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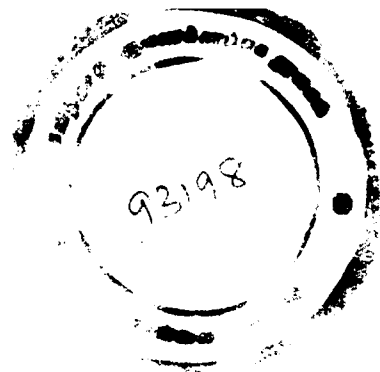
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BIOLOGY AND PARAPSYCHOLOGY

by

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Every science has had its horizons widened from time to time through the contributions of other sciences. The idea of evolution, of a process with progress, not only knit together the different branches of biology but influenced other fields of inquiry. The great success of the analytical method of the physical sciences helped biologists to understand and describe several phenomena associated with living things. Mathematics, Physics and Chemistry have widened their boundaries in their coverage of biological phenomena and have changed in character as well. However, biologists felt that there are some concepts fundamental to biology. The Organismic concepts of wholeness, of organisation and of becoming are already reordering the relations of biological sciences to others. Ideas of gestalt, field and gradients assimilated from other sciences are being used to elaborate these concepts so as to describe vital phenomena more fully and closely than before. Though the distinctness of the biological concepts and methods, from those of the exact sciences is now recognised, yet it does not mean that organismic biology is satisfied with description of phenomena in less definite and unequivocal terms. It still bears the "character of logical deduction and hence of mathematics and will therefore be of the same formal character as Physics."*

Hence this doctrine of Organicism is not without its difficulties in "Symbolic mirroring" of biological phenomena. To illustrate : automatic regulation is a universal feature of the living organism and is absent in a physical system such as a machine. The entire organism, besides exhibiting physical characters, acts as if under the influence of a unifying agency whose activity is directive and synthetic. To give the ceaselessly changing material of the body of the organism, a steady state in spite of the disruptive forces operating, life appears necessary. An organism is therefore looked upon

* Bertalanffy. Problems of life, 1952, p. 162.

as a "Psychophysical system" in which the field of physical action is persistently modified in such an asymmetrical manner as to ensure constancy inspite of flux and randomness. If however the nature of this unifying factor is conceived to be purely physical an impasse is created. Again, the rise in the level of organisation observed in the processes of development and evolution cannot be explained on the basis of the physical gradients of the field in operation in one level without the entrance of more energy as in quantum physics. That future advances in experiment and analysis will bring the energy factor behind mutations and emergents within the scope of "mathematical rationalisation" may be hoped for, but if it were accomplished, the new data and generalisations may alter our whole concepts of energy and matter.

Several hypotheses have been put forward to explain how a vital organisation could have arisen from the level of a physical system and regulate its growth and differentiation in defiance of entropy. Lillie's suggestion that "the future (not as yet existent nature) is shaped not by past and consecutive conditions but also by whatever conditions may originate in the present and unique among these latter conditions is psychical action",* however does not help us to know the nature of the "psychical factor" in animals of the cell-grade for example. The spontaneous creative indeterminacy of the 'psychic factor' in the present, provides an antithesis to the thesis of integration and conservation which we note in the organ systems operating through several generations of the species. We cannot have a synthesis unless we know the nature of the psychic factor involved in the two phases of organism. The "entelechy" and "elan vital" suggested by Driesch and Bergson, as inherent in the organism are as difficult of scientific or perceptual approach as the "species mind" suggested by Professor Hardy following Butler and Carrington. The species mind or group mind of each of the different species of animals, is considered to operate through a process of "organic selection" and provide the regulation and direction necessary for development and evolution of living things. He says, "There is perhaps a suggestion of some unit of life beyond that of the transient individuals of a species and one which develops as it goes along building itself up from the unconsciously

* R. S. Lillie, "General Biology and philosophy of the Organism," 1945, p. 191.

shared experiences of all the members of the race."¹ The many species minds provide "psychic blue prints" and ensure stability. These "patterns outside the physical world" function as selective factors in the development and evolution of new forms before they appear in the environment where natural selection operates. The problems (of homology, of transformation and of evolutionary momentum) mentioned by Professor Hardy as explainable by his hypothesis of species minds responsible for an organic selection, are probably not the worst of the blind alleys in biology. Patterns of homologous organs persist inspite of the fluid nature of genetic composition, "just as a vortex (such as a cyclone) may maintain itself though old particles are dropping out and new ones being added constantly."² Murphy points out that "homeostasis is not merely the maintenance of constancy in a single phase of inner existence; it implies the maintenance of the structural wholeness of the living individual." The school of organismic biology has re-defined the concept of homology from the dynamic and organismic view point. Secondly D'arcy Thompson's theory of transformation of the form of animals "is only a method of representation and tells us nothing about the laws governing the transformation."³ The correspondence of the form of a few related animals to a few of the many patterns derivable from the formula prescribed by mathematics may not support the idea of the existence of definite patterns outside the physical world described by science. Thirdly the rates of evolution have been studied and explained by several authors more recent than those quoted by Professor Hardy. It must be however admitted that these three problems as well as several others cannot be completely and satisfactorily explained in terms of physical and mechanistic concepts. But Professor Hardy's hypothesis of species minds will not survive Occam's Razor. To explain the *origin* of species, he postulates as many *different* ready-made species minds as there are species; to understand the operation of Natural Selection one has to accept the operation of an organic selection as well; and to account for the regulative and directive features of living beings, we have to assume group mind, racial memory, subconscious or telepathic influences in even

1. A. C. Hardy, "Biology and Psychical research, Jour. S.P.R., Vol. 50, Pt. 183, 1953.

2. Gardner Murphy, "Personality," p. 34, 1947.

3. Bertalanffy *ibid.*, p. 183.

the lowliest species of living creatures. It is not a workable hypothesis as it shifts the problem to a non-perceptual plane outside the animal just as Driesch and his school shifted it to invisible agents in the interior of the animal.

