

The Science of Consciousness in the Light of Vedanta and Yoga

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Abstract

The study of consciousness received keen attention from the Indian sages over 4000 years ago. They undertook this study and investigation in a scientific spirit with a view to arriving at the truth about man and nature.

Search for Truth versus Reductionism

It is significant that, in this modern scientific age, the study of consciousness is receiving serious attention, not only from Western physicists and biologists. Till the 20th century, modern science had ignored the significance of consciousness as a datum worthy of scientific investigation. The continued successes achieved from the exploration of external physical nature in the 18th and 19th centuries had influenced many scientists to consider the objective world of matter and physical entities as the primary reality and to treat mind and consciousness as derivable from these and reducible to these. Some would abolish mind altogether and deal only with the brain. This attitude continues to influence many scientists even today, in spite of revolutionary discoveries in quantum physics and biology where the objective world has ceased to be objective in the sense understood by classical physics. Several scientists today, however, have begun to criticise and reject what they call the "reductionist" approach as unscientific. Physicist Bernard d'Espagnat terms this reductionist method as multitudinist method, and warns that it will bring science itself into disfavour with the people. That will be a great tragedy; for, pure science, Vedanta considers, is one of the noblest pursuits of mankind. Though a bit long, his remarks in his article on Quantum Logic and Non-Separability are relevant here: [1]

'By this we mean a conception according to which the ultimate reality - all that really is - would essentially be constituted by an enormous number of elementary events and/or microscopic objects, each one of them being such that the interactions of them all - taken as local and causal - would, combined with chance, give rise to the complexity of appearances. However, it then becomes tempting to shift mentally its status from that of a useful model to what we can call a multitudinist ontology. By this we mean a metaphysics that reduces reality, both outside us and within us, to the elementary mechanisms just described. The argument that the view is useful in practice, is undoubtedly, important. On the other hand, since the advent of quantum mechanics, it is a well known fact that this kind of uncritical realism runs very soon into considerable difficulties.'

Pointing out the harm that this multitudinist or reductionist method is doing to science itself, Bernard

d' Espagnat continues:

'As Wigner pointed out, the naively realistic conception of most of the modern scientists (theorists excluded!) fall fortunately into that class, and that state of affairs will presumably last for at least one generation and perhaps even longer. Of course, the purpose of all this is first of all of a technological nature. But how could we expect from the majority of students and pupils that they should spontaneously make the distinctions that we know are necessary between such conceptions as instrumentalism and realism, and within the latter between the models and the truth? Particularly, how could we expect this when (as is the almost general rule) their attention is never directed to this point by their instructors? Hence it is very much to be feared that the modern mass teaching of exact sciences will definitely and erroneously compromise them, in the public's mind, with the multitudinist philosophies sketched above.'

Mind versus Brain

Making a distinction between mind and the physical basis of mind, the great neurologist Sir Charles Sherrington wrote [2]: 'Knowledge of the brain is growing, and our theme is almost equivalent to the physiology of the brain. Mind, meaning by that thoughts, memories, feelings, reasoning, and so on, is difficult to bring into the class of physical things. Physiology, a natural science, tends to be silent about all outside the physical. And so the study of the physical basis of mind suffers from falling between two stools.'

Neurologist Wilder Penfield [3] says: 'In a sense, therefore, the higher brain stem, together with that portion of that cortex which is being employed at the moment, is the seat of consciousness.

It is the 'physical basis of the mind', this hypothetical mechanism of nerve-cell connections. When a man is conscious, one may conceive that, within his brain, impulses are passing along a million insulating nerve fibres that compose this complex, impulses that are somehow coordinated into the orderly sequences of deliberate thought.

'What is the real relationship of this mechanism to the mind? Can we visualise a spiritual element of different essence capable of controlling this mechanism? When a patient is asked about the movement which he carries out as the result of cortical stimulation, he never is in any doubt about it. He knows he did not will the action. He knows there is a difference between automatic action and voluntary action. He would agree that something else finds its dwelling-place between the sensory complex and the motor mechanism, that there is a switchboard operator, as well as a switchboard.'

Impact of Vedanta and Yoga on Western Thought

With these hints and suggestions, modern physical sciences help us to appreciate the depth study of mind and consciousness undertaken in India in her Vedanta and Yoga, which are having increasing impact on psychology in all its departments in the West today. Giving the main purpose of his book, John Welwood [4] says in his Preface: 'The book is designed to offer new perspectives on such perennial questions as the nature of consciousness, personal identity, sanity, and psychotherapy. The first section asks fundamental questions about the nature of the human mind. The exploration of

different levels of consciousness soon leads to questions about the nature of one's personal identity or ego, the subject matter of the second section. In order to avoid purely speculative theories, the question raised by the exploration of mind and self need to be grounded in a more empirical and disciplined approach. Thus the third section of the book deals with meditation, or how one might relate to these life questions in a direct, personal way. Finally, the fourth section attempts to apply the insights of the first three sections to psychotherapy, and suggests new directions for therapy, that may help people to live in a more wakeful way'.

Later, concluding his Introduction, the author [5] says: 'The present encounter of the experiential, holistic, and enlightenment-oriented traditions of the East with the precision, clarity, scepticism, and independence of Western methods could lead to a new kind of psychology what transcends cultural limitations and opens up what Abraham Maslow referred to as "the farther reaches of human nature". Such a new form of East/West psychology, as represented embryonically in the articles assembled here, is only in its infancy, but it does not appear to be just a passing cultural fancy. May this book contribute to its further growth'.

After quoting the following remark of Medard Boss [6], "If our science of mental health is to become more effective, psychotherapists will have to balance their knowledge of psychological concepts with a contemplative awareness", in his concluding chapter, John Welwood [7] says: 'Interest in the wider dimensions of human awareness is one of the new horizons in psychology today. Because transpersonal concerns are at the forward "cutting edge" of current knowledge, their aims and methods have not yet been fully clarified. I would like to close by suggesting four major features or directions that a new psychology might take.

1. This new approach needs to be a self-knowledge psychology, based on an inner empiricism, an investigation of experience and its deeper nature. Such an approach would evolve as a human science, rather than as a strictly natural science, with its own unique methods and areas of investigation. Its findings might be tested and verified by any individual who undertook to examine his or her own experience in an attentive, detailed, and disciplined way.
2. It would be a psychology of relatedness, rather than a psychology of separate individuals, thus laying a basis for social concerns in the "ecology of mind", which understands mind, not as something inside the individual's head, but as the whole system of individual-plus-environment.
3. Its basic concern with the deep nature of human existence should also provide a framework for accommodating the whole range of human experience. . . .
4. It needs to be based on self-knowledge disciplines (such as the practice of meditation). . . . Such discipline might provide an empirical basis that would distinguish this approach from the early schools of introspectionism, which relied on a more passive, almost random, observation of the stream of consciousness, without ever calling into question the watcher or observer of experience.

'In short, such a new approach in psychology, based on self-knowledge disciplines, would include the whole range of human consciousness in the study of human behaviour: from the automatic responses that behaviourism has studied, to the unconscious patterns that psycho-analysis brought to light, to the farther reaches of human possibility that Maslow called self-transcendence. . . . This approach would not be a substitute for traditional spiritual paths, but might serve as a bridge to them, as well as a neutral meeting ground where practitioners of different self-knowledge disciplines could come together and work out common understandings of human developments as a conscious process.'

Consciousness: Post-war Western Interest in its Study

The importance of the study of consciousness is being forced upon the modern world through the increasing recognition that the serious crisis of the modern world can be resolved only through a change in consciousness and not through further technological changes in the outer physical world. As forcefully expressed by John White [8], 'Political action, social work, this ism that ology, are all incomplete, futile actions unless accompanied by a new and elevated mode of awareness. The ultimate action, then, is no action at all except to change consciousness. In other words, the true revolution is revelation.'

The study of mind and consciousness received recognition from physical science only recently when the American Association for the Advancement of Science accepted the Parapsychological Association, the international professional society for psychical research, as an affiliate organisation on 30 December 1969. And John White predicts a healthy development in the field, in the coming years [9]: 'In the years ahead, explorations of the self will be integrated and therefore interdisciplinary. They will bring together physicists, psychical researchers, psychophysicists, religious leaders, and workers from other professions.'

