

Set Higher Norms For Science Journalism

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IN 1976 I delivered the tenth Jawaharlal Nehru memorial lecture in Delhi on: "The role of scientific outlook in the development of Science and Society". The lecture was meant to be a public lecture and its copies were freely distributed afterwards. However, at the end of the lecture, when I was leaving a newspaper reporter approached me for a written version. When I pointed out to him that copies of the entire talk were available, he said: "Well, Sir! I have to report the lecture in 100 words and I do not know how to shorten it. Could you tell me in a few words, what you said?"

This incident illustrates the dismal state of science reporting in the country. As in every case, there are a few exceptions, of course, who rise above the norm and are able to make a good job of it. But why should the norm be so low?

It is often stated that we live in the age of science, that science and technology are shaping our very existence. According to Alvin Toffler, if we divide the last 50,000 years or so of known human existence on this planet into some 800 human life spans, each life span will comprise 62.5 years. Of these, the first 650 or so were spent by man in primitive conditions in the caves. The art of writing is not more than 70 life spans old and that of printing only six life spans old. The electric motor is two life spans old. In fact most of the things we use in our daily existence involve technology much younger, some of it not more than one life span old.

Role To Play

This indicates how rapidly scientific ideas are being translated into technological inventions and how rapidly we are assimilating them in our lives. Yet the rapidity with which this is taking place is not proving entirely beneficial to society. Rather, the situation resembles that of a human being confronted with a feast of excellent eatables served in rapid succession and tempted to eat them as fast as they come. The banquet may look dazzling but the diner ought to pick and choose keeping in mind his limitations of health and capacity to digest. Who is to tell him what to choose? This is where science journalism has a role to play.

With rapid changes taking place in science and technology, forecasting their status even ten years from now is not easy. Yet some assessment of how things will go in the future is necessary for planning. So here we have another possible role for science journalism — that of motivating the people about future prospects so that they are prepared for them and can take far reaching wise decisions now.

What appears as a technological marvel today has roots in some scientific discovery in the past. Very often the former is ignored while the latter is highlighted. In fact, while the discovery was made, the discoverer or his contemporaries had no idea what the implications of the development would be. For example Admiral William Leahy told President Truman in 1945 that the atom bomb would never explode. He said, "That is the biggest fool thing we have ever done. The bomb will never go off, and I speak as an expert in explosives."

Nevertheless, there are a number of cases where the future implications of the discovery can be imagined. The implications may not be practical; they may represent an advance in pure knowledge. There are occasions, on the other hand, where a new discovery, serendipitous though it is, results in numerous technological fall-outs. The discovery of high temperature superconductivity was of this kind.

Scientific events of either kind are worth reporting to the layman. He may not appreciate the details but he should be given a chance to capture the excitement of creativity, of unravelling one of nature's secrets. Such reporting brings science one step closer to humanity.

Investigative journalism covers these days many cases of corruption, crime, spying, conspiracy and war stories. Once in a while the scientific

world too offers challenging and highly interesting cases. In a typical case, a claim to an important discovery is made but without proper substantiation. In some situations the result is based on fraud, while in others it is a genuine mistake.

The temptation to make spectacular but fraudulent claims comes more strongly in the present times than in the relatively placid times of the turn of this century. This is because a scientist is judged by his performance much more stringently today than in the last century. Awards, peer support, promotions, project grants are all linked with performance. In spite of these temptations science has remained relatively clean mainly because a scientific fraud is detected sooner than later. However, such cases as do turn up from time to time need to be widely reported to the public.

Another related area where investigative journalism can do a lot is in testing the claims of UFO as extra-terrestrial spacecrafts. The so-called unidentified flying objects are reported in the press from time to time. The common man gets excited by the suggestions that these are spaceships from some other civilisations beyond ours. The real explanations may be quite mundane: the object may be Venus, or an optical illusion (like a mirage) or a man-made spy satellite, or simply the figment of a highly fertile imagination.

India has a special problem of its own! The alleged holy men who take advantage of the gullible by producing miracles apparently defying science can wield considerable evil influence on individuals and the society. Scientists and magicians together can play a valuable role in debunking such cases. And the journalists can get a good story out of it.

India is a curious mixture of scientific advance and traditional superstitions. Superstitions are deeply ingrained and cannot be eliminated overnight. They cannot be removed by dictat but can be countered by rational arguments.

With high technology entering in every field there are disasters also. The Bhopal gas tragedy of 1984 is still green in our memory. So are Chernobyl and the Challenger explosion. There are interesting and informative articles written on most of these disasters. The problem is how to give them as wide a circulation as possible. A valuable contribution science journalism can make to science and technology is to mitigate fears of the irrational type, discuss what went wrong and point to where the fault lay. This may not be easy since there may be vested interests keen to suppress the truth.

Media Seldom Used

Writing about science journalism in his book *"The Wisdom of Science"* R. Hanbury Brown has moaned that "although advances in science and technology have given us an unparalleled ability to communicate with one another by radio, television and vast quantities of print, these so-called media are seldom used to tell us anything about science . . ."

Compared to the West, the situation in India is even more dismal. And so astrological forecasts appear regularly in our newspapers but science and technology are touched if at all, only with a bargepole. In a recent survey conducted by the energy and environment group and the National Council for Science and Technology Communication (NCSTC) the fraction of space devoted to science coverage in the national newspapers (over the six-month period July-December 1989) was found to be in the range of 2.10 per cent to 6.56 per cent of the total reading matter, exclusive of advertisements.

Even in these reports on science it is not known how much was of indigenous origin and how much taken over from foreign sources!

In modern times, scientists themselves, with the large public funds supporting them, owe it to the public to inform them on what they are doing. By remaining in their ivory towers they will only help foster a growing feeling that science is a luxury that we cannot afford.