However, the suggestion that in solving some of the problems of biology we need not always look to the physical sciences, coming as it does from Professor Hardy's repute and experience augurs well for the future of biology. It is possible that paranormal phenomena particularly those capable of experimental study may open up yet new horizons. Parapsychology appears to be dealing with an aspect of reality which lies beyond the boundaries of space-time-mass we have been familiar with so far. The phenomena revealed by the numerous analyses and experiments of parapsychologists appear to be of a "non physical character and to defy physical explanation."* They indicate that all that is non-physical in biology and psychology may not be unrelated to the paranormal experiences and that there is possibly "a domain of the science of personality that transcends the conditions of space, time and mass."¹ It is possible that our physics and mathematics may change in their coverage of the organismic concepts and the features associated with life and mind. Nevertheless at present "we may well invite psychology to try timorously if it must, the consideration of a more compound structure of personality, one in which functions have a place that defy the laws of matter and space and operate in ways that are foreign to the concepts of the machine."² We have tried to study life on the supposition "that reality is limited to processes affected by time, space and mass." It may well be a type of energy which eludes our analyses of the living substance whose characters we can study only in *post mortem*.

Dr. Sinnot's suggestion³ that "the regulating forces of the living organism and the mental system of the person give evidence of belonging to the same continuum" is very stimulating. But it is a far cry from the "Psi phenomena to the basic life determinants." Paranormal phenomena described as precognition, telepathy and clairvoyance may indeed be difficult to trace

* J. B. Rhine, Journ. of Parapsychology, Vol. 15, No. 2, 1951, p. 183.

1 and 2. J. B. Rhine, *ibid.*

3. J. B. Rhine, Journ. of Parapsychology, Vol. 14, No. 2, 1950, p. 86.

as such in animals, before we have understood what relation such experiences of the mediums bear to normal psychology. The fact that we have evolved from animals should not lead us to expect such phenomena as we observe in a few isolated human beings, either in an incipient or highly developed form in animals. Further, the manifestations of these powers lead one to conclude that they are hardly of value in survival, as the biologist would understand the term, in the struggle for existence. They have very little contact with the perceptual world in which we have to live our life. The telepathic or clairvoyant experiences are so different from what we may associate with animals (or the average man for that matter) that they appear to be specialisations or extensionss of the human "brain-mind liason" (Eccles 1953) which may not have a counterpart or roots in the animals. They may be associated with a refinement of "the dynamic patterns of neuronal activity" occurring in the brain of the average man but functioning as a detector of greater sensitivity. The potentiality of 'mediums' may thus arise out of the variability of the humans who with the increasing perfection of means of oral and recorded communications have now a mental extension unique in animal and human history.

When we examine the different animals for special powers of perception which may have some relation to the extra sensory perception exhibited by some human mediums, we find that several possess highly specialised sensory powers. But these have been developed by the different animals independent of each other and have no relation to the kinship between the animals. These faculties and the degree of their perfection are not in any way graded in relation to their position in the animal scale. It is well known that dogs can hear sounds too shrill for our ears. The cicadas and several other insects possess the power of producing and receiving sounds of higher frequency. The snake charmer compels the snakes to come out of their holes by producing such inaudible notes. If we had not understood these as we do, their behaviour will certainly appear extraordinary. The bats have a capacity of flying between intricately woven obstacles, in perfect darkness. This capacity* long considered magical or clairvoyant, has now

* Vide H. Knight. "Bat Radar" 116-120, New Biology, Vol. 2. Penguin Books.

been explained as due to their ability to produce high frequency sound waves and hearing the echoes of these reflected from the obstacles. Now that we are familiar with radar, the performance appears simple. The animals just mentioned have no relation whatever to each other, as the possession of this power may make us assume. It is just possible that powers of extra sensory perception are specialisations of our normal equipment and not evolved from our animal parentage. We have to trace these powers exhibited by some to the perceptual powers of the average human individual before hoping to reach further backward.

There are also other powers possessed by different animals which may appear to us now telepathic or clairvoyant, if not miraculous. We know that insects, fishes, and birds,—animals totally unrelated—possess the power of migrating. In spite of all our efforts we have not yet understood the remarkable sense of direction and the compelling urgency exhibited by migrating birds. Complex patterns of behaviour observed in different groups of animals, described as instinctive in the classroom, baffle analytical study and can be more easily accounted for as due to psychic direction. The sense of smell which can guide moths and dogs over miles, borders on the miraculous. The way in which the different members of the insect colony give orders or take orders, and respond to impending changes in their insect state suggest telepathic or extra sensory powers. But we hope to learn all about these phenomena through our scientific methods. Once we understand them, as we have now understood bat radar, we will describe these powers as normal to *those* animals. There can be therefore no question of paranormal phenomena in animals, so far as *our* knowledge goes. There is no likelihood of our finding evidence of extra sensory perception, for when we, by our perception (aided by instruments), understand a sensory capacity foreign to our own, we describe it as within the sensory repertoire of the animal subject studied. Further all specialisations of structure or capacity found in animals are the products of the organism—environment relation of the animals concerned. They signify the achievement of the animals in their own special environments and define their success in the struggle. They are wholly related to their perceptual life—their physical existence—in the world of space-time-mass we also live in. They will never have the “non-physical character” because we who apprehend them do so through our sensory perception.

