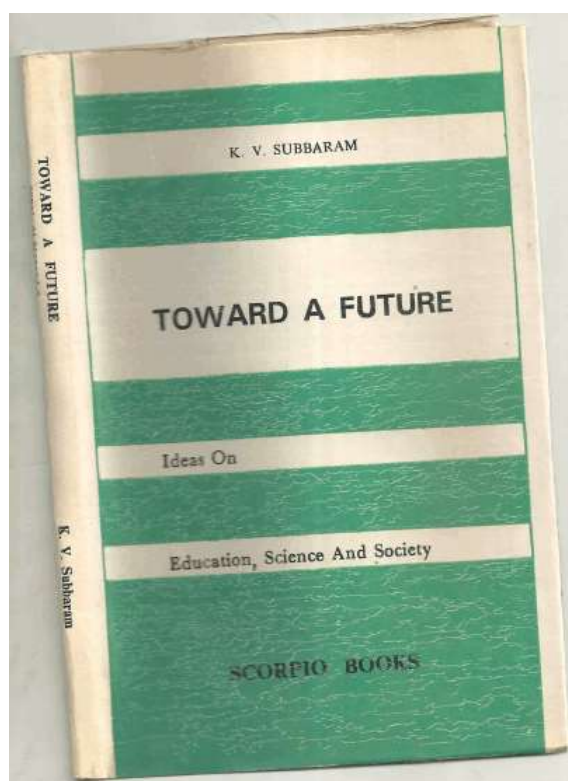


# Books on Education , Science-Society

Kota V Subbaram

# 1 TOWARD A FUTURE : IDEAS ON EDUCATION, SCIENCE, AND SOCIETY ( DEDICATED TO P.N. HAKSAR, A WELL-KNOWN INDIAN INTELLECTUAL )



pp : 126

Published : 1989

By: *Scorpio Books*

Rohtak ( Haryana state ), India

## ABOUT THE BOOK

*Toward A Future* is a collection of articles presented by the author in various forums on issues concerning education, science and society. The articles, written in a lucid manner in powerful prose, are thought provoking, creating a deep impression on the mind of the reader.

The author passionately argues for a rational and humane outlook to pervade and prevail as a living philosophy toward a future for the Indian society.

## CONTENTS

- Education in India: Past, Present, And Future
- Education – The Track of the Social Locomotive
- Merit Promotion : The Other View
- University Autonomy in the Context of The New Education Policy
- Education in Human Values
- Role and Responsibilities of Teachers
- The Use of Mother Tongue / Regional Language in Higher Education
- Science and Religion
- Why Indian Science should be criticized

- Small Town Scientist's Big Time Grouse
- Indo-Soviet Delhi Declaration on Nuclear Disarmament
- The Scientific Temper and Social Reality
- Astrology : The Non-Science
- A Critique of the Hospitals and Other Institutions Bill ( 1987 ):
- Redressal of Grievances of Employees
- The Critic, Performer, and the System

## APPENDIXES

<i>Appendix-A</i> <b>Education</b> <b>Muammar Al-Qathafi</b> <i>( Green Book )</i>	<i>Appendix-B</i> <b>Merit Promotion : A Close Look</b> <b>Amrik Singh</b> <i>The Tribune ( Chandigarh )</i>	<i>Appendix-C</i> <b>Is Our Science really poor ?</b> <b>G.S.Venkataraman</b> <i>Science Age ( Mumbai )</i>
<i>Appendix-D ( I )</i> Interview with <b>Dr. George Sudershan</b> by <b>Ratna Rao Shekar</b> <i>Society ( Mumbai )</i>	<i>Appendix-D ( II )</i> Interview with <b>Dr. George Sudershan</b> by <b>Priya Sarukkai Chabria</b> <i>Society ( Mumbai )</i>	<i>Appendix-E</i> <b>Astrology : The Spoke in Science's Wheel</b> <b>Y. Kesava Menon</b> <i>The Illustrated Weekly of India ( Mumbai )</i>
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## REVIEWS OF THE BOOK

<i>The Tribune ( Chandigarh )</i>	1990	Inderpal Singh
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## MAKING AN IDEAL CITIZEN

From early settlers and “scriptology” and Renaissance in the West and “scientology” to British contribution and the future role of educationists in India, the author has competently presented the evolving scenario with historical perspective in the very first two chapters. It has been rightly observed: “Any universalized precept of education bereft of ethical and social mores is futile. The education process must lead to the enlightening of mind and soul in peoples for the general good of society rather than towards individual, inflated attitudes, and postures”.

