

Science and Spirituality

Prof. T. R. Anantharaman

It is an undeniable fact that our country achieved many wonderful things in the scientific, cultural and spiritual fields during many millennia of its ancient and pre-historic periods. However, as a rule, with our mundane preoccupations and our eyes turned to the affluent Western nations, most Indians of today do not evince much interest even in knowing when and how these remarkable achievements were accomplished. One such area where our forefathers could record their truly stunning insights over three thousand years ago and which constitutes the theme of the present paper, relates to Science and Spirituality, referred to in modern Hindi as विज्ञान and अध्यात्म, and in our ancient Sanskrit scriptures as अपराविद्या and पराविद्या.

The word 'Spirituality' is used a great deal nowadays in newspapers, books and conferences, but if we go round and talk to our countrymen, even the so-called educated ones, we realize what vague notions most people have on this highly important and extremely relevant subject. Of course, most people will swear that they have great interest in spiritual values and some will even point out to us that the World Health Organisation (WHO) has recently included "Spiritual health" in its definition of total health. Thus, we must all be concerned with cultivation of not only physical and mental health, but also spiritual health. However, with the widespread ignorance in regard to Spirituality in theory and practice, where and how do we start in our quest for the appropriate way to understand, interpret and propagate the essentials of Spirituality?

Incidentally, the word "Spirituality" seems to have been coined and used for the first time by Swami Vivekananda, the most famous disciple of Sri Ramakrishna Pramahansa (1836-1886). Following his memorable and stirring addresses at the Parliament of Religions in Chicago in 1892, the Swamiji returned to India to a glittering and heroic welcome, and told his countrymen at a meeting that "there is one great truth that India has to teach the world, because it is nowhere else." He called it "Spirituality, the Science of Soul." It was his view that "in this land of ours, the fountains of spirituality are still there, they will have to overflow and flood the world to bring in new life and vitality to the nations, which has almost worn down, half killed and degraded by political ambition and social scheming." If he had spoken in 1993 also, he would have repeated the same thing about our country, "half killed and degraded by political ambition and social scheming." Swami Vivekananda said further that "our life blood is Spirituality; if it flows clear, vigorous, strong, everything is right; political, social, any other material defect even the poverty of the land, all can be cured if the blood is pure." We admire him very much, but we must also listen to him. We must get back to our Spirituality.

Where is this Spirituality, how do we get to know about it? Here again this very

simple question if we ask Indians, where do you get information about Spirituality? They may quote some western people who have learnt something from India and they will not put in their own word. Swami Vivekananda, on March 4th 1897, in a crowded public lecture at Star Theatre, Calcutta, talking on Vedānta and Upaniṣad said, “Vedānta, the Philosophy of the Upaniṣad has been the first, as well as the final message on the spiritual plane that has ever been given to man.” Briefly, what he says is: a great message was given to us and you find it now in the Upaniṣads, it has not been bettered, not been improved, there has not been any real addition to its original, thus it is also the final message.

And what is an Upaniṣad? Bring Upaniṣad in our educational system. Most of our students do not know even what Upaniṣads are, what are the names of the Upaniṣads, what these contain. This is rare, Jñāna-Pravāha has very big responsibility to teach people Sanskrit, let them get reading from Upaniṣad. I quote, another great Indian Sri Aurobindo. Swami Vivekananda, Sri Aurobindo and Ācārya Vinoba Bhave were the three outstanding intellectuals, who were concerned with the society and had their own spiritual experiences also. They were able to understand the currents and cross currents of our society, which is given more and more to science and technology. So, what they said is even more important than what people said 400 500 years ago. So, Sri Aurobindo said, “The Upaniṣads are the supreme works of the Indian mind, the highest self-expression of the genius. It is a sublime poetry, greatest creation of the talk and word, not a literary poetic master piece of ordinary kind, but a large spiritual revelation the most direct and profound character. They are a record of the deepest spiritual experiences, documents of revelation and intuitive philosophy of an inexhaustible light, power and largeness.” Even this language shows that the man was inspired while writing it. “An inexhaustible light, power and largeness”, so he wrote around 1920, in the *Foundations of Indian Culture*, which appeared in series of articles in 'Arya'.

Prof. Max Müller, very well known scholar who served for many years as the Professor for Comparative Religion in University of Oxford. Originally from Germany, he ended up in England and he is known as pioneering translator of the **R̥gveda**, *Sacred Books of the East*, etc. Writing on the Upaniṣads, he observed, “these philosophical treatise will always maintain place in the literature world as among most astounding production of the human mind in any age and any country”. What do we do to this treasure? We are not taking them out, leave alone, the common people, the labourers, even to the intellectuals. The people have no chance to learn anything, because Sanskrit is gone. So now, we will learn German, we will learn Russian, we will learn many things to go abroad and finally to get more increments and to be recognized as a person who knows the foreign languages. But our own language, the greatest of languages, how we have neglected it. It is a sin and high time to realize it.