It is doubtful if parapsychological methods are applicable to animal subjects. We know man's sensory powers and have a clear idea of normal standard of behaviour and can assess all deviations. In experimenting on animals, we have to see if the particular reaction studied is independent of our powers of psychokinesis and we have to establish the norm, before beginning any analysis of the deviations. As we have to do without the conscious volunteering and the intelligent cooperation of mediums whom we know to be normal in other respects, we may have to evolve special elaborate formulae for the statistical treatment of our data. Further careful experiments may be necessary before such dog homing cases as cited by Dr. Rhine can be taken to prove the possession of extra sensory perception. It is possible that the capacity may be related to sensorial powers not known now and that the capacity is of a kind that improves by training as in the homing of pigeons.

While it is not certain what parapsychology will gain by looking for paranormal phenomena in animals, we can be confident that biology would be revolutionised by more light on the extra biological nature of human personality and on the operation of non-physical factors through the living substance. It must be admitted that further exploration of the substrata underlying paranormal experiences would widen our concept of reality. Dr. Smythie's suggestion that “there is a psyche or psychical mechanism distinct both from the *self* and from the brain and that this psychical mechanism is spatially extended”¹ deserves scrutiny. Hebb observes that “one cannot logically be a determinist in Physics, Chemistry and Biology and a mystic in Psychology,”² but now that we are losing faith in our determinism in the field of the Natural Sciences, a certain amount of “mysticism” seems inevitable. We are of the matter-life-mind complex we are trying to know, and are part of the world around us. On the one hand, the Universe is not complete without the individual knower, while on the other the knower himself is bound to be handicapped by a blind spot in all his efforts to know the world. It is possible that we may learn more about matter than about life and mind for our knowing process itself is part of our vital activity and our knowledge is mental.

1. Quoted from H. H. Price in Jour. S. P. R., Vol. 36, No. 668, 1952.

2. D. O. Hebb “Organisation of Behaviour.”

SOME SOUTH INDIAN IMAGES AND BRONZES *

by

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Department of Indian History and Archaeology

There is nothing which attracts the attention of the foreign tourist in India so much as the huge-sized temples that have been erected all-over the land for Hindu gods and goddesses; and entering into any one of them he meets with numerous statues and bronzes of Hindu deities in all sorts of what would appear to him fantastic postures. Some images have two hands, some are endowed with four hands, while the image of Kārtikēyā is seen with twelve hands and six faces. Sometimes the same god or goddess is found in different poses, each one of which has a symbolic meaning, to which the foreigner is a stranger.

In this paper I wish to trace the history of the statuary of the Hindu pantheon and point out its help to the determination of the growth of civilisation and culture in this country. Incidentally we will have to refer also to the symbolic meaning of the various poses which these images take from time to time and place to place. Though opinion is divided, it may be stated for a fact that "the religion of the vedas knows no idols."¹ It is during the period of the Upanishads that the idea of worshipping trees and lesser deities like the mother-goddess becomes visible and one should imagine that it was from this that the idea of making images of gods must have dawned upon the mind of devotees. The worship of Siva first took the form of serpent worship and then the form of the *mugha-linga*. Dr. Vincent Smith considers the first image of the *linga* later than the time of the Kushans;² while Mr. T. A. Gopinatha Rao is of opinion that the *linga* image of Gudimallam is datable in the II century B.C.³ This disputed

* Based on the Talk on "Images as historical sources" broadcast from the A. I. R., Madras on January, 20, 1953.

1. Max Muller: "Chips from a German Workshop", I, p. 35.

2. Smith: *Fine Art in India and Ceylon*.

3. T. A. G. Rao; *Hindu Iconography*, I, i, p. 6.

date is none the less most important since that points to the time when the first image was made in India. There are references in as early a writer as the Grammarian Pāṇini (variously dated in the VI and VIII century B.C.) to "likenesses not to be sold but used for the purpose of livelihood;"⁴ and references to images are also to be met with in subsequent writers from Dharana to Patanjali, the latter of whom is placed in the II century B.C. It is perhaps arguing on this that Mr. Rao assigns the date of the first image of the *linga* seen at Gudimallam. It is hard to decide the truth in this matter, since to what images Pāṇini refers in his work is not certain and it is hard to understand why it took such a long time, nearly 500 years, for the first *linga*—image to evolve if Pāṇini had already referred to statues in existence as early as the VII or VI century B.C. Besides the expression "likenesses not to be sold but used for purposes of livelihood" is very intriguing. We may conclude that between the two views here expressed we may assign the origin of the first statues of India—Hindu, Buddhist and Jain—to the first century A.D. The *Rāmāyaṇā*⁵ is the first work in which temples are mentioned and as is well-known the last part of this work was furnished only in the II century A.D.⁶

The art of the statuary once begun seems to have gone on without interruption; and roughly three periods of its growth can be distinguished—the early period from the I to the IV century A.D.; the second one from the IV century roughly comprising the age of the Guptas; and the later period dating from the end of the Gupta rule down to this day. So far as North India was concerned, the work in statuary reached its climax in the era of the Guptas, called for this reason also the "golden age of the Guptas". So far as South India was concerned the story was different.