'If the borders between self and environment can be made to disappear, this is likely to have profound effects on man's attitude to his environment, both social and physical. If the self is experienced as actually embracing other people, self-consciousness becomes social consciousness.'

Rescuing Psychology from Freudianism's Distortions

Warning against the rigid attitude of certain psychiatrists, who blindly follow Freud's lead in defining all mystic perceptions of a fundamental spiritual unity in the universe as a regression to the primary cognition of the infantile or primitive state, Arthur J. Deikman, in his comments immediately preceding the report on 'What Mysticism Is' by G.A.P. (Group for the Advancement of Psychiatry), says [10]: 'This naive reductionism is all the more striking in the context of the numerous reports from physicists indicating that the world is actually more like the one that the mystics describe than the one on which psychology and psycho-analysis are based. Contemporary scientists have ample evidence that the world of discrete objects is an illusion, a function of the particular scales of our perception and time sense. For them, it is commonplace that the phenomena of biology and physics point to a continuous world of gradients, not a collection of objects. . . .

'If our profession is to advance, we must recognize our defences against ideas that would change our assumptions. Mysticism, studied seriously, challenges basic tenets of Western cultures:

- a) the primacy of reason and intellect;
- b) the separate, individual nature of man;
- c) the linear organisation of time.

Great mystics, like our own great scientists, envision the world as being larger than those tenets, as transcending our traditional views. By not recognizing our defensiveness, and by permitting our vision to be narrowed so as to exclude the unfamiliar, we betray our integrity as psychiatrists, showing no more capacity for freedom from prejudice than persons totally ignorant of psycho-dynamics - perhaps

less. . . .

'If we learn nothing more from mystics than the need for humility, they will have contributed greatly to Western culture in general and to the profession of psychiatry in particular.'

Limitations of Physical Science

Robert E. Ornstein [11], quotes physicist Oppenheimer's remark on this complementary of the scientific and mystical ways of knowing: 'These two ways of thinking, the way of time and history, and the way of eternity and timelessness, are both part of man's effort to comprehend the world in which he lives. Neither is comprehended in the other nor reducible to it, . . . each supplementing the other, neither telling the whole story.'

Discussing the nature of knowledge and pointing out the limitations of the knowledge derived from physical science, Charles T. Tart says: 'Blackburn (in the selection here preceding) noted that many of our most talented young people are 'turned off' to science. . . . 'I have seen the same rejection of science by many of the brightest students in California, and the problem is indeed serious. . . .

'Knowledge may be defined as an immediately given experimental feeling of congruence between two different kinds of experience, a matching. One set of experiences may be regarded as perceptions of the external world, of others, of oneself; the second set may be regarded as a theory, a scheme, a system of understanding. Reason is a tool, and a tool that is wielded in the service of assumptions, beliefs, and needs, which are not themselves subject to reason. The irrational, or, better yet, the arational, will not disappear from the human situation. Our immense success in the development of the physical sciences has not been particularly successful in formulating better philosophies of life, or increasing our real knowledge of ourselves. The sciences we have developed to date are not very human sciences. They tell us how to do things, but give us no scientific insights on questions of what to do, what not to do, or why to do things.'

The Field Concept in Vedanta and Modern Science

When we deal with the subject of consciousness, we deal with the subject of experience. Experience is a new datum that evolution exhibits with the appearance of the living cell, converting evolution from the cosmic to the organic dimension., Space, time, the nebulae, or the stars have no 'experience'; they have being, they exist, but they do not experience; in the Vedantic terminology, they possess the attribute of sat, existence, but not cit, consciousness. But the living cell discloses the attributes of sat and cit. The cell discloses the presence of consciousness, in its rudimentary experience, or awareness, of its environment. From then on, evolution is a steady unfoldment of consciousness with every step in the development of the organism; and this development achieves a break-through with the appearance of an on the evolutionary scene, when experience discloses a new dimension of awareness, namely, self-awareness, along with the non-self awareness, a subject awareness along with an object awareness. At this level, consciousness enlarges its bounds, resulting in man's near - total understanding and dominance of the external environment and a slight knowledge of himself as the subject, the self, cognition or knowledge rises, at this stage, from the primary to the secondary logical

intellectual level.

All knowledge begins as a subject knowing an object. At the farthest reach of this process, through the entire gamut of acquiring positivistic knowledge, Vedanta discovered that the mystery of man and nature could be solved first, through an initial inner penetration to understanding the nature of the subject, the self, the knower, while investigating the nature of the objective world, followed, later, by a daring investigation into the nature of knowledge itself. Between the experienced, the experiencer, and the experience, Vedanta entered into the inquiry into the nature of experience itself. The Sanskrit word for experience is *anubhava*, for knowledge, the Sanskrit word is *jnana*, and the knower, it is *jnata* and for the object of knowledge, it is *jneya*, *Jnana*, *jneya*, and *jnata* re designated by Vedanta as the *triputi*, the triple group. Vedanta discovered *anubhava* or *jnana* as the Consciousness-Field, and all objects or *jneyas*, and all subjects or *jnatas*, as its passing configurations, and which resolved the *triputi* distinctions. And it termed the ultimate Reality of Atman or Brahman as *Anubhava-svarupa*, or *jnana-svarupa cit-svarupa* - 'of the very nature of Experience', 'of the very nature of Knowledge', 'of the very nature of Consciousness'.

Some of the greatest utterances of the Upanishads convey this Truth of all Truths - *Satyasya Satyam* (Bhṛhadaranyaka Upanishad 2.1.20); *Prajnanam Brahma* - 'Brahman is Pure Consciousness' (Aitareya Upanishad, 5.3); *Satyam, Jnanam, Anantam Brahma* - 'Brahman is Truth, Consciousness, and Infinity'; (Taittiriya Upanishad 2.1). *Sarvam hyetat Brahma, ayam atma Brahma, so'ayam atma catuspat* - 'All this manifested universe is Brahman, this Self is Brahman, this Self manifests Itself through the four states (waking, dream, deep sleep and the Turiya or the Transcendental' (Mandukya Upanishad, 2).

This development in ancient Vedanta has its parallel in modern physics, in the revolutionary concept of the electro-magnetic field introduced by Faraday and Maxwell earlier, who replaced the mechanical concept of force, then prevailing, by the more subtle concept of the force-field, which has its own reality and could be investigated without reference to any; material entities. This revolution was carried further in this century by the discoveries of the quantum and gravitational fields by nuclear science and relativity theory. This revolutionary field concept has now entered embryology in the science of biology. According to biologist Richard Davenport [12]. The unit of organisation that embodies the attributes of positional information in individuating systems is the embryonic field. We will define an embryonic field as an embryonic system, or part of such a system, that contains constituent elements that only acquire their potential properties in relation to a common source of positional information, but also can re-establish the information, but also can re-establish the informational system, its constituent elements, and their responses, following the disturbance of spatial relationships within the system. . . .

'From a consideration of the previous properties of fields, it is clear that they provide the constraints on cellular function that are necessary for differentiation and individuation. If there is any single key to an understanding of ontogeny, it is the embryological field. When embryological systems are reduced to their essential components and properties, these are found to coincide with the properties of fields. Embryological systems cannot be reduced beyond their constituent fields without the disappearance of the very properties that characterize ontogeny. The egg is a field and can be subdivided only to the extent that preserves its fields properties. During later development, the original single field of the egg becomes subdivided into smaller and restricted fields, which have essentially the same basic properties operating on a small scale.'

Again, relating biology to the revolutionary developments in nuclear physics, Richard Davenport says

[13]: 'Biology must profit from the experience of physics so that it can become conscious of what occurs during analysis and accept the fact that each level of organisation is manifested by unique forces, since it contains unique interactions. Life is distinct from non-life, both in the fact that it is organised by forces that do not constrain inorganic systems, and in the constraint of its lower levels of structure by the weaker interactions of higher levels. By such a unique pattern of constraint, evolution has produced the organic world from which our description of physical reality has emerged through binding the observer and the observed in a system of interactions that are constrained by the forces of consciousness. Therefore, each level must be equally accepted as a legitimate description of a local experience of the universal forces of ordering that produce the aging of this world.' (italics not by the author).

