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1970

BSSRS manifesto

BRITISH SOCIETY FOR SOCIAL RESPONSIBILITY IN SCIENCE 1s

BSSRS - AIMS

This organisation believes that the development of science is not predetermined but should depend upon the social choices of the community and the individual choices of the scientist. In furtherance of this belief the organisation has the following aims :

(a) To stimulate amongst scientists an awareness of the social significance of science and of their corresponding social responsibilities both individually and collectively.

(b) To draw the attention of all to the political, social and economic pressures affecting the development of science.

(c) To draw public attention to the implications and consequences of scientific development and thus to create an informed public which can exercise choice in these matters.

(d) To seek international exchange on these matters with similar groups in other countries.

BSSRS - ACTIVITIES.

(a) Identify those developments in science and technology which are likely to have major effects on human life and its environment.

(b) Carry out research into the nature of these effects and make its conclusions known to the community of scientists, to the public and to government.

(c) Urge changes in public policy relating to science and technology when the actual or potential consequences of such policy appear undesirable.

(d) Similarly urge the reform of science education at all levels so as to encourage an understanding of the social role of science and of the responsibilities of scientists.

(e) Encourage the formation of local groups to relate the aims of the society to specific local issues.

introduction

The British Society for Social Responsibility in Science was founded in April 1969. This manifesto sets out why, what the Society is attempting to achieve, and how we propose to set about our tasks.

why bssrs

We live in a technologically-based society, a technology itself dependent upon scientific advance, and which in its turn stimulates further advance. The sheer scale and rate of growth of science and technology in contemporary society ensures its massive intrusion into our social and physical environment. What seemed to be an offer of new freedoms in the control of nature is increasingly experienced as a set of constraints controlling and limiting our own lives. Such constraints are often felt as coming from the "inevitable" developments of science and technology; the technological imperative that states that because H-bombs, satellites, ABMs, computers, pesticides, chemical and biological warfare, supersonic transport, genetic engineering or heart transplants are possible, therefore they must be done.

The effect of the "inevitability" of scientific advance is that science is often seen as the agent either for the salvation or for the destruction of human civilisation. Both these views, however contain elements of irresponsibility. Certainly science can help to alleviate social and environmental problems; but the salvationists, in failing to distinguish between innovation and progress may lead us further from the desired end result. In part it was the awesome destructive power of scientific developments which initiated this Society, but the anti-science conservationists, in advocating the cessation of scientific activity, fail to recognise that science is human civilisation, that it is an integral part of our culture and that it is inseparable from human evolution. At the same time however scientific and technological developments themselves are shaped by the constraints placed upon them by the society with which they are carried out. Implicit or explicit choices are made concerning what types of science and technology should be supported : where science is big business (nearly £1000 million a year on research and development in Britain) only science which is in this sense "approved" can be done. Thus, in general terms, science and technology serve the interests of

those who fund them, government or industry. And in serving these interests, they help perpetuate them. To a considerable extent, therefore, science and technology have become instruments of state and industrial power.

This is inevitable in an age of big science. Were the forms of democracy which we have sufficiently accountable to the community and responsive to the issues, this might be less serious. However, we live in a period when there are grave doubts about the adequacy of the present political structure, doubts exemplified by a growing disenchantment with the conventional political process. It is in this context that scientific and technological developments that may be threatening or unwanted (the arms race, the developing science of human manipulation, the indiscriminate marketing of new science-based products, etc.) occur. Such developments make clear that an oft-repeated traditional scientific premise, of the "neutrality of science", is today increasingly meaningless. For where research is done in a social context which is non-neutral, the resulting scientific knowledge cannot be neutral in its social implications.

Such a situation cannot be resolved by the traditional response of the myopic academic, shutting his laboratory door firmly against the outside world and refusing to consider what goes on there. "I do what I choose in research, or what I am paid to do; what society does with it subsequently is nothing to do with me". Such an argument was perhaps typified by the woman scientist in America who recently received the US Army's highest civilian award for the development of a new form of rice blast fungus, specifically suitable for S.E.Asian conditions. It is morally repugnant, and on occasion in the past - the obvious example is that of the Nazi concentration camp doctors who were tried at Nurenberg in 1948 - has been found legally culpable as well.

As a scientist, the individual has a special responsibility insofar as he occupies a special position, one who has, and is producing, expert knowledge and new information. He differs from other members of the community in that - and only in that - he has this unique knowledge. Scientific responsibility lies in bringing this knowledge to the attention of the whole community, helping assess its significance, and in open

and democratic collaboration with the community, deciding on how this knowledge should be utilised.

In fact there are several levels of directing scientific progress. It is necessary both to decide which new areas to explore and to decide at what rate to advance. The first of these decisions lies with individual scientists since it is they who innovate and put forward the projects; the second decision lies with the fund-givers, who can choose to it to support certain areas of development rather than others.