In South India, the practice of making images seems to have begun late perhaps as late as the VII century A.D., in the days of the Pallavas of Kāñci and the Calukyās of Badāmi, though the *Śilappadikāram* refers to the setting up of the Kannagi image. Was that a image that was set up or was that only a stone set up in her honour very much like a hero-stone? The epic refers to

4. Panini; V. 399.

5. Bk. VI, vv. 21, 39.

6. Smith: Oxford History.

this as "Kāḷkotkāthai" and the stone brought for this purpose is said to have been brought from the north bathed in the waters of the Ganges. We also know for a fact that the first temples of note were built for the first time only during the time of the Pallavās in the south. The first images also must have been made at the same time. But the stone figures of Śiva and Pārvathi and of Vishnu are seen in the caves of Mahābalipuram in such perfect and huge sizes, that they testify to the fact that those who had them made were no strangers to the art of statue-making. During the same time the Chālukyās excelled in the art of statue-making and statue-carving as is seen in the Ellora cave temples, first begun by the Rāshtrakutās who were their contemporaries and sometime even their feudatories. It was during this period that the statue of Ganeśā, which is now so popular in the South, made its migration from the Chālukyan capital to the Pallava capital at Kāñcipurā—a fact that is still remembered in the favourite appellation "Vātāpi Ganeśā, that is often used in the south.

The era of the imperial Colās and Pāndyas gave a great fillip to statue making in the south when the two great statues those of Kārtikēyā (Subrahmaniyā) and Natarājā (dancing siva) were made. The cult of the former is entirely south Indian, though we find the figure of this god marked on the walls of the Elephanta caves as early as the period of the Guptas. There is no doubt that this figure of Subrahmaniyā was made famous during the days of these Tamil rulers. The figure of Nataraja seems to have been made for the first time by the great Colā emperor, Rājārājā I. One of the first statues thus made is still preserved in the office of the Collector of Tanjore. The remarkable idol, which expresses the ceaseless activity of God (humanly considered) in creating and providing for His creatures, quickly became popular not only over all India but even in far-off Ceylon and farther India, now designated as the Straits settlements.

The school of the later Chālukyās, generally called Chālukyās of Kalyāni, and the Hoysalās dating between the X and XIV century A.D. is the school of florid style. As distinct from the earlier style it shows many conventional forms marked by delicate tracery and extreme care for details and is in a word highly conventional. The statuary development of South India thus shows the development in civilisation even more markedly than the same development shows in North India. From the statue of god Śivā for

example dressed in the tiger's skin and bearing other marks of the natural life of man, South India has evolved statues in right modern style showing the use of stylish dress. This is even more remarkable in painting; and all those who have seen the portraits of that talented arist of Kerala, Ravi Varma, will bear out what is sought to be conveyed here. This development was seen in another direction also. The sculptures of Vijayanagar style are remarkable for the largeness of size and the vastness of conception. The Hazrā Rāmaswāmi, Chapel Royal of the Vijayanagar King, Krishnadeva raya, is famous for its huge and magnificent bas relief in which many scenes from the Rāmāyanā are depicted; and the thousand pillared *mantapā* of Tirumal Nāyak in Madura is famous for its large-sized panel, measuring 331 feet by 105 feet the entire space of which is sculptured.

The ēra in which good statues of Śivā and Vishnu were begun to be made is, however, without doubt the early part of the V century A.D. Vishnu's earliest iconograph of this type is dated c. A.D. 401, according to the computation of reputed authorities;⁷ while the first good statue of Śivā is his representation as Dakshinā-murthi found in relief on a side of the temple at Deogarh, datable round A.D. 450.⁸ This seems to have been also the time when bronzes were begun to be made. Bronze is a compound metal, consisting of 80% of copper, 15% of tin and 5% of brass. This compound was supposed to give durability to statues. Later Indian bronze makers found the use of the metal now called bell-metal; and it was largely used all over the country for the making of images.

It was in the south of India that the use of another compound metal was discovered in the XI century A.D. during the days of Colā Imperialism for the making of images and that was known as "Panjalōkam", literally meaning the compound of five metals. In fact this compound was made by mixing five metals, gold, silver, copper, lead and iron, and this has been to this date the last word on durability in metal. It was in this metal that famous statues of Natarājā were made some of which are to be seen to this day all over south India and some of which have been bought away for

the use of foreign museums. The great poet Thāyumānavar, who is also a Saivite saint, mentions in one of his hymns beginning with the line, "kanthuka mathakkariyai vasamāi-nadathalām" the use of the *panjalokam* for the making of images and says that it requires great cleverness to disintegrate the compounds of this metal or rather that it is possible only for ascetics and those who have attained great saintliness. It is also said that this metal possesses rare medical qualities; and even the water that washes the statue made of this metal is capable of curing many a sickness. To-day we find the practice in many temples in South India of devotees drinking the water that falls from the *abhishekam* or the ceremonial washing of the image of the god. One wonders whether this practice originated from this idea.

From earliest times Buddhists and Jains seem to have been famous for erecting colossal statues of Buddhā and Mahāvīrā. Such statues are to be seen in many places in India. The statues of Gomateśvarā in Sravanabelgola near Mysore and in a village near Mangalore are well known. We are certain that the former was erected by a minister of one of the later Gangās of Mysore; the second statue also perhaps belongs to the same period. These are Jain achievements. The first great statue of Buddhā seems to have been a copper image measuring 7½ feet in height. It is datable in the V century A.D. and is still to be seen at Sultanganj in Bengal.

Both for stone images and for metal images the India of the V century is thus famous; and it leads one to conclude that there should have been at that time some influences at work determining such development in statuary. Available evidences point to one such influence that must not escape mention even in this paper of such short compass; and that was the Greek influence seen so well in the workmanship achieved by the Gāndhārā school of sculpture, the Amaravathi sculpture and that which is to be seen at Mathurā on the Jamunā.

