

HINDUISM AND THE IDEA OF EVOLUTION

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WHEN I WAS ASKED to write about the influence of Darwin's theory of evolution on India, I said that the influence was practically nil for the simple reason that the first English university was established in India just two years prior to the publication of *Origin of Species*. Even today a bare 2 per cent of Indians can read or write English. But I pointed out that a long time ago Hindu philosophers had formulated their own theories of evolution, which have for the past three thousand years profoundly influenced the thoughts of the Hindus. The present article has been written to give a brief survey of the ideas of evolution as discussed in some of the important philosophical systems of India. It should however be noted at the very outset that any comparison between the Western and the Indian idea of evolution will be both unfair and fruitless; for they have different premises, different methods, different aims and purposes, and different fields of investigation. Darwin and his followers were solely concerned with the evolution of physical forms and structures, whereas the Hindu philosophers discussed evolution from the standpoint of the soul. But Hindu thinkers, by an unprejudiced and respectful study of the Western theory of evolution, can benefit from it, as can Western thinkers by a study of the Eastern theories.

The idea of evolution is found in the Vedas, which date back to at least two thousand years before Christ. Later this idea was elaborated in various systems of Hindu philosophy. The conclusions arrived at are based upon not only scriptural statement, but reasoning and careful observation of facts according to the knowledge available at the time. The Hindu scriptures record the experiences of seers endowed with a spiritual insight which they developed through the disciplines of self-control, non-attachment, and concentration.

We read about evolution in the philosophy of the Upanishads, the Samkhya, and the *Yoga-sutras*. According to the Upanishads, which form the conclusion and the essence of the Vedas and are also the basis of the Vedanta philosophy, Atman, or the unchanging

spirit in the individual, and Brahman, or the unchanging spirit in the universe, are identical. This spirit or consciousness—eternal, homogeneous, attributeless, and self-existent—is the ultimate cause of all things. Our knowledge of its existence is based upon the direct experience of illumined souls, and also may be inferred from cosmology and psychology, which latter, according to Hinduism, is the science of the soul. From Brahman evolved the first individual, called Saguna Brahman, or Brahman endowed with the attributes of creation, preservation, and destruction. This Brahman, worshipped as the Personal God by various religions, is the direct cause of the universe and living beings. He is described as omniscient, omnipresent, compassionate. At this stage of evolution the diversity of the universe is not apparent. Saguna Brahman may be compared to the first sprout of a seed in which the future tree lies latent. Let us examine the meaning of evolution of Saguna Brahman from attributeless reality.

Vedanta philosophy speaks of attributeless reality as beyond time, space, and causality. It is not said to be the cause of the Saguna Brahman in the same way as the potter is the cause of the pot (dualism), or milk of curds (pantheism). The creation of Saguna Brahman is explained as an illusory superimposition such as one notices when the desert appears as the mirage, or a rope in semi-darkness as a snake. This superimposition does not change the nature of reality, as the apparent water of the mirage does not soak a single grain of sand in the desert. A name and a form are thus superimposed upon Brahman by maya, a power inherent in Brahman and inseparable from it, as the power to burn is inseparable from fire. The nature of maya is inscrutable to the finite mind, which is a later development of maya. We are told by scientists that a solid stone is nothing but a mass of electric charges. Nobody knows why or how the intangible electric charges appear as the solid stone. When science tells us that electric charges appear as a solid object, it is merely stating a fact of experience. Similarly, maya is a statement of fact.

Brahman in association with maya evolves Saguna Brahman, and the latter, as we shall presently see, the universe and living beings. According to Vedanta, maya is the material basis of creation; it is something positive. It is called positive because it is capable of evolving the tangible material universe. Though maya, in itself, does not possess the attributes of matter, yet it is capable of producing matter, just as molecules of hydrogen and oxygen, though they do not, in themselves, possess the attributes of quenching thirst or nourishing plants or becoming solid at a certain temperature, yet can produce water, which is endowed with these attributes. From maya evolve the concepts of time, space, and causality. Maya is said to consist of three gunas. The word *guna* is often translated as quality. But the

