the engineer play key roles in the development of new technology, control of this process lies elsewhere. Technology is not autonomous. The misuse of science for death, destruction, and despoilation does not occur by chance. It happens because the assessment of new technological possibilities takes into account only the costs and benefits of those who seek to exploit these possibilities --social costs and social needs are ignored. The adverse effects of technology therefore constitute a political problem. They arise from the use of technology to serve the needs of powerful private interests at the expense of the public. The problems of pollution or the arms race are not technological problems. The basis for their solution is not technological.

It stands to reason that scientists and engineers do not make decisions about the use of science and technology. Technically trained people are used merely to implement such decisions. Their skills are used to further the goals of the organization for which they work. Their role is evident when scientists testify in favor of the ABM, American Tobacco Co., Union Oil Co., etc. In Washington science advisors either endorse existing policies or become Oppenheimers or members of an agency blacklist. To be "influential", you must first agree. Thus the scientist serves only to rationalize the existing order. His expertise is used merely to further already established goals - whether these be in the university, in industry, or in government.

# Science For People!

Join With Other Workers To  
Make Science Serve the People

Then what is the solution? We must fundamentally change the present social and economic system - an undemocratic system which leaves the housing, educational, medical, and nutritional needs of a large portion of its population unmet while men go strolling on the moon. We must take control of those powerful corporate structures which use their economic strength to dominate and manipulate society to serve their own self-interest. We scientists are workers. Our only hope in preventing the further misuse of science is to join with all other workers to bring about a radical change in the thinking, goals, and economic structure of this country.

The challenge we have is to work toward a political system which makes impossible a hierarchal structure dominated by a decision making, isolated elite, unresponsive to the people. We can begin this task within science, by breaking down within our own laboratories the stratified organization of technicians, graduate students, secretaries, and research directors. Decisions effecting the entire laboratory can be made collectively, work can be credited to the entire team, and all members can share in the more unpleasant tasks. In this way decisions will represent everyone's needs and a rigid hierarchy will give way to a cooperative effort.

But on a broader scale, scientists in the university and industry must question the direction and use of this work. They can organize with and support the workers to challenge the goals and management of the institution in which they work. For example, scientists should have demonstrated solidarity with the 140,000 other workers who were striking against G.E.

## Science For The People

On a yet broader scale the scientists can help demystify science for the public. We can destroy the myth of the all-knowing scientific expert or the infallible technocrat and we can explain the severe limitations of science in solving social problems. We can point out the political content of decisions justified by the government or industry on technological grounds. We can explain the potential dangers of new discoveries. We can expose propaganda statements such as Nixon's announcement on ABM. Many scientists have already begun such activities. The public must come to understand that technology can and must be brought under the people's control.

Instead of having large meetings of the AAAS where the experts explain with full TV coverage how society can adjust to the impact of scientific advance, we should instead hold meetings where the experts can learn how science and technology can adjust to meet the needs of the people. How can community people use our technical skills and abilities? Scientists and the community must interact in a meaningful way. We must all search for a social and economic system which utilizes our knowledge of nature to benefit all of mankind. We must make science serve the people.

## SCIENCE AND SCIENTISTS IN INDUSTRY: MYTH AND REALITY

When various recruiters come to campuses bearing news of "exciting" and "rewarding" jobs, there are few cases when their myth-filled balloons are burst. Well, some people at Harvard have tried to do something about that. This was described in the Harvard Crimson of January 28 in an article entitled: "PFIZER DRUG CO. REFUSES TO TALK TO CHEM STUDENTS ABOUT CORPORATE POLICIES." For your enjoyment we reproduce most of that article here:

"Charles Pfizer and Company, a drug firm, will not recruit at the Harvard Chemistry Department this year because it is unwilling to send a representative to discuss its policies with students in the department.

"According to a departmental rule established after the Dow incident in 1967 (massive demonstration against Dow-Ed.) a petition signed by at least ten per cent of the department's graduate students and research fellows can force a company to participate in such a discussion before it is allowed to recruit.

"Konrad E. Bloch... chairman of the Chemistry Department received a letter from the Pfizer company yesterday saying Pfizer would not accept the invitation to the meeting.

"Last November... Bloch (had) sent Pfizer a tentative agenda for the meeting.

"The (student-faculty) committee suggested that the discussion include

- the ability of the individual scientist to control his own research;
- Pfizer's minority group hiring policies;
- Pfizer's policies on drug pricing, pollution control, and defense research.

"The Dow Chemical Company is the only other firm that the department has required to discuss its policies before it recruits. Dow also refused."

Apparently these companies are afraid to be confronted about the power they exercise in American society and what the consequences of that are. They only want to paint rosy pictures of what it is like to be a scientist at their company. This requirement for recruiters seems to be a very effective way of raising the issues of the misuse of science and scientists in a way which minimizes militant rhetoric and tactics. Even if the recruiters don't show up, students and faculty can hold their own meeting to discuss the company's policies. If possible, it would be very effective to obtain information from or a forum for a (brave) scientist who can tell what it's really like to work for his company.



SPACESHIT

Guerrilla Theater at the AAAS

Ginger Goldner

It seemed to us that there was no way to deal with the obscenity of the space program except by revolutionary theatricals. There had been too many words wasted, and the real life characters and events were clearly part of some black comedy already. Six astronauts had been to the moon and back twice, pieces of moon rock were being given as presents to Free World fascist puppets by Agnew, and Col. Michael Collins was made Ass't Secretary of State for Public Affairs.

