

love etc. The principle is this: We do not have love in our hearts for anybody; we have to act as we would have done if we had. This will, in course of time, induce true love in us. The principle is the same as in the case of an adopted child. The parents in the beginning do not have the same natural love they would have had to their own child if they had one. They develop it in themselves gradually by treating the child as if it were their own. Similar is the process here.

Thus in the scheme of religious discipline, there is an honoured place for the various codes of accepted ethical conduct—from the moral precepts taught to a child, good gentlemanly behaviour, and rules of social etiquette to higher acts of bravery and self-sacrifice. But we should not forget that there is a higher stage of morality and a lower stage, and a stage of trans-morality, when man is not bound down by conventional morality. That stage is when man lives day in and day out in unbroken

God-consciousness. In that stage, he may apparently break our accepted code of ethics, but is never immoral; whatever he does in that stage is in tune with morality, but a morality that has its sanction in the highest of all authorities, viz God and his own inner consciousness, and is conducive to the good and welfare of humanity. It is this highest stage of man which is beautifully described in the *Gītā* thus: 'He who hates no creature, and is friendly and compassionate towards all, who is free from the feelings of "I and mine", even-minded in pain and pleasure, forbearing, ever content, steady in meditation, self-controlled, and possessed of firm conviction, with mind and intellect fixed on Me; he by whom the world is not agitated and who cannot be agitated by the world, who is freed from joy, envy, fear, and anxiety—he is dear to Me.' (XII. 13-15)

The path to that highest stage, no doubt, lies through the hard discipline of ethics, but the goal should never be lost sight of.

SWAMI VIVEKANANDA'S SYNTHESIS OF SCIENCE AND RELIGION—2

SWAMI RANGANATHANANDA

(Continued from the previous issue)

INDIA'S VISION OF UNIVERSAL SCIENCE-RELIGION

Religion as developed and understood in the West was, in its aims and methods and data, opposed to this spirit of rational seeking and investigation. It was taken as something finished and ready-made, which men were asked to believe—a creed or a dogma, a frozen piece of thought, which men were called upon to accept. That was why it came into fierce collision

with the advancing tide of science with its spirit of seeking and rational inquiry. In India, on the other hand, religion has always been understood to be a matter of seeking, finding, and verification, as any of the branches of science. This is a statement that will be found corroborated in the great Upaniṣads of ancient India and in the literature of Swami Vivekananda of our own times.

Tracing the recurring conflicts of science

and religion in the West to the absence of this broad approach, Vivekananda said :

'We all know the theories of the cosmos according to the modern astronomers and physicists, and at the same time we all know how woefully they undermine the theology of Europe; how these scientific discoveries that are made, act as a bomb thrown at its stronghold; and we know how theologians have in all times attempted to put down these researches.' (*The Complete Works*, Vol. II, p. 433, 9th edition)

When religion refuses to take the help of reason, it weakens itself. Alluding to this in the course of a lecture on 'Reason and Religion', delivered in England in 1896, Swami Vivekananda said :

'The foundations have been all undermined, and the modern man, whatever he may say in public, knows in the privacy of his heart that he can no more "believe". Believing certain things because an organized body of priests tells him to believe, believing because it is written in certain books, believing because his people like him to believe, the modern man knows to be impossible for him. There are, of course, a number of people who seem to acquiesce in the so-called popular faith, but we also know for certain that they do not think. Their idea of belief may be better translated as "not-thinking-carelessness".' (ibid., Vol. I, p. 367, 11th edition)

And pleading for the application of reason in the field of religion, he continued :

'Is religion to justify itself by the discoveries of reason through which every other science justifies itself? Are the same methods of investigation, which we apply to sciences and knowledge outside, to be applied to the science of religion? In my opinion this must be so, and I am also of opinion that the sooner it is done the better. If a religion is destroyed by such investiga-

tions, it was then all the time useless, unworthy superstition; and the sooner it goes the better. I am thoroughly convinced that its destruction would be the best thing that could happen. All that is dross will be taken off, no doubt, but the essential parts of religion will emerge triumphant out of this investigation. Not only will it be made scientific—as scientific, at least, as any of the conclusions of physics or chemistry—but it will have greater strength, because physics or chemistry has no internal mandate to vouch for its truth, which religion has.' (ibid., Vol. I, p. 367, 11th edition)

A study of the Upaniṣads reveals that the subject of religion was approached in ancient India in an objective, dispassionate manner; the aim of the study was to get at truth, and not to hug pleasing fancies and illusions or to idolize tribal passions and prejudices.