7. Smith: op. cit., This statue is found in the Chandragupta cave at Udayagiri.

8. Ibid.

HYGIENE AND ACCULTURATION

by

U. R. EHRENFELS

Department of Anthropology

The aim of "Tribal Welfare" activities among the Highlanders of India should be integration in the ideal of a secular welfare state, without the disintegration of "Tribal Culture" if the directions given by the Prime Minister and the Government of India are to be carried out.

The difference between plainspeoples and highlanders, expressed in terms of numbers, wealth, prestige and experience with power-politics, is so great, that it would be tantamount to intentional destruction of the Highlander's culture if the acculturation process between the two groups would be left to the free interplay of forces.

Therefore a device to strengthen the politically weaker party, namely that of the Highlanders, will have to be found if they are to survive, culturally and biologically, the policy of reservation territories, as followed by the Government of the U.S.A., Australia and elsewhere, being impracticable in the present conditions of India.

Medical Assistance

Substantial work of this kind has indeed been done in the fields of medical aid, particularly through treatment of malaria, yaws and prophylactic inoculations. Some results have also locally been achieved in fighting those ailments, which have been introduced to the Highlanders, by contact with the plainspeople, particularly venereal diseases, tuberculosis, cholera, typhoid, and child-birth fever.

In these cases medical aid, rendered by plainspeople, is perhaps undoing some of the harm which their contacts have brought to the Highlanders, but does not go very much beyond that, though valuable help can be given by surgery in cases of accidents (falls

from trees, violations by big animals or snake-bites). It is no doubt the duty of responsible plainspeople and their governmental representatives to do as much in the way of such assistance, as is practicable and feasible.

Hygiene and Acculturation

Hygienic advice and prophylactic treatment play an important role in this sphere. Methods of maternal assistance (midwifery) in pre-literate societies are sometimes crude and no doubt capable of improvement. However, along with such instruction goes the example, given in other spheres of life, by the instructors, their assistants and servants. The complex machinery of large-scale acculturation is thus set into motion; a process which raises a chain of problems. Let us take for example one single aspect of it which, insignificant as it may seem to be, is yet not without far-reaching consequences. Chewing of strongly limed betelnut, or still more of pungent tobacco, has been diffused to most Highlanders through contact with the plainspeople. Alongside with this, the habit of ear-splitting throat-clearing and indiscriminate spitting has been introduced into the hills. Apart from the aesthetic effects of these habits, on all who adopt them, or live in an atmosphere of them, they also cause serious damage to health through: (a) loss of saliva and (b) contamination which is the more effective, as pools of slimy spittle are stagnating in the moist ground of cool and shady forest areas much longer, than they are in the sunparched plains and thus become veritable centres of diffusion for contagious diseases. It would require a consciously and systematically pursued effort of self-criticism and discipline, on the part of the plainspeople, to avoid the setting of such examples and to stop the diffusion of such habits, if culture-contacts with the plains were to become an advantage, rather than the first step towards cultural death, for the Highlanders, which, indeed, they very often are.

Dress habits

Considerations of this kind raise yet another issue of universal applicability, — not only to the Highlanders of India, but also to all other working-classes in tropical countries.

The most far-reaching change in an ordinary man's, a woman's or a child's behaviour-pattern and day-to-day economy has been brought about, during the last three to four hundred years of

European overseas-colonization in tropical countries, by the introduction of the all-covering style of dress. This type of dress has its justification in cold countries, but it is not suited to tropical conditions. Yet it has been thrust upon almost all peoples in the tropical regions of this globe, during the colonization-period which meant domination of the tropical, by cold-country-people,—mostly Europeans. A series of heterogenous circumstances worked here together and created at first in the minds of the conquerors the impression that their own dress-habits were "civilized", or superior and have later been accepted by the conquered themselves who came to think that their style of dress was "barbarian" (or "primitive"). The conquerors' naive assumption of their cultural superiority, the puritanic horror of the natural human body, or its sight, which has been preached by late-mediaeval sectarian groups among European Christians, Jews and Muslims, especially of the Middle East,—and, finally, the desire to create an ever expanding market for European cotton industries;—all worked as incentives to speed up this process.

The introduction of all-covering cold country dress into tropical countries has set into motion a social process of disintegration, which could indeed be compared to a chain-reaction in the sphere of nuclear physics. I have described this process and various of its aspects elsewhere;¹ so this analysis need not be repeated. It may suffice to point to its main results here:

(1) All covering and sewn or stitched dress-fashions consume more material than traditional tropical dress (*mundus*, *dhoties* and loin cloths for men, *mundus* or $2\frac{1}{2}$ yard saris for women, and a free upper body part, occasionally covered, if need be, by an *angavasthiram* or *dupatta*). Additional cloth adds economic burdens not only on the individual, but also on society as a whole. This latter aspect is particularly serious in a country, like India, where food-shortage and rapid population-increase suggest the necessity of utilizing all cultivatable ground for food production, rather than for money crops.

(2) All-covering cold-country dress fashions put a heavy strain on the permanently overheated body of its wearers in hot countries. This strain is particularly detrimental to those who work.

1. Kadar of Cochin, Madras University, 1952 (Illustrated Anthropology Series No. 1.), pp. 213-226.

(3) All-covering, cold-country dress deprives the skin of direct contact with air, light and sun-rays. It is this contact which supplies vitamin D. Vitamin-deficiency being already one of the major problems in tropical hygiene, is thus artificially increased through over-dressing.

