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ACHARYA PRAFULLA CHANDRA RAY'S EFFORT AT
POPULARISING SCIENCE



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Short Profile

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ABSTRACT:

The main objective of this study is to analyze the necessity of Science education as envisaged by Acharya Prafulla Chandra Ray in favour of his Nation. For conducting this study, philosophical and historical methods were employed. The primary and secondary sources related to Acharya Prafulla Chandra Ray's contribution towards Science education were evaluated after detailed analysis. The study revealed that a learner educated under the principles of Science education would be found to be useful not only to himself and to his family but also to the society in which he lives and the humanity to which he belongs. Such individuals are not only great assets to

humanity but also the fore-runners of the new race towards which humanity is evolving, though slowly but certainly.

KEYWORDS

Acharya Prafulla Chandra Ray, Educational condition in India, Science Education, Vernacular technical terms and its Utility.

INTRODUCTION

The cultural womb of Mother Bengal is fecund enough to deliver a constellation of philanthropic scientists and science stimulators, the discoverer of unique chemical compound Murcurus Nitrite is Acharya Prafulla Chandra Ray. Besides of Great scientist like as Acharya Jadadish Chandra Bose and Dr. Upendra Nath Bhahmachari, there originated a dazzling crucible of popular science writers and scientific thinker who ushered logic, reason and courage us transparency of thoughts within the colonialized, subjugated and superstitions Bengalis as well as Indians, like Rachel Carson, Aldous Huxley, J. Gould and Bertrund Russel. Among those Bengali scientific doyens Acharya Prafulla Chandra Ray commingled the ethics of science with the sanctity of philosophy like Thales and Hippocrates.

Ray was born in a lovely and prosperous village in the district Jessore, Bengal, on 2nd August, 1861. After completing his village primary education he was admitted to the Metropolitan Institute in Calcutta. At this time Ray was also external student of the Presidency College (in the Science Dept.) where he attended the lecture of Sir. John Eliot and Sir Alexander Peddler. This incident made him lifelong love for Science. After completing his Calcutta's education he went to Edinburg and completed his Doctor in Science (D.Sc.) Degree in the year 1887. In 1889 he returned to India and joined the Presidency College as an Assistant Professor in the Chemistry Dept. after a strong fight against the British controlled educational system in India. Then besides of teaching he continued his research work in the different scientific field and makes so many world famous students like N. R. Dhar, G. N. Mukherjee, Meghnad Saha and many more. But besides of his teaching and research work he takes an active role to spread and popularize the science among the masses and the society. He believed that the development of each and every man of the country and his society depends upon the consciousness and love towards the science and its application. He said that "Consider from every point of view the progress of scientific knowledge is imperatively necessary to our individual and national growth" (Mondal, 2011, pp.291).

So to popularize science and scientific attitudes towards the masses and the society, he creates so many types of activity like as teaching, Seminar presentation, research and many more. But he stressed writing science books are in mother tongue and also to establishment the concept of vernacular technical terms in science which was not so practiced at that time. He was one of the pioneers in molding the vernacular technical terms in science. So in this article it is an attempt to highlight the contribution of Acharya Prafulla Chandra Ray's in the scientific field by his unique concept to establish the vernacular terms in science and popularize science through mother tongue are discussed broadly.

Prevalent Condition of Science in the Period of British Ruled India

Over the long period of slavery, the back bone of the Indian citizen was totally broken and the stagnation condition of the nation has arisen. Each and every section of the nation like financially, socially, and also educationally was lagging far behind as compared to the western world. But in ancient period our nation had a glorious past and the contribution of those scientists like Charak Surrut, Brinda, Chakrapani and also Nagarjuna's progress the nation towards high altitude as compared to remaining part of the world.

But the situation in present i.e. British ruled India, the existence and reliance on education especially in science was totally loosed. So he argued that, "A long period of intellectual stagnation, as observed before, has produced in us a habit of dependence on the authority of the shastras. Reason was found to the wheel of faith and all reasoning proceeded on assumption and premises which it was not open to anybody to call in question and criticize. Intellectual progress was handicapped under these conditions and it is no wonder that India cannot point to any notable achievement in this line during the 1,000 years that preceded the advent of British rule. Reason has thus to be set free from the shackles and the function of Science in achieving this end is indisputable. Science takes nothing on trust but applies to them all the methods of investigation and criticism. I look forward to the growth of this scientific spirit in our country to liberalize our intellect. There is no lack of capacity amongst our young men; what are wanted are patience and tenacity of purpose.It should be the aim of our young men to develop these qualities and nothing is more to their development than the study of Science itself" (Mondal, 2011, pp.290).

