

## NEHRU'S SCIENTIFIC CONSCIOUSNESS AND ITS IMPACT ON POST-INDEPENDENT INDIA

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**Received: 03 Aug 2018**

**Accepted: 08 Aug 2018**

**Published: 14 Aug 2018**

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### ABSTRACT

*Prime Minister Jawaharlal Nehru undertook the policy to form India as a developing country using science and technology in every field of society. For Nehru, the term Scientific Temper was even broader than the traditional concept of popular science. According to him, science is akin to truth, and the truth is not attainable until the efforts, mistakes, and research approve it. This truth will give us a broad idea about the world as well as knowledge of Scientific Temper that will help us to deal with other problems too. After independence, it was necessary to change the mindset and to think of Indian people through the scientific method. Nehru followed two methods in the transformation of Indian society. The first was, to spread the scientific thinking among the Indian people and the second was to strengthen the Indian economy through the proper application of science and technology. Through the application of science, he wanted to eradicate poverty. He believes that Science is the only way to prevent famine, poverty, orthodoxy, illiteracy, superstition and various other hindrances the country is facing.*

**KEYWORDS:** *Scientific Temper, Science, Technology, Industry, Human Resource, Development*

### INTRODUCTION

After years of exploitation under British rule, India has been gradually stepping towards an age of development since its independence. Prime Minister Jawaharlal Nehru undertook the policy to form India as a developing country using science and technology in every field of society. But, the question is, how far it is useful for twenty-first century's India? Before discussing this matter, we must have a precise knowledge of Prime Minister Jawaharlal Nehru's scientific temper which was the base of his thought to make India as an economically self-sufficient modern state.

The term 'Scientific Temper' is very familiar to the present day, and all of us have more or less idea about this. But what was Nehru's view on scientific temper? Why he took science and technology as a tool to develop India as a modern state after independent? Jawaharlal Nehru believed that science should be spread among the entire society, not limiting it only to the elite community. Nehru believed that Science is not only a combination of different dosages in the test tube and the invention of large or small things, in a broader sense, but Science is also the way to train the mind and Manage the whole life in the scientific method (S, Singh, K. N., et.al. ed.,1989, P. 366.). We can realize this when he said that, 'Science is a not a matter merely of looking at test tubes and mixing different gases and producing things big or small or gadgets. Science ultimately is a way of training the minds and the mind's working and their whole life functioning according to the way and methods of science, of their whole structure, social and other, functioning according to it.'

(Singh, B., ed., 1988, P. 75) For Nehru, the term Scientific Temper was even broader than the traditional concept of popular science. According to him, science is akin to truth, and the truth is not attainable until the efforts, mistakes, and research approve it. This truth will give us a broad idea about the world as well as knowledge of Scientific Temper that will help us to deal with other problems too. Nehru believed that the whole scientific method depends heavily on interest, careful observation, analysis of appropriate measurements. (S, Singh, K. N., et.al. ed., 1989, P. 366.).

Nehru was also against the domination of religious pride, various myths, orthodoxy, and fanaticism. Those are creating obstacles in the development and progress of the country. Jawaharlal Nehru wanted to use science and technology to liberate the Indian mind from superstition and blind faith. Thus, he insisted on spreading science-based and reasonable minds among the society. He thinks, 'Very different is the method of religion. Concerned as it is principally with the regions beyond the reach of objective inquiry, it relies on emotion and intuition. And then it applies this method to everything in life, even to those things which are capable of intellectual inquiry and observation: Organized religion, allying itself to theology and often more concerned with its vested interests than with things of the spirit, encourages a temper which is the very opposite to that of science. It produces narrowness and intolerance, credulity and superstition, emotionalism and irrationalism. It tends to close and limit the mind of man and to produce a temper of a dependent, unfree person.' (Nehru, J.1985, P. 513). According to him, national development is not possible only by efforts and development. There is a need to increase efficiency at every stage of the society for real development. Every work needs to be creative with low cost and less time consumption. Through this, the overall development of a community can be attained. It is clear to him that, 'Science does answer more and more questions, and help us to understand life, and thus enable us, if we will but take advance of it, to live a better life, directed to a purpose worth having. It brightens the dark corner of life and makes us face reality instead of the vague confusion unreason.' (Nehru, J.1995, P. 870).

Jawaharlal Nehru's quest for science can be traced by his continuous presence in the Indian Science Congress. In the beginning of 1938 as chairman of Planning Committee, he joined the silver jubilee session of Indian Science Congress, held in Calcutta. Nehru was in touch with the Indian Science Congress since then. In the 40th session of the Indian Science Congress, Jawaharlal Nehru said that Indian scientists should understand the physical problems of food and necessities of life and larger problems of social, economic and psychological as well as science consciousness (Singh, B., ed., 1986, P. 38). After independence, it was necessary to change the mindset and to think of Indian people through the scientific method. Nehru followed two methods in the transformation of Indian society. The first was, to spread the scientific thinking among the Indian people and the second was to strengthen the Indian economy through the proper application of science and technology. However, Nehru wanted to build India as a welfare state. Through the application of science, he wanted to eradicate poverty. He believes that Science is the only way to prevent famine, poverty, orthodoxy, illiteracy, superstition and various other hindrances India is facing (Singh, B., ed., 1986, P. 2). He emphasized the positive aspects of science. In the 46th session of the Indian Science Congress, he said, 'We have this magnificent and majestic sweep of science advancing onwards. For the first time in human history, humanity has the capacity and power to get rid of physical ills that the humanity suffers from, to bring about a measure of welfare to all the thousands and millions of inhabitants which nobody could dream of previously.' (Singh, B., ed., 1986, P. 68)