Prof. A. A. Macdonell, who succeeded him in Oxford University as the Professor, wrote a well-known book '*A History of Sanskrit Literature*'. Amazing, how

the western scholars, mostly sitting far away, could do so much library work on India? They did not have today's Internet and so on, they had to collect their data, very painstakingly and yet they wrote wonderful books. This is also a very wonderful book, written in 1899. When he comes to the Upaniṣads, he says: "Here for the first time in the history of human thought, we find the Absolute grasped and proclaimed." *Brahman* is not simply an idea, a thought, it is grasped, That is the great thing. Brahman has to be grasped, It has to be realized. *Brahmavit*, is not the person possessing intellectual knowledge, but who experiences It, who realises It. He has used many expressions.

Let us go back to 3000 years or more. We do not know, when the Upaniṣads were written and where they were composed. I am also looking into this to see whether we can get some clear ideas when these things came out, when it was written, it is different matter. For a long time there was a system of oral transmission. This is the Indus Valley civilization. For now we find a teacher and disciple for a beautiful dialogue, father and son, husband and wife, it is full of such wonderful beautiful conversation, like the **Bhagvad-Gītā**, like the discussion of Gautam Buddha with his disciples. A disciple, named Śaunaka, who goes to his teacher Āṅgīrasa. Now, Āṅgīrasa is the ṛṣi who comes as *pravara* in many Brahmin families, he asked him 'कस्मिन् नु भगवो विज्ञाते, सर्वमिदं विज्ञातं भवति' (Muṇḍ. Up. I.3). What a beautiful question, no student will like to raise such a question, but he asks him and with great respect, by knowing what, all that is, all the things becomes known. I want to know everything, what I am to do. I think, if this question is posed now, many of our teachers will go to library and finally say, I am sorry, I cannot give you the answer. But Āṅgīrasa responds, as we see in the **Mundakopaniṣad**

द्वे विद्ये वेदितव्ये इति ह स्म यत् ब्रह्मविदो वदन्ति परा चैवापरा च। (Muṇḍ. Up. I.4)

Very clear and straight to the point answer. Two types of knowledge are there to be mastered, one is called *aparāvidyā*, and the other is *parā-vidyā*.

Here, **अपराविद्या** is called Science and **पराविद्या** is called Spirituality by *Brahmavid*. Humility of the ṛṣi is noteworthy, they will never say, they have found something. He says, this is what we have heard. This is what our forefathers have given us. But in recent days, when you write something, first you are very keen to put your name in capital letters. There they didn't even mention and they simply told this. So, there are two types of knowledge. As you know, *Vidyā* comes from root *vid*, *vid* is to know. The word science comes from *Sire*, a Latin root which means to know. So, both science and *vidyā* have the same derivation, so, two types of knowledge. They are two different things. It is brought out very clearly.

And then he defines, what is *parā-vidyā*. सा पराविद्या यया तदक्षरम् अधिगम्यते (Muṇḍ. Up. I.5). That is Spirituality, the science of Supreme, the science of the Self the science of the Spirit. He can use so many words. Again the word *adhigamyate*, it is not talking about it, you grasp It, you realize It. That is Spirituality. That by which finally the

Imperishable is grasped and then he tried to show. Then what is *aparāvidyā* Everything else is *aparāvidyā*. So, he mentioned everything at that time known, everything written, everything intellectual 'तत्रापरा ऋग्वेदो यजुर्वेदः सामवेदः अथर्ववेदः शिक्षा, कल्प, व्याकरणम् निरुक्तम्, छन्दो, ज्योतिषम् इति।' (Mund. Up. I.5). All that is *aparāvidyā*, which consists of the Vedas, phonetics, ritual, grammar, etymology, metric and astrology. In fact even the Vedas, they may talk of *Brahman*, the moment they put in word and try to imprison, something which cannot be imprisoned in word, यतोवाचो निवर्तन्ते अप्राप्य मनसा सह (Taitt.Up. II.4). The moment he put it in intellectual framework, it becomes *aparāvidyā*. This is a very great analysis in depth, done by our people well over 3000 years ago.

Now, I go to another very well known Upaniṣad, ईशावास्योपनिषद्. It has only 18 verses. In five minutes, it can be recited. But the meaning, the depth of the meaning, the pregnancy of the word is amazing. You go on reading again and again eighteen verses. No one knows who the author is. Each verse is so full of meaning that you can write a chapter on it, and there are three verses which deal with *aparāvidyā* and *parāvidyā*. The first one:

अन्ध तमःप्रविशन्ति, येऽविद्याम् उपासते। ततोभूयोऽव ते तमः य उ विद्यायां रताः॥ (Īśa. 9)

Those who worship altar of science only, enter into blinding darkness. And those who meet spirituality only, enter into still more blinding darkness. It's a fantastic statement and we have to ponder over it. Why he puts it like this? Those who worship at the altar of science, you find lots of people, who give importance to science only, ignore everything else. They will face problems in life, sometime blinding darkness, they don't know in which direction they are to go. This is applicable even today also. Many problems are there which cannot be sorted out by science.