So a few of us got stoned one night, read some facts and figures about NASA expenditures over the last ten years, unearthed the slimy politics surrounding Kennedy's commitment to land a man on the moon in a decade and read professional confirmation of our suspicion that there was little or no scientific justification for manned lunar exploration at this time. As feelings of impotence once more diluted our anger, we all began to get very giddy and took turns improvising the stock villains and victims of the military-industrial-technocracy. There was the NASA scientist who developed the inner coating of the space capsule. He said he had first gotten the idea on his lunch break years before while eating a piece of pizza. "I took that first bite," he said, "and you know how the first bite burns the shit out of the roof of your mouth and the second is ice cold? Well, that was just what we needed for the space craft--a material that could withstand the extreme temperature shifts of interplanetary exploration." "Do you mean to say," queried our TV announcer, "that the astronaut's capsule was lined with pizza?"

"Yes!" he exclaimed, "and the spin-off effects have been fantastic. The government is funding three new Ph.D. programs in Space Pizzology, High Energy Pizza Physics, and Pizza Engineering. Of course the pizza industry is doing its own R&D work and many pizza chefs are being hired by the aircraft industry as consultants on the new SSR's."

Later the astronaut himself emerged, dressed in a garbage pail space helmet, a Buck Rogers space gun, and 2000 pictures of himself posing in front of various lunar craters. His wife, still wearing her wedding veil and glued to the TV tube said a few words about how wonderful it had been "playing second fiddle to that man," and so it went.

## The Session on Lunar Exploration

On the day of the televised session on Lunar Exploration we appeared outside the auditorium in costume, and conducted our interviews to a crowd of about 100 people. We had discussed disrupting the session with the skit, but decided instead to play it by ear once inside the room. We stood in the aisles, still in costume, carrying a 3 foot paper mache moon rock. As we listened to Stark Draper and other space criminals talking technological double-think, we all felt that the afternoon was only beginning.

It started slowly, with someone getting a pile of poster boards and some magic markers. We crouched down and scrawled some signs: "Rockets in Space, Slums on Earth," "Moon Rocks Are Not Edible," and so on. Draper was just beginning to

launch into a recitation of scientific achievements of the moon shot when two of us picked up the moon rock, walked in front of the TV cameras and dropped it on the podium. We told him that our rock had only cost \$1.49 to make and probably had more scientific value than the \$30 million rocks the astronauts brought back. Choking and blushing a little, he accepted the gift and continued his speech. But the ice had been broken and it was clear to everyone that we had subtly taken control of the meeting. In the next ten minutes, Draper suffered the silent indignity of watching four costumed freaks walk one at a time to the platform and tape a sign to the speakers' podium. The sight gag was perfect. Each time the sign changed, the cameras would back up and TV viewers were greeted with Draper's pasty-faced grin peering out over a message like, "There are open sewers 10 miles from the Houston space center."

## WHAT IS IT ??

Things escalated more quickly after that. Melvyn Margolis, a YIPPIE film maker from New York walked up to the podium and got Draper in a discussion about the war and the Panthers. A little later, two women appeared and talked about women's liberation. And just as the audience was beginning to get excited, an old man emerged from nowhere, took the mike away from another panelist, and said he thought the whole space program was ridiculous. He spoke for five minutes, grinning all the time, and although no one else seemed to know what he was talking about, he continued until he said all he wanted to say. Leaving the podium he began to pass out pieces of halivah to the audience.

At this point the TV producer grabbed the mike and pleaded for order. An intermission was called and the TV people hurriedly scheduled an interview with us, and we got ten minutes of air time to state our position about the role of science and technology inside Babylon.

NEOPHYTES FOR  
ASININE  
SPACE  
ASPIRATIONS

NATIONALISTIC  
ASSOCIATION FOR  
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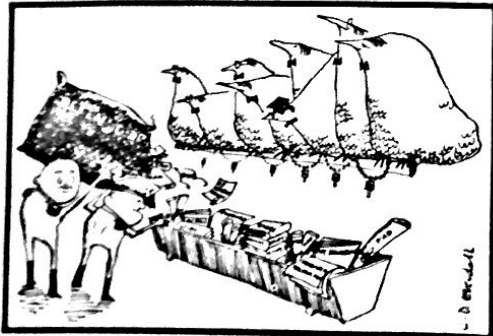
NUTSANCE  
AGENT FOR  
SENSELESS  
ABRACADABRA

The second half of the program was given over to questions from the floor. Melvyn got up and read a poem by Pontiac, an historic leader of the American Indians, which was followed by a panelist reading a poem from Time magazine about how proud he was to be an American despite the ghettos and widespread poverty. Everyone was taken aback, and when he said "Thank you," the audience realized he expected applause and a few scattered claps were heard. Other people from the audience began asking questions, and to our delight, everyone who spoke confronted the panelists politically. The pseudoscientific posture of the session had been sacrificed in the dynamism of our actions, and the dialogue between the floor and the stage was some of the most pointed of the week. We had changed the agenda, and despite the apparent chaotic nature of the session, the real issues were finally being debated.