Finally, pleading for the release of science as a whole from the mechanistic terms and concepts of just one of its departments, Richard Davenport concludes his book [14]: 'Biology may yet produce the next great scientific revolution. However, it will not do so by any imitation of mechanical physics, but only by a recognition of the legitimacy of its own structural domain, and of the constraint of this domain on the character of our knowledge. At the same time, it must accept that all levels of description are equally insufficient. In this ability to accept such a realisation the greatest power of our descriptive activities lies - the power that enables us to see into our own nature. This insight will emerge from our failure to force experience to agree without egoistic expectations, and will enable us to understand the true centre of convergence that supports all structure and, thereby, to delight in all its levels of manifestation. This insight will not, as some assume, produce the end of science but will allow us to live in the full meaning of the term scientia, "to know". By relinquishing our partiality, we can create a neutral space in which, little by little, we will come to know that the reality our consciousness has fashioned is symbolic in the deepest sense and ceaselessly points toward that from which all experience flows - the ineffable one that is Nature! (Italics not by the author).

The Comprehensive Nature of Ataman Brahman as Consciousness Field

It is relevant, in this context, to point out the comprehensiveness of the Vedantic conception of Nature so as to include the physical, the biological, and the spiritual, in the unity of Pure Consciousness, which is the meaning of God in Vedanta, says Sri Krishna in the Gita, identifying Himself as the infinite Self of all (7.4-6) [15].

'Earth, water, fire, air, space, mind, intellect and ego sense - this is my Prakrti, Nature, divided eightfold.' .

Bhumiraponilo Vayuh Kham mano buddhireva ca; Ahamkara itiyam me bhinna prakrtirastadha

'This is (My) lower (Prakrti) but different from it, know thou, O mighty armed, My higher Prakrti - the principle of intelligence, by which this universe is sustained.' .

Apareyam, itastvanyam prakrtim viddhi me param; Jivabhutam mahabaho yayedam dharyate jagat

'Know that these (two Prakrtis) are the womb of all beings; I am the origin (maintenance and) dissolution of the whole universe.' .

Etat yonini bhutani sarvanityupadharaya; Aham krtsnasya jagatah

Commenting on the last verse, Sankaracarya says: 'Through this two-fold Nature [apara (lower) prakrti and para (higher) prakrti], I, who am the omniscient God (being of the nature of infinite pure Consciousness), am the cause of this universe.'

Masabda yuga kalpesu gatagamyevanekadha; Nodeti nastametyeka samvit esa svayamprabha

There are several words in Sanskrit as equivalents of the English word, consciousness: Olt, prajna, jnapti, jnana, bodha, samvit; according to contexts, they may mean Infinite Pure Consciousness, knowledge, wisdom, etc.

The Pancadasi gives a lucid description of Samvit as the eternal and non-dual Pure consciousness, Brahman (1.7):

'In all the countless months, years, ages, and aeons, which are past and which are yet to come, Samvit, which is one and self-luminous, does neither rise nor set.'

Prakrti-dvayadvarena aham sarvajna isvaro jagatah karanam

The Srimat Bhagavatam, in a majestic utterance conveying a synoptic vision, describes the ultimate Reality as advayam jnanam, non-dual Pure Consciousness (1.2.11):

'Knowers of Truth declare that the Truth of one and the same Non-dual jnanam, Pure Consciousness, is spoken of as Brahman (by the jnanis or philosophers), as paramatman, the Supreme Self (by the yogis or mystics), and as Bhagavan, the All-loving God, (by the bhaktas or devotees).'

Vadanti tat tattvavidah tattvam vat jnanam advayam; Brahmeti paramatmeti bhagavan iti sabdyate

Pure Consciousness is known as Brahman of Siva, in its transcendental quiescent aspect, and as Maya or sakti, in its immanent dynamic aspect; and both are one, like the unity of physical energy in its two aspects of bottled up and released states.

Sankaracarya presents 'the goal of all Vedanta as the realisation of the unity and infinitude of the Atman as Pure Consciousness'.

Atmaikatva vidya pratipattaye sarve Vedantah arabhyante

in his Brahma-Sutra Commentary (Sutra 4). Nuclear physicist Erwin Schrodinger [16] echoes this Vedantic truth: "Consciousness is never experienced in the plural, only in the singular. . . .

Consciousness is a singular of which the plural is unknown; that there is only one thing, and what seems to be a plurality is merely a series of different aspects of this one thing, produced by a deception (the Indian Maya)'.

The quantum energy-field or the four-dimensional space-time, which twentieth-century physics presents as beyond sensory verification, finds its counter-part is Vedanta in its cittakasa, the akasa, the space, time continuum, of citta or mind. This is what mind, in dream, reveals. This is the knowledge - the field or consciousness-field, of which all drk or see or subject and all drsyam or the seen or object, are but two poles as the observer and the observed. Modern subatomic physics is now in the position of the ancient Sankhya philosophy, in its reduction of the observed into the quantum field while retaining multiplicity in the dimension of the observer. The Sankhya achieved the unification of all non-self in its Pradhana or Prakrti or Nature, while retaining, however multiplicity in the realm of the Purusa, the observer, self or subject. The Vedantic truth of the unity of the Consciousness-Field will become revealed to sub-atomic physics when it resolves its present contradiction involved in viewing its 'observer' in terms of classical physics, while viewing its 'observed' in terms of the quantum field probabilities. Modern physics has yet to achieve a complete and satisfactory unified theory

comprehending electro-magnetic and gravitational phenomena. Even if this unified field theory is firmly established in the future, the problem of unifying the Prakrti and Purusa, the observed and observer, will haunt science's search for ultimate unity. Physicists like Fritjof Capra [17] present the Brahman of the Vedanta as a more comprehensive background reality of the universe than modern physicist's Nature: 'The conception of physical things and phenomena as transient manifestations of an underlying fundamental entity is not only a basic element of quantum field theory, but also a basic element of the Eastern world view. Like Einstein, the Eastern mystics consider this underlying entity as the only reality: all its phenomenal manifestations are seen as transitory and illusory. This reality of the Eastern mystic cannot be identified with the quantum field of the physicist, because it is seen as the essence of all phenomena in this world and, consequently, is beyond all concepts and ideas.

'The quantum field, on the other hand, is a well defined concept which only accounts for some of the physical phenomena. Nevertheless, the intuition behind the physicist's interpretation of the sub-atomic world in terms of the quantum field is closely paralleled by that of the Eastern mystic who interprets his or her experience of the world in terms of an ultimate underlying reality. Subsequent to the emergence of the field concept, physicists have attempted to unify the various fields into a single fundamental field, which would incorporate all physical phenomena. Einstein, in particular, spent the last years of his life searching for such a unified field. The Brahman of the Hindus, like the Dharmakaya of the Buddhists and the Tao of the Taoists, can be seen, perhaps, as the ultimate unified field from which spring not only the phenomena studied in physics, but all other phenomena as well.' The cittakasa referred to earlier as the Vedantic equivalent of space-time continuum, still involves the duality of the subject and the object, and therefore provokes a deeper inquiry. This limitation is overcome in the highest Vedantic view of Consciousness, infinite and non-dual, the cidakasa, the akasa or Void of Cti, or Pure Consciousness, which is the same cittakasa viewed non-causally.

In thus presenting the universe, in its fundamental aspect, as Pure Consciousness only, Vedanta does not destroy the universe or its matter and separate intelligent being, but only illumines the true nature of them all, just as modern quantum and relativity physics does not destroy the stable molecular structures of the physical universe, upheld by classical physics, by presenting the universe as an ocean of energy only, but says that the familiar world of classical physics is only a limiting case, viewed through the human sensory system, of the true universe presented by quantum and relativity physics. Science does not destroy or create, but only illumines, says Sankaracarya: Sastram jnapakam, na tu karakam. the material universe of daily experience, which physical science set about to study, will reveal its true form, as condensations of Pure Consciousness, as Isavasyam idam sarvam yat kincit jagatyam jagat, as the Isa Upanisad proclaims in its opening verse, when physics, all physical science, dissociates the 'matter' it studies from the dogma of 'materialism' that it wrongly associates with, and that it termed an 'intruder' in science by Thomas Huxley [18], while treating 'matter' as a useful working concept.

Gaudapada on the Non-Duality of Pure Consciousness

Gaudapada, in his Mandukya-karika, proclaims that the non-causal Pure Consciousness is realised by the non-causal pure knowledge, and salutes the teacher who discovered and taught this philosophic and spiritual vision of Advaita, non-duality, in two famous verses (3.33 and 4.1).