Intertwined in these processes are the scientists' own aspiration for prestige and the grant-givers own schemes and motivations. The public have been misled into thinking that the decisions involved are complex and only comprehensible to "the experts". There are no "experts" to decide whether supersonic travel is preferable to disease-resistant varieties of wheat. This Society hopes to shatter this fraud by pointing to the influences which foster particular scientific developments in the hope that the community will demand a re-orientation of research towards social needs. At the same time two other areas of scientific responsibility are apparent. The first is of the scientist to science. He has the responsibility of ensuring that the consequences, real and potential, of their research are apparent to other fellow-scientists, and that these scientists are not guilty of irresponsibility to the community at large. In this context, he should be aware also of the persistent tendency to rationalise the motivation and goals for his own research, as well as that of his fellow researchers.

The second responsibility is of the scientist for the teaching of science. Science curricula, at school and university, tend to present science as an activity devoid of social content. Such curricula distort the image of science, making it appear as morally and socially irrelevant, whereas the reality of science is as an integral part of society and therefore reflecting the kinds of values and priorities given to it.

what bssrs is

It was an analysis of this type which brought together a group of scientists, technologists and sociologists in 1968 in a series of meetings which cul-

minated in the setting up of the British Society for Social Responsibility in Science. We were conscious, in founding the society, that we were the most recent of a series of groupings which, within the recent past, had attempted to mobilise scientists, such groups as Science for Peace, the CND scientists, and Pugwash, during the 1950's and early 1960's for example. Like them, we sought the support of distinguished scientists as sponsors. But we are in no sense an elite group. The Society is open to practising scientists and technologists, students and the community at large. Nor are we concerned simply to defend science against this or that specific abuse, but rather to analyse and demonstrate the intricate involvement of science with the social order that surrounds it. Whilst we are concerned with the individual ethical responsibility of the scientist - or any individual - for his action, we see as critical the involvement of science as a particular tool in the hands of government and industry, and recognise that a solution to the problems raised by contemporary science and technology must come from social change.

Beginning with an inaugural meeting in April 1969, attended by some 300 people, the Society has developed rapidly, both nationally and locally. The national society now has about 1000 members, whilst local societies have an additional 1000 or so.

The national structure of BSSRS which emerged after the November 1969 AGM was of a national committee of members elected at the AGM, which meets monthly and which all Society members are free to attend, and a smaller executive committee elected from the national committee. The Society has a full-time organiser and is in the process of establishing an Educational Trust which will be eligible to receive charitable donations, and a permanent London office.

The national society has as its main activities, the publishing of a bi-monthly newsheet and occasional papers, the organisation of conferences and schools, the issuing of press briefings, commissioning of papers, establishment of specialist working groups on a permanent or ad hoc basis, advising and co-operating with citizen and community organisations, and, perhaps most importantly, servicing and co-ordinating the activities of the local societies.

The autonomous growth of these local societies has gone ahead fast, and there are now more than 12 active groups, across the country, generally centred around universities. The local societies publish their own bulletins or newsheets and run working groups concentrating on both national and local problems, organise programmes of meetings and encourage local scientist-student-community collaboration on appropriate topics.

what we have done

In the short time of our existence we have concentrated on a number of specific topics which have arisen either as a result of particular current developments or which have seemed to point up in a particular way the problem of the social interrelations of science. Amongst the issues on which the Society has been active are, firstly, chemical and biological warfare. Indeed, the group which founded the Society came together originally in the organisation of the London conference on CBW in 1968 which presaged BSSRS. The Society has published general information on CBW and made a particular study in two topics, the use of CS and of defoliants. We have commissioned and collated original research on the toxicity of CS, have called a conference on CS (November 1969) and sent a team of doctors and social scientists to examine its effects in Londonderry. We have given evidence to the Government's Himsworth Committee on the toxicity of CS, have collaborated with the Irish civil rights organisations in drawing attention to its hazards. The view of the Society's CBW working group is not only that CS is illegal under the Geneva Protocol in war, but its use in control of civil demonstrations is a dangerous extension of police and state power which must be resisted.

Similarly, on the use of defoliants, we have maintained close contact with our French and US colleagues in the American Society for Social Responsibility in Science who investigated the effect of defoliants at first hand in Cambodia, and we were responsible for bringing to public attention in this country the hazards of the 2,4,5,T used in Vietnam, which contains toxic quantities of the impurity dioxine. We have arranged for the analysis of 2,4,5,T samples, both retrieved from Vietnam and commercially available in this country, and have worked with journalists to maximise public awareness of the potential hazards to agricul-

tural and factory workers exposed to the agent. 2,4,5,T brings us into the environmental themes and into contact with the environmental groups with whom we are working on specific issues. Pollution groups exist in several local societies working on specific problems. For example Cambridge SSRS has been actively involved with problems of agricultural policy. In collaboration with students at local technical colleges, the society ran a series of analyses of local sewage for antibiotic resistance in order to comment on the effect of the use of antibiotics in animal feeds. Members of the Edinburgh SSRS helped organise a major Teach-In on Pollution at Edinburgh University in January, 1970.