In several of his lectures and discourses, Swami Vivekananda has expounded the scientific approach to religion as upheld in Indian thought. In his lecture on 'Religion and Science', he says :

'Experience is the only source of knowledge. In the world, religion is the only science where there is no surety, because it is not taught as a science of experience. This should not be. There is always, however, a small group of men who teach religion from experience. They are called mystics, and these mystics in every religion speak the same tongue and teach the same truth. This is the real science of religion. As mathematics in every part of the world does not differ, so the mystics do not differ. They are all similarly constituted and similarly situated. Their experience is the same; and this becomes law. . . .

'Religion deals with the truths of the metaphysical world just as chemistry and the other natural sciences deal with the

truths of the physical world. The book one must read to learn chemistry is the book of nature. The book from which to learn religion is your own mind and heart. The sage is often ignorant of physical science because he reads the wrong book—the book within; and the scientist is too often ignorant of religion, because he too reads the wrong book—the book without.' (ibid., Vol. VI, p. 81, 6th edition)

The Indian thinkers discovered by their investigations that there are two fields in which man functions: one, the external field; the other, the internal. These are two different orders of phenomena. The study of the one alone does not exhaust the whole range of experience. Also, the study of the one from the standpoint of the other will not lead to satisfactory results. But the study of the one in the light of the conclusions from the study of the other is helpful and relevant.

In a lecture on 'Cosmology', Swami Vivekananda said:

'There are two worlds, the microcosm and the macrocosm, the internal and the external. We get truth from both of these by means of experience. The truth gathered from internal experience is psychology, metaphysics, and religion; from external experience, the physical sciences. Now a perfect truth should be in harmony with experiences in both these worlds. The microcosm must bear testimony to the macrocosm, and the macrocosm to the microcosm; physical truth must have its counterpart in the internal world, and the internal world must have its verification outside.' (ibid., Vol. II, p. 432, 9th edition)

Thus the thinkers of ancient India said: Here is the physical life of man, and here is the physical universe that environs him. Let us study both in a scientific spirit. But let us also study him in his depths, his

nature as revealed by his consciousness, his awareness, his emotions, his ego, and his sense of selfhood. These latter also constitute a vast group of phenomena that need to be investigated. Every advance in this field is bound to advance also man's knowledge about the truth of the mystery of the external world. For to quote Eddington again: 'We have discovered that it is actually an aid in the search for knowledge to understand the nature of the knowledge which we seek.' (*Philosophy of Physical Science*, p. 5)

The method of investigation in the field of religion is largely the same as in the positive sciences: collection of facts, their classification, a dispassionate study of these so as to reveal the law or laws underlying them, such knowledge leading to the control over the phenomena concerned, and, finally, the application of such knowledge for the alleviation of human suffering and the enhancement and enrichment of human life. This kind of study of religion, as a thorough scientific study of the facts of the inner life, was undertaken by the great thinkers of ancient India; the insights which they gained were re-tested and amplified by a galaxy of subsequent thinkers, leaving to posterity the invaluable legacy of a rich and dynamic scientific tradition in the field of religion. It is because of this adamant base that Indian spirituality has stood the test of time. That also explains its hospitality to modern science, and its pride in the remarkable achievements of this sister discipline developed by the modern West.

'The true Vedāntic spirit', says Romain Rolland, 'does not start out with a system of preconceived ideas. It possesses absolute liberty and unrivalled courage among religions with regard to the facts to be observed and the diverse hypotheses it has laid down for their co-ordination. Never having been hampered by a priestly

order, each man has been entirely free to search wherever he pleased for the spiritual explanation of the spectacle of the universe.' (*Life of Vivekananda*, p. 196)

After a thorough investigation into the real nature of man, the sages of the Upaniṣads made a fundamental discovery: Man, in his essential nature, is divine; behind the finite man is the Ātman, ever free, ever pure, and perfect. The body, the mind, and the ego are merely the externals of the real man who is immortal and divine. This discovery led to the further discovery that the same divinity is the ground of the world as well. This they termed Brahman, the totality of the Self and the not-Self which they characterized as *satyam jñānam anantam*—'Truth, Awareness, and Infinity'. In the *Mundaka Upaniṣad* (I. i. 3), we find this question put by an earnest student to a great teacher:

Kasmin nu Bhogavo vijñāte sarvam idam vijñātam bhavati—

'What is that reality, O Blessed One, by knowing which we can know all that there is in the universe?'