'Beyond all conceptual thinking is jnanam, spiritual knowledge, and is ever non-different from the knowable Reality; Brahman, the sole knowability, is unborn (beyond causality) and eternal; the non-causal (knowledge) realises the non-causal (Brahman).' .

Akalpakam ajam jnanam Jneyabhinnam pracaksate; Brahma jneyam ajam nityam ajenajam vibudhyate

'I salute that best among the bi-peds (men), who has realised, through knowledge which is infinite like space, the non-separateness of all objects, which are also infinite like space, with the object of knowledge (Brahman). .

Jnanena akasa-kalpena dharman yo gaganopaman; Jneyabhinnena sambuddhah tam vande dvipadam varam

Anticipating the views of scientists and thinkers of the present day quoted earlier, the ancient Indian law giver Manu says that all higher spiritual truths are obtained only through inner penetration and the raising of consciousness to higher and higher levels (6.82):

'All these that have been expounded earlier (about the realisation of the non-dual Pure Consciousness), are the products of dhyana, meditation; none bereft of the knowledge of the Atman can, verily, enjoy the fruits of his labour (in peace and joy).' .

Dhyanikam sarvamevaitat yadetat abhisabdhitam; Na hyanadhyasnute

We see the truth of this today when the contemporary high material prosperity through an efficient technology, alienated from higher spiritual values, has led to increasing psychic and social distortions and the inability to enjoy life in peace and joy.

The Chariot Imagery and Man's Spiritual Journey

the Higher Life, Swami Viveknanda said [19]: 'Meditation is the one thing, Meditate! The greatest thing is meditation. It is the nearest approach to spiritual life - the mind meditating. It is the one moment in our daily life that we are not at all material - the Soul thinking of itself, free from all matter - this marvellous touch of the Soul!'

The Upanisads view the human personality, consisting of the body, the sense-organs, mind intellect, and the soul, in the light of the mighty evolutionary movements of nature. The Katha Upanisad employs a beautiful imagery - the imagery of the chariot - to illustrate the evolutionary advance at the human level (3.3-9):

'Know the Atma as the master within the chariot, and the body, verily as the chariot; know the buddhi, enlightened reason, as the charioteer, and the manas (incipient mind), verily as the reins.'

'The sense-organs, they say, are the horse, and the roads for them to travel are the sense of objects. The wise call Him (namely, the Atman) the enjoyer of the experiencer (when He is united with the body, senses and mind).'

'He who is devoid of right understanding and with manas always undisciplined, his senses become uncontrolled, like the uncontrolled horses of a charioteer.'

He who is possessed of right understanding and with manas always disciplined, his senses become controlled, like the controlled horses of a charioteer.'

'And he who is devoid of right understanding, with manas not disciplined and always impure, never

attains that goal, but gets into the repetitive experience of worldliness.'

'But he who is possessed of right understanding, with manas disciplined and ever pure, reaches that goal whence there is no return to worldliness again.'

'He who has vijnana, or enlightened reason, for his charioteer, and a (disciplined) manas as the reins - he verily attains the end of ;the journey in that supreme divine state of Universality.'

This imagery tells us that man has an inner journey to perform in the context of his outer journey in the world of space and time. The world of sight and sound, of touch and taste and smell, is the environment for both the outer journey and the inner journey. The inner journey is a spiritual journey of inward penetration, by training the psycho-physical energies and raising mind and consciousness to higher and higher levels. As the chariot gets its energy of movement from the sense-organs, consisting of the nervous system and the brain. The organs of perception and the organs of action convert the animal body into a centre of the most dynamic activity in nature; but at the level of the senses themselves, this activity is mostly uncoordinated and, therefore, not fit for purposes beyond mere organic satisfactions and survival. It is this coordination that is provided by manas, or incipient mentality, which Swami Vivekananda renders as 'mind indecisive.' It is even treated as merely a sixth sense-organ. As in the case of the horses, the reins, meant to control them, involve a charioteer to hold the reins. In the human system, this is the function of buddhi or enlightened reason. And behind the buddhi is the master of the chariot, whose is the journey, while the rest form equipments for his journey.

Mere external journey in the world of space and time is what is termed samsara or worldliness, which means stagnation at the organic level. The Upanisad considers this as the spiritual death of man, which is more serious than physical death in the case of a species so high in evolution. Life's journey, whether outward or inward, to be successful, needs the contributions of all the constituents of the human personality; the body, the sense-organs, the manas, and the buddhi. This cannot happen unless the buddhi and the manas are trained and disciplined in their true forms. The true form of the manas is its pure state when it is aligned with buddhi above it, and ceases to be a mere appendage of the sense-organs; then alone it can stand the stress and strain involved in its unique situation, namely, between the two powerful and initially opposite forces of the sense-organs and the buddhi. All psychic breakdown is the snapping of the manas. The true form of buddhi is its pure state as enlightened reason, when it is independent of the manas and the sense-organs and functions as their guide and master. This is the source of far-sight and foresight. It then reflects the pure Light of Consciousness of the Atman behind. When free from the inebriations arising from indigestion of wealth, power, knowledge, pedigree, drugs and wine, the buddhi becomes luminous and calm, steady and sure. Such a buddhi is the best guide in life's journey. It denotes the fusion of intelligence, imagination, and will in their purest forms. Its impact on life is irresistible as well as wholesome. The Gita, therefore speaks that the Atman is realised by the buddhi and is unattainable by; the sense-organs or the sense-bound manas (VI.21) - buddhi grahyam atindriyam.

When the psycho-physical energy of ;man is directed by enlightened intelligence or enlightened reason, something wonderful happens; every step of his life's journey is accompanied by a steady rise in the quantity of his life energy.

The buddhi becomes freed from thralldom to the sense organs and from the service of mere organic survival. This freeing of buddhi, through the freeing of its physical instrument, the cerebral system, was achieved by nature, in a small way, in man, through evolutionary processes initiated even in the

pre-human stage. In the words of neuro-physiologist Grey Walter [20]: 'The acquisition of internal temperature control, thermostasis, was a supreme event in neural, indeed, in all natural history. It made possible the survival of mammals on a cooling globe. That was its general importance in evolution. Its particular importance was that it completed, in one section of the brain, an automatic system of stabilisation for the vital functions of the organism - a condition known as homeostasis. With this arrangement, other parts of the brain are left free for functions not immediately related to the vital engine or the senses, for functions surpassing the wonders of homeostasis itself.

'The matter is epitomized in a famous saying of the French physiologist Claude Bernard: *La fixite du milieu interieur est la condition de la vie libre*' (A fixed interior milieu is the condition for the free life).

The spiritual journey, is essentially an interior journey, and not an outer journey in space and time. Man, as a product of nature's evolution, is a unique specimen of that evolution, holding the key to the mystery of nature, to the purpose of evolution, and to the meaning of all existence.

His psycho-physical system is a miniature universe in itself; the immensity of its interior dimension is obscured by the smallness of its external physical covering or *kosa* (sheath), as Vedanta terms it. The body and the environing world constitute the gross outer fringes of reality; this is reality as revealed by the sense-organs. As we penetrate into the interior, we come across subtler and, accordingly, more immense aspects of reality; these are revealed only by the mind. With the advance of knowledge, the conviction is borne in upon man that, if ever there is an eternal, changeless, and, accordingly infinite dimension to reality, it must lie in the centre of consciousness; the discovery of such a centre depends on a mighty penetration, which will also reveal the nature of the various layers or sheaths covering reality. This is what the Indian sages did, including the great Buddha of a later age, and this is what the Upanisads convey to us in words which bear the stamp of authentic experience.

The Spiritual Journey as Inner Penetration

In the course of this inner penetration to the Atman, man comes across, says Vedanta, not only subtler dimensions of Reality, but also more immense resources of energy. The first form of energy that becomes manifest in a human being is his or her muscular energy; this multiplied becomes bull power and horse power. The muscle power is the outermost and grossest, *sthula*, kin Sanskrit, dimension of human energy. This muscle power of man of horse is insignificant compared to the multi-million horse-power rockets of modern space technology.