The article “University Autonomy in the Context of New Education Policy” is of only academic interest and has been included on the basis of a paper presented in a seminar on “University Autonomy” organized by the Punjab University Teachers Association, Chandigarh, in January 1986.

Anyway, the issue of university autonomy in this context has been highly controversial. This article is obviously based on the original document which has since then become “The Programme of Action” and not the “Challenge of Education”. There can, however, be no dispute with the author’s stress on decentralization of the system at various levels.

Education in human values is of paramount importance and universities are pledged to “upholding and propagating universal values – human dignity, freedom, liberty, compassion, fraternity, charity, tolerance and such other cherishable virtues. Accordingly, the university structure is so constructed that people who apparently possess the desired universal values, that is teachers, form the pivot around which a university revolves. The teachers are expected to uphold and propagate the universal values, ideally speaking, even against severe odds.” The three suggestions made by the author in this regard are worthy of consideration by all.

This book is in fact a collection of various published and unpublished articles and give us a peep into many issues strictly from the point of view of the author. One would disagree that the primary responsibility of a teacher is to teach and that the existing knowledge is meant to be transmitted to young minds. There is certainly a need for better teacher-student interaction and the teacher has a role beyond teaching. He has to be an agent of social change for the amelioration of society and the progress of the nation.

I must commend the article on the role of the mother tongue and the regional language which the author has highlighted in a forthright manner. Since the days of Macaulay, we have not given a place of pride to our own languages, particularly in the realm of higher education. Departments have come up, pious decisions have been taken and much of slogan-mongering has been resorted to in the name of regional languages, in reality, nothing tangible has been achieved.

The book contains some articles on science, scientists and scientific temper, including one on the Delhi Declaration On Nuclear Disarmament. Another article is on astrology. These are in fact old, old areas of discussion. One may or may not agree with views of the author but one thing is clear that they have been expressed in a clear and concise manner.

The last chapter “The Critic, Performer, and the System” stimulates the thinking of the reader to form an opinion about the role of critic vis-à-vis performer.

Appendices provide the proper background for understanding the viewpoint of the author on the various issues.

The Mysore Economic Review ( Bangalore )	1990	R. C. V.
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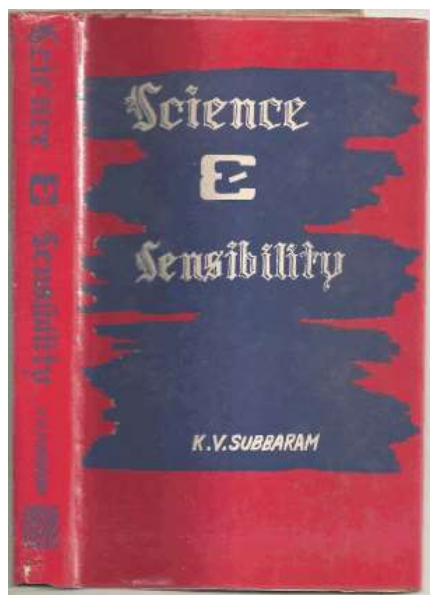
## THE REVIEW

Education plays a great role in spreading knowledge and providing skills. It opens window to the world. The present is a scientific and technological era. India has many pasts which have contributed to Indian civilization. Man is facing a conflict between tradition and modernity. The author, an educationist, has written many articles on different aspects of education. This book is a collection of several articles written in the last decade on education, science, and society. To enable the reader to understand the context in which the articles were written 8 appendices have been added. The ideas put forth in these essays stimulate deeper thinking, provoke discussion for more ideas. These ideas tend to create a dynamic society. Present system of school education prescribing curricula, conducting examinations not allowing the students their freedom to develop their talents. Subjects are forced on them, knowledge about everything should be available to each person in a manner that suits him. This book helps the reader to develop a rational and humane outlook.