Is there such a unique reality by knowing which we can understand all the manifestations of nature, internal as well as external? Is there a unity behind this diversity, a one behind the many? To this question, the teacher gave a very significant reply:

Dve vidye veditarye iti ha sma yad Brahmanido vadanti parā caiva aparā ca—

'Two are the types of knowledge to be acquired by man; so say the knowers of Brahman. One is called *parā vidyā*, higher knowledge; the other is called *aparā vidyā*, lower knowledge.' (ibid., I. i. 4)

Both these must be investigated. Of these, the lower or ordinary knowledge, says the Upaniṣad, consists of the sacred Vedas,

phonetics, the code of rituals, grammar, etymology, prosody, and astronomy. In fact, it includes all the sacred books, literature, art, history, and science.

Here we have a scientific mind of the highest order—impersonal, objective, and detached. There is no desire to put forth a pet opinion; truth alone is the motive power, even if that truth goes against one's pet attachments and aversions. The teacher says that even the Vedas, the sacred books of the people, belong to the category of lower knowledge. Who would dare to say that his own sacred books are ordinary, except he who is of a detached and scientific frame of mind, and is in search of truth and not dogma—he who has no truth to hide, no opinion to uphold, no prejudices to defend, who just wants to know the truth and is prepared to sacrifice everything else into the bargain? No religion except the Vedānta has practised this bold detachment. The follower of every other religion, if asked what is ordinary knowledge, would unhesitatingly reply: 'All the sacred books of all the religions except my own.' But this teacher of the Upaniṣads had the detachment and boldness, proceeding from love of truth, to say that even the Vedas, held in such veneration by himself and by his people, were secondary; all the sacred books and all positive sciences and arts are but lower knowledge—*aparā vidyā*.

What, then, is left to be included in the category of *parā vidyā*, higher knowledge? The teacher proceeds to indicate this elusive theme. There is a tremendous field of knowledge still left, he thinks; but it belongs to a different order. So he says (ibid., I. i. 5): *Atha parā yayā tad akṣaram adhiḡamyate*—'That is *parā* by which the Imperishable is realized.'

Science and all the rest deal only with things that change, that are perishable. As Eddington puts it, science gives us

'knowledge of structural form and not knowledge of content'. The sacred books give us, says Sri Ramakrishna, only *information* about God and not God Himself. And yet we feel that, in the words of Eddington, 'all through the physical universe runs that unknown content'. What is that content? And how can we get at it? If the positive sciences cannot get at it, there must be another discipline, another line of inquiry, which must be able to give us this.

If the sacred books contain only *information* about God, there must be a discipline which gives us God and not merely *information* about Him. It is this inquiry that pervades the Upaniṣads and that has made them immortal even as literature. And the nature and scope of that inquiry and the way it was conducted have something superb about them. There is no effort to uphold an opinion, however dear; no struggle to pronounce a dogma and cling to it, and thrust it upon others; no trace of tiredness or laziness of mind seeking a resting place on the way. Truth, and nothing but truth, is the watchword. Suffused with the spirit of truth, they declared (*ibid.*, III. i. 6):

Satyameva jayate nānṛtam

Satyena panthā vitato devayānah—

'Truth alone triumphs, not untruth; the path to the highest excellence is spread out through truth only.'

And this path to the highest excellence is strewn with the debris of discarded opinions, pleasing dogmas, and broken hypotheses; thought was not allowed to rest on any of them for long; it forged ahead on the two wings of critical discrimination and inner detachment, wafted by the current of a single-minded passion for truth. One thinker puts forth his conclusion; another shows it as inadequate; this leads to further inquiry, leading to a

deeper pronouncement. There was this graceful conflict of thought between the most gifted minds, through which thought forged ahead. There was no national dogma or authoritarian church to suppress or arrest it. The whole process reached its consummation in the profound discovery of the imperishable Self of man, the Ātman, and its unity with the Self of the Universe, the Brahman. The entire process was a joyous voyage of discovery; looking back, they saw that the steps left behind were also valid and that man travels not from error to truth, but from truth to truth, from truth that is lower to truth that is higher.