### Loss of "Respectability"

It goes without saying that we angered many people. Some of our legitimacy as serious young scientists was sacrificed, and the bourgeois press took advantage of that shift in image to characterize us as disruptive, emotional students -- many people criticized the action on those grounds. I think that loss of credibility was necessary and paved the way for a more accurate self and public image. We need to adopt a posture which combines rationality with anger, which legitimizes struggle even if it is liberally interpreted as disruptive. All that was really lost was the "nice" young scientist image, and we'd best be rid of that. We gave up our middle class passivity. Instead of waiting until recognized by the teacher, and accepting his agenda, we offered another, and thus allowed the audience, through a process of struggle, to determine what was really appropriate. Those that accused us of denying free speech fail to understand that the concept only makes sense when all those who have interests in an issue have an equal chance to air their views and an equal share of the power to make policy. Clearly, the five men at the podium had much more control over what got discussed and in what context than the three hundred people in the room, just as they have had more control over the military and space programs than the hundreds of millions of people affected by them. Free speech does not mean that this small elite has the right to set the terms of discussion or public policy, while gratuitously allowing everyone else to ask a question now and then.

Technology is not autonomous. All power to the people.



One of the bases of the Science for the People movement during the December AAAS convention in Boston was that the AAAS, apparently interested in sacrificing controversy to public relations, conducted its sessions in such a way as to promote a status quo in the relationships of people in science to each other and to their work, while at the same time suggesting to the public that our present science and technology serve the public interest. For reasons discussed at length elsewhere, such a policy undoubtedly assures that science remain a black box to the people; it denies a true public understanding of the manner in which methods and priorities are chosen in science.

To challenge this policy, participants in the Science for the People movement attended various AAAS sessions with the intention of heightening public awareness of the political realities that underlay many of the assumptions of the scientific profession, to say nothing of those of many of the speakers at the sessions. The tactics of the movement ranged from asking questions from the floor to presenting a wide variety of statements and theatrical displays that were all intended to indicate the questionable assumptions upon which many of the sessions were based. The desire was not so much to embarrass the individual speakers as to point out the manner in which the entire format of a particular meeting was unresponsive to vigorous controversy or public participation.

### Where's the Victim?

The Chemical and Biological Warfare session on the morning of December 27 was an excellent case in point. The purpose of the meeting was allegedly to present a variety of viewpoints on the use of biological and chemical munitions in warfare; the panel, however, failed to include a person representative of those most directly affected by CBW; to wit, the victim. In the questioning that followed, this matter was brought to the floor, wherein an argument ensued in which the chairman of the panel insisted that people in the audience were qualified to speak for only a few minutes. This intimidation of public response served as a clear illustration of the failure of a presumably qualified panel to effectively encounter dissenting viewpoints, and served only to crystallize the apprehensions of many in the movement that the meetings of the AAAS were callously indifferent to public needs. It was only after intense resistance from the audience as a whole that the chairman finally opened the session to more democratic discussion. Included in the questions that followed were a variety of facts that contradicted some of those presented by certain members of the panel.

### Why Was the ABM Built?

A similar area of intense public concern discussed at the AAAS meetings was disarmament and arms control, examined at a session on the afternoon of Friday, December 26. A typical question, put to panelist Dr. Jerome Wiesner of MIT strove to illustrate an apparently political basis for an area of scientific research: "In May of this year... an assistant group leader of the systems analysis group at Lincoln Laboratories told a special investigating committee: 'Before the decision was announced on the Sentinel [ABM] we were asked to do a review of the effectiveness of that system... we tried this at several levels in the Department of Defense and the President's Scientific Advisory Committee. I think when we finished the briefings there was no question about whether the Sentinel system would be effective. I think it was generally realized it would not be.' Do you [Dr. Wiesner] feel that technical effectiveness was a factor in the decision to deploy an ABM system?" Other questions raised at the meeting were primarily concerned with the background of each of the panelists in an effort to discredit their validity.

### Faults in the Questioning

It is here where one could find two basic faults with the manner in which questions were raised at the meetings. The first is that the many comments about the personal backgrounds of the panelists, while attempting to illustrate the hypocrisy of such meetings claiming to be "socially relevant" were more often than not broadsides of rhetoric and had little purpose except for character assassination. The second problem involved many of the more specific questions; in many instances the person asking for clarification from a speaker did not back his inquiry with a second or third question, a tactic necessary for preventing the speaker from evading the issue raised in the lead question.

Challenges of a lesser magnitude were raised at other sectional meetings, including sessions on (1) the political attitudes of scientists, (2) the military funding of academic research, (3) hunger and malnutrition, and (4) approaches to policy science (with Herman Kahn as a participant.)

### NASA as Paradigm

Interrogation and interruption at an afternoon session on the American space program for the next decade was particularly significant. The question of ignoring public needs on the earth in favor of space exploration was clearly brought to light, and the session gained nationwide press and TV coverage. It was thus possible to communicate to masses of people the basis for the Science for the People movement: that scientific efforts are most often arbitrarily used to achieve goals that do not necessarily serve the best interest of the vast majority of the people.



# WHO BENEFITS FROM TECHNOLOGICAL CHANGE?

by Larry Beeferman

"Who Benefits From Technological Change?" was the first of a series of talks presented at the Sorry State of Science sessions at the AAAS Convention. Allen Weinrub, who raised this question, observed that tremendous scientific advance has "not only failed to resolve basic social problems, but rather worsened them." The answer is to be found by examining "the social and economic context in which science and technology develop." He asserted that rather than being out of control, "the development and exploitation of new technologies has always been a conscious effort on the part of those who have supplied the support for its development and who expect to thereby benefit from its use."

