# Patanjali Yoga and Scientific Value System

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**Religion Versus Science**

This is the age of science and technology. It is also the age of conflicts, clashes and terrorism. The human race has never had it so good with respect to material prosperity, but is not able to enjoy it contentedly because life has become so uncertain. Science has successfully fulfilled its promise of material welfare, but has failed to deliver peace of mind. Mankind is caught betwixt the devil and the deep sea, between science on the one hand and organized religion on the other. Most of the scientists today believe that religion is a mass of superstition and most religionists feel that science is a monster poised to destroy the world.

There are, however, a small percentage of scientists and religionists who hope that a way can be found out of this morass by a proper amalgamation of the two. But, prejudices die hard on both sides. The main objection raised by science against religion is that the latter is irrational and cannot stand the test of reason. But is this really true?

The conflict between science and religion is essentially a Western phenomenon. India has never faced this problem, because science has always been considered to be as much a quest for Truth as religion or philosophy. Still, modern day scientists have been so well soaked in western ideas and concepts that it is difficult for them to appreciate that certain aspects of philosophy and spirituality can be as scientific as science itself.

The intention of this article is to address this question and to demonstrate that certain age-old spiritual practices can be scientific and amenable to investigations following the methodology of conventional scientific investigations.

**Science and its Values**

Science, as we know it today, is a product of the West. It had its origins in ancient Greece and spread throughout Europe in the post-Christian era. It has had its ups and downs, depending upon the political upheavals in Europe. It was only in the sixteenth and the seventeenth centuries that it came into its own, thanks to Francis Bacon, Rene Descartes, Galileo and most importantly Isaac Newton. Since then it has dominated world-thought and progress through its technological innovations, commencing with the Industrial Revolution until its modern form of the Computer Revolution. Science, with its by-product technology, now permeates entire humanity in all walks of life.

The word science owes its origin to the Latin word *scientia*, meaning knowledge. In this sense, it stands for the entire content of human

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knowledge. However, knowledge itself is subdivided into two categories, viz., science and humanities including liberal arts. The latter impinge upon human life directly and have evolved a code of conduct or value system of their own. But, there is a general impression in the public mind that, unlike its sister, the liberal arts, science has no value system. This impression is due to the fact that most often we tend to confuse between science and technology. Science, as the practice of the quest for Truth, does have its own value system. Otherwise, it would not have become so powerful a branch of knowledge, and influenced practically every activity of the human race.

What is this value system which has made science a force to reckon with today? In his classic study of the sociology of science, Robert Merton[1] has enunciated four basic values of science, viz. Universalism, Communalism, Disinterestedness, and Organised Scepticism. These values are respected by scientists, because, if they do not follow them, they or their work will be unacceptable to the scientific community. This value system is like an unwritten constitution, which has gained respectability because generations of scientists have followed it and made science non-partisan and global. We will now have a brief look at these values.[2]

***1. Universalism***

This value demands that science should be independent of race, colour, creed, or gender and that it should be essentially international in character, with no artificial boundaries. This makes science essentially a unifying factor among diverse races and creeds. Two classic cases can be cited here. The first one is Hitler's attempt to dub the Theory of Relativity as Jewish science, since it had been enunciated by Einstein, a born Jew. Hitler's attempt to ban the teaching of this theory ended in failure, because the scientific community was not prepared to accept such prejudices.

The second example is that of William Shockley, a Nobel Prize winner in physics, who tried to prove that black races are intellectually inferior to white races. This, again, was vehemently rejected by the scientific community.

***2. Communalism***

This value requires that scientific knowledge should be public knowledge, not the exclusive prerogative of any group. It also means free and frank exchange of scientific information among scientists across national boundaries. This is ensured by the system of publications in scientific journals, under strict supervision of quality. It is also absolutely necessary to ensure that any scientific discovery is authentic and trustworthy.

There are innumerable instances in the history of science to show the importance given to fidelity. The best example is that of Newton, who withheld the publication of his Gravitational Theory for almost 16 years, because his theoretical predictions did not agree with the available observational data. For his deductions, Newton had used a value for the distance of the moon from the earth, which was based on observations available at that time. However, later observations refined this value. When Newton plugged the new value into his equation, he got almost perfect agreement between theory and observation. It is only then that Newton decided to publish his magnum opus, *Principia Mathematica Philosophiae Naturalis*. Such was his sense of honesty!

***3. Disinterestedness***

This value of science demands that the results of scientific research should not be

influenced by any ideology, or manipulated to serve for personal profit. They should be honest, objective, and impersonal. This is perhaps the greatest strength of science.

The best example in this context is the way the Soviet regime distorted science during the Stalinist era. Many were the attempts made by it to show that most of the important scientific advances made by the rest of the world, like Relativity and Quantum Mechanics, had already been done by Soviet scientists much earlier! The international scientific community, however, was not prepared to swallow this claim, because it lacked proof.