Behind the muscle, there is the tiny nerve fibre; it is subtle compare to the large muscle; but cut out that nerve fibre, and the muscle is dead. Thus at the very outset of our investigation, we realise that, behind the gross muscle power, there is a subtle, but more significant, and more immense energy system in the nerves. Investigating further, we find that, behind the nervous system, there is the more subtle psychic energy system, sustaining and controlling that nervous system. If that psychic system breaks down, the muscle and the nerve will become powerless to function. Thus we see that, as we go deeper into man, we come across subtler energies within him, Further, we also note that, as we progress from the gross to the subtle, human energy resources become more and more immense in quantity, quality, and range. The ancient sages of the Upanisads successfully tried to penetrate man in depth with their highly trained and pure minds.

Penetrating behind the psychic system, they discovered the infinite and most subtle and most immense spiritual energy system in man in the Atman, the true Self of man. It is this discovery that is conveyed by that short mantra form the Chhandogya Upanisad (6.8.7): Tat Tvam Asi - 'That Thou Art'.

Through this investigation and experience, Vedanta discovered the profound truth about man, just as modern physics discovered the truth of the immense energies hidden at the nuclear core of a lump of matter, that human energy resources are organised on an ascending scale of subtlety, immensity, and inwardness: suksma, mahantasca, pratyagatma-bhutasca, in the language of Sankaracarya, giving the meaning of the term para, higher used in the verses to be presently quoted (Katha Upanisad 3.10); this subtlety, immensity, and inwardness reach their final consummation in the Atman, the pure and non-dual Consciousness.

Speaking on 'Vedanta in All Its Phases' at Calcutta in 1897, Swami Vivekananda presented India's experience of man's search for truth gracefully rising, from the field of external physical nature, to the strange new field of the internal nature of man, to the 'within' aspect of nature [21]: 'Just as the Greek mind, or the modern European mind, wants to find the solution of life, and of all the sacred problems of being, by searching into the external world, so also did our forefathers; and just as the Europeans failed, they failed also. But the Western people never made a move more; they remained there; they failed in the search for the solution of the great problems of life and death in the external world; and there they remained, stranded; our forefathers also found it impossible, but were bolder in declaring the utter helplessness of the senses to find the solution. Nowhere else was the answer put than in the Upanisads (Taittiriya Upanisad 2.4): yato vaco nivartante aprapya manasa saha - 'From whence words come back reflected, along with the mind, without attaining (the Truth); Na tatra caksuh gacchati, na vak gacchati'

"There the eye cannot go, nor can speech reach" (Kena Upanisad 1.3).

'There are various sentences which declare the utter helplessness of the senses; but they did not stop there; they fell back upon the internal nature of man; they went to get the answer from their own soul. They became introspective. They gave up external nature as a failure, as nothing could be done there, as no hope, no answer, could be found. They discovered that dull, dead matter would not give them truth; and they fell back upon the shining soul of man, and there, the answer was found.'

Referring to the advance attained by ancient India in this 'Science of Human Possibilities', Max Mueller observes, [22]: 'But if it seems strange to you that the old Indian philosophers should have known more about the soul than Greek or medieval or modern philosophers, let us remember that, however much the telescopes for observing the stars of heaven have been improved, the observatories of the soul have remained much the same.'

The Katha Upanisad gives us a glimpse into this inner penetration in verses 10 and 11 of its third chapter. Introducing these verses, Sankaracarya says in his commentary:

'Now, that state, which is to be attained (through the spiritual journey), a journey which begins with the sense organs which are gross, and proceeds through comparatively subtler and subtler aspects - that state is to be realised as the pratyatman, the Inner Self. .

Adhuna, yat padam gantavyam, tasya indriyani stulaani arabhya, suksmataratamyakramena, pratyagatmataya adhigamah kartavyah, Ityevamartham idam arabhyate -

In order to convey this truth the Upanisad proceeds as follows:

'The sense-objects (in their nuclear dimensions) are para i.e., higher, than the sense-organs, the manas is higher than the sense objects; the buddhi is higher than the manas, the mahan atma (great self i.e.,

the Cosmic Mind) is higher than the buddhi'. .

Indriyebhyah para hyartha arthebhyasca param manah; Manasastu para buddhih buddheratma mahan parah

'The Avyakta (undifferentiated Nature) is higher than the mahat (Cosmic Mind); the Purusa (the infinite Self) is higher than the avyakta. There is nothing higher than the Purusa; that is the finale, that is the supreme goal.' .

Mahatah param avayaktam avyaktat purusah parah; Purusat na paranit kincit sa kasta sa para gatih

The layers spoken off in these verses as covering reality are described as kosas or sheaths in The Taittiriya Upanisad. They are five in number: annamaya, material or physical, constituted by the body and the enviroing physical nature revealed by the sense-organs; pranamaya, monomaya, and vijnanamaya, corresponding to the three layers of the sense-organs, manas, and buddhi, and anandamaya, corresponding to the avyakta or undifferentiated nature. Indriyas, manas and buddhi may stand for the biospherical, the psychical, and the noospherical of the modern enumeration.

Studying the phenomenon of man and seeking for the true focus of his experience of self-hood at the core of his personality, Vedanta came across these five kosas or sheaths, enumerated also as the three sariras or bodies, namely, sthula sarira, gross body, suksma sarira, subtle body, and karana sarira, causal body, in all of which, as remarked by Dr. S Radhakrishnan in his translation of the Gita. [23]. There is no changeless centre or immortal nucleus in these pretenders to self-hood.'

The body, the sense-organs, the mind, and the ego, all lay claim to being the Self of man. Before enquiry, man takes one or other of them as his self. But philosophical enquiry reveals their not-self character, it reveals each one of them as an object, with reflected light of consciousness and not a subject, which is self-luminous; each is a samghata or aggregate, in the terminology of Vedanta and Buddha, and, as such, subject to change and destruction.

The search for the Self must leave them behind and proceed deeper. If nothing is discovered beyond these changing not-self elements, man is right in resigning himself to nihilism in philosophy and pragmatism in life. Vedanta, however, finds in the facts of experience enough intimations of a changeless reality, which justify a more penetrating investigation of experience by reason. Reason is confronted by the puzzling fact that the diverse experiences of man form a unity; and there is also the fact of memory. These presuppose a changeless centre in man; without such a changeless centre, the perceptions of change, the experience of memory, and their attribution to one and the same knowing subject, will become inexplicable. Such a scrutiny of experience revealed to Vedanta the presence of a changeless subject or knower at the centre of the knowing process, at the core of the human personality. As affirmed by Sankaracarya [24]: 'There is some entity, eternal by nature, the basis of the experience of ego-sense, the witness of the three states (of waking, dream, and deep sleep), and distinct from the five sheaths.' .

Asti kascit svayam nityam ahampratyayalambanah; avasthatravasaksi san pancakosavilaksanah
Who knows everything that happens in the waking, dream, and deep sleep states; who is aware of the presence or absence of the mind and its functions; and who is the basis of the ego-sense.' .

Yo vijanati sakalam jagrat svapna susuptisu; Buddhi tadyrtti sadbdhavam abhavam aham ityayam

The discovery of the truth of the immortal Self behind the mortal body-mind complex is the universal

'gospel', or good news, which the Upanisads have left as their immortal legacy to all humanity. It was not just an intellectual discovery through a speculative venture; it was a spiritual realisation, holding at the same time vast possibilities for the intellectual and moral life of man. It underwrites and guarantees the precious value of freedom of the human spirit. Being a spiritual discovery, it is announced to the world at large not as an intellectual formula to be believed in, but a spiritual fact to be realised, by every human being. The discovery by a few is to be translated into a re-discovery by the many; for it is the birthright of one and all. This makes it a compelling message to all men.

The Katha Upanisad knew the universal appeal of this message. In verse twelve of its third chapter, the Upanisad spells out the universality of the Atman, and its verifiability in life (3.12);

'This Atman, (being) hidden in all beings, is not manifest (to all). But (It) can be realised by all who are trained to inquire into subtle truths by means of their sharp and subtle reason.' -

Esa sarvesu bhutesu gudho atma na prakasate; Drsate tyagyaya buddhya suksmaya sukmadarsibhih

As the eternal subject or knower, it is an ever-present datum of experience and not a mere logical construction; but it does not reveal itself as such to one and all. Not to speak of ordinary people, even great scholars fail to comprehend the Atman. The verse gives the reason; gudah - 'it is a subtle, hidden.' It is mysterious presence; it is a splendour, but imprisoned, in the language of Robert Browning in his poem Paracelsus; and therefore no prakasate - 'it is not manifest'; asamskratabuddheh avijneyatvat - 'since (it is) unknown to him whose buddhi or reason is not refined or purified', comments Sankaracarya. It is not present on the surface of experience; it is hidden in its depth.