In particular, he claimed that in American society today, technology "is promoted by large corporations and the federal government for the benefit of big business. The assessment of the costs and benefits of new technologies, the decision as to whether or not to develop these new technologies, the way in which such developments are actually accomplished, and the use to which these technologies are put are all dominated by the interests of large corporate enterprises."

## Obsolescence and Waste

The various talks which followed attempted to provide specific cases which illustrated the process just described. For example, Steve Cavrak presented a study of IBM's decision to build and sell System/360. Rather than for technological reasons, "the third generation of computers was conceived to 'strengthen' IBM's existing monopoly position in the computer industry. It was consciously designed to force 'obsolescence' into the computers people were just learning to use." In a similar vein, Rick Paul discussed the "ethical" drug industry's response to criticisms of its monopolistic economic policies which have led, among other things, to the great disparity in prices between brand name and generic drugs. This response is one based on the supposed risk and high costs of research necessary to the advancement of medical science. But according to Paul, an "investigation of research and priorities in the drug industry reveals a conflict between commercial and therapeutic goals." Research is directed towards "patentability" and novelty producing a "mindless proliferation of combinations of existing drugs" resulting in a "tremendous waste of research manpower and facilities." He further indicated that in a number of cases "drug firms are shown to suppress more effective drugs in order to protect profits on existing products."

## NATIONAL

### AEROSPACE

#### SUBSIDY

#### ADMINISTRATION

As a classic case of how technologies are developed at great public expense only to further private gain, Steve Kaiser gave a critique of the NASA space program. He stated "the space program operationally has served to develop valuable military technology." He observed that the "top 25 space contractors are nearly the same as the major defense contractors - a tight economic circle whose inertia and need for fiscal survival outweighs the pressure of social priorities." In contrast, he felt that "the scientific benefits of the NASA program have been comparatively minor and skewed, with many space scientists openly stating their displeasure with the engineering bias of many NASA projects." Moreover, the "technological spin-off has, in reality, been far below predictions and publicity."

In a talk originally scheduled for presentation, Don MacKenzie discussed how similar misuse and misdirection occurs in the social sciences. He claimed that "social science has developed in the context of a social-planning ideology that leaves unquestioned the basic distribution of power in the United States... Inequality and political conflict between the powerful and less powerful are denied or minimized." He further noted that the "methodology of 'social planning' is constructed to advise elite decision-makers, not to assist general publics in meaningful social action. Because he lacks expertise, the ordinary citizen - or average Nobel physicist - is regarded as incompetent to evaluate social issues... The corporate system's interests are mystified and reified as 'societal needs' and 'historical givens.' Consultation with social-science 'experts' is used to justify and rationalize social policy."

#### An Irrational System

In summing up a broad survey of American R&D, Larry Beeferman stated: "...the picture which emerges is one in which technology is not neutral or autonomous but rather, is developed in a very specific economic, political, and social context. It is used for weapons and space research to suppress and intimidate people abroad and support a stagnating economy at home. It is used for making useless or shoddy products in the drug industry. It is used to create waste through obsolescence in the computer industry. It is used to gain at public expense, benefits for private use, as with NASA. It is used to justify the system which allows these things to occur. It is an expression of the system which produces it and those who control it - in this country, a small financial and corporate elite. Technology's fundamental use is for the preservation and extension of the present economic, political and social order. Insofar as that is true it is irrational, for that order is irrational: in the more specific sense because it leads to exploitation, waste and the destruction of the environment and its inhabitants, and in the broader sense because it is incapable of fulfilling the premises which are used to justify its existence."



## SCIENCE FOR THE PEOPLE RESOLUTIONS

At the AAAS meeting Science for the People offered resolutions calling for equality of women in science, an end to the repression of black people, and for immediate withdrawal from Vietnam.

These resolutions were circulated as petitions to the AAAS members, and each gathered between 400 and 900 signatures, even with the limited amount of canvassing that could be done.

### Equality of Women in Science

The resolution on equality of women in science made 8 demands: admission of 1/2 women to graduate and medical schools, reorientation of vocational counseling, compensatory hiring and promotion, birth control and abortion counseling to be provided by universities and companies, revamping of curricula to end perpetuation of male supremacy and to consider sex inequality, university and government programs to "study and change the subordinate status of women, and changes in institutional policies to provide parenthood leave and family sick leave for both sexes, half-time appointments for parents of both sexes who want them, and free child day care centers.

### Repression of Black People

The resolution on the repression of black people stated: "A new chapter is being written in the ugly history of U.S. racism. With alarming frequency political trials, deliberate slanders and outright murder are being perpetrated against the black community and other racial and political groups in response to their legitimate demands.

"Scientists, like all other people, should be concerned about this repressive atmosphere, since recent history has shown that science is distorted and reduced to an empty game under a fascist power. Suppression of people and ideas that express or imply political opposition to the established order are typically accompanied by a flourishing of irrelevant and supposedly neutral esoteric studies of social problems. Such studies are certainly not scientific and often sheer propaganda.

"Therefore be it resolved that the AAAS:  
1) denounce the recent outburst of ruthless repression against the Black Panthers as part of a systematic subjugation of the black people in the persons of some of their most outspoken representatives,  
2) call on all scientists as individuals to deny the use of science and technology to enhance the effectiveness of federal, state and local police in their war against blacks and other dissenters."