gunas are not in reality attributes of maya, as hardness is of a stone, or softness of butter; they are the components of maya, like the three strands of a rope. The three gunas are called sattva, rajas, and tamas. Sattva represents what is fine and light in nature, rajas what is energetic and active, and tamas what is coarse and heavy. These three characteristics are present in varying proportions in all things of the phenomenal world which are the effects of maya. The attributes of the effect are present in the cause. The threefold nature of maya explains the creation in its physical and psychic aspects. The presence of one guna could not account for the variegated universe; two gunas would cancel each other's effect. No phenomenal being, be he a god or a worm, is free from the gunas. The difference between one creature and another lies in the preponderance of one guna over the other two. Thus some beings preponderate in sattva, some in rajas, and some in tamas. Saguna Brahman, with the help of rajas, creates; with the help of sattva, preserves; and with the help of tamas, destroys the universe. Reality, or the attributeless Brahman, is beyond the gunas. Saguna Brahman is associated with the gunas, but is not controlled by them. The creature, however, comes under the influence of maya and becomes entangled in the world. Tamas binds a man with attachment to delusion, rajas with attachment to activity, and sattva with attachment to happiness. Sattva manifests itself as various spiritual virtues and shows the way to liberation of the soul from the prison-house of matter.

When the inexplicable power of maya begins to operate, the true nature of the attributeless Brahman becomes hidden, and there arises the condition of individuation, just as when the true nature of a rope is hidden by darkness there arises the possibility of its being mistaken for a snake, or a stick, or a fissure in the earth. The transcendental reality appears as the Personal God. The Bhagavad Gita states that God, from His lower nature, that is to say, maya, creates the material forms, and then endows them with life and intelligence by His higher nature, which is consciousness. Thus He is both efficient and material cause. The Upanishad gives the example of the spider, which from the standpoint of its silk is the material cause of the thread, and from its own standpoint the efficient cause. It should also be noted that God, or Saguna Brahman, and the attributeless reality are not essentially different. Maya, which makes the apparent difference, inheres in Brahman. When the reality remains inactive in its pure state it is called the attributeless Brahman, and when the same reality participates in the activities of creation, preservation, and destruction, it is called Saguna Brahman. Whether water is calm or choppy, it is the same water.

Saguna Brahman is sometimes called the Unmanifest, because He contains in a latent form the future diversity of creation.

Evolution or manifestation is periodical or cyclic; manifestation and non-manifestation alternate; there is no continuous progress in one direction only. The universe oscillates in both directions like a pendulum of a clock. The evolution of the universe is called the beginning of a cycle, and the involution, the termination of the cycle. The whole process is spontaneous, like a person's breathing out and breathing in. At the end of a cycle all the physical bodies resolve into maya, which is the undifferentiated substratum of matter, and all the individualized energy into prana, which is the cosmic energy; and both energy and matter remain in an indistinguishable form. At the beginning of the new cycle, the physical bodies separate out again, and the prana animates them. Evolution and involution are postulated on the basis of the indestructibility of matter and the conservation of energy. From the relative standpoint, the creation is without beginning or end. A cycle is initiated by the power or intelligence of God. According to Hindu thinkers, the present cycle commenced about three billion years ago. It appears from some of the Upanishads that all beings - superhuman, human, and subhuman - appear simultaneously at the beginning of a cycle. It is further stated in one of the Upanishads that Brahman first created a lump of matter which He shaped like a person. Next the person developed various organs and physical parts, which then became animated by the power of Brahman.

The first element to evolve from Saguna Brahman is akasa, which is usually translated as ether, space, or sky. Akasa is the intangible material substance pervading the universe. Brahman associated with maya appears as akasa. From akasa evolves air (vayu); that is to say, Brahman associated with maya, appearing as akasa, further appears as air. From air evolves fire (agni); from fire, water (ap); from water, earth (prithivi). The principle of illusory superimposition is to be applied in the evolution of each element. The gunas, Sattva, rajas, and tamas, which are the components of maya, are transmitted at the time of evolution to the five elements, in accordance with the law that the nature of the cause determines that of the effect.