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## 2 SCIENCE & SENSIBILITY: A CRITICAL INQUIRY INTO THE SCIENTIFIC TEMPER

( BASED ON 'A STATEMENT ON THE SCIENTIFIC TEMPER' ISSUED IN **1981** BY **P.N.HAKSAR**,  
SOME SCIENTISTS, AND OTHERS )



pp : **265**

Published ( Ed. and Review ) : **1989**

By: **Manthan Publications**

Rohtak ( Haryana state ), India

### ABOUT THE BOOK

Science & Sensibility contains articles that have appeared in various periodicals in response to the Statement on the Scientific Temper issued some time ago by some concerned scientists, thinkers, and public men of India ; it includes a review of each of the articles collected. It also contains several other articles related to the scientific temper, appended with reviews.

The book, essentially, is a comprehensive critical inquiry into the scientific temper. It is an important addition to the corpus of knowledge and contains a combat of differing ideas.

Science & Sensibility is a valuable compendium aided with critical reviews and is the result of exhaustive and purposeful work. It is significant that the book is being brought out in the birth centenary year of Jawaharlal Nehru, the architect of the scientific temper and as a tribute to him.

## CONTENTS

- A Statement On The Scientific Temper by P.N. Haksar and others
- Published in Mainstream ( New Delhi )
- Counter-Statement On The Humanistic Temper by Ashis Nandy
- Published in Mainstream ( New Delhi )
- and twenty-five other contributions to the discussion on the Scientific Temper Statement

## REVIEWS OF THE BOOK

NATIONAL HERALD ( NEW DELHI )	1990	Inder Jit Lall
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## SCIENTIFIC TEMPER

“A consequence of the continued permeation of science and technology in our daily life that has occurred in an increasingly rapid pace in the last hundred years or so is a feeling of alienation from the world we live in ..... if we are to get rid ourselves of such a feeling of strangeness, we must make a serious effort to understand science and its underlying principles which has given us various marvels in the present world. This how and why of science can only be understood if popularization of science is done, and through it common man comes to terms with the world he lives in. Scientific temper is an ingredient for popularization of science. And we Indians need it all the more, for in a developing country like ours, this temper is a pre-requisite for a genuine progress in all spheres of human activity. A writer of popular science, as also the common reader, has to inculcate the scientific temper in him. Pandit Nehru was an arch exponent of scientific temper and this he expressed very well in his writings and speeches.

**K.V. Subbaram** has compiled some twenty-five papers of the variegated aspects of scientific temper which saw the light of day in standard English dailies and journals during 1981-83. The compiler views that despite Pandit Nehru’s advocacy of the scientific temper we are witnessing a phenomenal growth of superstitious beliefs and obscurant practices in India. Thus, our national scene deserves a survey which these articles provide well. The scientific temper syndrome has drawn and earned wide opinions and reactions because it is a scientific term and it has a big connotation.

The compiler prefaces his argument: *“Inherent in the scientific temper is a system of value judgements. The inculcation of his temper in our society would result in our people becoming rational and objective, thereby generating a climate favouring an egalitarian, democratic, secular, and universal outlook.”* This subject otherwise involves a wide variation of views. In any case, these essays are useful for all sections of the people for creating a fruitful consciousness of the ‘temper’ notwithstanding we are sensitive to our spiritual ideas and heritage.”

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INDIAN JOURNAL OF SCIENCE COMMUNICATION ( LUCKNOW )	2003	RAKESH POPLI ( NOW NO MORE )
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#### SCIENTIFIC TEMPER : AN ISSUE ABOVE IDEOLOGIES

'..... Science and Sensibility is a compilation of articles and letters on scientific temper, carried mainly by two magazines, Mainstream and Secular Democracy, during 1981–82. Each article is reviewed by the compiler, Dr. K.V. Subbaram, who is a professor of Physics, prominent science activist, and poet.