What about spirituality? Those who swear the spirituality, who condemn science, ignore science, push it into background, they will face more problems in life. You know, what we call *Śarīra-yātrā*, the body grows, the body also itself becomes qualified for many things, and for that the main contributions are from science, technology and engineering. People shout things, but they use cell-phones, they travel in jet planes and they live in five-star comforts, they want good food. Spirituality has not given all these things. Science has given it. So, the *Śarīra-yātrā* is the main base of your life, without it what you have achieved, that is provided by science. So, give due respect to science, technology and engineering, which has made it possible for you, the cloth you wear, the seat you sit on, all have been given by science and technology.

अन्यदेवाहुर्विद्ययाऽन्यदाहुरविद्यया। इति शुश्रुम धीराणाम् येनस्तद विचचक्षिरे॥ (Īśa. 10)

And then he says these two different things. *Vidyā* has its own, but it has different purpose, different domain. I am not telling you this, thus we have heard, from (a)IraÁ brave explorers, who have analysed and explained this to us. These are two different things, we have to understand also what does it mean and practise. And then comes the beautiful combination here:

विद्यां च अविद्यां च यस्तद्वेदोभयं सह। अविद्यया मृत्युं तीर्त्वा विद्ययाऽमृतमश्नुते॥ (Īśa. 11)

So, one who masters Spirituality and science both together, he conquers death through science and reaches immortality through Spirituality. Very profound statement, here we have to understand also whatever the talks in the minds of ṛṣi who gives the statement. Now, all of you know that the emblem of the Banaras Hindu University records 'विद्ययाऽमृतमश्नुते'. We only know that it is a good quotation, but what is its significance we do not bother to understand. This verse finally says, each will do something, science will help you to overcome limitations of human existence. All problems you face from nature, from violence, everything, science will help you to solve. One day it will help you to overcome death. This is fantastic vision. It is coming now that in another 200-300 years, you can keep man alive for centuries. Our people think for शरदःशतम् only for hundred autumns, now you see that man can live for much longer time. But living, what is the use of it! Elephant also lives, animals live, birds live. But man lives for some purpose. He is happy, he has sense of fulfilment, but it has not come through science. विद्ययाऽमृतमश्नुते— It is only through Spirituality and through cultivation of Spirituality, proper understanding of Spirituality, through the experiences which come where you taste the bliss of immortality. Wonderful message in just three verses.

Now, we go to yet another Upaniṣad, i.e. Śvetāśvatara-Upaniṣad:

द्वे अक्षरे ब्रह्मपरे त्वनन्ते, विद्याविद्ये निहिते यत्र गूढे।

शरं त्वविद्या अमृतं तु विद्या विद्याविद्ये ईशते यस्तु सोऽन्यः॥ (Śvet. V.1)

The beautiful way of putting things. Both Spirituality and science exist hidden in the Imperishable and Infinite. So, both knowledge come from the same source. The life hidden in the science is concerned with the perishable, while spirituality is concerned with Imperishable. A person who is able to master both, he is different from common people. Very beautiful and precise verse. These are the two important things, both are necessary.

Now Kathopaniṣad— This is another wonderful dialogue. All of you might have heard of Naciketā and the Yama's wonderful dialogue that takes place. So beautiful and full of significant ideas.

दूरमेते विपरीते विषुची अविद्या या च विद्येति ज्ञाता। (Kātha. II.4)

So, far apart of these two different things opposite and divergent in the past, the way you gain this knowledge, different methodologies, some times they look like moving in opposite directions. Avidyā and other called vidyā, they have divergence in their paths. This is how science and spirituality have to be understood.

Then very devastating attack on scientists. Again same **Kathopaniṣad**

अविद्यायामन्तरे वर्तमानाः स्वयम् धीराः पण्डितमन्यमानाः।

दन्त्रम्यमानाः परियन्ति मूढाः अन्धेनैव नीयमानाः यथान्धाः॥ (Kātha. II.5)

Very devastating statement, those who live in the world of science only, they mean themselves brave and learned, but they wonder on stumbling helplessly like blind men, led by another blind man. If we ignore Spirituality, it is a peril you may put up the show. I am scientist, I can do this, but in your family life, dealing with people, you may be a failure. And you don't know, how to deal with these problems.