Another area of pollution with potentially serious consequences which is also related to burgeoning military technology is that of radioactive waste. The Society has received a commission from the Cumberland County Council to investigate hazards associated with increased dumping of wastes of the Cumberland coast by the Atomic Energy Authority. The report was published in July, 1970. Nuclear policy in general forms the subject of a working group whose results will be published in book form in due course. Meanwhile some of the immediate military and political consequences of the agreement on the development by Britain, the Netherlands and West Germany of the gas centrifuge, a device for producing cheap enriched uranium, are being investigated.

Problems raised by the rapidly increasing area of knowledge of molecular biology and genetic mechanisms will be the subject of a major three-day open meeting to be held in London in November 1970. The meeting will be international and attended by leading molecular biologists, with ample opportunity for free debate and discussion on the social implications of present and potential advances in genetic engineering, human fertility and molecular control of brain function. The proceedings will be published as a book.

Amongst the immediate aspects of genetics which has raised controversy has been the allegations of genetic differences in IQ between classes and races made by some American educational psychologists. These allegations and their scientific validity were explored at an open meeting in Cambridge in July 1970 attended by some 700 people.

Our examination of the role of the universities and the content of scientific education began with a survey of sponsored research carried out in British universities, and a second on courses on social responsibility of science or their equivalent now operating. It continued in September 1970 with a one-day conference (likely to be the first of a series) at Imperial College, London on "Science Education in a Social Context". The experience gained here, and in lectures by society members in courses at schools and universities, will culminate in the summer of 1971 with a week-long school on the same theme at Dartington Hall.

Other meetings planned for the immediate future, as well as the local programmes in London and elsewhere, include those on "The Neutrality of Science" and on "The Use and Abuse of the Social Sciences".

All the Society's meetings and activities are open, and, to enable them to reach as wide an audience, and trigger as large a debate, as possible, they are published in the Newsheet. Where they are likely to be of interest to a wider audience, they are published in such journals as New Scientist. More substantial material appears either as "occasional papers" (e.g. the Society's monograph on CS) or in book form (The New Biology; Nuclear Policy; Race and IQ). All reports are obtainable from the Society.

where we are going

Our achievements so far have inevitably been limited - by the short time since our formation, and by the financial and administrative problems which beset any young organisation. Now that BSSRS is more solidly established we expect and intend a great expansion in the scope of our activities.

Clearly we will continue with activities similar in type to those on which we are currently engaged. But certain directions seem to us to need emphasis. First, our aim must be to foster the development of local groups and societies in all major towns, universities, colleges and research laboratories (especially industrial), as well as in schools. Wherever scientists congregate we must stimulate discussion and action on the problems of science and society, so that the scientific community may become

no longer a passive component of society but an active element for beneficial change.

Second, many of the pressing problems of the science and society are not amenable to simple, root-and-branch type solutions. In fields where there are no 'experts' we must, by empirical research and close reasoning, hammer out workable policies. Working groups, teach-ins, symposia may all be used to this end. The outcome of these discussion processes must then be made available as widely as possible to both scientists and lay-men, to help provide a reasoned base for the decisions which the community must take.

Thirdly, we must seek ways in which scientists and technologists can contribute professionally in a positive way to the solution of society's problems. In a world which is hungry, sick, in social and psychological turmoil and threatened by annihilation, many scientists have skills which they would gladly devote to these global problems rather than to the choice of irrelevant and obscurely-motivated pure research or trivial commercial application which society all too often offers them. What is lacking are the institutions which can harness these tendencies. BSSRS must do all it can to encourage these aspirations, to suggest and to help develop those structures within society which can most effectively direct science and technology in the service of the community.

how to join bssrs

Membership of the Society is open to all who accept its aims.

It cost £1 per year (10/- if you are a student). Group membership is also possible. The back page of this manifesto is a membership application form.

The adress of the London Office of the Society is 70 Great Russell Street London W.C.1.

The President is Professor Maurice Wilkins, F.R.S. the Chairman Hilary Rose, and the General Secretary David Dickson.

membership application

I hereby apply for BSSRS membership Individual £1/student 10s/school and university group £1/other groups £3

Name (Dr/Mr/Mrs/Miss).....

Home address.....

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Work address.....

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Scientific interests.....

Signature..... Date.....

Please detach, and send with remittance to:
Membership Secretary, BSSRS, 70 Great Russell Street, London WC1.

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AMOUNT: £ : :

DATE PAYABLE: January 1 of each year

FIRST PAYMENT:.....

Name.....

Signature..... Date.....

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