(4) All-covering, cold-country dress, if worn in tropical regions, gets sweat-soaked, dust-impregnated, and thus acts as an excrement, —and filth despository carried directly on the skin. Its effect is skin disease, uncleanness, lack of resistance and liability to attacks of "cold" or "chill."

(5) Changing, washing, starching and ironing of all-covering clothes has, in tropical climates, to be repeated so frequently and regularly, that it is quite outside the practical possibility of the average, with the result that working class people get accustomed to wearing these foreign dresses in a condition of filth, decay and ugliness which defies description. The rikshaw-puller with his load of human flesh, himself lean, half-starved, sweat-dripping yet spending a substantial share of his meagre income on European shirts and long, sewn trousers, hanging torn, sweat-soaked and stinking about his bashfully covered body, is a cruel caricature of "civilization." Yet it is this travesty of "progress" which is being fast spread to the formerly free, healthy and self-respecting Highlanders.

(6) The same sequence of events has a still greater bearing on the social position and the health of women, especially in the hills.

(7) The gulf between "well-dressed" rich and those who are lowered below human dignity by the enforcement of climatically unsuitable dress-fashions is deeper than the severest forms of caste-distinction could ever create.

The diffusion of this dress-type to the working people in tropical countries, must therefore be described as an unmitigated evil, done to them.

The peasantry, especially of the South, shows a certain resistance against this foreign type of dress. Their great numbers, combined with the well-settled tradition of Sudra village life fortify this class against too easy acceptance of foreign habits if found detrimental to their well-being.

Among Highlanders ("tribals" or "primitives" as they are called), the situation is different. They are so filled with a sense of being inferior in numbers, in political power and economic proficiency as compared to the plainspeople that, in spite of their being free from an inferior status within the hierarchy of the caste-system, they accept as superior and consequently imitate any example, set to them by intruding plains-men more readily even than the farmers of rural areas accept the examples of townfolk.

The Responsibility of the Example

This peculiar situation places very outstanding responsibilities on the judgement, behaviour and outward appearance of every plains-person who goes to the hills and more so,—if in an official capacity. The example thus set, will have far-reaching effects on the shape of life for coming generations of Highlanders.

In my opinion the only hopeful attempt at solution of this problem lies in helping the Highlanders to shape a mode of life, a style of dress, dance, entertainment and work which is suitable to climate, environment and cultural tradition of the hills in this country. This is a creative process which can neither be dictated from above, nor postulated by majority decisions from below. It has to grow. But its growth can be encouraged by responsible representatives of the plainspeople generally, and Government in particular, or can be made impossible. The latter course is still being taken at present.

I have been criticized as "unrealistic"² because I am advocating a policy of the creative renaissance in the various fields of "tribal life," particularly also of dress, ornament, dance, art and religion. But if we see how successful the same line is being pursued in other countries, we may realize that the principles, laid down by the great genius of Indian Independence, Mahatma Gandhi, and their application to the culture of the Highlanders, as repeatedly recommended by his worthy successor, the Prime Minister of India, are in fact very practical;—so practical that they are practised in other countries, even if they may be at present neglected in their spiritual home-land: India. Folk arts, folklore and folk-costumes are being revived in Switzerland and Sweden, as well as in Scot-

2. Cf.: Review of my tribal monograph *Kadar of Cochin* in "The American Anthropologist", February 1955.

land and Austria. In the latter country it was through the example, set by the intelligentsia of the towns, Government officials and their families, that the use for example of *lederhosen* and *dirudlkleidern* as men's and women's clothing has been revived and re-diffused to a peasantry which is happily returning to genuine forms of art and everyday life. The now current series of Austrian postal stamps show these folk-costumes, thus giving official support to the movement.

Signs of this development are not altogether missing in the development of modern Indian art either. Even official encouragement can be recognized in such moves, as for instance the picture of a handloom, worked by a Naga in her genuine dress, on the three-anna postal stamp of the new series showing Indian crafts and industries.

These are not more than first attempts hesitatingly groping their way towards the creation of a truly suitable and at the same time genuinely Indian solution of the problem how to dress, to work and to shape life from day to day in rural areas of tropical countries, particularly in the hill-areas.

The process, no doubt, can *not* be ordered by Government decrees. It has to grow. But this growth can be muffled from the beginning, by setting the wrong example, which is being done now; —or it can be encouraged and guided by an understanding administration and its policy.

That is the suggestion, recommended here.

CURRENT PROBLEMS AND THEORIES OF ADOLESCENCE— AN EVALUATION

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INTRODUCTION

The Life cycle of man is commonly divided into certain periods, infancy, childhood, adolescence, maturity and old age. The fully developed picture of each of these periods may be obvious to any casual observer. But on analysis, it will be seen that these periods are not sharply defined by clear cut strokes across a chronological chart but they merge imperceptibly into one another with respect to development, both physical and mental. It will be difficult to point out where one period begins and another ends in a given case. The reason for this is, that a life of a normal individual is a continuous process of growth and decay and not a process marked by abrupt changes from one period to another. However, life is characterised by a growth which is not a uniform process, as the rhythm is constantly changing and is marked by periods of acceleration and retardation. "Life is a phenomenon which starts with great velocity in the pre-natal stage, and continues throughout early infancy, then is retarded during childhood and again accelerated in the early adolescent years slowing down finally as the individual passes on to maturity." (28 p. 1).