Now, a little analysis is required to understand these two. In both the case, finally it gets translated to knowledge which is communicated by the intellect. Source of the knowledge may be anything, finally we have to be qualified for the knowledge, communicate the knowledge, all that is done through intellect. So, spiritual knowledge versus scientific knowledge '*parā-vidyā*, call *vidyā*' well, drop this *parā*, so we have *avidyā* and *vidyā* causes lot of confusion also. Science of the Absolute, science of the world within Spiritual Knowledge, Spirituality and *aparā-vidyā*, *avidyā* science of the non absolute, of the material, other than self of the world without scientific knowledge, science of today. And in one philosophical text, they talk of the *sattā*. What is the truth of effective realm one is *pārmārthika*. It deals with Absolute, one type of knowledge. Other is *vyavahārika*, one is philosophical, another is practical. One is *adhyātma*, another is *vijñāna*. One deals with the Absolute, another deal with imperial things. So, in that way analysis comes, it's not difficult, slowly we can understand.

So now, as far as man and society are concerned, our Upaniṣads are clear. We need both, we cannot get away from this, we need both *aparāvidyā* and *parāvidyā*. We can use the word science in a broader sense. It is essentially intellectual, experimental and dealing with the world without, whereas Spirituality is essentially intuitive, experiential and the world within, and what we call an incoherent boundary. Many people deal with material sciences, deal with micro- structure, we have a concept of coherent and incoherent boundaries. The incoherent boundary nothing happened, one does not influence another, but the coherent boundary, the dynamic concept is moved. It is an incoherent boundary between *vidyā* and *avidyā*. They don't touch each other, they don't influence each other directly at all, they influence finally coherence is established in your अन्तःकरण (*antaḥkaraṇa*). Everyone of us is having an *antaḥkaraṇa* , *manas*, *buddhi* and *ahaṅkāra*. This *antaḥkaraṇa* provides a coherence. Each is coherent with science as well as the spirituality. Two different boundaries, but finally they meet. And in the melting part of *antaḥkaraṇa*, many things come out. So, science is intellectual understanding, spirituality is experiential over-standing, standing about transcending the intellect. One is over-standing and the other is understanding. They are two different things altogether.

The methodology of science and methodology of spirituality, our ancients express in their own way, they don't tell so specifically. They have put it across, what is the source of knowledge. **Pātañjala-Yoga-Sutras**, perhaps composed around 300 B.C., goes back to *Sāṅkhya-Yoga*, may be 5000 years ago, the idea has started developing in our country. And they say प्रत्यक्षानुमानागमाः प्रमाणानि। (YSū. I.7)

The scientific knowledge, the source of valid knowledge is three, i.e. direct observation, inference (the intellect does it work), and scriptures, that main literature. In the modern language, we will say, experimental observation, that is the *pratyakṣa*, *anumāna*, and finally literature *āgama*, *nigama*, what is the message, scientific literature. So, literature already has some knowledge, you need not repeat it, you need not repeat the experience, it is already accepted. So, Patañjali's time even before Sāṃkhya and Yoga, these were very clear as to how normal knowledge is gathered.

We ponder over the **Brhadāranyakopaniṣad**, where in a very moving episode, a husband and the wife get involved in discussion of *Brahman* and *ātman*. Kātyāyanī, Matreyī and Yājñavalkya. Yājñavalkya teaches his wife who wanted to learn, she has *brahma-jijñāsā* before leaving the house- आत्मावाजरे द्रष्टव्यः श्रोतव्यः मन्तव्यः निदिध्यासितव्यः (Bṛh. II.4.5). He says that the Spirit of the Self has to be perceived my dear, It has to be heard about, It has to be reflected on, It has to be meditated upon. So, indirectly he gives the sequence which has become very famous *śravaṇaḥ*, *manana*, *dhyāna*. He said that this is the method of acquiring spiritual knowledge. The path of spirituality *śravaṇam*, *mananam* and *dhyānam*, i.e., hearing, reflection and meditation. At the time of hearing and reflection, the mind remains active, but during meditation it becomes silent.

यदापंचावतिष्ठन्ते ज्ञानानि मनसा सह। बुद्धिश्च न विचेष्टते तामाहुः परमां गतिम्॥ (Mait. Up. VI.30)

This is from **Maitrāyaṇī Upaniṣad**. When you have to seek this knowledge, the mind must be silent, intellect has to be silent, and J. Krishnamurthy popularised this expression 'The discipline of the Silent Mind'. Patañjali said योगश्चित्तवृत्तिनिरोधः (YSū. I.2). So, this is something, which we have to put across. Not an easy concept, it was easily understood. Even people of forty, fifty or seventy, have not given much thought. They may be even practising something. It is all a cell without any understanding of the significant. This is very much like our marriage, our big ceremonies, *pūjās*, everywhere ritual is left.

