

ARE SCIENTISTS INCAPABLE OF SOLVING HUMAN PROBLEMS?

BIKAS K. CHAKRABARTI*

Dr. Rajinder Singh of the Oldenburg University sent me an e-copy of his latest book titled “C V Raman & Press: Part III”, Shaker Verlag, Duren (2020) for my personal study, possible comment and review. [Indeed I am fortunate to receive from him regularly hard copies (earlier) and e-copies (these days) of most of his recent books on history of modern science in India (essentially on science from Kolkata during the pre- and immediate post-independence period). These are wonderful real “Jewels” (borrowing from the title of one of his book) and significant contributions to the history of Indian science. This latest one is no exception.]

This book is also full of important documents, mostly from published news items or commentaries in contemporary Indian newspaper publications. The author noted that since the First Bharat Ratna Award to C. V. Raman (along with C. Raja Gopalachari and S. Radhakrishnan) in 1954, the only other scientist awarded Bharat Ratna so far is A. P. J. Abdul Kalam (in 1997)! I find, one more scientist has been awarded Bharat Ratna, namely C. N. R. Rao (2013). In any case, scientists are not usually considered for such awards because of the very “incapability of serving humanity”! Indeed, as the author writes, ‘according to Raman’s grandson, Sekhar, his grandfather “smashed with a hammer the Bharat Ratna given to him by the Nehru government.’ ”!! Such a reaction must be very intriguing, to say the least.

From the study of the extensive conversations with journalists, the author found ‘he (Raman) was always critical about the policies of the Indian Government, who, in his opinion, was spending too much money in constructing laboratories.’ and in Raman’s own words, “assistance should be given to the men with ability and

not to institutions which have no men.” Author Dr. Rajinder Singh, in his concluding remarks notes ‘In the post independent India, Nehru’s Government under the guidance of S. S. Bhatnagar started building research laboratories. In Bombay, H. J. Bhabha took control over the Atom Energy Programmes. They were getting plenty of money. Raman was no more in the middle point. His contemporary M. N. Saha, took a different path; he fought Nehru’s policies through parliamentary ways. Raman, who was least interested in politics, chose different way, namely, to tell the public that for the Nobel Prize worth discovery, he required a very small amount. “Money should be given to those who are doing science, not for creating laboratories.”

However, one comment from Professor Raman really stands out I thought. In a meeting, which was held under the auspices of the Indian Council of World Affairs, New Delhi, on Dec. 31, 1951, Raman spoke on “Internationalism of Science.” He said: “Only men like Buddha, Christ and Mahatma Gandhi, and not scientists, could solve human problems by influencing human conduct.” I am really surprised that, following a widely held (mis-)conception, though shared by classical intellectuals, Professor Raman believed perhaps that scientists can not solve human problems or, more importantly, can not influence or shape human thoughts and conduct!

Such a view about the limited scope of science and scientists in solving human problems and in shaping the human civilization, is very shocking, yet widely shared among common intellectuals. I really think, this is a serious issue of debate and discussion, especially for the *Journal Science and Culture*. Indeed, there should be a special issue discussing about this topic by historians, philosophers and scientists. Mahatma Gandhi himself considered “Science without humanity” as one of the “Seven Deadly Sins”; others being Wealth without work,

* Saha Institute of Nuclear Physics, S N Bose National Centre for Basic Sciences, Indian Statistical Institute, Kolkata
e-mail: bikas.k.chakrabarti@gmail.com

Pleasure without conscience, Knowledge without character, Politics without principle, Commerce without morality, and Worship without sacrifice. True, misuse of science can and have caused immense injuries to humanity. Bertrand Russell also noted (In *Icarus, or the Future of Science*, 1924) “I am compelled to fear that science will be used to promote the power of dominant groups rather than to make men happy.”. But then what about the misuses of religion or politics?

What might be the reason then for such a widely held misconception? Carl Sagan (1987) wrote “In science it often happens that scientists say, ‘You know that’s a really good argument; my position is mistaken,’ and then they would actually change their minds and you never hear that old view from them again. They really do it. It doesn’t happen as often as it should, because scientists are human and change is sometimes painful. But it happens every day. I cannot recall the last time something like that happened in politics or religion.” Is this logical frame of reasoning or culture of avoiding dogmatic stands, necessary for the scientific progress, perceived as incapability of science or scientists to influence human thoughts and conducts? In face of uncertainties, does

humanity look for some certainties which scientists fail to provide so honestly? Informed and modern perspective however seems to suggest the opposite: “Great minds shape the thinking of successive historical periods. Luther and Calvin inspired the Reformation; Locke, Leibniz, Voltaire and Rousseau, the Enlightenment. Modern thought is most dependent on the influence of Charles Darwin”, wrote Ernst Mayr in *Scientific American* (2009). There are other more recent examples; even the discovery and wide availability of the internet have changed the entire human society and its psyche perceptibly and irreversibly (see e.g., *The Oxford Handbook of Internet Psychology*, Oxford University Press, 2010; *Society and the Internet. How Networks of Information and Communication are Changing Our Lives*, Eds. Mark Graham and William Dutton, Oxford University Press, 2014).

In any case, Dr. Singh’s jewel-pick in this book of Professor Raman’s comment on the possible limitations of science or scientists, in comparison with the commonly perceived influences of religion or religious leaders, of politics or politicians, in shaping human thoughts and conducts, need serious revisit and rethinking. □