The five elements, thus evolved, are subtle and rudimentary. They are called subtle because they are imperceptible to the sense-organs and also because by themselves they are unable to produce gross objects. They are called rudimentary because each of these elements possesses its own characteristic alone. Thus the characteristic of subtle akasa is sound, of subtle air touch, of subtle fire color, of subtle water flavor and of subtle earth odor. The physical world can be grasped by the sense-organs in five ways only; that is why Hindu philosophers postulate only five elements.

Out of the subtle elements evolve two sets of organs and also

the subtle body. The inner organ consists of the intellect, the ego or I-consciousness, the mind, and the mind-stuff. The intellect is the discriminative faculty; the mind creates doubt and sees the pros and the cons in a given situation; the mind-stuff is the storehouse of the tendencies created by past actions; and the ego makes the spirit identify itself with the body. The outer organs consist of the five organs of perception and the five organs of action (hand, feet, vocal organ, and the organs of reproduction and evacuation). Besides the organs, there is also the prana, or life-breath, which is a manifestation of the cosmic energy and which functions in a body in five different ways: in breathing, in ejecting unassimilated food and drink, in carrying sensation to different parts of the body, in nourishing the whole body by food digested in the stomach, and in helping the soul to leave the body at the time of death. This energy is present even in the very smallest particle of matter, and when released can exhibit unbelievable power. All these are products of maya and physical in nature. They function only when activated by the omnipresent Brahman, or consciousness. The finer the organ, the more it reflects the intelligence of Brahman. A preponderance of sattva, which has the attribute of transparency and light, makes an object fine. Thus the intellect, containing a large proportion of sattva, reflects more of Brahman than the other organs. The reflection of Brahman in the intellect is called the jiva, or individual soul, which, when identified with a body, becomes an embodied creature.

By an organ the Hindu philosopher means both the outer organ and its subtle counterpart. Thus, the organ of seeing is not the visible eye, but an intangible organ made of the subtle elements. But even the subtle organ cannot perform its function of seeing, because it is inert. Only when controlled by Brahman can it see. A particular aspect of Brahman controls a particular organ and is called a god, or deity. Thus the visible eye has a subtle counterpart and also a controlling deity, which is identified with the sun. The deity controlling the subtle organ of touch is identified with air; and so on. The sun, air, etc. are regarded as channels for the manifestation of Brahman. Thus Vedanta philosophy presents, in poetic language, a seamless continuity between physical, psychic, and so-called supernatural entities. The five organs of action, the five organs of perception, and the five pranas, together with the mind and intellect, constitute the subtle body, with which the soul migrates from one life to another.

From the five subtle elements evolve the five gross elements. Unlike the former, the gross elements are compounds. They are produced by the combination of the subtle elements in a certain proportion, and each gross element contains something of the other four. The gross elements are the bricks of the visible universe, of the different physical bodies, and of the food and drink which sustain living beings.

The individual soul, identified with a physical body, is endowed with the power of knowing, feeling, and willing. It is the agent of action and the reaper of its fruit. It is a combination of matter and spirit. During the successive stages of evolution, it remains oblivious of its spiritual nature, which, however, is not destroyed. The same spirit shines with undiminished light in the amoeba as in a god. Since the very moment of the identification of the creature with matter, its inner spirit has been trying to remanifest its true nature. For this purpose it assumes various bodies to create a suitable vehicle. According to the Hindu doctrine of rebirth, the soul can assume a lower or a higher body according to its desires and the impressions of its past actions. But all living beings will ultimately attain perfection. The struggle at the subhuman level is carried on through instinct, on the human level through reason, and on the superhuman level through intuition, which is a refined form of reason cultivated by means of the spiritual disciplines prescribed by the higher religions. At the irresistible urging of spirit, the soul assumes different bodies—from the body of a stone or a tree to that of a celestial being—and discards them all as unsuited for the complete manifestation of its transcendental nature. This is the philosophical meaning of the Hindu doctrine of reincarnation. When the soul becomes detached from all bodies it becomes free from the bondage of matter. Then the individual creature realizes its oneness with the attributeless Godhead. This liberation of the soul from the prison-house of matter is the ultimate goal of evolution.