Though the different periods are generally recognised in the beginning of the twentieth century, two periods in life of an individual began to receive repeated attention and emphasis. The emphasis came largely as the result of the pioneering works of two men; Sigmund Freud and Stanley Hall. Freud called attention to the first few years of the child's life. Hall emphasised the characteristics and significance of the period of adolescence. Much work has been done in the field of development of child and the child's mind. But there is lack of reliable information about the adolescent and the adolescent problems. As one goes through a few available

works on adolescence, one is struck by the existing confusion in the adolescent study. Important aspects of adolescence on which difference of opinion exist are presented below :

Lack of Suitable Definition of Adolescence

There are many and varied definitions of adolescence (16, p. 122-23). It is usually defined as meaning 'teen age.' Others say that it designates the period between the development of sexual maturity and attainment of adulthood. For legal purposes arbitrary chronological boundaries are set up, to decide whether a particular individual is a child or juvenile or an adult and measure of responsibilities are attributed to differ from stage to stage. This chronological boundary line differs from country to country. (12, p. 317).

Difference of opinion regarding the influence of factors such as sex, race, occupation, intellectual and anatomical development, and climatic condition on the age of attainment of puberty.

Almost all the investigators consider puberty—the sign of sexual maturity as an important aspect of adolescence. Even here, there are differences of opinion. It is considered by a few psychologists that the age of onset of puberty differs for sex, race, occupation and intellectual development, climatic conditions etc. It is pointed out that the age of onset of puberty is earlier in girls, than in boys; in races living in tropical as contrasted with frigid climates. The intellectually superior as a group attains pubescence earlier than those with average or low grade intelligence. Those of large stature and precocious anatomical development reach

To mention all the Psychologists who have worked in the field of adolescence since Hall, would entail excessive duplication, since such attempts have been made by W. Dennis (1946). 'The Adolescent' in L. Carmichael's 'Manual of Child Psychology,' New York; John Wiley & Sons, pp. 636-666 and also by P. Blanchard (1948) 'The Adolescent Experience,' in J. Mc V. Hunt's 'Personality and Behaviour Disorders', New York, The Renald Press and Co., pp. 691-713.

The different definitions are cited and discussed by B. Hurlock: *The Adolescent Development*, McGraw Hill and Co.

Gupta (12) presents a table in which he has shown the age of criminal responsibility fixed by different countries in the world. For instance the minimum age of criminal responsibility, where there is due understanding is 7 in S. Africa, 14 in Brazil, 12 in Hungary, etc. Maximum age of exclusive jurisdiction, is 16 for S. Africa, 18 in Brazil, 15 in Hungary, etc.

puberty earlier than the physically inferior. Hollingworth, (15, pp. 20-23) writes: "First menstruation is regarded as the token of puberty among girls. Among English speaking peoples, puberty occurs at about thirteen years and six months for the typical girl. There are, however, wide individual differences in this matter. Girls may differ from each other as much by four years without falling outside the units that include normality (the middle fifty percent of cases). About fifty percent of white girls in the United States, menstruate first between twelve years and six months and fourteen years and six months of age. A quarter of them menstruate earlier than this, a few as early as nine years of age, while the remaining quarter menstruate later; a few not until they are twenty years old or older." Hollingworth citing data from Engstrum shows, the age at which 3,500 Finnish women menstruated. It varied from 8 to 26 with a peak at the age of 15. She goes on to refer to people of other countries also. "That among Italians and other inhabitants of warm climates, the typical age of first menstruation is earlier than among the English or Finnish. The Yellow and the Black races are also said to begin their reproductive life early." In the case of boys, admitting the difficulty involved in finding out the exact age of onset of puberty, she points out:—"As determined by the appearance of secondary sexual characteristics and the change of voice, puberty appears in boys about a year later than in girls on the average. In English speaking countries, therefore, puberty occurs typically in boys between thirteen years six months and fifteen years and six months of age." Hollingworth adds: "The attainment of puberty is positively correlated with intelligence and with general quality of the organism. It has been proved that American children who test in the top percent of the juvenile population for intellect, attain puberty as a group earlier than the generality do." Quoting from Terman who found among intellectually gifted children in California, she writes that 'of gifted girls, thirteen years old or older, 48 percent has menstruated before thirteen, as compared with 25 percent of unselected girls.'

L. Cole (6, pp. 35-38) also believes that the "age of maturity is affected to some extent by climate, being earlier in tropical countries." Presenting a chart from the data taken from the studies of Crampton and Baldwin who investigated the age of onset of puberty for 8,752 American boys, and Boas, Baldwin and Atkinson who investigated the age of onset of puberty in 920 American

girls, Cole argues that for wide difference in the age of maturity, between boys and girls the variation she found was 9 to 18 years for girls and 12 to 18 years for boys. Further she adds: Not many girls have matured before the younger boy; still there are enough mature girls at any age before ten to make girls as a group better informed and more sex conscious than boys."

There are investigators (7, 11, 26) who do not accept the view, that the age of onset of puberty is influenced by the social and economic factors. Fleming (8, p. 239) is a recent writer on adolescence, who holds such a view. She writes: "It is not now thought, for example that the onset of menstruation or beginning of sexual discharges are uniformly (or even on the average) earlier in tropics than in more recent times. It is known, on the contrary, that the age varies widely in all parts of the world. It is not now believed that the girls are quite distinct from boys in all parts of the world." She goes on to add "It is not now believed that girls are quite distinct from boys in all aspects of their physical development. It is realised that it is more true to say that neither men nor women are in physical attributes, exclusively of one sex or the other and that therefore any difference in rate of maturing which occurs is quite simply to sex. In similar fashion, there is no evidence of a consistent relationship with nutrition or general economic level."