Science-based thinking has to be spread to build scientific awareness among the common people of independent India, So Jawaharlal Nehru wanted to emphasize on the scientific attitude from the primary level of education. Because for the development of the country and the development of reason among people science-based education would play an

important role. In the Golden Jubilee of the Indian Science Congress in Delhi, he said: 'I do believe that teaching should be oriented more and more towards science, though by that I do not mean that humanities should suffer at all.' (Singh, B., ed., 1986, P. 83) Because he knew that, to found a strong base of democracy for India, the opinion of Indian people would play a crucial role. So, to make the democracy successful, 'general will' must be based on scientific and logical reasoning. He thinks that the application of science to life is not enough. In his *Discovery of India* Nehru writes, 'It 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. Too many scientists today, who swear by science, forget all about it outside their particular spheres. The scientific approach and temper are, or should be, a way of life, a process of thinking, a method of acting and associating with our fellowmen' (Nehru, J., 1985, P. 512). He further said that many scientists, who have practice science throughout their life, compromise with scientific reasoning in their social and religious life (Nehru, J., 1985, P. 512). The present scenario of our country is still the same.

Scientific methods and activities can change the scenes as well as bring a revolution in human life. And this revolution was only possible through the joint use of modern technology and science. A robust industrial structure was necessary for the production of food and the development of agriculture. In this way, through the application of science and technology and the expansion of large industries, we wanted to spread a modern perspective in all areas of India. According to Jawaharlal Nehru, the purpose of science was to remove the weaknesses of society. He took science as a mood for the formation of the modern world. He repeatedly said the same thing: The only scientific attitude and its methods can solve all our problems. He gave a clear message to the Indian Science Congress on the occasion of the Silver Jubilee of 1938, 'Even more than the present, the future belongs to science and those who make friends with science and seeks its help for the advancement of humanity.' (Singh, B., ed., 1986, P. 1).

Jawaharlal Nehru wanted science and scientific thought for a bright future of the nation. With a discussion with scientists, he wanted to highlight on the science for all the people who had little knowledge about science. When the people of India would realize the importance of science, the scientific temper among the people will work in the real mean. It will help him to conclude that some elementary scientific training is essential for all boys and girls. Only thus they can understand and fit into the modern world and develop to some extent at least, the scientific temper (Nehru, J., 1985, P. 409).

In the aspect of economic development, Jawaharlal Nehru wanted to prevent them going out of treasures by using the human resources correctly. Indians need industry for this, and they must be trained scientifically and technically. India had no industrial structure in the early stage after getting freedom. And this was the biggest problem of Indian economic structure. Nehru believed that the use of science and technology could fulfill the basic needs of humanity. Besides this, science and technology can be used to do the welfare of humanity (Subbarayappa, B. V., ed., 2007, P. 31). Council of Scientific and Industrial Research was established in 1942 for the expansion of industry. The act 'Science Policy Resolution, 1958' was enacted in the time of Jawaharlal Nehru to train Indians scientifically and technically so that they can use human resources as a primary condition for the economic development (Singh, B., ed., 1988, PP. 257-258). Before the independence, a meeting was organized in February 1947 for the formation

of the 'Scientific Manpower Committee'. There was the talk of human development (N. A. I, Fill No. F.21— 1/47, T.3.)

Science helped in the development of the western country, and surprisingly improved the living conditions of some countries. Developing countries hoped that they would be able to develop faster using the right approach to science and technology. Similarly, Nehru gave importance to science and technology for the modernization of Indian society from the beginning of his reign. From his point of view, how much importance Nehru gave to science and technology is understood, 'whenever chance offers I say something about the importance of science and technology, and we should realize that modern life is an offspring of science and technology.' (Government of India, 1983, PP. 73-74). So he emphasized that the scientific method should be adopted as a way of life. According to him, the scientific method is an essential component of building modern India. He firmly believed that the progress of the nation could never be achieved by the old method. Along with the old, new ideas should be accepted. He wrote, 'I am a socialist because I felt that socialism is a scientific approach to the world's problems. Therefore, I would like you to consider the various cultural and other problems and apply the scientific approach to your personal life' (Gopal, S., 1976, PP. 616-617).

Independence India's economic structure was fragile. Indian society like prejudice, blind faith, lack of educational structure, poverty, etc. continued to consume life. And in such a critical situation, Jawaharlal Nehru took charge of the Prime Minister. To emerge from this complex situation, he gave importance to the science of thinking that the idea was developed from his family, from home teacher, Europe and Russia, from the science and technology-based journey of life. Nehru accepted science as an essential element. Which will work as the main driving force of development and progress? The only way to reduce backwardness and poverty was through science and technology. Also, it was necessary to improve the production structure (Government of India, 1983, P. 51).

So Nehru wanted to put India in modernity with the change in India's approach with the use and application of science and technology. However, despite his modernity, he never forgot the tradition, tolerant spirituality in India. He believed that the age-old tradition was the mainstay of our modernity, he was a modern man, but he had the ideals of ancient heritage (Nehru, J., 1982, P. 509).

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