With regard to the above description, it should be remembered that Hindu philosophers regard the knowledge of Brahman or Atman as the ultimate goal of philosophical inquiry. In Hindu thought, the various species of living beings are so many vehicles for the soul's expression; they are not to be regarded simply as products of a mechanical process. The purpose of evolution is to enable the soul to realize its spiritual nature; otherwise life on earth becomes meaningless and futile. Even the pursuit of art, science, and philosophy for the mere sake of knowledge does not remove the central hollowness of a life lived in a universe composed of material particles and controlled by physical laws. Apart from Brahman the universe is insignificant and irrelevant. Nay, the material universe, according to the testimony of mystics, ceases to exist in the deepest spiritual experience. All material achievements on earth are transitory. To realize man's real nature is much more important than to understand the nature of the universe for its own sake or for the enjoyment of material happiness. The interpretation of the universe must lead to the knowledge of Brahman. By this test the Hindu speculations about evolution are relevant.

Let us now discuss the idea of evolution according to the

Samkhya philosophy founded by Kapila, an ancient philosopher mentioned in later Hindu writings. The earliest extant book on classical Samkhya is the *Samkhya Karika*, written about 600 A.D. In spite of many similarities with Vedanta, Samkhya differs from the latter in some important respects. It traces the origin of physical objects directly to primordial matter and regards the process of evolution as real, not illusory. It is dualistic, admitting the independent reality of both matter and consciousness, and besides, of twenty-three other categories or cosmic principles.

The following are some of the postulates accepted by Samkhya philosophers:

- (a) Whatever is always exists; whatever is not never exists.
- (b) Change is not possible without admitting the existence of something that changes.
- (c) An effect is not essentially different from its material cause.
- (d) Diversity can eventually be traced to three sources, which are interdependent.
- (e) The characteristic of matter is perpetual motion.
- (f) Both matter and mind are independent realities: neither is mind derived from matter, nor is matter derived from mind.

According to the Samkhya philosophy there is a plurality of souls, or purushas - a conclusion based upon the multiplicity of living creatures as seen in the creation. These souls, which are centers of consciousness, are incorporeal but inactive. The first cause of the universe is prakriti, or nature, which produces all physical entities. The latter include both matter and energy. The Samkhya philosophy does not admit a Creator-God, because according to it there is no proof of His existence. The purusha is outside prakriti, but time and space exist within it. Matter does not exist in time and space. As an effect is non-different from its material cause, the nature of prakriti is deduced from that of tangible objects. As all such objects consist of the three gunas already described, prakriti must also have them as its component parts. Each of the three gunas is manifold, for each one of them is associated with the other two in varying proportions; thus one sees infinite variety in the visible nature. The gunas form the substratum of evolution. They persist when their effects come into existence and when they disappear. The dissolution of the universe is described as the state when all the works of the gunas remain latent. Their activity precipitates evolution. But prakriti, even in the state of dissolution, is not altogether inactive; instead of producing unlike forms, it reproduces itself. If prakriti once stopped its activities, no new creation could take place. Prakriti is lifeless; hence it cannot move by itself. Its motion is explained by the presence of the conscious purusha, which, however, does not actively participate in evolution. The Samkhya philosophers give the example of a magnet and iron-filings.

Though prakriti is non-intelligent, yet evolution serves a purpose, which is the emancipation of the soul. But only the individual soul is emancipated, and not the whole species. Like the Vedanta theory, the Samkhya theory of evolution accepts the indestructibility of matter and the conservation of energy. The evolution of a form is only the manifestation of what already exists. A pot is produced from existing clay. Likewise destruction means only a change of form, not total annihilation. When a pot is destroyed, it reverts to clay.

There are two arguments which support the reality of prakriti. The first, already referred to, is that nothing new can come into existence. The totality of the visible universe was given in the very beginning. The latent or implicit form is called the cause, and the visible or explicit form, the effect. The example of the clay and pot has just been given. The ultimate implicit state is called prakriti. The second argument is that the finite implies the infinite, that is to say, the finite transcends itself. The finite is not pervasive; it cannot be supported by itself, but is pervaded by its subtle counterpart; the latter is pervaded by another principle. Proceeding backwards in this manner we arrive at prakriti, which is all-pervasive and self-sustaining. If we seek a pervader of prakriti we shall get only another prakriti. Thus prakriti is the ultimate cause of material forms.