The book begins with A Statement on the Scientific Temper prepared and signed in 1981 by several dozen eminent public persons led by P.N. Haksar ( former Principal Secretary to Prime Minister Indira Gandhi ), Dr. Raja Ramanna ( former Secretary, Atomic Energy Commission ) and Dr. P.M. Bhargava ( reputed microbiologist ). The signatories come from diverse backgrounds (within the English-speaking elite circle ) – there are scientists, social scientists, policy-makers and social workers.

Hardly any of them are experts in the methodology / philosophy of science. They have various individual concerns as reflected in their respective subsequent articles included in the book. The Statement ( or the Manifesto, as we shall refer to it ) underlines the importance of propagating scientific temper among the masses in making a resurgent India. It makes a strong plea for inculcating a spirit of enquiry and questioning of the existing order. It also points out that a systematic and planned utilization of our technological capabilities ( and human faculties in general ) to solve our national problems is not possible in the absence of scientific temper. It explains that scientific temper is not just knowledge of scientific facts nor rationalism but an outlook and process leading to an ordered understanding of man and his environment. However, when it lays down four attributes of scientific temper, the above broad and universal approach to scientific temper gives way to an exclusive emphasis on a particular knowledge-system, viz. the method of science.

In particular, it proclaims the doctrine that one must question whatever is incompatible with science-generated knowledge. Further, values like equality of human beings and distributive justice are somehow sought to be made parts of scientific temper. Elements of western ideologies are also imported into the Manifesto when it sees the human being solely as the 'maker of destiny' ( underplaying the 'spectator' aspect ). It ends by not only condemning superstitions and irrational ways of making decisions, but also lamenting havans and yajnas, 'irrational health practices' and 'food fads'. At one point, Nandy's sharp criticism of the Manifesto itself becomes the centre of the debate. He examines each line of the Manifesto ( and reads between the lines ) and brings out hidden connotations rather loudly ( and uncharitably ). He appears reasonable when he asserts that, in social matters and even in material ones, the scientist's decision may not be unquestionable.

But then he goes further and associates science with war and destruction. He even charges that the Manifesto's plea "for the fullest use of science in everyday life and in every aspect of human behaviour from ethics to politics and economics ....." is a call for the destruction of all spontaneity, rebellion, and wisdom. However, the subsequent injunctions issued by Subbaram and several others, to worship science like a god that can never be



questioned except by the method of science itself, appear to justify Nandy's skepticism to an extent.

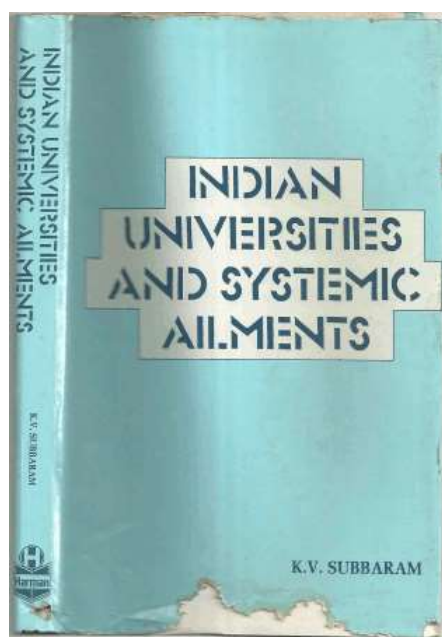
The problem with most articles, starting with parts of the Manifesto itself, is a kind of fundamentalism, particularly a generous use of blanket statements. If the scientific spirit and curiosity is one wonderful human faculty, the Manifesto appears to belittle, even deride, other faculties. The debate is not without its use, though: many partial truths and mutually conflicting viewpoints are thrown about, which the reader can try to join together and make a wholesome picture. Most debaters throw a good deal of mud at religion, rituals, 'obscurantism' and 'god-men'. Significantly, the issue is not joined on behalf of religion and faith by anyone except by the much-criticized Nandy. Interestingly, the attack on religion comes with reference to the good old Galileo episode. The relevance for us of Galileo's tiff with the fundamentalist Christian church of medieval Europe is not clear, considering that there was never any such persecution or inquisition in Hindu India. Nevertheless, the Manifesto appears to hold the "deep-rooted structures of ( our ) ancient society" as the chief obstacle to the propagation of scientific temper in India.

