Com 2 Sess

Science for the People - An Experiment in Communication

David T. Suzuki

Department of Zoology
The University of British Columbia
Vancouver, B. C., Canada

With the continued impact of science and technology of the advanced countries on the entire planet, there is a great need for societies to understand the workings of science with a view to directing the way in which it is applied. As practitioners of the profession and members of society, scientists are bilingual, conversant with both the jargon of science and everyday language of his country. Consequently, scientists are uniquely capable and responsible for translating "scientese" into lay language. The lay public whose tax dollars support most basic science is demanding a greater voice in determining the priorities in scientific investigation and questioning the value of basic research.

38

It is my belief that scientists must act as interpreters of scientific information, transmitting concepts and wherever possible, pointing to their potential uses, both good and bad. Furthermore, the doing of scientific research must be conveyed as a creative activity akin to doing poetry, music and art, as the lay public has the ultimate responsibility to decide on directions and whether to support basic research.

In discussions with academics, students and the lay public about science and its implications, there became obvious a great interest in and a vast ignorance about science and scientists. Having been involved in several local television programs on genetics, I was aware of TV's potential impact as an educational device. The Canadian Broadcasting Corporation is a tax-subsidized public utility. Consequently, CBC has great potential as a vehicle for large scale education about science.

In 1969, I formally suggested that CBC should commit itself to supporting a series of programs informing the public about recent discoveries in basic science, pointing out their potential use and misuse in the hope that the

iewers could appreciate the artistic aspect of basic research while realizing he need to make informed decisions about its ultimate application. The proosed programs were accepted for an initial run of two quarters (13 half hour rograms per quarter) to be telecast across Canada. Ultimately, the program an for three quarters for a total of 35 shows.

We experimented with the format from "gee-whiz" descriptions of breakthroughs such as cloning, aging and death, immunology and DNA synthesis, to interspersing personal interviews to augment a topic such as cancer, evolution of race and impact of science on the arts. Some programs were straight discussions with outstanding men as Linus Pauling, G. Szent-Gyorgi and George Wald. Two programs were taped in a bear-pit format with extensive audience participation. The last technique was simplest technically and resulted in a dynamic, down-to-earth dialogue on the lay public's hopes and fears about science.

In addition to Nobel laureates Wald, Szent-Gyorgi, Pauling and Salvadore Luria, outstanding scientists such as Matthew Meselson, Jon Beckwith, David Baltimore, Mark Ptashne, Gunther Stent, Theodosius Dobzhansky, John Goffman, Ethan Signer, Curt Stern, Jonas Salk and Renato Dulbecco, were interviewed. Topics ranged from radicals in SESPA, women in science, the impact of science on the arts, computer simulation, race and intelligence to science policy in Canada. The ultimate impact of the program remains to be assessed although my personal observations indicate a wide audience in those areas of Canada limited to a single channel, and a very small but loyal group in the large urban centers.

Each program was budgetted for about $20,000 of which over 90% was for indirect costs of CBC personnel and a paltry $1,600 was used to pay for travel, film, honoraria and special effects. My feeling was that at least $5,000 was required per half hour program in order to produce a show making fullest use of the special effects in television.

My conclusions from this experiment in public communication were: (1) man-on-the-street interviews revealed an unbelievable ignorance about

science which only confirmed my beliefs that the current crisis in support of science stems ultimately from our failure to interpret science to the public;

(2) television can be an effective and forceful tool for public education;

(3) effective programs require full use of special visual and sound techniques which are expensive and demand a broad range of technical experts;

(4) panels of scientists representing a broad range of disciplines are needed to be available for consultation at all times;

(5) a wide market for good science programs exists in high schools and colleges (the success of Clarke's Civilization and Bronowski's Ascent of Man is ample evidence);

(6) scientists are reluctant to participate in programs which might suggest dereliction on the part of the scientific community.

(This work was made possible by an award of the E.W.R. Steacie Memorial Fellowship from the National Research Council of Canada in 1969-1972.)