Though a mystery, the Atman shall not always remain so; though an unknown, Vedanta does not treat it as an unknowable. Drsate - 'It can be seen, realised', through pure buddhi, since it is an ever-present datum of experience. What is that buddhi which achieves this? Agraya buddhya suksmaya - 'by buddhi which is sharp and subtle.' Explaining the meaning of this, Sankaracarya says in his commentary:

'They are sukmadarsinah - 'subtle seers' - who are trained, through seeing subtler and subtler realities as mentioned in the passage: "the objects are higher than the sense-organs" etc. (verses ten and eleven), to see the supremely subtle reality (of the Purusa or the Atman).' -

Indriyebhyah para ityadi prakarena, sukmataparam paryadarsanena, param suksmam drastum silam yesam, te sukmadarsinah

The Katha Upanisad then proceeds, in verses thirteen and fourteen, to expound this extraordinary Vedantic discipline of inner penetration for the realisation of the Atman and the sweet fruit of that penetration:

'Let the prajna (wise man) merge the speech in the manas, and the manas in the buddhi; let him merge the buddhi in the Cosmic Mind, and merge that Cosmic Mind again in the Self of Peace (the Atman or the Purusa).' -

Yacchet vak manasi prajnah tat yacchet jnana atmani; Jnanam atmani mahati niyacchet tat yacchet santa atmani

The Atman is significantly characterised as consisting of santi (peace). commenting on this Sankaracarya says:

'In the peace of the primary Atman (Real Self which is) characterised by the complete cessation of all differentiation, changeless, the innermost reality of all, and the witness of all the pulsations of buddhi.'

Sante, sarva-visesa-pratyastamita-rupe, avikriye, sarvantare, sarva-buddhi-pratyaya saksini, mukhya atmani

'By realising that Atman which is beyond sound, beyond taste, beyond smell, even beyond the mahat (Cosmic Mind, formless, imperishable, eternal, beginningless and endless, and immutable (man), is liberated from the jaws of death.' .

Asabdham asparsam arupam avyayam tatharasam nityam agandhavacca yat; Anadyanantam mahatah param dhruvam nicayya tam mrtyumukhat pramucyate

The Vedantic Clarion Call: Arise ! Awake!

Vedanta proclaims that something wonderful happens when man succeeds in stilling the sense-organs and the mind; it brings him face to face with the mystery of his own true self. Just as in physical science, we study the behaviour of matter under various conditions, such as extremely high or extremely low temperatures and pressures, and the resulting phenomena are wonderful, similarly, in the science of man's inner life, which Vedanta developed into what Jlian Huxley wants modern physical science to develop into, namely, 'a science of human possibilities', we have a study of man under various conditions of inner discipline, which has yielded results more wonderful and significant than those in the physical sciences. The highest result of such discipline of the energies of the inner life is total illumination - jnana, or bodhi, the state of spiritual incandescence, and creative peace.

Consciousness becomes an explicit datum in experience in the form of a hazy awareness of the environment, with the appearance of the living cell in evolution. From that stage up to the stage of man, we find a parallel and gradual evolution of the depth and range of consciousness and a corresponding grip of the organism on the environment. Vedanta refers to this as evolution of the physical organism and manifestation of consciousness. Progress in the defining and co-ordinating of this awareness is registered as advance in knowledge. All creatures, says the Devimahatmyam [25], have their knowledge confined to the world of sense-objects - jnanamasti samastasya jantor visayagocare.

Consciousness at this level is tied down to the organic system, whose primary urge is only organic satisfaction and organic survival. It is this consciousness and this knowledge that becomes capable, at the human level, to penetrate into the heart of Reality, in its external and internal dimensions.

If the innermost Self is all peace, the outermost sheath, the annamaya, or the physical self, is all noise and distraction. The farther we are from the centre of our Atman, the more become the noise and distraction of our lives. Peace is not in things outside, says Vedanta, but in man himself. This peace has to be realised by the development of the capacity for inner penetration through inner discipline. The structure of human life becomes steady when it is founded on the rock of the eternal Atman within, of the indwelling God in every being.

The raising of consciousness from lower to higher levels, and finally taking it out of the network of relativity, is the hardest task that man can set for himself. The gravitational pulls of the non-spiritual parts of his being, consisting of samskaras or vasanas - impressions, make this path out of bounds for any but the most heroic of men - the dhiras - as the Upanisads term them. Most people need much practical help and guidance, and several easy steps, in this path; and that is provided by Vedanta in its bhakti and other paths of; its practical science of spirituality. In these, there is legitimate place for

rituals and other outward spiritual practices, if the goal of spiritual growth is constantly kept in view. The Katha Upanisad summons all humanity to undertake this great adventure of raising consciousness to its highest level of purity, luminosity, and universality. (III 14):

'Arise! Awake! enlighten yourself by resorting to the great (teachers); like the sharp edge of razor is that path, so say the sages, difficult to tread and hard to cross.' .

Uttisthata, jagrata, prapya varan nibodhata; Ksurasya dhara nisita duraytyaya durgam pathastat kavayo vadanti

Implicit in this philosophy of Vedanta is the fulfilment of the hopes of one and all to reach the summit, since that fulfilment, forming one's very Self, is built into each and every human being. What is needed is only man's awakening to this inalienable heritage of his - his inborn divinity. Awakened thus, each may follow the path that suits him or her best; and Vedanta provides different paths to suit different types of mind and mood, of endowment and capacity.

From Creaturliness to Freedom

Nature has given man alone, among all her species, the organic capacity, through his developed cerebral system, to detach consciousness from thralldom to the organic system and raise it to higher and higher levels; and this is the role of evolution at the human stage. By this, man experiences a sense of being related to the eternal order "within" the universe, as he has all along felt physically related to the temporal order of its 'without'. This signifies the development of his knowledge of reason from the state of being the tail-end of his organic system to becoming the unfettered agent of life's advance to universality and spiritual fulfilment, with character excellence as its corollary.

The consciousness of the natural man is out-going in disposition in search of organic satisfactions and organic survival. By using his nature-given capabilities, he can cease to be that natural man and a creature, and unfold his own higher nature, Para Prakrti, in the words of the Gita verses quoted earlier, and achieve freedom, peace and fulfilment. Such an unfoldment is a march, steady or halting, from creatureliness to freedom and from wretchedness to blessedness.

Says Grey Walter in his book [26]: 'For the mammals all, homeostasis was survival; for man, emancipation. . . .

'The experience of homeostasis, the perfect mechanical calm which it allows the brain, has been known for two or three thousand years under various appellations. It is the physiological aspect of all the perfectionist faiths - nirvana the abstraction of the yogi, the peace the passeth understanding, the derided "happiness that lies within"; it is a state of grace in which disorder and disease are mechanical slips and errors.'

The Atman as pure and non-dual Consciousness is presented by The Brhadaranyaka Upanisad in the following utterance (III.7.23):

'He is never seen, but is the Seer, He is never heard, but is the Hearer, He is never thought, but is the Thinker, He is never known but is the Knower. There is no other seer but Him, no other hearer but Him, no other thinker but Him, no other knower but Him. He is the antaryami (Inner Ruler), your own immortal Self. Everything else but Him is mortal.' .

Adrsto drasta, asrutah srota, amato manta, avijnato vijnata, nanyo atosti drasta, nanyo atosti

srota, nanyo atosti manta, nanyo atosti vijnanta; esa te atma antaryami amrtah; ato anyadartam
The Atman as the Immutable and Eternal Consciousness is presented by the Upanisads as the witness or saksi of the changing subjects and objects of the states of waking and dream and sleep.