### Vietnam War Resolution

"Whereas one of the purposes of the AAAS is 'to improve the effectiveness of science in the promotion of human welfare,'

"and whereas the government of the United States exerts great effort toward improving the effectiveness of science in the suppression of struggles for liberation at home and abroad,

"therefore be it resolved that the AAAS demonstrate its commitment to human welfare by demanding the immediate withdrawal of all U.S. men, women, and materiel from Vietnam."

### Technicality

The AAAS Committee on Council Affairs ruled the resolutions out of order on a technicality - they had not been submitted to the Council 30 days before the meeting. The Council could have discussed them if a member of the Council had chosen to place them on the agenda - none did, despite the hundreds of signatures gathered on behalf of each of them. The Council is made up of representatives of the professional societies which are institutional members of the AAAS - the Establishment, in a word.

Even though this occurred, the canvassing on behalf of the resolutions was certainly worthwhile. One canvasser estimated that of those who were willing to read the petitions at all (about 10-15% were so offended at political issues being raised that they refused to look at the resolutions), about half signed them.

Dave Jodrey

# Health Costs: Enough to Make You Sick

Beginning to Move

(reprinted from the OLD MOLE  
Feb. 6-20)

Bad trips send 1,500,000 people to the hospital every year, according to FDA Commissioner Herbert J. Ley. But these bad trips aren't from illegal psychedelics - they're the result of adverse drug reactions. And why are Americans drugged and over-drugged by their physicians? The answer is in the fat bankbooks of the drug manufacturers.

Drugs pay. It may not always pay to take drugs, but it always pays to make them. Briefly, the rate of profit in the drug manufacturing industry is roughly twice the industrial average. Dig the profits: as income to sales, drug companies make 9.0% while the industrial median for the U.S. is 4.8%; as income to invested capital, drug companies make 17.9% while the median is 11.7%. Drugs make money, and the more you sell the more you make.

## Why Drugs Are Expensive

Drug companies have devised numerous ways to secure their position. Patent rights, combination drugs which make patent fights last longer, and the use of tradenames (as opposed to generic or chemical names) all help keep the price of drugs high. Political pressure is applied through the American Medical Association and the Pharmaceutical Manufacturers Association to maintain a favorable climate for the drug industry. Drug manufacturers are found peddling their wares as trustees of medical schools and hospitals - locally, for example, Robert Ebert, Dean of Harvard Medical School, was a director of Squibb until publicity forced him to resign. And rounding out the picture are the enormous advertising campaigns through medical journals, the "detail men" who act as pushers, and the outright bribery of doctors, all to encourage physicians to prescribe more and more drugs.

The use of tradenames as opposed to generic names for drugs as a means of keeping up prices has been well-documented. To give only one example: prednisone sells for \$4.40 per thousand under its chemical name; under the brand name "Merticorten" it sells for \$102.57 per thousand. Doctors are encouraged in medical school to learn brand names, and only 6% of the new prescriptions each year use the name of the generic drug. Moreover, it is against the law for a druggist to fill a prescription with the same chemical under its generic name if it is written by the doctor with a tradename.

## Bribery of Doctors

The bribery of doctors by drug companies usually takes the form of gifts. A Boston University med student who has been in school only four months has already received two hardcover books, an engagement calendar, a clipboard with medical tables, a vinyl model of the brain stem, a stethoscope, - and this is only the beginning of a long relationship. Doctors get everything from golf balls to dinners. Drug companies spend \$3,000 per physician every year on "public relations" to encourage physicians to subscribe drugs (and we, the public, pay for these gifts since they are written off as tax losses!)

Last year, however, some medical school students in the Boston area began to move against this kind of bribery. They returned the doctor's black bags to the drug companies. The Student Health Organization (SHO) played a major role in this campaign.

SHO is comprised of health students (especially medical, dental, nursing) and many other health care workers. Its goal is to change the health care system in the United States to provide adequate health care for all. SHO's guiding principle is that "health care is not a commodity to be sold to the highest bidder; it is a basic human right," and must be available to everyone.

In support of their principles SHO, on Monday, Jan. 26th, picketed a dinner which the A.H. Robins drug company gave at Jimmy's Harborside (\$\$!) for doctors of the Boston City Hospital. About 50 people peacefully picketed the dinner, and leafletted the doctors who attended. The leaflet explained that SHO was there to educate the people about the dinner, not to disrupt it. The picketers chanted "Hip, Hip, Hippocrates, Up with Health, Down with Fees," "Health not Wealth, Power to the People" and carried signs demanding free health care for all.

The demonstration ended with a guerrilla theater skit in which a doctor is befriended by a drug company (they bribe him with dinners and gifts.) The doctors in turn treat patients by asking the drug company what to do, and the answer is to give drugs. The drugs are forced on the patients, who then have to pay. Once the doctor has the drug-prescribing habit (expensive, brand-name drugs only) he even gives them for a splinter. Finally the patients, chanting "We're being cheated," chase away the drug company and destroy its gifts.

The demonstration was not written up by the Boston press, although they were there. The doctors, however, took the leaflets. One even joined the picket line, and another came out during the dinner to get a handful of leaflets to take back in.

On Tuesday and Wednesday SHO leafletted patients at hospitals around the city. They explained how doctors got free dinners, and companies get rich, while we pay the bill. They advised patients of things that can be done, such as demanding generic drug prescriptions of both doctors and pharmacists.