I want to put in a different way. Spirituality means experience. What is the nature of this experience. From whatever we see from our tradition, this spiritual experience is something penetrating into our *antaḥkaraṇa* and it transform what Aurobindo called the mental being. The mental being, there ofcourse, the vital being, the famous *kośas*. We have the *annamayakośa*, then *prāṇamayakośa*, *manomayakośa*, *vijñānamaya* and *ānandamaya kośa*. The transformation start taking place and the experience, the knowledge, that is the purely spiritual knowledge that brings about a transformation in your personality. In the depth of your mental being a transformation takes place. The spiritual way of direction as the practice of ethics, morals, values consists very broadly in the pursuit of *Satyam*, *Śivam* and *Sundaram*. Pursue truth goodness and beauty. In fact any activity where you don't think of yourself, you think of others unselfish idealistic humble meditation, even sports,

games, fine art, study, reflection, introspection, innerprobing involvement, everywhere there is spiritual element. So, in life when we do many things, let us now encourage such things which have got spiritual overtone in it, without which the person can not reach the Spirit.

In the Scout movement people used to go, and going, taking to nature and gathering together. At the Rishi Valley School they go to see the sunset. The whole school sits under the banyan tree. They watch the sunset, the beauty of sunrise and sunset we miss because we are in bed or we are doing something else. So the beauty of nature, the beauty of sky, the stars have an impact on the beauty of nature. All this leads to spiritual experience, the more you become transpersonal, the more you become unselfish, the more you get involved in others, spiritual experience starts. And it gives you experience, it makes you mature, and you find your life now reflects more of what Vinoba used to stress 'सत्य, प्रेम एवं करुणा'. Your life now starts reflecting truthfulness, love and compassion. Vinoba used to say, the embodiment of *satya* was Rāma, the embodiment of love was Kṛṣṇa and the embodiment of *karuṇā* was Buddha. He says, read the lives of these people. That is how you will understand what is truthfulness, what is love and what is compassion.

Now everyone may ask that there must be something concrete. Talking in general way philosophically does not help you come down to concrete steps. It has been done by others, the yoga tradition, which is the oldest practical spiritual tradition, in my view, Sāṅkhya was the philosophy, intellectual framework, but the Yoga is applied. It is practical, it goes into detail. For the long time in our country, thought of some activities which you must desist from, you should not do them and some activities which you must get involved in one they call *yama* another they call *niyama*. And if you start thinking a little, they have not chosen it randomly. In one case *yamas* are five in numbers, *ahimsā*, *satya*, *asteya*, *brahmacarya* and *asaṅgraha*, and then Patañjali says, एते जातिदेशकालसमयानवच्छिन्नाः सार्वभौमा महाव्रतम् (YSū. II.31). These five *yamas* are to promote ecology in society, to promote harmony in society, to promote goodwill in our country, everywhere. Whatever your tradition may be, these are important. One is non-violent, non-hurting, non-exploitation and *brahmacarya* is non-deviation from the law of your being, your *dharma*. Be faithful for it. Don't follow somebody else. And Kṛṣṇa says also 'स्वधर्मे निधनं श्रेयः परधर्मो भयावहः' (Gītā III.35). You be true to your *dharma*. The law of the being with it your bonn, genes, the quality in bonn, they decide your personality. You try to understand it, you be faithful to it, *asaṅgraha* non-holding, you need things in life, but take as many required, but not go on holding.

ध्यायतो विषयान् पुंसः संगस्तेषूपजायते। (Gītā II.62)

And then he says eventually *krodha* comes, because you can't satisfy your own.

क्रोधाद्भवति सम्मोहः सम्मोहात्स्मृतिविभ्रमः। स्मृतिभ्रंशाद् बुद्धिनाशो बुद्धिनाशात् प्रणश्यति॥ (Gītā II.63)

The *niyamas*, conscious effort to promote the internal harmony. *Yama* is more concerned with external harmony in society, but here *niyamas* are to look in your ecology, your mental being, your physical being, your vital being. Are they healthy, are they working well, are they efficient to promote the internal harmony, internal efficiency, internal ecology. You observe *śauca*, *santoṣa*, *tapas*, *svādhyāya* and *īśvara-praṇidhāna*, parity in life. It's for you to work-out and your parents, your teacher, your society should help you to understand what is purity i.e. *śauca*. *Santoṣa* is very important thing in our country. We stress an optimistic, positive approach to life, become cynical or negative in approach. One should have a cheerful attitude, understand and try to sort out problems. The problems are there but the shouting does not help.

Then *tapas* everyone needs something, some exercise, some *yoga* whatever you may call it and through internal ecology. The body, mind, intellect are not working well. We have a sick body and a sick mind. Intellect may also be sick. To be sure that they become healthy, they contribute the best for proper growth, one has to take to austerity. It is not uniform; it depends on one's own condition.