The Upanisads arrive at the purity, immutability, and non-duality of the Atman, and its character as the light of all lights - jyotisham jyotih - through a penetrating inquiry into the universal phenomena of the three states of waking, dream, and dreamless sleep. Apart from the two large Upanisads namely, The Brhadaranyaka and The Chandogya, in which this subject finds prominent treatment, there is one Upanisad in which it forms the exclusive theme. This is the Mandukya, the shortest of all the Upanisads with only 12 verses, whose brief but pregnant utterances have been clarified and amplified by two later sages and philosophers, namely Gaudapada of the seventh century A.D., in his famous Mandukya-karika, Sankaracarya of the eighth century A.D., in his commentary on the same. The nature of the Atman as pure and non-dual Consciousness revealed by this investigation has been expounded to us in the luminous seventh verse of this Mandukya Upanisad:

Not conscious of the internal (i.e., the Atman is not (exclusively) the self in the dream state), nor conscious of the external (the Atman is not (exclusively) the self in the waking state), nor conscious of both (the self of reverie), not a mass of consciousness (deep sleep), not consciousness, nor unconsciousness, unseen (by the sense-organs), beyond the texture of all relativity, incomprehensible (by the sense-bound mind), without any distinguishing mark (therefore beyond logical inference), unthinkable, indescribable, of the essence of the Consciousness of the Unity of the Self, the very cessation of the world of relativity, peaceful, bliss and nondual - this is what is known as the Turiya or dual - this is what is known as the Turiya or the Fourth (with respect to the three states). This is the Atman, and it has to be realised.' .

Nantahprajnam, na bahihprajnam, nobhayatahprajnam na prajnanaghanam, na prajnam
naprajnam, adrsyam, avyavaharyam, ekatmapratyayasaram prapancopasamam, santam,
advaitam, caturtham manyante sa atma, sa vijneyah

Introducing this verse, Sankaracarya comments: 'Since the Turiya or the Atman, being beyond all operations of speech, cannot be brought under the purview of any utterance, the Upanisad desires to describe It by the negation of all attributes.' .

Sarva-sada pravrttinimitta sunyatvat tasya sabdanabhi-dheyatvam iti visesa
pratisedhenaivaturryam nirdidiksati

Atman-Brahman as the Unified Experience-Field

This is the reality that reveals itself to the discerning mind as the unchanging saksi or witness of all the changing subjects and objects of the various states. Since it is not limited by anyone particular state as the ego is, it is infinite. After realisation of this truth, one does not desire to protect or defend oneself, because of the realisation of nonduality and the attainment of the state of fearlessness. All ideas of hatred, offence, self-protection, self-defence, and hiding, proceed from fear, from a feeling of inadequacy with respect to the environment. Realisation of the Atman means realisation of one's infinite dimension and of one's spiritual unity will all; its fruit is infinite love and infinite strength. The Vedanta presents the Atman-Brahman as the unified Experience-Field and as inside all beings and outside all beings. He therefore is the all. As proclaimed in a famous hymn of The Srimad Bhagavatam

(VIII 3.3):

'I take refuge in that Self-existent Being in Whom is this Universe, from Whom is this universe, by Whom is this universe, Who Himself is this universe, and Who is beyond this (differentiated nature) as also beyond that (undifferentiated nature).' .

Yasminnidam yatascedam Yenedam ya idam svayam; Yo' smat parasmat ca parah tam prapadye svayambhuvam

If the whole universe is the product of a self-evolving cause, which Vedanta and modern physical science uphold, then that cause must be present in all its evolutionary products, which then can have no reality apart from it. This corollary follows whether that cause is viewed as an intelligent principle - Brahman or Atman - as in Vedanta, or as a non-intelligent background material as in modern science. That one cause must account not only for all the objects of experience, but also for all the subjects of experience, and for all experience itself. The solar system being a product of the sun, the food that we eat, as much as the human metabolic energy which digests it, the coal we burn and the clothes we wear, are all but solar energy in different manifestations.

As remarked by Einstein [27] 'There is no place in this new kind of physics both for the field and matter, for the field is the only reality.'

Vedanta upholds also that all evolution presupposes involution. If consciousness appears as a datum in evolution from the cell onwards, it must be present in the primordial background material of the universe itself. 'What is the most evolved notion that man has of this universe?', asks Swami Vivekananda, and proceeds to answer [28]: 'It is intelligence, the adjustment of part to part. . . . At the beginning, that intelligence becomes involved, and in the end, that intelligence gets evolved. The sum total of the intelligence displayed in the universe must, therefore, be the involved universal intelligence unfolding itself. This universal intelligence is what we call God. Call it by any name, it is absolutely certain that, in the beginning, there is that infinite cosmic intelligence. This Cosmic intelligence gets involved, and it manifests, evolved itself, until it becomes the perfect man, the "Christ-man", the "Buddha-man". Then it goes back to its source. That is why; all the scriptures say, 'In Him we live and move and have our being". That is why all the scriptures preach that we come from god and go back to God. Do not be frightened by the theological terms; if terms frighten you, you are not fit to be philosophers. This cosmic intelligence is what the theologians call God.'

Clarifying his use of the word 'God', he continues [29]: 'I have been asked many times, "Why do you use that old word 'god'?" Because it is the best word for our purpose; you cannot find a better word than that, because all the hopes, aspirations, and happiness of humanity have been centred in that word. It is impossible now to change that word. Words like these were first coined by great saints who realised their import and understand their meaning. But as they become current in society, ignorant people take these words, and the result is that they lose their spirit and glory. . . .

'Use the old word, only use it in the true spirit, cleanse it of superstition, and realise fully what this great ancient word means. If you understand the power of the laws of association, you will know that these words are associated with innumerable majestic and powerful ideas; they have been used and worshipped by millions of human souls, and associated by them with all that is highest and best, all that is rational, all that is lovable, and all that is great and grand in human nature. And they come as suggestions of these associations and cannot be given up. If I tried to express all these by only telling you that God created the universe, it would have conveyed no meaning to you. Yet, after all this struggle, we have come back to Him, the ancient and supreme One.'

Brahman-Atman is the unity of all experience. It is the Unified Experience-Field. Differences between the objects, between the object and the subject, and between the subjects themselves, which commonsense reveals, and which provide the starting point, and act as the challenge, to knowledge, are overcome in the unity of Brahman-Atman, the non-dual Pure Consciousness, say the Upanisads. 'Knowledge leads to unity and ignorance to diversity,' says Sri Ramakrishna. All progress of knowledge in science and religion confirms that diversity is on the surfaces, but deep down is unity. And unity, unlike uniformity, does not eliminate diversity. Knowledge only reveals, but does not add to or take away form, reality. Vedanta therefore proclaims the message of unity in diversity.

Through the positive science, we seek for unity in diversity of the world of outer nature, the world of the not-self. This search may be conducted at the purely intellectual level. But when we carry that search into the world of inner nature, the world of the self, the world of consciousness, such an intellectual approach becomes inadequate and misleading. For here we are in the most intimate field of experience, where all true knowing ever seeks to find its consummation in being, and where mere intellectual knowledge leaves us far away from our true self. Such self-realisation, as it penetrates deeper spiritually, steadily breaks down the barrier between man and nature and man and man.

Pure Consciousness as the Light of All Lights

The Katha Upanisad presents the Atman, the ultimate Reality, as also the intimate Reality, and exhorts man to find his peace in this Truth (5. 12-13):

'The one (supreme) Controller of all, the inner Self of all beings, who makes His one form manifold - those dhiras (wise men) who realise Him as existing in their own self, to them belongs eternal happiness and to none else.' .

Eko vasi sarva-bhutantaratma ekam rupam bahudha Yah karoti; Tamatmastham Ye'nupasyanti dhirah tesam sukham sasvatam netaresam

'The Eternal among the non-eternals, the Intelligence among the intelligent, who, though one, fulfils the desires of the many - those dhiras who perceive Him as existing within their own self, to them belong eternal peace and to none else.' .

Nityo' nityanam cetanascetananam eko bahunam yo vidadhati kaman; Tamatmastham ye'nupasyanti dhirah tesam santih sasvati netaresam

Speaking on the 'Atman' in America, Swami Vivekananda said [30]: 'No books, no scripture, no science can ever imagine the glory of the Self that appears as man, the most glorious God that ever existed, exists, or ever will exist.'