*4. Organised Scepticism*

This value demands that no scientific statement should be accepted based only on the word of authority. There must be intellectual freedom to question such statements. According to science, the test of validity of any statement is experimental or observational verification.

When Schrödinger introduced probabilistic concepts into Quantum Theory, Einstein was dismayed and made the famous remark 'God does not play dice with the universe.' However, later investigations showed that the younger scientist was right and the senior one was wrong!

If science today has become a force to reckon with and is influencing human life in all spheres, it is because of its strict adherence to the above value system.

**Religion and its Values**

Apart from science, there is one more potent force which has significantly influenced human life. Ever since the human being discovered that all earth-bound phenomena are transitory and ephemeral, he has been passionately seeking for something which is beyond time and space. Based on his experiences and realisations, the human being has developed several theoretical frameworks called philosophies and has tried to put them into practice by systems of religion.

There are several such schools of philosophy and religion in the world today, the most prominent being Hinduism (*Sanatana Dharma*), Judaism, Christianity, Islam, Buddhism, Jainism, and many others. These possess their own dogmas, beliefs, and methodologies. Over a long period of time, they have tended to become rigid and some have even fossilised. The great souls who have given birth to them have been remarkable intellects and geniuses. But their followers, unfortunately, have not been able to match the intellect or the brilliance of the masters and have interpreted these religions according to their own limited capacities, like the blind men trying to explain an elephant by feeling its parts. No wonder, their partial interpretations and explanations have given rise to the spectre of sectarianism, bigotry, persecution and the most recent phenomenon, religious chauvinism and fundamentalism. Unlike science, which has become a unifying force, religion has only served to divide humanity into several sects, who keep quarrelling with one another constantly. This is also another reason why there has been general withdrawal from Organised Religion and a great rise in materialism.

This situation has prompted many great souls to search for a universal religion, which can be a panacea for all evils. But the human experience has been that even such movements end up finally being labelled as one more religion or sect. What one needs today are not new religions or amalgamations of existing religions. We need to assess all existing religions, philosophies and dogmas to find out which one of them comes closest to the value

system, which has made science so universal and powerful.

As described above, the four important characteristics of science, which make it universally acceptable are Universalism, Communalism, Disinterestedness and Organised Scepticism. If we apply these criteria to the existing religious practices, very few of them qualify to be called scientific. It is not that these religions are false or useless. It is quite well known that faith, blind or otherwise, plays a major role in the acceptance of a religion and its practice. However, the modern mind of a so-called educated person, brought up in the traditions of science, attempts to stretch its scepticism to the utmost before accepting any religious practice as meaningful or worth the while. It thus becomes all the more imperative that we look for a religious practice which throws a challenge to the modern mind and dares it to experiment with it.

**The Challenge of Patanjali Yoga**

Among several of the existing spiritual practices, there are two that display these characteristics of science. They are Advaita Vedanta or Nondualism, and Patanjali's Raja Yoga. The former is quite out of the reach of most people because of the lack of competence on the part of practitioners and, more importantly, because of the lack of opportunities. The latter, however, is more easily accessible and is quite a rage today. We propose to examine how this Yoga satisfies the value criteria of modern science. Before we do that, we should first understand what Patanjali Yoga is all about.

Indian philosophy has six branches *(Shad-darshana)*. These are—Nyaya (Logic), Vaiseshika (Atomism), Sankhya (Creation), Yoga (Union), Purvamimamsa (Karmakanda of the Vedas) and Uttaramimamsa (Jnanakanda of the Vedas). Each one of these philosophies is associated with a textbook, written in the form of aphorisms or sutras. The book associated with Yoga is believed to have been composed by a sage called Patanjali and goes by the name *Patanjala Yoga Sutras*.

True to the tradition in Indian scriptures, more is known about this book than the author himself. All that is known about Patanjali is that he flourished sometime between the second century BCE *(Before the Common Era, earlier known as BC)* and the second century CE *(Common Era, earlier known as AD)* and compiled the existing knowledge about Yoga into a systematic branch of philosophy. It is a highly practice-oriented subject, with its theoretical foundation provided by the Sankhya philosophy.

The book itself, containing 196 aphorisms, is divided into four chapters or 'quarters' *(pada)*.

*The first* chapter, called the Samadhi-pada, introduces the concept of Samadhi, its multifarious forms, the concept of Omkara, the obstacles faced by a practitioner and the methods of overcoming them.

*The second* chapter is called Sadhana-pada, dealing essentially with the practical aspects of how to refine and control the mind.

*In the third* chapter, called the Vibhuti-pada, Patanjali discusses the changes that occur in the human mind on its way to Samadhi through concentration and meditation. It is this study of the mind which has led many scholars to call Patanjali Yoga Sutras a text on Indian Psychology. This chapter also contains a list of powers acquired by yogis through their practice.

