

Munshi Zakallauh : Popularisation of Western Science in Vernaculars in the Nineteenth Century

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ARTICLE DETAILS

Article History

Published Online: 12 June 2019

Keywords

Renaissance ; Delhi College; British politics ;Western Science ; scientific and technical literature; Vernaculars.

ABSTRACT

Munshi Zakallauh(1832-1911) - a prolific author and translator ,was a teacher at Delhi College , and one of the most distinguished scholars of his day. He belonged to that small fraction, who , at a time, when Muslims in Delhi were largely indifferent to new learning, showed much keenness for western education and the new sciences. He was conceivably the last historical object of an era that saw many changes and for a while , simultaneously accommodated the two world- the rotting and the evolving . While on the one hand he personified the traditional values of an old world culture, he was also a creative thinker whose revolutionary input to modern education in northern India earned him the reputation of a dedicated educationist and open-minded enlightenment rationalist. Encouraged by the feeling that western education could be disseminated through the vernacular, he devoted his life to translating and writing numerous textbooks in Urdu on science and mathematics. This paper is focused on the contribution of Munshi Zakallah for the popularization of western science in vernacular.

The nineteenth century was a period of critical evaluation and introspection of for most of the intellectuals, who were exposed to the philosophy of European enlightenment through the British colonial expansion. The reaction to this stream of thinking essentially took three forms. The first was complete westernisation, where traditional learning was considered to be totally irrelevant. The second manifestation was revivalism, in which modern scientific developments were telescoped into the past. The last response was of revitalisation, according to which traditional knowledge needed to be resuscitated and strengthened, wherever necessary with the help of modern knowledge.

Throughout the nineteenth century, India continued to accept and assimilate occidental thoughts on science and education. The schools, colleges and universities established throughout the length and breadth of the country had produced a powerful intelligentsia; this in its turn further unfolded a remarkable educational renaissance. Northern India grew more conscious of the likely impact of modern science on the individual and national life. However, in spite of the educational growth, there was very little scientific research done till the end of nineteenth century. This is hardly surprising, since the British were always half-hearted in spreading scientific education in this country. As Delhi fell to the British in 1803 after the third Maratha war¹, western learning and science transmitted in Delhi through British administrators and missionaries. Under the impact of these influences, a 'Delhi Renaissance' developed². A new atmosphere was created in Delhi because Mughal Emperor, Bahadur Shah (1803-1857), a nominal king, himself showed interest in cultural awakening. His pensioner's

existence and political security led the court to develop as a centre of new and cultural learning³. Western civilisation began to be regarded as a superior culture to be copied but as from which that was useful might be learnt⁴. The renaissance, which started in Delhi before the revolt of 1857, brought a lot of changes in the atmosphere of Delhi.

Munshi Zakallah (an eminent product of Delhi College), also represented the ethos of Delhi renaissance, and strove to reemphasise the role of science and scientific values for cultural and material advancement of his countrymen. He joined Delhi College in 1844 when he was only 12 years old. He entered a new environment, which opened for him a new world of knowledge. The Delhi College really caught the imagination of Zakallah for the windows it opened. Students in the college were allowed to try astonishing experiments with unknown chemical gases. The students felt themselves to be pioneers in their own country. He was very much influenced by two his teachers working in the college –Ram Chandra, his teacher of modern science and mathematics, and Imam Baksh Sahbai, Professor of Persian. He developed special interests in mathematics and turned out to be the most brilliant and promising student of Ramchandra. Both came very close to each other. His proximity and love for his teacher even led to unfortunate rumours that Zakallah was about to follow his tutor's lead and openly profess himself as a Christian. It never happened because their friendship was at an intellectual level, solely devoted to learning and the advancement of knowledge. As a student at Delhi College, Zakallah became actively involved with the Vernacular Translation Society and translated many works from English to Urdu⁵.

¹ .Mildred Archer, 'Artists and Patrons in 'Residency' Delhi, 1803-1858', in R.E.Frykenberg (ed.), *Delhi Through the Ages- Essays on Urban History, Culture and Society* ,(Delhi :Oxford University Press, 1986),p.157.

² .Gail Minault, Sayyid Ahmad Dehlavi and the Delhi Renaissance', in R.E. Frykenberg, *Delhi through the Ages*, p.175.

³ .Ibid.