MODERN SCIENCE AND THE MYSTERY OF MAN

Pleading for the viewing of man in his depths on the part of modern science, the eminent paleontologist, the late Père Teilhard de Chardin says:

'When studied narrowly in himself by anthropologists or jurists, man is a tiny, even a shrinking, creature. His overpronounced individuality conceals from our eyes the whole to which he belongs; as we look at him, our minds incline to break nature up into pieces and to forget both its deep interrelations and its measureless horizons: We incline to all that is bad in anthropocentrism. And it is this that leads scientists to refuse to consider man as an object of scientific scrutiny except through his body.

'The time has come to realize that an interpretation of the universe—even a positivist one—remains unsatisfying unless it covers the interior as well as the exterior of things; mind as well as matter. The true physics is that which will, one day, achieve the inclusion of man in his wholeness in a coherent picture of the world.' (*The Phenomenon of Man*, London, Collins, 1959, pp. 35-36)

The Upaniṣads discovered the finite man as but the outer crust or layer of the infinite and immortal man within. In his finiteness, he enters and is entered into by the finite world around him. In this, he is a speck of dust in the vast immensity of space in which 'the universe engulfs me and reduces me to a pin-point', in the profound words of Pascal. But in his infinite dimension as the imperishable Self, he *understands the universe*. The inner aspect of man, and, through him, of the universe, is slowly dawning on modern scientific thought. Chardin asks: 'Up to now has science ever troubled to look at the world other than from without?' (*ibid.*, p. 52) And he proceeds to say:

'In the eyes of the physicist, nothing exists legitimately, at least up to now, except the *without* of things. The same intellectual attitude is still permissible in the bacteriologist, whose cultures (apart from substantial difficulties) are treated as laboratory reagents. But it is still more difficult in the realm of plants. It tends to become a gamble in the case of a biologist studying the behaviour of insects or coelenterates. It seems merely futile with regard to the vertebrates. Finally, it breaks down completely with man, in whom the existence of a *within* can no longer be evaded, because it is the object of a direct intuition and the substance of all knowledge.' (*ibid.*, p. 55)

And Chardin concludes:

'It is impossible to deny that, deep within ourselves, an "interior" appears at the heart of beings, as it were seen through a rent. This is enough to ensure that, in one degree or another, this "interior" should obtrude itself as existing everywhere in nature from all time. Since the stuff of the universe has an inner aspect at one point of itself, there is necessarily a *double aspect to its structure*, that is to say, in

every region of space and time—in the same way, for instance, as it is granular: *coextensive with their Without, there is a Within to things.*' (*ibid.*, p. 56)

Says the great physiologist and neurologist, Sir Charles Sherrington:

'Today Nature looms larger than ever and includes more fully than ever ourselves. It is, if you will, a machine, but it is a partly mentalized machine and in virtue of including ourselves it is a machine with human qualities of mind. It is a running stream of energy—mental and physical—and unlike man-made machines it is actuated by emotions, fears and hopes, dislikes and love.' (*Man on His Nature*, p. 38, Pelican edition)

In a lecture on 'The Evolutionary Vision', delivered in 1959 at the closing session of the Chicago University symposium on 'Evolution After Darwin' held to commemorate the centenary of the publication of Darwin's *Origin of Species*, Sir Julian Huxley, the noted biologist, gave a spiritual orientation to the evolutionary process:

'Man's evolution is not biological but psychosocial; it operates by the mechanism of cultural tradition, which involves the cumulative self-reproduction and self-variation of mental activities and their products. Accordingly, major steps in the human phase of evolution are achieved by breakthroughs to new dominant patterns of mental organization of knowledge, ideas, and beliefs—ideological instead of physiological or biological organization. . . .

