

Chapter 16

Decoding the Historical Authenticity of Science Education and Policy in India

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ABSTRACT

This chapter aims to dig deep into how science education and policy evolved during colonial India and how after independence the government made efforts to streamline the science education and initiated policy measures. The developments are categorized into four sections- evolution in the Ancient period; pre independence colonial period; post-independence till the era of liberalization; and post liberalization phase. The thinking does not only narrate the evolution and development of science education but also diagnoses the inherent issues and seeks to provide policy measures for the state and civil society to radically change the approaches in the existing system. The science policy studies can help in integrating various branches of science along with social sciences for a proper perspective of science. In developing science policy when social scientists are cooperating with scientist it helps develop a common language. Social scientist can also be an important link between the policy planners and scientist by persuading them to take the science and technology with a developmental perspective. A scientist having a policy oriented approach could create public awareness of the role of science and technology in society. Awareness could also involve consequences of such major decisions and their impact on man, society and environment. They could also be useful in pointing major gaps that exist in the area of research and development. Science and technology must not alienate tradition and culture. Science policy must integrate traditional values and culture with technology. This is possible through incorporating aspects of the traditional scientific and technological culture into current innovations for social development.

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INTRODUCTION

This chapter aims to dig deep into how science education and policy evolved during colonial India and how after independence the government made efforts to streamline the science education and initiated policy measures. The developments are categorized into four sections - evolution in the Ancient period; pre-independence colonial period; post-independence till the era of liberalization; and post liberalization phase. The thinking does not only narrate the evolution and development of science education but also diagnoses the inherent issues and seeks to provide policy measures for the state and civil society to radically change the approaches in the existing system.

The science policy studies can help in integrating various branches of science along with social sciences for a proper perspective of science. In developing science policy when social scientists are co-operating with scientist it helps develop a common language. Social scientist can also be an important link between the policy planners and scientist by persuading them to take the science and technology with a developmental perspective. A scientist having a policy oriented approach could create public awareness of the role of science and technology in society. Awareness could also involve consequences of such major decisions and their impact on man, society and environment. They could also be useful in pointing major gaps that exist in the area of research and development.

Science and technology must not alienate tradition and culture. Science policy must integrate traditional values and culture with technology. This is possible through incorporating aspects of the traditional scientific and technological culture into current innovations for social development.

Science in Ancient Period

In India, from about the middle of the last century, the introduction of modern technology began significantly to affect the character of Indian society. Industrialization and the consequent rise of entrepreneurial and working classes began to make the first dents on the caste system by the beginning of this century. What is often overlooked, however, is the cultural framework within which those advances took place, a framework that discernibly oriented some of the advances of Indian science. The impact of science on society is very visible; progress in agriculture, medicine and health care, telecommunications, transportation, computerization and so on, is part of our daily living.

India, a knowledge centered civilization with intellectual traditions nurtured for at least three millennia, has contributed her fair share of innovations in the fields of astronomy, mathematics, medicine and a host of technologies. In the Vedic world view, the processes in the sky, on earth, and within the mind are taken to be inter-connected. The Rigveda speaks of cosmic order. It is assumed that there exist equivalences of various kinds between the outer and the inner worlds and there are analytical methods, that are used both in the examination of the outer world as well as the inner world. Real science (outer science) consists of an objective pursuit of truth through observation and experimentation whereas inner science is Self-knowledge or knowledge of our true nature, also referred as 'yogic science. India's inner sciences and outer development has coexisted in a mutually symbiotic relationship. A strong inner science will definitely strengthen the outer science since it is the inner world which provides the inspiration, creativity, and knowledge that is necessary in the development of a sound outer science. The ultimate unity of science and spirituality can provide a light forward to a true global age of peace and harmony. It is these connections between the inner and outer science that make it possible for our minds to comprehend the universe. In such a world the inner technologies of Yoga will be found to be

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