SHO will continue its attack on the drug industry, and hopes to educate both doctors and patients about the situation. They are researching the industry, its practices, and its connections with medical schools. They will also be demonstrating at future dinners. (The next one is for the staff of Mass. Mental Health Center.)

Two other important SHO programs are the Women's Group and the Health University. The Women's Group, composed of nurses, nurses' aides, nursing students, doctors, technicians and others is concerned with both health care and women's issues. It meets every week and is open to all women who work in health fields. Call Lucy Candib at 566-1944 for more information. The Health University will begin, starting Feb. 25, a series of lectures and discussions analyzing the health care system and how to change it. For more information, call Ken Rosenberg at 423-4600, ext. 235.

If you are interested in more information, or want to work with them, call SHO at 423-4725. Their office is at 35 Kneeland St., Boston (11th floor.)

## EMU STRIKES AGAIN

EMU struck again on January 22, when Dr. Charles E. Falk, planning director of NSF talked at MIT on "Supply and Utilization of Doctorate Scientists and Engineers - A Changing Situation." One of the largest lecture halls on campus was filled with scientists hoping that some light would be shed on their prospects for the future. Instead they were presented with a set of meaningless statistics which treated them - as the title of the talk implied - as commodities to be supplied and utilized.

Falk lumped together all areas of science and technology: mathematics, the "hard" sciences, the life sciences, engineering, and social sciences, in his projections for the total number of Ph.D.'s in all these fields and the expected number of jobs from now until 1980. His main conclusion was that on the average, the net supply and utilization of Ph.D.'s will balance! A situation consistent with this sort of prediction would be 150,000 doctorates in physics, 150,000 doctorates in political science, and 300,000 jobs in political science. In classic EMU fashion, Dr. Falk seemed more concerned with numbers than the people they stood for; to make matters worse, no effort was made to predict the relative position of different scientists in the same discipline (e.g., new Ph.D.'s versus tenured academics.)

## A Vacuum

More ludicrous was the fact that national "priorities" - such as the continuation of the Vietnam war - were not mentioned once during the entire session. By default it seemed that the raising and allocating of resources for technological research and development existed in a social and political vacuum. During the question period someone pointed out that about three-fourths of all R&D funds (about \$25 billion) was supplied by the federal government. Didn't Dr. Falk think it was necessary to look into the (social, economic, and political) forces which influenced which activities would be supported, whom they would benefit, and in turn, how many jobs there would be in each area?

Brian Schwartz pointed out that the recent mass layoffs by NASA, the prospective uncertainty in the economy, the zooming inflation rate, and the consequences of "cuts" in war department budgets made Dr. Falk's predictions too optimistic already. The severe problems these questions raised for the future of the various attendees at the meeting brought the response from Dr. Falk that there are "other meaningful things to do besides research." He did not comment on how "meaningful" some of the present research on weapons was.

## Aid for the Suddenly Disemployed?

Some people at the meeting, concerned with their fellow scientists and engineers as human beings rather than as numbers and pawns, felt that emergency funds for those seriously affected by funding cuts should be obtained by reducing the number of superfluous conferences, amount of travel, and the like. But this, it was felt, could only be a stop-gap effort. But Dr. Falk made no such radical (if only short term) proposals, even though he admitted to a questioner afterward that in some fields a "crisis" existed.

**PAMPHLET:** A pamphlet including most of the papers presented at the Sorry State of Science Symposium is in preparation. Please write to:

Larry Beferman  
1541 Cambridge Street  
Cambridge, Mass. 02138.

If you are interested in receiving a copy. We expect the pamphlet to be available soon.

REPORT ON ACTION AT APS MEETING IN CHICAGO

The following is a letter received from Bob Ivano on SESPA action at the Chicago APS meeting in January:

On Sunday, we went to the [APS] Council meeting and were told that we couldn't stay as the 7 of us were not APS members. Charlie Schwartz talked to Alvarez later and we got a room for \$100 on Tuesday for our Forum.

Monday we set up a card table (no opposition from APS or Palmer House) outside the Grand Ballroom and registration area. We advertised the business meeting of the APS and collected signatures for the two resolutions (63 - military funding; 95 - Vietnam). We had about 6 people around the table most of Monday. About 4 others circulated through the crowds.

At the business meeting, the APS (Alvarez) refused to order a mail ballot on the Vietnam resolution. The resolution on military funding will be voted on by mail ballot but it will be worded by the Council of the APS. The problem was that there was general disagreement about our wording; specifically, no mention of the Mansfield amendment and no suggestion as to how to provide the lost funds. Thus the Council will review the discussion and present a resolution to be voted on.

The Forum on Tuesday was well attended. We ran one hour over our scheduled time and had a crowd of 300 for almost the whole 3 1/2 hours.

On Wednesday evening, John Proines talked about the trial and the audience was fascinated. He spoke for 45 minutes and answered questions for about 75 minutes. Our problem, however, was small attendance, around 100, probably due to the Banquet and the fact that many people had left by Wednesday night.

Also, regarding the Forum, 5 of us entered the Ceremonial Session prior to its start and a graduate student from U of C read a short statement over the microphone. He announced the Forum and stated that the APS had not dealt with important social and political problems. As we walked away from the mike there was scattered applause very surprising to us.

Rod Wallace of Columbia has a list of 16 people who took the SESPA pledge Wednesday night.