⁴ Gupta, Narayani, *Delhi Between Two Empires, 1803-1931* (Delhi: Oxford India Paper Backs, 1981) p. 227.

⁵ .Ibid., pp. 140-141.

He formally began writing in 1851, though his first piece appeared in 1849. On an average, Zakaullah wrote around a thousand pages a year. By 1901, he had written as many as 146 books in Urdu (including translations and original writings) on science, mathematics, history and literature. In all, he published around 70,000 pages. His first book on mathematic, called *Tuhfat-ul-Hisab*, 1852. This was the first book published by Zakaullah at an early age of nineteen. It dealt with modern mathematics based on questions and answers. The book was highly appreciated. This was one of the first books on modern western mathematics to appear in any Indian language.

It became very popular and was published 15/20 times from different parts of the country⁶. Zakaullah went on to write a historical account, titled *Ajaib-ul-Hisab* (A History of Mathematics) of the development of mathematics from the earliest times to his day in Urdu. This was again one of the first books in this language on the history of mathematics, which dealt with the contributions of Greeks, Romans, Arabs, Iranians and Hindus. Thus, Zakaullah laboured to produce as many books as possible in Urdu to establish that a local language can be transformed and modernised to communicate modern scientific knowledge. He realised that the translation of scientific and technical literature was not an easy task, particularly that of developing an alternative terminology in Urdu for English terms. Nevertheless, he tried to resolve this problem.

Undoubtedly, his writings contributed to the enrichment of the vocabulary of Urdu and added to its vitality as a language. It was now imbued with the flavors of European ideas and philosophies and it flowered as a language for the communication of science and other socially relevant issues. It was a significant transformation for a language associated till then with the 'decadent' Mughal court culture, known merely for poetic and rhetorical expression. Though firmly rooted in the indigenous culture, he was conscious of the modern challenges and the imperatives of transcending the traditional outlook. For him, this transformation was conceivable without disowning the past. An open and progressive approach meant for him an assimilation of modern scientific and technical knowledge. He was one among those intellectuals of the nineteenth century who took infinite pride in the achievements of the Indian civilisation, stretching back as it did to the period of Vedas and Upanishads. Yet he was the first to acknowledge that degeneration and decay had set in and there was need for injecting fresh blood from outside. His commitment to modern science convinced him to give precedence to the present over the past. He was sure that it was impossible to envision a bright future without embracing modern knowledge because mere tradition was not enough to facilitate the transition to modernity. He was convinced of the possibility of a bright future if a modern outlook was to be systematically cultivated. His position is sufficiently explicit in the following extract:

"I believe that 'It is ignorance to dub the ancient sciences or the Eastern sciences as irrelevant. And this ignorance is further compounded if the modern Western sciences are not preferred over the ancient or Eastern

sciences. The truth is that the light of Eastern sciences is surrounded by an ever-increasing darkness. But, being our own, this light gives us pleasure and its darkness is soothing. Comparatively darkness around the light of Western sciences is much less. Yet it dazzles our eyes and it is so alien, that we are unable to see anything else. We need to be accustomed to this light. Once this happens, we will be able to witness the splendors of nature and the miracles of human ingenuity"⁷.

Endorsing the belief that science was the highest form of rational amusement at least for the general public, Zakaullah presented his subject in a very simple language⁸. His intellectual skill and commanding presence added vibrancy among students of Delhi College. He defined science as 'a knowledge which has truth, an absolute truth and nothing but the truth' and was passionately involved in the project of translation all his life. These translations and other original writings on science widened the range of Urdu and added to its vitality as a language. He was convinced of the possibility of a bright future if a modern outlook was to be systematically cultivated. Zakaullah was awed by modern developments in west. In admiration for this period, he wrote:

'The nineteenth century had been an auspicious century because the Euro-Americans, through their inventions and innovations, and borrowings from the arts and crafts of their predecessors, had made unprecedented progress. Such a development we have not witnessed or even dreamt of in any other century'⁹.