*The last* chapter, known as Kaivalya-pada, is about the last stages of the practice when the meditator dissolves in the object of meditation. Patanjali calls the last state simply Kaivalya or Aloneness, without explaining what it is.

At first sight, the book appears to be the collection of a set of disjointed aphorisms. But, a more careful and detailed study reveals the connecting links. Like Buddha, Patanjali also feels, for several reasons, that human life is full of sorrow. He believes that the experience of sorrow is due to *avidya* or wrong perception. This is due to the superimposition of the Consciousness, Purusa, on the inert material content, Prakrti. According to Patanjali, the separation of the two is *vidya* or right perception. When this separations happens, all sorrow disappears.

How can a yogi bring about this separation? Patanjali says that the method to do this is Ashtanga Anushthana, or Ashtanga Yoga. This is the practical aspect of Yoga which has become very popular around the world.

The Ashtanga Yoga, as the very name suggests, consists of eight limbs—*Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi.* Of these,

Yama and Niyama are ethical practices,

Asana and Pranayama are physical practices,

Pratyahara and Dharana are mental practices, and

Dhyana and Samadhi are supramental states of existence. □

*(to be continued. . .)*

**References:**


1. Merton, Robert, *The Sociology of Science*, Chicago University Press, 1973.
2. Also see, Swamy, N.V.C, 'Values in science and technology', 'The Vedanta Kesari', December 1995.


## Secret of Knowledge

'We have but one method of acquiring knowledge. From the lowest man to the highest Yogi, all have to use the same method; and that method is what is called concentration. The chemist who works in his laboratory concentrates all the powers of his mind, brings them into one focus, and throws them on the elements; and the elements stand analysed, and thus his knowledge comes. The astronomer has also concentrated the powers of his mind and brought them into one focus; and he throws them on to objects through his telescope; and stars and systems roll forward and give up their secrets to him. . . . In making money, or in worshipping God, or in doing anything, the stronger the power of concentration, the better will that thing be done.'

—Swami Vivekananda, CW:2.391


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# The importance of not asking for anything

I heard this story from Swami Niramayananda (1911-1984), a senior monk of the Ramakrishna Order. He was a disciple of Swami Akhandananda, one of those great saintly disciples of Sri Ramakrishna. Swami Niramayananda's pre-monastic name was Bibhuti. At the time of the incident I am going to narrate, he was staying as a novice at our Sargachhi ashrama in Bengal with his guru.

A junior professor named Madhavrao Golwalkar was teaching in Benares Hindu University in the early 1930s. After teaching at the university for three years, he resigned his position and went to Nagpur. There he studied law and became a lawyer. In Nagpur he came in contact with Swami Bhaskareswarananda, head of the Nagpur branch of the Ramakrishna Order. From him he came to know that one of the disciples of Sri Ramakrishna, Swami Akhandananda, was then living at the Sargachhi ashrama in Bengal. Around that time Golwalkar developed great spiritual yearning and keenly felt the need for a guru. So he went to the Sargachhi ashrama to have spiritual initiation *(diksha)* from the swami. After initiation Golwalkar continued to stay on as a brahmachari for a while and served his guru wholeheartedly. He followed his guru like a shadow, making himself available to serve.

Once, late at night, Bibhuti heard Swami Akhandananda talking aloud to someone. Bibhuti wondered why the swami was talking so loudly at that hour. Curious, he came to the door of the swami's room and saw an unexpected sight. The door was open and a kerosene lantern was lighting up the room. The swami was seated on his bed, and Golwalkar was kneeling on the floor, facing the swami with his hands folded in salutation.

Apparently in response to Golwalkar's prayer, Swami Akhandananda was giving him his blessings. Bibhuti heard the swami say to Golwalkar: 'You will have the knowledge of Brahman!' A few days later, with his guru's permission, Golwalkar left the ashrama. Later in life, he became renowned in India as a leader of a well-known idealistic youth organization.

Witnessing that incident, Bibhuti felt a great sadness of heart, because Swami Akhandananda had never blessed him the way he had blessed Golwalkar.

As days passed, his sadness deepened. Then one day Swami Akhandananda said to Bibhuti, 'I have to go to the bathroom. Please bring a pot of water so that I can rinse my feet after I have used the bathroom.' The bathroom was a separate building, away from the residential quarters of the ashrama. Bibhuti did as he was asked. He walked behind his guru with a pot of water. Swami Akhandananda approached the bathroom, but didn't enter it. He turned around and said to Bibhuti, 'Bibhuti, those who pray for something, get it; but those who don't ask for anything get much more.' So saying the swami returned to his room.

Bibhuti understood that his guru had come to know the whole thing, even though he hadn't expressed it to him. He also understood that there was selfishness even in asking for blessings in spiritual life. Those who are totally selfless—and do not ask for anything—they alone get the highest rewards in spiritual life. □

Courtesy: *Life in Indian Monasteries*, by Swami Bhaskarananda. Published by Viveka Press, USA. 2004, pp.16-19.