'All dominant thought organizations are concerned with the ultimate, as well as with the immediate, problems of existence or, I should rather say, with the most ultimate problems that the thought of the time is capable of formulating or even envisaging. They are all concerned with giving some interpretation of man, of the

world which he is to live in, and of his place and role in that world—in other words, some comprehensive picture of human destiny and significance.' (*Evolution After Darwin*, Vol. III, pp. 251-2)

Further, Huxley revealed the trend of evolution towards quality: 'It (evolutionary vision) shows us mind enthroned above matter, quantity subordinate to quality,' (ibid., Vol. III, pp. 261-2)

In his essay on 'Emergence of Darwinism', Huxley sums up the goal of the evolutionary process at the human level as 'fulfilment':

'In the light of our present knowledge man's most comprehensive aim is seen not as mere survival, not as numerical increase, not as increased complexity of organization or increased control over his environment, but as greater fulfilment—the fuller realization of more possibilities by the human species collectively and more of its component members individually.' (ibid., Vol. I, p. 20)

And pleading for the development of a science of human possibilities, Huxley further says:

'Once greater fulfilment is recognized as man's ultimate or dominant aim, we shall need a science of human possibilities to help guide the long course of psychosocial evolution that lies ahead.' (ibid., Vol. I, p. 21)

KINSHIP BETWEEN VEDĀNTA AND MODERN SCIENCE

Swami Vivekananda has shown that Vedānta and modern science are close to each other in spirit and temper and objectives. Both are spiritual disciplines. Even in the cosmology of the physical universe, the two reveal many points of contact. The fundamental position in the cosmology of both is what Swami Vivekananda calls 'the postulate of a self-evolving cause'. Vedānta calls it Brahman which is a uni-

versal spiritual principle. The *Taittirīya Upaniṣad* (III. 1) defines Brahman in a majestic utterance which will be welcomed by every scientific thinker:

Yato vā imāni bhūtāni jāyante, yena jātāni jīvanti; yat prayantya bhīṣamviśanti; Tad vijijñāśasva; Tad Brahmeti—

'Wherefrom all these beings are born; by which, being born, they abide; into which, at the time of dissolution, they enter—seek to know That; That is Brahman.'

To the modern scientist, it is a material reality, the background material or stuff, as astrophysicist Fred Hoyle terms it. And both uphold the theory of evolution, cosmic as well as organic.

Referring to this spiritual kinship between modern science and ancient Vedānta, Swami Vivekananda said in his speech at the Parliament of Religions held at Chicago in 1893:

'Manifestation, and not creation, is the word of science today, and the Hindu is only glad that what he has been cherishing in his bosom for ages is going to be taught in more forcible language, and with further light, from the latest conclusions of science.' (*The Complete Works*, Vol. I, p. 15, 11th edition)

Although modern scientific thought does not yet have a recognized place for any spiritual reality or principle, several scientists of the twentieth century, including biologists like Teilhard de Chardin and Sir Julian Huxley, have endeavoured to soften the materialism of physical science and to find a place for spiritual experience in the scientific world picture. Even in the last century, Thomas Huxley, collaborator of Darwin, had protested against the association of science with any fixed dogma such as materialism, and termed materialism an 'intruder'. (*Methods and Results*, Vol. I, p. 161) In this century, this pro-

test has come from great physicists themselves. Sir James Jeans found that the final picture of the universe emerging from twentieth century physical science was one in which matter was completely eliminated, 'mind reigning supreme and alone' (*The New Background of Science*, p. 307). Astrophysicist R. A. Millikan considered materialism 'a philosophy of unintelligence' (*An Autobiography*, last chapter). If twentieth century physics is thus turning its face away from thoroughgoing materialism, twentieth century biology is one step ahead of it in this orientation. The whole of modern scientific thought is in the throes of a silent spiritual revolution with the emergence, on the horizon of scientific thought, of mind and consciousness, and the consequent need to develop what Jeans calls 'a new background of science'. Julian Huxley and Chardin find the spiritual character of the world-stuff successively revealed in the course of organic evolution. Biology, in its theory of evolution, they hold, reveals what Chardin calls a *within* to nature, over and above and different from the *without* of nature revealed by physics and astronomy. Vedānta terms the *within* as the *pratyak rūpa* and the *without* as the *parāk rūpa* of nature.

When the significance of this *within* of things is recognized in modern science, the scientific background material will undergo a spiritual orientation and thus come closer to the Brahman of the Vedānta. The synthesis of the knowledge of the *within* and the *without* is what India achieved in its Vedānta ages ago as *samyak jñāna*, complete knowledge or philosophy. Reality itself does not know any distinction between a *within* and a *without*. These distinctions are made only by the human mind for the convenience of study and research.