He was convinced that 'without a full acceptance of the results of modern science and a full knowledge of them also, the East must inevitably fall behind the West, and the door of all future progress be closed'¹⁰. Zakaullah acknowledged the achievements of modern Europe, particularly its scientific and technological advancements. Moreover, Zakaullah was conscious of the inadequacy of the traditional and literary education to meet the needs of the time¹¹. Zakaullah spoke emphatically against scholasticism and blind faith in ancient beliefs. To him, modern science must be given precedence over scholastic beliefs. Moreover Zakaullah had internalised the ideology of scienticism, which had been gaining ground in Europe since the seventeenth century. Expressing his commitment, he wrote: 'science is that knowledge which has truth, an absolute truth and nothing but the truth'¹².

Zakaullah was staunch supporter of promotion of science and technology in vernaculars. He himself had learnt his science and mathematics through the medium of Urdu, as taught by Ramachandra, and he did not see why the younger

7. Zakaullah, *Uloom-Tabiya Gharbi Ki Abjad* (Beginnings of Western Physical Sciences), Delhi, 100, pp.5-6.

8. Irfan Habib, 'Munshi Zakaullah and Vernacularisation of Science in Nineteenth Century India', in Narender K. Sehgal, Satpal Sangwan, and Subodh Mahanti (eds), *Uncharted Terrains*, pp.132-138.

9. Zakaullah, *Uloom-Tabiya Gharbi Ki Abjad*, p.3.

10. C.F. Andrews, *Zakaullah of Delhi*, (Lahore: Universal Books, 1976), p. 97.

11. K.N. Panikkar, 'Presidential Address, *Indian History Congress*', 36th Session, Aligarh, 1975, p.7.

12. Zakaullah, *Gharbi Sharqi: Tabiyat Ki Abjadon Par Mahakmat*, Delhi, 1900, p.19.

⁶. *Ibid.*

generation should not do the same. For him, to provide modern scientific knowledge in vernaculars would enable Indians to work towards their own scientific achievements and contribute to the development of knowledge.

As a colonial subject, exposed to the new knowledge and language, he was conscious of the weaknesses of Urdu as an acceptable medium of modern education. He knew that knowledge of English would ensure employment and social prestige under the colonial dispensation. Even Syed Ahmed Khan¹³ (founder of Aligarh Movement), who began as a staunch advocate of the Vernacularisation, shifted to Anglicism after his trip to England. The Aligarh Movement, which he launched, strove to establish Mohammedan Anglo Oriental College as an Indian counterpart of Cambridge. Zakaullah's persistent faith in modern education, particularly science, kept him involved with the movement, but he continued to believe in the utility of Urdu as the medium of instruction. Besides, Zakaullah strongly favoured the use of local languages, which enabled the people to participate in and identify themselves with the development of knowledge. He said:

“The constant use of English instead of our mother tongue, will go far to denationalise us. If we wish to remain an Eastern people, we must not neglect the language, which we learnt at our mother's knee. To forget it, is to lose one of the strongest factors in the building up national character”¹⁴.

What prompted Zakaullah to champion the cause of the vernaculars was this commitment to the past, besides his firm belief that a local language is the most effective means of communicating knowledge. He devoted his life to promoting and developing Urdu as an effective vehicle of modern scientific knowledge. Zakaullah hesitatingly accorded primacy to English over Urdu only when he found that people's aversion towards English is turning into some sort of contempt for modern Western knowledge. He feared that such developments, if continued, would in the long run, strengthen the forces of traditionalism and scholasticism. This situation impelled Zakaullah to join hands with Sir Syed in his movement for education and modernisation, even though he was aware that the latter's Anglicism was contrary to his personal belief in the potential of local languages. Here, Zakaullah was mindful of the need to build- up the movement for modernisation, which was being dubbed pejoratively as naturalism by its hecklers¹⁵.

In retrospect, we can say that Zakaullah's intellectual and pedagogic endeavours were a remarkable amalgam – they not only drew from the past but were also inspired by the present. Though firmly rooted in indigenous culture, he was conscious of modern challenges and the imperatives of transcending the traditional outlook. For him, this transformation was conceivable without disowning the past. This respect for India's past was reflected in a programme of cultural nationalism he advocated, which he felt was needed to regenerate the indigenous culture.

¹³. Zakaullah was a friend of Syed Ahmad Khan. His early works were published by Aligarh Scientific Society.

¹⁴. C.F.Andrews, *Zakaullah of Delhi*, p.97.

¹⁵. Adel A. Ziadat, *Western Science in the Arab World: The Impact of Darwinism, 1630-1930*, (London: Basingstoke: Macmillan, 1986), p.85.

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