The review of each article by Subbaram is a mixed bag. He is quite sharp, hilarious at times and virulent at others. His baseline for criticism is his unshakable faith in science, the scientific method and western liberal human values, coupled with a compulsive scorn for religion, particularly of the Hindu variety. He sharply attacks virtually all Indian scientists for having "spirit ( spirituality ) in their veins instead of science" and bemoans "the tragic fact" that Bhabha chose such scientists as his associates. He ends by calling for a purge of all such scientists from the ranks of the scientific temper movement .... "

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### 3 INDIAN UNIVERSITIES & SYSTEMIC AILMENTS

( A CRITIQUE OF THE DRAFT REPORT OF 'ASSOCIATION OF INDIAN UNIVERSITIES', NEW DELHI,  
ON REGULATORY PROVISIONS FOR APPOINTMENT / DISMISSAL OF VICE-CHANCELLORS )



pp : 161

Published : 1993

By: *Harman Publishing House*  
New Delhi, India

#### ABOUT THE BOOK

This work contains the text of the Draft Report released sometime ago by the Association of Indian Universities ( AIU ) based on the findings of a Committee of Elders constituted by the AIU regarding the malaise afflicting the university system in the states of Bihar, Orissa, and Madhya Pradesh and in the country at large. A critical review of the Draft Report appears as a response to an appeal made by the AIU to concerned individuals and institutions. The work also includes some pertinent questions and answers to some important issues such as : establishment, structure, and role of universities ; mode of appointment of vice-chancellors and terms and conditions of appointment ; governor-chancellor dichotomy ; role of the state governments, the central government, the state assemblies and parliament and of national organizations like the University Grants Commission and the AIU itself in contributing to a professional and purposeful working of universities in the country.

*Indian Universities & Systemic Ailments is a timely and worthwhile addition to the already existing literature on related topics. It is the result of concerted efforts to bring together and*

*highlight the relevant issues including remedial measures for the process of nation-building, specially keeping in view the present turbulent social conditions.*

## CONTENTS

### Part I

Draft Report of the *Association of Indian Universities*

### Part II

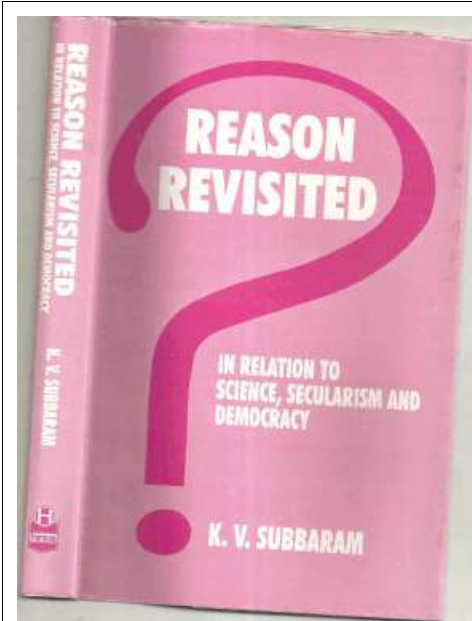
A Critical Review of the Draft Report

### Part III

Some Basic Questions and Answers

<i>Appendix-A</i> <b><i>Bihar Education in the Grip of Complete Chaos</i></b> <b>Janak Singh</b> <i>The Times of India ( India )</i>	<i>Appendix-B</i> Excerpt from the Article <b><i>Should the Centre Control University Education ?</i></b> <b>Amrik Singh</b> <i>Mainstream ( New Delhi )</i>	<i>Appendix-C</i> <b><i>Priorities of the Professoriate</i></b> as published in 'The News From Abroad' section in the <i>University News ( New Delhi )</i>
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#### 4 REASON REVISITED: IN RELATION TO SCIENCE, SECULARISM, AND DEMOCRACY



pp : 156

Published : 1998

By: *Harman Publishing House*

New Delhi, India

*( The book contains, among others, an article: 'A Critique of the Scientific Temper in the Indian context based on Theory of Knowledge', written for the journal Man & Development at the invitation of its Editor P.N.Haksar )*

#### ABOUT THE BOOK

This book, a collection of essays, is concerned with human reason as a source of knowledge and its relationship with science, secularism, and democracy. It pleads for the application of the scientific temper in Indian society in its search for solutions to the problems it is faced with, in particular in endeavours towards nation-building. The book displays the passionate preoccupation of the author in spreading the scientific temper for a rational, scientific, and just society based on human reason.