Ray is a patriot to the core of his heart and he felt sorrowfully when he used to observe that ruling English intellectuals laughed at his countrymen superciliously for being proud of their compatriot scientist like Charles Darwin, James Watt, John Dalton and Sir Isaac Newton. For this reason he advocated that National and Mass development may assured if the scientific base education may popularize in the society and this attitude encourage her country men to stand on his own feet and recognize himself as well as his nation to the almighty as compared to the rest world.

Introduction of Mother Tongue and Vernacular Term in Science

For the sake of nation he proposed that to develop interest in Science, the teaching and learning should be runs through their own mother tongue not in any foreign language. For this reason, Ray mesmerized the Bengalee Psyche with his astounding, witty, informative, artistic and penetrative article on science. He kept his quest into the realm of life science for some months and he wrote "Sara Prani Bigyan" in Bengali language. He desired to delve into the profound philosophy lying embedded within every discipline of science. He never applied ornate and redundant vernacular terms and transliterations of scientific words in his popular articles in science. In this way, he nullified the prevalent taboo that application of overseas words would deteriorate the status and taste of the vernacular compositions on science. He never harboured irrelevant, fantastic, absurd and exaggerated comments to elucidate any topic of science. Along with the standard Bengali words, he utilized the colloquial phrases and adages to insert the hitherto alien milieu of complicated science within the daily lives of rank and file.

In 1908 at Rajsahi now in Bangladesh a committee was formed under the Bangiyō Sahityo Sammilon for spread Science education run through in Mother tongue and to establish Scientific vernacular technical terminology for reading and writing science Books and Ray was selected as the president of that committee. After a long period of discussion and the suggestion which was given by notable termilogist in Bengal's Science Renaissance like Akshyay Kr. Dutta, Dr. Rajendralal Mitra, Ramendra Sundar Trivedi, Yogesh Ch. Roy, the committee proposed the vernacular terms in science like Atom as Anu, Bubble as Budbud, Alchemy as Rasayan, Aqua Regia as Amlaraaj, Fulcrum as Alamba, Rock Salt as Saindhaav Laban, Crystal as Sphatik etc. The objective of that mission was to spread science education to the young enthusiasts of the nation and not to copy the affluent Western trend in Science

and to remain indebted to the indigenous odyssey of Science.

CONCLUSION

Acharya Prafulla Chandra Ray worked at a time when there was practically no scientific culture in Indian masses. The people, from among whom his students came, were sunk in a sea of unscientific beliefs and customs. Acharya Ray realized that he cannot serve the purpose of science without fighting the unscientific beliefs and superstitions. So he tried to bend a mind among the people in India to cultivate science through mother tongue and for this reason he gives priority to writing science books in mother tongue and to establish the idea to mould the vernacular terms in science books on firm and concrete basis. To spread and popularize science he enunciates that "I appeal to our wealth and eminence to follow in the footsteps of the great benefactors of men and I am sure that with their help the cause of Science will flourish. The colleges where at present, Indian votaries of Science carry on their modest and humble researches, have got to be multiplied many times over. More attention should be given in each university now existing in the country to the cultivation of Pure Science, particularly, Physics and Chemistry, and more colleges and institutes should be established all over the country for the study of Applied Science. It must not be forgotten that the present industrial paralysis of the West offers a golden opportunity to the East to wake up. And if India, by the grace of God, will avail herself of this opportunity to rise equal to the occasion, if her men of Science and industrial pioneers will put their shoulders to the wheel together, if the study of Physics and Chemistry, of mining and Engineering, of Marine and Aerial Navigation and of the Biological Sciences will succeed in enlisting on their behalf the energy and enthusiasm of thousands of votaries, if the young men of the middle classes will crowd in great numbers the science colleges and the technological institutes more than the law colleges, if the scientific services of the State be thoroughly Indianised, if her rich men will award more scientific scholarships and establish technical schools, India will not take a long time in coming to the forefront of nations and making her political renaissance not a dream but reality" (Mondal, 2011, pp.291).

Today it may be difficult to figure out how hard task he perform to create faith on science towards his native people. His research and teaching gives stimulation to propagate the footsteps of progress in science. But his thinking and belief to spread and popularize science among the masses is denoted as ring of crown of his success entire through his life span. So the way to pay respect to Acharya Prafulla Chandra Ray is to follow his footsteps- in practicing science of the highest international standard, in discharging the social responsibility of a scientist, in fighting unscientific beliefs and superstitions that exist in our society even today. In summation- it is understood that Acharya Ray has struggle actively to develop the use of vernacular terms and also fertilize mother tongue in Science, so that common people may get interest and learn the Science very easily. We are indebted for his unique contribution in Science for up liftmen of scientific attitude towards masses.

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