

Remembering the Nehruvian vision of Indian Science

by Abhigyan Ray - Saturday, November 14, 2020

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Today marks the 131st birth anniversary of the first Prime Minister of Independent India, Pandit Jawaharlal Nehru. Apart from being a towering figure in the Indian independence movement, he was also a man of immense appreciation for science. The cultivation of science and its benefits to humanity were crystal clear to Nehru even before independence. He became the first non-scientist to preside over the Indian Science Congress on December 26, 1937 where he thundered, *"It is science alone that can solve the problems of hunger and poverty, of in-sanitation and illiteracy, of superstition and deadening custom and tradition, of vast resources running to waste, of a rich country inhabited by starving people."*

For Nehru, science was not merely an individual's search for truth but it should be an integral part of one's thinking and action. He was more interested in social consequences of science than science itself. He held that science has made it possible to view traditional beliefs in a new light based on facts and religion in its narrow sense discourages people in understanding natural processes rationally because it encourages *"an uncritical credulousness, a reliance on the supernatural."* He was the first to use the phrase, "[Scientific Temper](#)" in his 1946 treatise, *Discovery of India*, where he propounded it as, *"[What is needed] is the scientific approach, the adventurous and yet critical temper of science, the search for truth and new knowledge, the refusal to accept anything without testing and trial, the capacity to change previous conclusions in the face of new evidence, the reliance on observed fact and not on pre-conceived theory, the hard discipline of the mind—all this is necessary, not merely for the application of science but for life itself and the solution of its many problems."* This was further enshrined in the constitution of independent India where, *"To develop scientific temper, humanism and the spirit of inquiry and reform"* is one of the fundamental duties of the citizens of the Republic.

Great leaders don't just envision the future, they create it and independent India, freed from the shackles of colonialism, we had in Nehru, a visionary leader who fervently dared to dream and even believed that rapid, but planned development, was the key to transforming his vast and impoverished land into a robust industrialized nation. He had the 'impossible' dream of transforming free India into a nation, which is first among equals in the developed world. He also dabbled in temple politics by constructing scientific research institutes, steel plants, power plants, dams to jumpstart scientific and industrial progress in independent India and heralding them as the *"Temples of Modern India."*

Men of great calibre were made priests at these estimable institutions. Sir Jnan Chandra Ghosh was the first director of Indian Institute of Technology (IIT), Kharagpur which Nehru had hailed as a *"fine*

monument of India, representing India's urges, India's future in the making" while PC Mahalanobis lead the Indian Statistical Institute (ISI), Kolkata and was a prominent member of the planning commission. Vikram Sarabhai, hailing from a family very close to Nehru, was the first chairman of Indian National Committee for Space Research (INCOSPAR), the precursor to Indian Space Research Organisation (ISRO), whilst Alladi Ramakrishnan founded The Institute of Mathematical Sciences (IMSc) in Madras whereas the "father of research laboratories", [Dr. Shanti Swaroop Bhatnagar](#), was the first Director-General of Council of Scientific and Industrial Research (CSIR).

The man who occupied the altar of high priest was undoubtedly the father of Indian nuclear programme, [Homi Bhabha](#), who was intimately close to Nehru and fondly addressed him as 'Bhai'. Common ideals and aspirations for the young nation had forged a deep bond between the two men. The vision of a self-confident and modern India, compelled [Bhabha](#) to chart out a new course for Indian scientific research. In this he found a kindred spirit in Nehru and it was his encouragement that [Bhabha](#) drew upon repeatedly while building institution of international repute, in the form of Tata Institute of Fundamental Research (TIFR), as well as in the setting up of the Atomic Energy Commission, and the Atomic Energy Establishment at Trombay. He also served as the member of the Indian Cabinet's Scientific Advisory Committee and provided pivotal support to Sarabhai to set up the INCOSPAR at TIFR.

“For Jawaharlal Nehru the supreme task of the age was to lift mankind from its age-old state of bare subsistence to a social level which provided security, material plenty and above all the opportunities for fulfilment and a higher life to all. He knew that this aim could be achieved through, and only through, science and its application... He felt, quite rightly, that operating a steel mill or a chemical plant set up by foreign assistance hardly made the country an advanced and industrialised nation, any more than using a car or flying an aeroplane purchased from abroad. It is only when India has acquired the ability to design, fabricate and erect its own plants without foreign assistance that it will have become a truly advanced and industrialised country, and for this a much greater development of science and technology is still necessary. ‘We have to produce not only machines that are to be used,’ he said, ‘We want men who will design machines and improve them.’ Although not a practising scientist, Jawaharlal Nehru’s personality revealed throughout the essential attributes of the real man of science - his unquenched thirst for truth, his questing mind that admitted no man-made barriers, his essential humility, his constant willingness to learn and to teach.”

Bhabha in his talk, “*Jawaharlal Nehru and Science*”, broadcast on All India Radio on June 1, 1964, beautifully expounded on Nehru's relationship with science.

The Nehruvian vision of India was that of a modern nation with temples of high science, mammoth dams and mighty industries and he was undoubtedly India's greatest institution builder. His India was also an egalitarian and liberal society, driven by reason and justice. This humanist, and historian, a patron of arts

and letters, not only dreamt big, but also passionately set about creating the India of his dreams. He turned binaries into hyphens and hyphens into blends to create a smoothness where style and content didn't separate like wheat and chaff.

It is no exaggeration to say that Jawaharlal Nehru was truly the architect of post-independence India. Not without some shortcomings, but his contribution in laying down the path for a modern nation can't be obscured by the din and rancour raging these days. Correcting Nehru and finding flaws in his vision is an industry, but the very vitality of the industry shows the sheer prescience and creativity of this man! As a gradual erosion of scientific temper takes place in the "New India" of today, it's even more important to reminisce, especially to children, about the rich scientific legacy of the first prime minister rather than succumb to the onslaught of unscientific rhetoric that's being peddled by people calling the shots today. On the birthday of the country's best friend of science from amongst the political class, our veneration to this great man would be in embracing science and rationality just like he envisaged!

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