The boycott of scientists from Los Alamos, Livermore and Ft. Detrick was begun. During two of the technical sessions, four people walked in with signs announcing the boycott and with statements such as:

LIVERMORE  
LOS ALAMOS  
ALSO MAKE BOMBS

This was done as a speaker from Los Alamos and Livermore was introduced and we stood near and off to one side during the entire presentation of the paper. Leaflets were handed out at the door in advance. The first time (against Los Alamos), some people objected but the chairman decided that it was not disruptive if we just stood there. Against Livermore there were no objections (except from Livermore scientists outside the session who argued with us).

The two scientists whose talks were picketed were:  
C.W. Nielson (Los Alamos) Tuesday, A.M.  
F.H. Coensgen (Livermore) Wednesday, A.M.

Both papers were presented in the Division of Plasma Physics.

Those leaflets put out under the APS '70 coalition were a joint effort of all "radical" groups at the meeting. In all, we probably had 20-25 people in the coalition.

Considering our small numbers and minimal planning (2 weeks), we think it as reasonably successful.

Bob Ivano

A word of explanation from the editor:

The two petitions referred to above were also included in the mailed information and are reproduced below:

VIETNAM

The war in Vietnam and Laos is a moral affront to all people. The atrocities committed and the philosophies manufactured to explain them result in a severe deterioration of human values in our society. The physical facilities required to maintain the war remove from public use funds urgently needed to cope with domestic problems. Scientific research is steered away from consideration of these problems, as well as from basic research, and is used to promote an illegal war. We therefore recommend adoption of the following resolution:

This society demands that all United States military personnel be immediately withdrawn from Vietnam and Laos.

MILITARY SUPPORT OF SCIENTIFIC RESEARCH

The presence of military funds in the scientific community guides research along lines which are of possible military application, even though much of the research is not directly weapons-oriented. Military support of science thus results in the passive evil of leading research in directions which do not include consideration of such urgent problems as the curing of social maladies or the preservation of our environment. Those who participate in the military technological support a system which constitutes a very real danger to civilization. We therefore recommend adoption of

the following resolution:

This society urges its members not to participate in military-supported research, nor to seek or accept military funds for research. It further asks the Government of the United States not to allow military institutions to finance or otherwise influence scientific research in the industrial and university community.

JOHN PROINES

John Proines (mentioned in Bob Ivano's letter) is one of the Chicago 7, and spoke on "Science and The Conspiracy" at the Palmer House.

LOS ALAMOS, LIVERMORE AND FT. DETRICK LEAPLET

There are three central laboratories for research fundamental to the development of weapons of mass murder; Los Alamos, Livermore and Fort Detrick. Each institution boasts large non-weapons research programs. Each uses these programs to attract brilliant and stimulating scientists into the somewhat oppressive aura of murder work, attempting to underwrite institutional morale and provide a cheap consulting service for the weapons makers.

Many of us in the professional scientific community see this as odious entrapment of scientific talent into subtle but effective contribution to the technology of mass murder. We feel that in holding scientific discourse with those engaged in any research at these institutions we are also contributing to the legitimization and support of their weapons programs.

We therefore suggest excluding from professional discourse all those working or consulting for Los Alamos, Livermore and Ft. Detrick - a professional boycott of those who have chosen to contribute by their presence to programs of mass murder.

Others of us see the issues in different terms, we feel it is increasingly apparent that ours is a society in crisis: urban deterioration, the war in Southeast Asia, widespread strikes, overkill and increased military spending, lay-offs of working people, including scientists and production workers, rising prices.... The relationship between these symptoms is not transparent, but it is clear that increased U.S. military spending has not benefited the vast majority of mankind.

The development and deployment of weapons for the U.S. military serves the dual purpose of lining the pockets of the big industrialists in whose factories they are produced, and in maintaining, through military blackmail, U.S. big business domination of the economies of a large part of the globe in the name of "free enterprise".

Los Alamos, Livermore and Ft. Detrick are necessary components for the development of weapons for this blackmail; they are unique in that they are primarily concerned with the development of nuclear and biological arms. Thus a scientific boycott of researchers at these institutions may be an effective step toward curbing U.S. military adventures.

APS '70 COALITION

INDUSTRIAL UNDERGROUND

There is quite an active underground group at a research firm at which one of our members works. Of the company's 250 workers, as many as 50 people representing diverse occupations have attended meetings. Seminars which were successfully organized last summer began again recently with the topic "Women's Liberation at XYZ: What Does It Mean?" The people asked for, and were granted and now occupy the left wing of the company's library which is now well stocked with underground literature. A local radical paper is sold regularly and the people plan to publish their own newspaper, "XYZ Underground."

People publicize their own wages, adding a new kind of honesty to relationships and helping others be more secure about asking for raises without endangering those who already earn enough. People meet regularly for lunch to rap, share frustrations, learn from each other and feel together.

Strong protests have been made about a memo discriminating against secretaries and about pro-capitalistic propaganda sent through the mail. Neither incident has been repeated since the protests were lodged.

A member of the group has been invited to speak at a number of other industrial firms. Many of his meetings with new people are still at the initial stage of soul searching. He emphasizes two important principles he has learned through his experience at his and other firms. First, it is more than advisable to talk to management in groups of two or more people to insure the evidence of witnesses and to avoid being talked into undesirable compromises. Secondly, he recommends strongly that people should not quit their work in the "System", but rather remain inside and organize, using all their time and available facilities.