Don't go on condemning things around, it does not help. The whole system is such that each one has to understand, the strength and the weakness of personality of his own internal ecology *svādhyāya*, to learn your own, to study, to think of your own *svādhyāya*. There are various ways of interpreting it and finally ईश्वर प्रणिधानः— This is something which starts with Patañjali's *Yoga-Sūtras*, dedication to our ideal. This *Īśvara* is not realized by going to temple and offering worship, that is not *Īśvara*. The concept in *Yogasūtras*, there is reference to an ideal person क्लेशकर्मविपाकाशयैरपरामृष्टपुरुषविशेषः ईश्वरः (YSū. I.24) 'तत्र निरतिशयं सर्वज्ञ बीजम् (YSū. I.25). And various things mentioned about *Īśvaraḥ* is a very different concept. The *sthītaprajña*, man becomes divine. That should be your ideal. You have the ideal in this case, it is the personality of the *Īśvara* as defined in the text, not *mūrti* or anything else. There is something associated with this *puruṣa-viśeṣaḥ*. Kṛṣṇa calls Him *Puruṣottama* and we use the word *Maryādā-Puruṣottama* for Rāma. There are the people who have certain ideal for us. One should choose that ideal, and be through to it.

We have to understand, Science and Spirituality how these two are working in society. Science is not immediately having impact on its own. It works through its handmaidens, i.e. technology and engineering. Science by itself is immoral, Science has no ethics, but ethics bad and good, cruel and kind and aggressive, all that comes in technology and engineering, which are the derivatives of Science. But I am happy to see that Sri Aurubindo was able to understand the Spirit of Science, which also is the Spirit of Spirituality. Science is a thing, common to all men in its conclusions open to all its method.

The following chart furnishes the data with regard to the *Aparāvidyā* and *Parāvidyā*:

SCIENTIFIC KNOWLEDGE (<i>Aparāvidyā</i>)	SPIRITUAL KNOWLEDGE (<i>Parāvidyā</i>)
Intellectual	Intuitive
Experimental	Experiential
Objective	Subjective
Of the outer, material world	Of the inner, mental world
<i>Vyāvahārika</i> (dealing with practical realities)	<i>Pāramārthika</i> (dealing with the Absolute Reality)
Unique, objective intellectual formulation	Diverse, subjective intellectual frameworks
<i>Laukika</i> (worldly, material)	<i>Ādhyātmika</i> (Other-worldly, spiritual)
Emerges from an observational, active mind	Emerges from a meditative, quiet mind
A-moral (neither moral nor immoral)	Source of Morality

It is international ethics in its very nature there can be no such things as the national science, but only the nation's contribution to the work and growth of science which are the indivisible to inheritance of all humanity. Among the people whose works not at all read, like the works of *Ācārya* Vinoba Bhave. Only recently, they published twenty volumes all in Hindi. This has been published by Povnar Aśram. Twenty volumes based on lectures of *Ācārya* Vinoba Bhave, thirty volumes of Sri Aurobindo. And we have number of volumes dealings with the *yoga* of Swami Vivekananda. People who are interested, at least should go and read these volumes. Science character, there are many things mentioned about science, they also apply to spirituality.

There are two traditions, dynamic tradition, growing traditions. Our scientist friends will see that science leads to technology, technology leads to engineering. Science, technology and engineering, but for some reason, the government is fond of saying science and technology. Engineering is ignored and duly ignored in institutions also. So, that we failed in the field of engineering. We have to get technology engineered by others and they will come and do it for us.

So, the hallmark of science is original thinking, hallmark of technology is innovative thinking, the hallmark of engineering is practical. We think of scientific research, we think of technological development, we talk of engineering design. Each one is a culture; they are inter-dependant, but three distinct cultures. Each one has its own distinctive personality. They interact with each other. And the example, what is science, what is technology, what is engineering. You have heard about the nuclear atomic science, technology and engineering, the scientist opted looking into what happens to heavy atoms when they are bombarded its particles, they break-up. This is known as nuclear fission. They started studying it and they got some results and they also noted while this fission takes place some energy get released. This is science. They start developing technology by which you can control nuclear fission. So, it produces energy and you can use it by the way of engineering to produce power.

The other application is when you want to produce weapons of destruction,

nuclear. We are going nuclear means we are concerned with weapons, weapons for destruction. Same science, where a scientist does research in laboratory comes out its facts, technologist seizes it, he develops it, then engineers step in because he measures its destruction, construction whatever he wants to put to use. So, science is immoral, there is no ethics in it. But technology and engineering reflect the human weakness and strength. They develop technology and engineering and they use for various purposes. May be to make money, commercial liability, having power, all that comes in technology and engineering but not in science. But something similar happens also in the spiritual life.

