The twenty-five years since independence have seen a phenomenal expansion of scientific programmes and growth of national science laboratories. The council of Scientific and Industrial Research (CSIR) and the Atomic Energy Commission (AEC) are major partners in this national undertaking with equally substantial, but perhaps less spectacular, contributions from the Indian Council for Agricultural Research (ICAR). The research undertaken by various university laboratories has grown significantly in quantity. The number of scientific workers has increased phenomenally and equally has grown the quantity of scientific output measured in terms of research papers and reports. The national expenditure on science research has steadily increased, and while it constitutes a smaller percentage of the gross national product than in many of the prosperous technologically developed countries, it seems to be steadily increasing towards that target.

Two observations about science in India are worthy of record. First, the competence of the better Indian scientists in a number of diverse scientific fields is comparable to their counterparts in other parts of the globe. Any visiting scientist from any country can expect to obtain critical appreciation of his work in a number of different centres in the country, however esoteric or up-to-date his work is. Equally there are a number of scientists whose work is as up-to-date as today's New York Herald Tribune.

Second, the national government has taken a genuine interest in the development of science in the country. In addition to the creation of a number of scientific-administrative bodies and commissions like CSIR, AEC, ICAR, ICMR, the Electronics Commission and the Space Commission, there is a Department of Science and Technology in the central government. Not only do many scientists hold senior policy-making positions in the government, but a very large number of them have their views and opinions solicited by the government. The National Committee on Science and Technology (NCST) has been constituted to take up a continuing study of problems of science and technology in the country. States like Kerala and Mysore are setting up state-level bodies with a similar aim. There has been some talk of introducing a National Science Act to spell out the nation's commitment to science.

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There are a number of articles about science and by scientists in the numerous periodicals in the country. Many scientists consider themselves nation-builders and are concerned with national problems. At least one excellent journal, \textit{Science Today}, devotes itself exclusively to science. Science is in the air!

These are hopeful signs and one might expect that the \textit{Golden Age} of Science has dawned in India. But in looking at the scientific scene, we find a number of anomalies. As the \textit{Physics News} pointed out in an editorial, if we look at the spectacular Indian contributions to science during the last fifty years, it is more likely that we would pick on pre-independence contributions! This is despite the spectacular post-independence growth in scientific output. In a number of areas, while the Indian contributions are very substantial, they do not stand out as essential: and if they are omitted, world science will not be set back significantly. For the scientific contribution of a nation which is as populous as ours, this is indeed disappointing. It is as if in our anxiety to increase scientific output, we have encouraged competent mediocrity to the detriment of the exceptionals. Not only have we eliminated hereditary royalty, but somehow suppressed intellectual aristocracy!

Perhaps part of the responsibility lies in the coupling together of science and technology, of viewing science as an ancillary to technology and industry. It is perhaps significant that both the names of CSIR and NCST show this view of the government. This coupling does make available to scientists much more money at their disposal than might have been available if science was thought of as an intellectual discipline. But this is a Midas touch. The science used for technology and for industry is not always the intellectual frontier. It need not necessarily be dull science, but it often tends to be in our pattern of industrialization. But the most insidious aspect of this coupling is the confusion of technology for science. And the fact that many eminent men of science, like P. C. Ray and H. J. Bhabha, were also champions of technology abets this confusion. If you were to talk to someone about science in Kerala, he is almost invariably led to mention the Thumba Equatorial Rocket Launching Station as the leading scientific institution. And why not? Is there something more
spectacular or better equipped in the State? Sometimes much excellent science gets done under the cloak of technology like at the Bhabha Atomic Research Centre, but these situations seem to be as rare as statement among politicians.

The Indian scientific scene is rife with paradoxes. We have probably the largest number of unemployed but highly qualified scientists who are gradually withering away like a flower-shop azalea. At the same time many of our universities have members of science faculties whose competence is abysmally low. The science textbooks of our colleges and schools are often put together by even less competent people, yet we have excellently trained people whose talents are not made use of. Many of them are bitter and disenchanted at not being able to find useful employment. Some of the more "fortunate" ones travel from one temporary job to another in various foreign countries like stateless persons. Our better known scientists are overworked, flitting from city to city, from meeting to discussion, spending a major part of their life away from laboratory and home in airports and vehicles. Yet we have many gifted ones who are not involved in any of these. We have an exploding scientific research output, yet our children learn from imported textbooks or cheap shoddy books; and sometimes the imported books, too, are shoddy.

Recently both the Department of Science and Technology and the Council of Scientific and Industrial Research have offered to involve unemployed scientists in innovative science and technology plans. Technology adapted to a rural mode of life, science education which is more closely integrated with life, both of these prompt original thinking on the part of the scientists. To view physics and chemistry, biology and economics in terms of life of the children in our villages: to be able to show that the most ordinary happenings around us are as much relevant to physical science as experiments conducted in a laboratory filled with gleaming steel and glass cages of sophisticated equipment: to be able to view the world around us scientifically; these are challenges to our gifted and excellently trained scientists.

With the traditional extolling of the integrated man, with the background of yoga as the way of life: with all this, how come our scientists are by and large controlled schizophrenics? How come we now lack
the leadership of men like P. C. Ray or C. V. Raman? Most of all, what is it that we should do so that excellence may find the possibility of surfacing? These are fascinating and important questions. Search for their answers may lead us to re-evaluate our views about national priorities and postures. And it should concern all statesmen.

During my wanderings in the country, I have met a large number of intelligent people who are concerned about these questions; some of them have even partial answers. One of them, the leonine J. P. Naik, points out that our national concern has so far been in educating the average and not with nurturing the gifted. He emphasizes that the sin of omission is at the level of elementary education itself.

Reliance on foreign assessment and acceptance has been cited by many as the root cause for the soullessness of the work of the majority of our scientists. To this, I would like to add our intolerance of the exceptional individual whose social or political philosophy is not in tune with the times. Some people link this with a pathological behavioural syndrome in which people, leaders and the led alike, profess to one set of principles and practise another. We seem to hold up a philosophy of life in which only the rational, the unphilosophic is acceptable. We act as if only a technology-oriented egalitarian socialistic self-sacrificing lifestyle is to be even contemplated. But in practise we destroy our village culture by a society enamored of gadgets and plastics; we tend to uniformize. Yet most people cherish values of life, common to many, but held on to only privately and guiltily. Does not independence for the nation confer on its citizenry the freedom to examine the philosophy of life?

Science in India is at a crucial stage. It is definitely going to be that there will be more science, much of it directly sponsored by the government. Whether the government will move to eliminate the anomaly of poor science in a country with a surplus of highly trained scientists will depend on the advice it receives from its scientific advisers. But whether science will become integrated with culture, whether India's scientists will become liberated from foreign domination, will depend on the concerted effort of the scientists themselves. And out of this independence may come greatness.