Now let us consider the different stages of evolution. From prakriti evolves mahat or buddhi, that is to say intellect, which is illumined by the purusha and thus acquires consciousness, the characteristic of the purusha. It predominates in sattva and is a sort of vague general consciousness, which is unable to distinguish between subject and object. The next principle to evolve is ahamkara, or I-consciousness, that is to say, the empirical self, which preponderates in rajas. At this stage consciousness becomes self-conscious and is able to perceive an object. The empirical self is endowed with the attributes of knowing, willing, and feeling. These three principles—prakriti, mahat, and ahamkara—are postulated on the authority of the Samkhya seers. Ahamkara, or the empirical self, in its turn evolves into four principles, depending upon the preponderance of one guna or another. It should, however, be remembered that rajas is always the accessory cause of evolution on account of the fact that its main trait is energy. By the preponderance of sattva the empirical self evolves the five organs of perception, by the preponderance of rajas the five organs of action, and by the preponderance of tamas the five subtle rudimentary elements. The organs are evolved for the acquiring of experience by the empirical self. The fourth principle to evolve from the empirical self is the manas, or mind, which is the direct instrument for connecting itself with the organs of perception and action. What

is perceived as mere sensations by the senses is connected, interpreted, generalized, and formed into concepts by the mind.

From the subtle elements evolve the gross elements of akasa, air, fire, water, and earth. They are the objects through the experience of which the empirical self ultimately obtains liberation from prakriti. From rudimentary akasa (subtle sound) evolves gross akasa, with sound as its manifest attribute; from rudimentary akasa and rudimentary air combined, gross air, which is therefore endowed with the attributes of sound and touch; from these two rudimentary elements and rudimentary fire, gross fire, which has the attributes of sound, touch, and color; from these three rudimentary elements and rudimentary water, gross water, which has the attributes of sound, touch, color, and flavor; and lastly from these four rudimentary elements and rudimentary earth evolves gross earth, which has all the five attributes of sound, touch, color, flavor, and odor. As the gross elements evolve they become more and more concrete. Each element has a manifold nature, and consists of finite and disparate particles. Out of these particles is formed the tangible universe, which is the field of experience for the embodied soul. The evolution just described may be called primary. There is also the secondary evolution by which a caterpillar turns into a butterfly, and bones and trees into fossils.

All through the process of evolution, as already stated, prakriti alone is active; the sentient purusha does not directly participate. The purusha is the experient without being the doer. By its mere presence the purusha guides evolution. This dual function of the purusha and prakriti is illustrated by the example of a lame person who can see and a blind person who can walk. The former wants to reach a certain destination but cannot without the help of the blind person. He climbs upon the shoulders of the blind man and guides him along the road while the latter walks. The lame man is the purusha, and the blind man, prakriti.

The existence of the purusha is deduced from several arguments. First, an object always implies a subject. The physical universe is insentient and needs a sentient entity to experience it. Second, the very concept of a prakriti complex in nature implies something which is simple; and that is the purusha. Third, a design is found in nature. This design, however, need not posit a conscious designer. As already stated, the Samkhya philosophy denies the existence of a God who is the designer of the universe. But someone should be benefited by this design; and the being that is benefited by it is the empirical soul. The soul gains various experiences from the world evolved from prakriti, and these experiences create detachment, which leads to its ultimate liberation. This is explained by the example of a dancing-girl who displays her physical charms before a group of spectators. One

of these falls in love with her, courts her, and enjoys her company. When he is satiated with her, she, with a smile, gives him up and turns to another man. The disillusioned man is liberated. Thus she goes on furnishing experiences to one person after another, and giving to each liberation. The activity of prakriti has no beginning or end. The isolation of the purusha from prakriti is called liberation (kaivalyam). Fourth, there is a universal longing for release, which implies someone who seeks it; and that is the purusha. Prakriti evolves for the purpose of bringing about its release, which again is not possible without previous experiences on the purusha's part. Since it is impossible for the soul to experience everything in one life, Hindu philosophers postulate the rebirth of the soul, which has already been mentioned. It may be noted, however, that a soul at the time of its birth is endowed with the tendencies and desires of the previous one. They form a sort of blue-print which guides the general trend of its present life. Heredity determines the physical characteristics, and environment helps it to give expression to its inherited mental tendencies. A soul, by the law of affinity, selects parents and environment to serve its purpose. Neither cellular transmission nor environment nor both of these can completely explain a man's thoughts and actions.