So, as far as society is concerned, spirituality is not the thing which anyone understands, most people have no time to go into the spirituality, but they know they need a religion, they need rituals. Out of spirituality a religion emerges and a religion is taken over by peoples' strength and weaknesses and then finally religion gets organised.

Spirituality is a personal experience. You gain some knowledge from your own experience, but then often the person who has the experience; he wants to convey his experience to others. So, slowly a philosophy, a way of life, because of altruistic thinking to help people and finally organisational thinking, because he wants to do it in large scale. So from spirituality comes religion, philosophy etc. and how then comes institutionalisation. So, we can compare now, religion is in a way some sort of technology coming out of science, religion comes out of spirituality and institutionalising it similarly a way to technology. There are three examples:

At first Buddha, then there is *dharma* and then there is *saṅgha*. You read how these things developed. Buddha worked for 7 or 8 years sought spiritual fulfilment, he attains *jñāna* at Bodhgaya. But having got it, he asked himself what is the use, people are still suffering. So, he came to Sarnath. The scientist now becomes technologist, he develops a religion, he develops a way of life and then he gives that well-known *dharma-cakra-pravartana sūtra* in Sarnath. He talked of the middle-way, he talked of the noble-truths, he talked of the eight-fold path, very beautiful. The first sermon given by the Buddha is the development of technology through science.

And having attained it, he goes around these things. At about 35-37 he leaves home and experiences *bodhi*. He then lives for forty-five years and at about eighty he feels he is not able to do much, alone what can I do, but I want to go बहुजन हिताय, बहुजन सुखाय. And the only way he organizes it is '*saṅgha*'. And '*saṅgha*' was necessary and finally Aśoka utilizes it, sends members of *saṅgha* to various countries, Buddhism becomes the world religion. All that happen बुद्धं शरणं गच्छामि, धर्म शरणं गच्छामि, संघं शरणं गच्छामि, the three *saraṇas* of Buddhists are there. Same thing happens to Christ. Christ leaves his home at a young age. No one knows still today, what did he do from the age of 11 to 28, when he returns and he gives the sermon on mount. Some westerners have

found and they have published books also that Jesus came to India, he lived in a monastery in Srinagar. That is where he learnt many things of our own tradition. Then he has his own realization. Then he feels that I can help my people and goes back to his people. Then he gave the sermon on the mount. And how does he start, Blessed and be pure and you will see God.

Same thing *antaḥkaraṇa-suddhi*, finally you will see God. Then he said, my father and me are one. This is not Christian concept but Indian concept, which has gone into the Jewish tradition. And finally, before he dies, seeing the danger to his life and seeing all activities around, he established church. To Peter, his disciple, he says, You Peter make a rock, on this rock I am establishing my church. Take the message all over the world. What did Śaṅkara do? Śaṅkara comes all the way from Kerala, goes around, looks for his teacher at Godavari, he meets this great teacher Govinda Bhagavatpāda, he has his experience. Having got this experience at very young age, he starts writing the *Prasthānatraya*. And the people says it all happened in Varanasi perhaps. And he goes around, talking to people, getting involved in debate. He also realizes that his life is not going to be very long and the message has to go on. He collected disciples and established monasteries. His *Advaita* Philosophy was the technology, the monasteries and organisation is the engineering of the technology. There are not much scandal about Śaṅkara's monasteries. So, one should look into every aspect where spiritual personality gives something a way of life and immediately something is built up. And our people should know the difference between Religion and Philosophy.

Ācārya Vinoba Bhave was a great man, because he did not speak in English, he did not hobnob. His teachings are lost more or less, and Jawahar Lal Nehru and some others are responsible for keeping him at distance, although, he was *gurubhāi*, disciples of Gandhi.

Once he said, “Science is equal to Spirituality”, there is no higher knowledge, there is no lower knowledge. In India we think spirituality is higher knowledge, science is lower knowledge. Both are knowledge, both are necessary. To me, Science is equal to Spirituality, the former is more concerned with the outer aspect of the world, the later with the inner aspect and both combined will give us the whole world in ourselves.

We must ponder over the beautiful statement, hitting the nail on the head, science has force, science has speed, science has action, but no direction. The direction has to be imparted by spirituality. It is a very wise statement. Science can produce beautiful machine, beautiful car, various types of roads but what is most important is the steering wheel, without which the car cannot go where it wants to go. He says spirituality is like a steering wheel and has come out of his last experiences. Where does science go, science has no direction. Science may build beautiful things, but something may be to give it direction, spirituality. So, spirituality, according to

many Indian teachers, is the source of ethics. Science is not the source of ethics. Vinoba was fond of mathematic equations. So, this is something he popularised. Science plus Spirituality is *Sarvodaya*. Science minus Spirituality is *Sarvanāśa*. Very simple equation.