Again, speaking on "the Real and the Apparent Man", the Swami says [31]: 'In worshipping God, we have been always worshipping our own hidden Self.'

describing the Atman as the light of all lights, the light of Pure Consciousness, The Katha Upanisad says (5.15):

'There (in the Atman, in that infinite and non-dual Pure Consciousness), the sun does not illumine, nor the moon and the stars; nor do these lightnings illumine (there); and much less this (domestic) fire. When That shines, everything shines after That. By Its light, all this (manifested universe) is lighted.' .
Na tatra suryo bhati na candra-tarakam nema vidyuto bhanti kuto'yamagnih; Tameva bhantam

anubhati sarvam tasya bha sarvamidam vibhati

The Atman-Brahman of Vedanta: Its Immense Sweep

Giving a scientific definition of the comprehensive nature of Brahman, or God, or Pure Consciousness, as understood in Vedanta, Sankaracarya, says in his commentary on The Taittiriya Upanisad 93.1): 'Brahman is defined as that Reality form which being do not get separated during the time of their origin, maintenance, or dissolution.' .

Utapatti-sthiti-laya-kalesu yadatmatam na jahati bhutani, tat etat brahmano laksanam

It is necessary for us to grasp the immense sweep of the Reality conveyed by the Atman-Brahman of the Upanisads. It is far different from the extra-cosmic God of all the monotheistic religions. We get a glimpse of its sweep and range from a passage in Vivekananda's first of two lectures on the Katha Upanisad under the title 'Realisation', delivered in London in 1896. Though a bit long, it merits reproduction in this context [32]: 'Such a solution of the universal problem as we can get from the outside labours under this difficulty that, in the first place, the universe we see is our own particular universe, our own view of the Reality. That Reality we cannot see through the senses; we cannot comprehend It. We only know the universe from the point of view of beings with five senses. Suppose we obtain another sense, the whole universe must change for us. Suppose we had a magnetic sense, it is quite possible that we might then find millions and millions of forces in existence which we do not now know, and for which we have no present sense or feeling. Our senses are limited, very limited indeed; and within these limitations exists that we call our universe; and our God is the solution of that universe; but that cannot be the solution of the whole problem.

'But man cannot stop there. He is a thinking being and wants to find a solution which will comprehensively explain all the universes. He wants to see a world which is at once the world of men, and of gods, and of all possible beings, and to find a solution, which will explain all phenomena.

'We see, we must find the universe which includes all universes. We must find something which, by itself, must be the material running through all these various planes of existence, whether we apprehend it through the senses or not. If we could possibly find something which we could know as the common property of the lower as well as the higher worlds, then our problem would be solved. Even if by the sheer force of logic alone we could understand that there must be one basis of all existence, then our problem might approach to some sort of solution. But this solution certainly cannot be obtained only through the world we see and know, because it is only a partial view of the whole.

'Our only hope then lies in penetrating deeper. The early thinkers (of India) discovered that the farther away they were from the centre, the more marked were the variations and differentiations, and that the nearer they approached the centre, the nearer they were to unity. . . . We, first, therefore, want to find somewhere a centre from which, as it were, all the other, we should try to find a solution. This is the proposition. And where is that center? It is within us. The ancient sages penetrated deeper and deeper until they found that, in the innermost core of the human soul, is the centre of the whole universe. All the planes gravitate towards that one point. That is the common ground, and standing there lone can we find a common solution.'

Dharma and Amrta: Two Levels of Spiritual Awakening

Vedanta and yoga describe evolution at the human stage as this inner penetration to discover the infinite behind the finite, and the immortal behind the mortal. The technique of this inner penetration is meditation., backed by a steady base of moral strength, which is achieved in the course of man's outer journey, in space and time, in the context of human interactions in society. This is what India calls dharma, social ethics giving man a measure of discipline of his inner life; and the trans-social level of spiritual awakening is known as amrta. The raising of Consciousness to higher spiritual levels thus begins even when man is in search of organic satisfactions. The raising is done by what the Katha Upanisad refers to, in the opening verses of its second chapter, as rising from preya to sreya, where self-interest becomes enlightened by a socially oriented will. It is this moral achieve4d at the stage of dharma that enables man to raise his consciousness to higher and higher levels through inner disciplines like meditation-levels through inner disciplines like meditation-levels collectively categorized as amrta - that which lads to the experience of one's immortal dimensions. The kundalini awakening techniques of yoga are also means for raising consciousness to higher levels. In the words of Sri Ramakrishna: when the kundalini energy functions at the three lowest centres, namely, muladhara svadhithana, and manipura - the linga, guhya and nabhi centres - man's consciousness remains at the level of organic satisfactions. Only when the kundalini rises to the fourth centre, anahata, that spiritual awakening begins, and consciousness rises to the ethical, moral, and spiritual levels. That first spiritual awakening progresses to higher and highest levels at the fifth, visuddha, sixth, anjna, and seventh, sahasrara centres. The Katha Upanisad introduces this rising of consciousness to the amrta level, above the dharma level, as yoga, in verses nine to eleven of its chapter six:

'His form is not within the field of sight; none can see Him with the eye. He is revealed in the (the cavity of) heart by the manas that is fully under the control of buddhi. Those who realise this become immortal.' .

Na samdrse tishati rupamasya na caksusa pasyati krsceanainam; Hrda manisa manasabhiklrpto ya etat viduh amrtaste bhavanti

"When the five sense-organs of knowledge remain steady along with the manas, and even the buddhi does not flicker - that is the supreme state, say (the sages).'

Yada pancavatisthante jnanani manasa saha; Buddhisca na vicestate ;tamahuh paramam gatim

"They (the sages) consider that as yoga - the steady control of the sense organs; the yogi must then be vigilant; for yoga can be acquired and lost.'

Tam yogamiti manyante sthiram indriyadharanam; Apramattah tada bhavati yogo hi prabhavapyayau

We get a beautiful description of the state of meditation, where the infinite Pure Consciousness shines in all His glory, from sixth verses of remarkable clarity and penetration of the Gita (VI, 18-23):

'When the completely disciplined mind rests in the Atman alone, free from longing after all desires, then is one called steadfast in yoga.'

Yada viniyatam cittam atmanyevavatisthate; Nihsprhah sarvakamebhyo yukta ityucyate tada

'As a lamp sheltered from wind does not flicker, even so is the smile used for a yogi of disciplined mind practising concentration in the Atman.'

Yatha dipo nivatasthoh nengate sopama smrta; Yogino yatacittasy Yunjato yogamatmanah

'When the mind, fully restrained by the practice of yoga, attains quietude, and when seeing the Self by the self, one is satisfied in the Self'; -

Yatroparamate cittam niruddham yogasevaya; Yatra caivatmanatmanam pasyannatmani tusyati

'When he realizes that infinite bliss which is grasped by the (pure) buddhi, and which is beyond (the reach of) the sense-organs, and established wherein he never wavers from the truth (of the Self)'; -

Sukhamatyantikam yat tat buddhigrahyam atindriyam; Vetti yatra na caivayam sthitascalati tattvatah

'And having obtained which, (he) regards no other gain superior to that, and wherein established, he is not shaken even by very heavy sorrow'; -

Yam labdhva caparam labham manyate nadhikam tatah; Yasmin sthito na dukkhena gurunapi vitcalyate

'Let that be known as the state called yoga - a state of disunion from (all) union with sorrow., This yoga should be practised with determination, undisturbed by depression of heart.' -

Tam vidyat dukkhasamyoga viyogam yogasamjnitam; Sa niscayena yoktavyo yogo' nirvinnacetasa

Vedanta and yoga present the realization of the infinite Pure Consciousness as every man's very birthright, that its attainment raises a man above all terrestrial and celestial beings, that it is to be had in this very world, in this very life, not in a post-mortem heaven, and that many have attained this higher spiritual realization.

Conclusion Testaments of Spiritual Realization

In the Gita, the indwelling God, in His incarnation as Krsna, proclaims this truth (IV.10):

"Freed from attachment, fear and anger, absorbed in Me, taking refuge in Me (and) purified by the fire of the asceticism of knowledge, many have attained to My Being.' -

Vitaraga-bhaya-krodhah manmaya man pasritah madbhavamagatah

The same is affirmed by Gaudapada in his Mandukyakarika in almost identical language (II.35):

'Verily, this nirvikalpa (unconditioned samadhi) state, in which relative existence is ended and which ;is non-dual, has been realised by the wise, who are free from attachment, fear and anger, and who have gone beyond the (letter) of the Vedas) (scriptures, though experiment and experience).'

Vitaraga-bhaya-krodhah munibhih vedaparagaih; Nirvikalpo hyayam drstah prapancopasamo 'dvayah

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