The Yoga philosophy formulated by Patanjali is based upon Samkhya, though it differs from the latter in one important aspect, in that it makes room for God, who is described as a special person (purusha) untouched by misery, desire, actions, and their results, who is unlimited by time, and in whom knowledge which in others lies only as a germ becomes infinite. God, in Yoga, differs from Saguna Brahman in Vedanta. The former is outside the universe, whereas the latter is both in the individual and in the universe. According to Yoga, God is not directly responsible for the evolution of prakriti, yet His presence gives the impetus. Through His mercy a man does good and refrains from evil. This accelerates the process of evolution. But a yogi, even without belief in God, can attain the ultimate goal by means of various disciplines prescribed by the Yoga scriptures.

There are two important texts in Patanjali's *Yoga-sutras* which have a direct bearing upon evolution. According to one, a creature evolves into another by the filling in of nature. An important implication of Patanjali's theory is the fact that the perfection whose attainment is the goal of evolution is already present in a creature, but is barred off by certain obstacles. When these are removed the perfection rushes in of itself. The illustration is given of a field in need of water. The water, which is in a canal, is held back by gates; as soon as the farmer removes the obstruction, the water for irrigating the field flows in. The other text states that good and bad deeds are not the direct cause of

evolution, but simply act as breakers of the barriers. As good deeds prevail, lower bodies are transformed into higher. All the materials of evolution exist in nature; a person can choose what suits his purpose. Some persons unwilling to waste time in repeated births and deaths, change bodies in order to facilitate higher evolution in one lifetime.

It may be interesting to narrate a Hindu myth which speaks of God's assuming different bodies to help living creatures at different levels of evolution in the attainment of their goal. Thus when the world contained nothing but water and was filled with sea-creatures, God became incarnated as a fish. When solid earth appeared and the amphibious creatures evolved, God assumed the form of a turtle. Then God embodied Himself, in succession, as a creature half animal and half man, a hunter, a man conscious of family and social duties, a compassionate man, and a perfect man.

The Hindu theories of evolution, as briefly outlined in this article, will appear to Western scientists mystical and speculative. But Hindu philosophers claim that they are based upon experience, observation of facts, and reasoning. The main trend of the reasoning is, no doubt, to proceed from the general to the particular, but the inductive element is not absent. Intuition, which is a higher state of reasoning, has played an important part in the formulation of Hindu philosophical doctrine. Reason based upon sense-perception helped the Hindu philosophers as far as it could, then bowed itself out, yielding place to intuition.

To sum up the Hindu idea of evolution: Evolution takes place in the realm of matter. But matter is not in itself a self-creating, self-preserving, and self-destroying substance. It needs the direct or indirect help of a conscious principle; without such a principle the entire process of evolution cannot be adequately explained. Evolution presupposes involution. If an amoeba evolves into a highly developed man, then that man must have been involved in the amoeba. If consciousness or intelligence evolves from inert matter, it must be implicit in matter. The very concepts of "struggle for existence" and "adaptation to the environment" suggest the presence of intelligence, whether instinctive or highly developed. Hinduism does not deny the place of competition or adaptation in the evolution of creatures. But according to it, these methods operate only on certain levels. On other levels, spiritual disciplines such as co-operation, self-denial, purity, compassion, and love give the impetus.

There are certain fundamental differences between the Indian and the Western ideas of evolution, and also between their implications. First, Hinduism does not accept the view that evolution is entirely a natural process, or that man is the latest dominant type to be produced by evolution. Evolution, on the contrary, is

directly or indirectly influenced by a power outside nature. Second, according to Vedanta, the first created being was a person, only one step removed from the Creator. Third, no one has observed the emergence of life from non-living matter. The scientist has not been able to produce in his laboratory life from non-life or consciousness from unconscious matter. Fourth, Hindu philosophers do not accept the idea of general progress implied in the Western concept of evolution. The sum total of good and evil, pain and pleasure, always remains the same. We live in a world of change. But a person can take advantage of his experiences, no matter at what particular time he lives, and attain liberation.