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*Preface* K. V. Subbaram

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Chapter 2 A Critique of the Scientific Temper in the Indian Context

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Chapter **6** Convergence of Different Religions : Towards a New Human Ethos

Chapter **7** The Need for Triumph of Secularism : A Sane Ideology

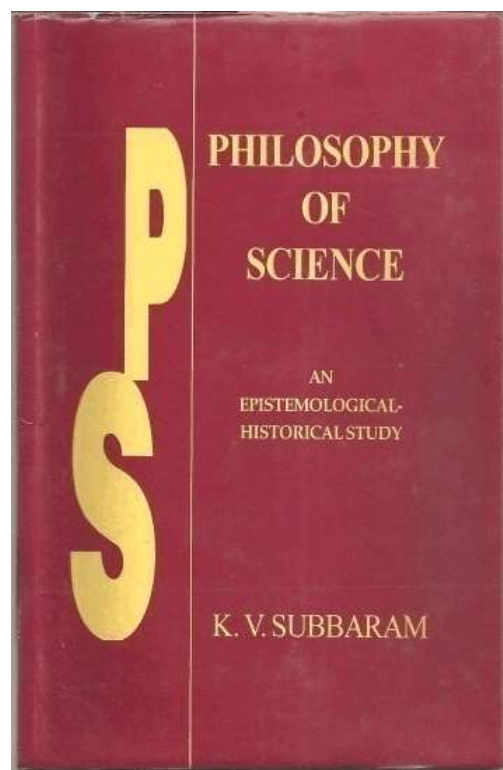
Chapter **8** For a New “Religious” Culture : Faith in Reason and Receptivity

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Appendix-A Can Science Recreate Culture ? Paul Gregorios	Appendix-B The Politics of Secularism and the Recovery of Religious Tolerance Ashis Nandy	Appendix-C India and Religious Culture Today – A Critical View Asghar Ali Engineer	Appendix-D Islam prefers Reason to Blind Faith Asghar Ali Engineer	Appendix-E Religion, Science & Morality – A Short Guide With A Long View Stanislav Andreski  Extracted from 'Controversy' section of the ( now defunct ) periodical Encounter ( U.K. ) May 1988 pp. 62-66
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## 5 PHILOSOPHY OF SCIENCE : AN EPISTEMOLOGICAL-HISTORICAL STUDY



pp : **244**

Published : **1998**

By: ***Haryana Vigyan Manch***

Rohtak ( Haryana state ), India

### ABOUT THE BOOK

This work deals with the general principles on which science and scientific knowledge are based. Under certain rigorous epistemological criteria in the philosophical framework various past civilizations in the world have been examined to locate the beginnings of science. It has been found that the Greek culture in antiquity together with human reason could provide the necessary environment for the genesis of science. Science was found to have spread and grown to ultimately become a common and shared heritage of mankind. Certain futuristic trends have been outlined in this work. This study leads the reader through a voyage of science on time scale in the historical sense and with a conceptual base in the philosophical space.

### CONTENTS

*Preface* **K.V. Subbaram**

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( contains several sub-sections with different titles )

Chapter **2** The Concept of Science: Nature of Scientific Knowledge  
( contains several sub-sections with different titles )

Chapter **3** The Genesis of Science  
( contains several sub-sections with different titles )

Chapter **4** Science in the Middle Ages  
( contains several sub-sections with different titles )

Chapter **5** Modern Science and its Nature  
( contains several sub-sections with different titles )

*Appendix-A*  
***Science Flows***

**K.V. Subbaram**

*The Times of India* ( New Delhi )

***March 1, 1996***

*Appendix-B*

***The Unity of Science : Asia's Indispensable Contribution***

**Joseph Needham ( FRS )**

*Unesco Month Lecture*

**Beirut, 1948**