Naomi Nalerman

NARCOTIC

ADHERENCE TO THE

SANCTITY OF

AEROSPACE



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SCIENTIFIC WORKERS ORGANIZE IN ITALY

Last spring, a number of technicians and members of the staff of the International Laboratory of Genetics and Biophysics, in Naples, Italy, dissatisfied with the uses of the product of their work and the control of such work by economic interests, went on strike and occupied the Lab: On the 15th day of the occupation they distributed to factories in Naples and the environs the following statement:

"Workers:

The occupation of the International Laboratory of Genetics and Biophysics, that has been going on for 15 days on the part of 82 members of the staff, is an apparently incomprehensible fact to the working class which has been taught to look upon Science as a structure which stands above all economic and political interests and whose direction is uniquely for the benefit of humanity.

This is a great myth that we must expose. Science in the capitalist society is not that which serves to heal your children, to cure sicknesses which you may have suffered in the factory, but is that which serves, for instance, to enrich the owners of the pharmaceutical industries.

If today we have not yet eliminated silicosis, malaria, and other diseases, it is not because we don't have the means, but because the groups that have the control over the world economy prefer to invest their capital in ventures such as the space industry which gives them much greater profits. These problems will be resolved not by stopping the research but only when the scientific work will be controlled by the masses of workers.

The research workers who are occupying the ILGB will tell you that in the Laboratory exist the same conditions of exploitation that you all well know. The categories of staff which materially execute the greatest part of scientific work are the technicians and the laboratory assistants. The category which above all decides what to produce, after having itself followed the decisions of the economic power groups (particularly the U.S.A.), is that of the so-called "scientists."

These latter appropriate the labor of the former and use it to make their career and to gain more privileged positions. The exploitation makes itself felt through situations and problems identical to the ones you encounter in your factories.

The occupants of ILGB are interested in continuing this dialogue with you because they feel that the victory of the working class will be possible only when our struggles will be united in a more organic and unreduced way."

DON'T QUIT, BROTHER, ORGANIZE!!!

Now, brother, I know how you feel. It might be that you really hate your work, but it's not like that. Maybe you hate your job, not your work. After all, doing physics is fun! The work isn't alienating, it's part of you. It's creative! The process isn't alienating; after all, it's your research, it's your paper, it's your experiment. Well then, if physics is exciting--if doing physics is fun and part of you--what's the problem??? Maybe it's because you found that you really have very little control. O.K., so you picked the project, but you don't know who's going to use it or what they're going to use it for. It belongs to those who paid for it. Maybe you didn't pick the project. Maybe it was given to you. Or maybe you "think" you picked the project. But after all, the idea came from the work you were doing previously and that was generated from the work you were doing previous to that. And somewhere along there you were doing work for somebody else, some problem they wanted solved, and you know what they wanted it solved for.

What is your work used for? What are the possibilities? Maybe it's outright destructive for the people that are in the destruction business. Maybe it's not destructive. Maybe it's just plain boondoggling--makework. Maybe it's putting the extra dot on the i in an insignificant problem to keep you employed. Of course, if you're really lucky, it's purposeful, it's going to be used by some business or some big corporation to increase their profits.

That's the problem, brother! That's what's the matter with the job. You don't really have any control over what your work is used for. You can't direct that your work will be used for the benefit of society. You are as much a part of the machinery as that computer you're working on, or the typewriter your secretary types on. FRUSTRATING, ISN'T IT! Feel like quitting? Don't quit, brother, there's only one way to stop that frustration, to make yourself feel whole again. The only way to stop that sense of frustration is to fight against the system that uses you so poorly. If you want to redirect science, brother, you've got to redirect society. Stay where you are, organize, speak to your fellow workers! They're scientists just like you. They have the same problems. They can't always get lost in their work or in their gardening in the suburbs any more than you can. You think they're all wrapped up in their work and don't feel the way you do? You'd be surprised--talk to them! They are just as sickened as you are.

Don't quit, brother! Organize!

WASHINGTON APS MEETING

The annual Washington meeting of the American Physical Society meets from Monday, 27 April to Thursday, 30 April. This provides an excellent opportunity for activities by SESPA and Science for the People. This year, as in the past, many challenges are being posed to the scientific community. We expect ABM and MIRV to be a very much debated topic and it would be useful if we plan actions around these and other issues. The current crisis facing the viability and nature of American science and its relation to the economic and political policies of the Federal government is a topic on everyone's mind. Open discussion of the issues involved is worth presenting.

We hope many scientists and engineers will be able to attend. In cooperation FAS, SESPA and Science for the People plan to have a room for activities and have reserved a conference room for an action workshop on Monday evening, 27 April in the Sheraton-Park Hotel. Anyone who wishes to help in the Washington activities or would like more information, or who would like to make suggestions should contact me, c/o Francis Bitter Magnet Lab, MIT, Cambridge, Mass.

Brian Schwartz

No  
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SENSIBLE  
ALLOCATIONS

NEGLECT OF  
ALTERNATIVES FOR  
SCIENTIFIC  
ADVANCEMENT

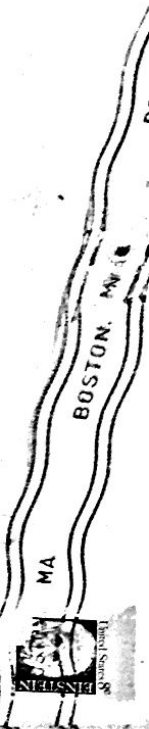
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