The idea of evolution formulated by Darwin is a landmark in Western thought and has revolutionized many of its aspects. Western science and philosophy are revealing the nature of the physical universe and man's place in it. This knowledge has mitigated many of the evils of his physical life. It has also disturbed many dogmas of the traditional religions in the West. The Hindu idea of evolution emphasizes the spiritual nature of creation. A Hindu believes that both man and the universe, if investigated by reason alone, will remain a mystery. Reason can never give finality: one conclusion of reason is superseded or negated by another. Buddha refused to explain by reason the nature of God and creation, but pointed out that through the practice of spiritual disciplines a man can overcome suffering and enjoy peace and freedom. This, after all, is the aspiration of all rational beings. The Hindu scriptures speak of the need of cultivating the knowledge of both science and super-science: with the help of the former one conquers physical limitations, and with the help of the latter one enjoys immortality or freedom.

It may be rightly contended that the Hindu ideas of evolution, as far as an ordinary person is concerned, belong to the realm of speculation, lacking as they do experimental proof. The various steps of evolution they describe cannot be demonstrated in a laboratory by the scientific method. One can raise legitimate objections about certain of the concepts of the Vedanta and Samkhya philosophies.

The scientific method of the West, too, a Hindu may rightly contend, has its limitations. First, in any scientific investigation, the scientist is conditioned by his methods and instruments. Second, scientific classification gives valuable information, but it does not include all things in the subject classified. Much of the deeper reality—including such factors as goodness, beauty, and the soul—is left out. Third, the specialized sciences deal only with parts and thus do not discover the qualities which are present in wholes. Fourth, there are many interpretations of a thing, a person, or an event, each of which may be true as far as it goes.

Scientific investigation provides only one such interpretation. Therefore its findings are incomplete and inadequate. Fifth, when one considers the process of evolutionary development, one finds that the later stages are as important as the earlier stages and tell as much about the process. One of the fallacies of science is that it tends to emphasize the earlier development. Sixth, the specialized sciences are dependent upon man's sense-organs and upon his general mental equipment. There is a tendency to see what we are trained to see or expect to see. After the sensations are received through the sense-organs or through instruments, we have to employ inference or generalization. Thus the "standpoint of the observer" is receiving more and more attention in the field of scientific knowledge. A scientist, therefore, is limited by his finite mind and cannot grasp the entire process of evolution: its dim past and its far-off future. Lastly, when the physical sciences give only a materialistic and mechanistic interpretation of life they make it both futile and purposeless. The universe, too, becomes indifferent or even unfriendly to man's aspiration. Moral and other values grow increasingly relativistic, our appetites and aversions becoming their determinants. Scientism, if not corrected by spiritual concepts, is fraught with serious consequences for both individuals and the whole earth.

Notwithstanding these limitations, the Western sciences, besides achieving much in the realm of men's physical welfare, have destroyed many superstitions of the human mind, given natural explanations of events for which supernatural explanations are unwarranted, and, in general, added immensely to man's knowledge of the universe and of himself.

As indicated at the beginning of this paper, both Hindu and Western thinkers can learn from each other regarding the idea of evolution. Modern Hindu thinkers will certainly benefit by supplementing their own theories with the verifiable discoveries of Western scientists regarding the evolution of the forms and structures of living creatures. And Western thinkers, too, can add depth and significance to their own idea of evolution by incorporating in it the spiritual urge and the goal of the evolutionary process as discussed in Hindu philosophy. Perhaps, in the course of time, a master mind will be born who will combine both the Hindu and the Western ideas of evolution, and thus be able to give a complete history of man from his first wandering into the maze of the phenomenal world to his ultimate emergence as a free soul. And perhaps he will have to use both the scientific method of the West and the intuitive method of the Indian; for both knowledge and wisdom will play important parts in the solution of the great mystery.