As the different branches of the positive sciences are but different approaches to the

study of one and the same reality, and as all such branches of study, when pursued far enough, tend to mingle and merge into a grand science of the physical universe, into a unified science of the *without* of nature, so the science of the *within* and the science of the *without* mingle and merge in a science of Brahman, the total Reality. This is how Vedānta viewed its *Brahmavidyā*, science of Brahman, the term Brahman standing for the totality of Reality, physical and non-physical; the *Muṇḍaka Upaniṣad* (I. i. 1) defined *Brahmavidyā* as *sarvavidyāpratiṣṭha*, the *pratiṣṭha* or basis of every *vidyā* or science. Says Kṛṣṇa in the *Gītā* (XIII. 2):

Kṣetrakṣetrajñāyor jñānam yat tat jñānam matam mama—

'The knowledge of *kṣetra*, the not-self (the without of things), and *kṣetrajñā*, the Self, (the within of things), is true knowledge according to Me.'

Dealing with the all-inclusiveness of this Vedāntic thought as expounded by Swami Vivekananda, Romain Rolland says :

'But it is a matter of indifference to the calm pride of him who deems himself the stronger whether Science accepts free Religion, in Vivekananda's sense of the term, or not; for his Religion accepts Science. It is vast enough to find a place at its table for all loyal seekers after truth.' (*Life of Vivekananda*, p. 289)

In his lecture on 'The Absolute and Manifestation' delivered in London in 1896, Swami Vivekananda said :

'Do you not see whither science is tending? The Hindu nation proceeded through the study of the mind, through metaphysics and logic. The European nations start from external nature, and now they, too, are coming to the same results. We find that searching through the mind we at last come to that Oneness, that universal One, the internal Soul of everything, the

essence and reality of everything. ... Through material science, we come to the same Oneness.' (*The Complete Works*, Vol. II, p 140, 9th edition)

The *Bhāgavata* (XI. vii. 19-21) refers to this complementary character of science and Vedānta in a profound utterance :

Prāyeṇa manuṣṣyā loke lokatattvavikalpānāḥ ;

Samuddharanti hyātmānam ātmanai-vāśubhāśayāt.

Ātmano gururātmaiva puruṣasya viśeṣataḥ ;

Yat pratyakṣānumānābhyām śreyo'sau anuvīndate.

Puruṣatve ca mān dhīrāḥ sāṅkhyayoga-viśāradāḥ ;

Āvistarām prapaśyanti sarvaśaktyupabrūhitam—

'In the world, men who are efficient in the investigation of the truth of nature, generally uplift themselves by themselves from all sources of evil.

'For a human being particularly, his *guru* (teacher) is his own self ; because he achieves his welfare through (inquiring into) direct sense experience and inference based on the same.

'In this very human personality also, wise men who have mastered the science and art of the spiritual life clearly realize Me (God, the universal Self of all) as fully manifest and endowed with all powers.'

(*To be continued*)

VINOBA BHAVE : THE NATURE AND SCOPE OF HIS SOCIAL REFORMS—2

DR. JACQUES-ALBERT CUTTAT

(*Continued from the previous issue*)

III. THE RESULTS

These, as I have already indicated, are far from having satisfied the hopes awakened by the 'vision' of Telengana and fostered later in the course of Vinoba's triumphant march across India. As I have said, the totality of land gifts has reached today the extent of 4.2 million acres (17,000 km²); let me add here that the number of donors is almost 600,000, that of the receivers 350,000. Now, of the total surface of land mentioned above, one million acres, that is to say, only one-fourth has been actually distributed. There remain in reality only 1.8 million acres of cultivable land to be divided, 1.4 million acres being unproductive land and therefore unusable.

I consider it useful to quote here one of my compatriots and a friend who has closely followed the Bhoodan movement from its origin, as much through its literature as by means of contacts with numerous friends who have been associated with it. Mr. Pierre Oppliger—formerly member of the International Civil Service, at present representative of Swiss Aid Abroad in India—has been kind enough to permit me to reproduce the remarks which follow.

'When I met Vinoba Bhave, I was able to take note of the adoration bestowed on him by the masses. However, if, according to the proverb in the Gospels, the tree is to be judged by its fruits, we are obliged to admit that so great an enthusiasm has not yet brought about any notable changes