Now, some well influential Westerners, one of them was Assistant Secretary General of the United Nations, name Robert Muller. He spent nearly thirty years with the United Nations. He said, 'one dimension has been missing from the extraordinary journey of United Nation for over forty years and dimension lamented by three Secretary Generals. Spiritual dimension, the highest, the deepest, the most common, universal and binding dimension of all'. This dimension is still missing. Dr. Robert Muller addressed the 1993 Parliament of World Religion, to commemorate the great event when Swami Vivekananda hit the world headlines. Afterwards his talk he came to me, he said, you Indians have some treasure, why don't you share it with the world. I said, what it is, Spirituality. I told him with great sorrow, even in India, it is not easily available, and then an eighty's thinker, he said this very beautifully. I don't know what persuaded him to write this "The third millennium will be spiritual or there will be no third millennium". Finally, in the last days he wrote, 'Science can give you so many ways for sorting your problems, but the actual choice will depend on consideration of nothing to do with science'. So, we have to see those considerations, which come from spiritual sources.'

So, Vinoba once wrote on '*Vijñāna aur Adhyātma*' my book he gave a small verse of introduction:

‘वेदान्तो विज्ञानम् विश्वासश्च इति शक्तयश्च तिस्रः। यासां स्थैर्यं नित्यं शान्तिसमृद्धी भविष्यतो जगति’॥

Spirituality, science and faith are three forces operating human family you must full faith in the efficacy of science and spirituality, they separating in the human family. If these three endure, there will be lasting peace and prosperity on earth. So, Vinoba felt the important thing is both should be cultivated and you must have a faith that they are going to help you, they are going to elevate you, they are going to solve the problems of the society.

-Again I go back to Sri Aurobindo. Long time ago, he was aware of what was going in this country. India has three tasks to perform. Nearly 80-90 years ago he wrote, "recovery of the old spiritual knowledge and experience in all splendour, depth and fullness is India's first and most essential work". This essential first work is recapture, recover the old spiritual knowledge, and experience in all splendour, in all its depth, it is fullness first task. Second, the flowing of spirituality ... in new forms of philosophy, literature, science, critical knowledge, politics, everything is the second task. So, you must find solution, the flowing of spirituality with new forms of philosophy, literature, arts because life goes on changing. Spirituality should be used to tackle the problems of society. Then finally he says 'An original being with the modern problems, in the light of India's spirituality and the endeavour to formulate a

greater synthesis of spiritualised society is the third and most difficult task. India's success on these lines will be the measure of its help to the future of humanity' was written again in the Foundations of Indian Culture, 1921.

Now, of course one must also know how Sri Aurobindo felt about what is happening. He wrote it and I am glad to say he saw some hope at the time of Independence. He gave a message to India. On August 15, 1947 we became independent. It was his birthday. So, he gave a long message to India. "... This partition is temporary thing, it must be put to an end. By any means, finally it must be put to an end. India's spirituality is entering into Europe and America in an ever-increasing measure. That movement will grow with the disaster of the time, more and more eyes turning towards her with hope and there is an ever-increasing resort, not only to our teachings but our psychic spiritual practices".

India has developed many practices, some of them to give psychic *siddhis* and some of the finally spiritual realisation. And there are many people in this country who have held other people because of psychic *siddhis*, like Nirmala Devi, Satya Sai Baba. They have some power. They are not really spiritual giants, but they have something, that's why people rush to them. Spirituality means other area. People like Sri Aurobindo, Swami Vivekananda, Ramakrishna, J. Krishnamurti, Raman Maharshi, Annie Besant, Dayananda Saraswati, so much happened in this country, but all of them start with big way and then suddenly you find nothing much is going on. Finally, it reaches a plateau, there is small clique that manages the whole thing.

Sri Aurobindo is thus managed, by a group, Swami Dayananda is managed, by another. There is no growth at all, we simply repeat like parrots. Vinoba Bhave, or rather, his legacy has been hijacked by some second-rate people. I feel so sad about it.

Let me conclude by summarizing the great message of our Upaniṣads. Science, referred to as *Aparāvidyā* and *Vijñāna*, and Spirituality, known as *Parāvidyā* and *Adhyātma*, are the different theories. In fact, they constitute the basic domain of knowledge. Man needs them both. There is a great need now to reorganize our education system to include both Science and Spirituality, in theory as well as in practice, so that our girls and boys can grow into balanced and all-rounded personalities by imbibing the best of both. As things stand today, there is not much hope of the political leaders contributing in this area. We need non-governmental and idealistic institutions, like Jñāna-Pravāha here and Āshram Ātmadeep in Gurgaon to take the initiative and lead a movement in this regard.

* * *

Lecture delivered at Jñāna-Pravāha on March 02, 2003