Emotional Instability during Adolescence

Almost all the investigators of the period of adolescence have stressed the emotional instability of the period of adolescence. Psychologists like Valentine, have accepted this as a proved fact. Valentine writes: "The instability of emotions and impulse during adolescence is so familiar that I do not propose to say anything about it." (31, p. 611).

The Term Emotional Instability:

The term Emotional Instability, however, is used by writers in different ways. Anna Freud, briefly summarising the views of non-analytical writers on adolescent emotional instability writes: "In non-analytical writings we find many striking descriptions of the changes which take place in character during these years of the disturbances in the psychic equilibrium and above all, of the uncomprehensible and irreconcilable contradictions then apparent in the psychic life. Adolescents are excessively egoistic regarding

themselves, as the centre of the universe and the sole object of interest and yet no time in later life are they capable of so much self-sacrifice and devotion. They form the most passionate love relations only to break them off as abruptly as they began them. On the one hand, they throw themselves enthusiastically into the life of the community and on the other, they have an overpowering longing for solitude. They oscillate between blind submission to same self-chosen leader and defiant rebellion against any and every authority. They are selfish and materially minded and at the same time full of lofty idealism. They are ascetic but will suddenly plunge into instinctual indulgence of the most primitive character. At times, their behaviour to other people is rough and inconsiderate, yet they themselves are extremely touchy. Their moods veer between light-hearted optimism and the bleakest pessimism. Sometimes they all work with indefatigable enthusiasm and at other times they are sluggish and apathetic."

From this description of emotional instability of adolescence, one can see that it is used to refer to fluctuations of moods, attitudes and behaviour between opposites or extremes.

Clinical Psychologists and Psychiatrists use the term in a different way. Lowrey (19, p. 288) explains adolescent instability in the following words: "Among adolescents typical neuroses are encountered, nearly as often as among adults. All clinical neurotic pictures appear in this age period; conversion symptoms are especially common. Homosexual conflicts are particularly marked. Psychasthetic phobias and compulsions are fairly common." Thus we see that the clinical psychologists use the term to refer to symptoms of neurosis and psychosis as revealed to them by the subjects and also as observed by them.

Workers in the field of delinquency are also the people who repeatedly stressed 'emotional instability' as characteristic of Adolescence. Healy (13, p. 712) writes, "In our study of the causative factors of delinquency, we have time and again seen every reason to put down adolescent instability as a cause of misconduct." Explaining what he means by instability, he says, "By such instability we mean the exhibition of many of the physical, mental and particularly conduct irregularities, easily recognisable as belonging peculiarly to that period." Cyril Burt (4, p. 500-501) refers to emotional instability in terms of a single central factor, which, according to him, pervades a number of symptoms. Persons whose gene-

ral emotionality is developed to an exceptional degree, he designates, (technically) as instable. He writes: ".....as statistical analysis has proved, an excessive liability to one particular instinct tends at all events, as a general rule, (though not of necessity in any single individual), to be accompanied by a liability, more or less, excessive to most of the remainders. This correlation is clear among children than among virtuous. The boy who steals is nearly always secretive; usually disposed to petty sexual faults, often a truant, not infrequently quarrelsome and spiteful, and yet sometimes incongruously enough an arrant coward, an easy dupe, spasmodically generous, warmly affectionate and prone to heart-broken tears of remorse."

Thus, it may be seen, the term 'Emotional Instability' is defined by different investigators in different ways.

Different views regarding the causes of emotional instability during adolescence:

It is recognised by the writers on adolescence and investigators in the field of delinquency that adolescence is the period of emotional instability. However, the credit goes to Stanley Hall who brought out the truth first. Like Freud and McDougall, in his interpretation of adolescent instability, Hall was considerably influenced by the prevalent doctrines of biological evolution. Hall writes: "The individual in a general way repeats the history of its species, passing slowly from the protozoan to the metazoan stage, so that we have all traversed in our bodies, ameboid piscian, amphibian, anthropoethnoid and we know not how many intercalary stages of ascent. How these lines of heredity and growth along which many thousand species, extant and extinct, these viatices of the holy spirit of life, the consummate products of millennia of the slow travail of evolution, have been unfolded, we know scarcely more than we do what has been the impelling force or will to live, which seems so inexhaustible and consistent." From this point of view he speaks of adolescent instability: "... the adolescent is neo-atavistic and in him the later acquisitions of the race slowly become prepotent. Development (in adolescence) is less gradual and more saltatory, suggestive of some ancient period of storm and stress when old morrings were broken and a higher level attained." Thus, Hall's interpretation of adolescent emotional instability is biological and from the point of view of recapitulative theory of

evolution. In the later writings of Psychologists, the interpretation of adolescent instability, we find two distinct approaches. The Physical and Physiological and the Environmental—social and cultural. In addition to these we have the psychoanalytical theories of emotional instability of Adolescence.

Physical and Physiological Theory of Emotional Instability:

Luella Cole (6, p. 180) gives a summary of the Adolescent bodily changes such as the acceleration of physical growth, the unequal rates of growth in different parts and organs of the body, glandular changes, development of genital organs and functions etc. Finally she says that during adolescence the organism is in a state of disequilibrium, due to the unevenly developing organs and functions and therefore is thrown into a state of emotional imbalance readily. Hence the adolescent tends to respond readily to comparatively slight stimuli.

Charlotte Buhler (3, p. 180) has rich experience in the field of adolescence. She uses the term 'negative phase' to refer to the emotional instability during the period of adolescence. She is of the opinion that the increased activity of the ductless glands and the onset of sexual maturity, which disrupt the balance of the organism so completely are responsible for disrupting the equilibrium of the mind. Similar observations is made by David Abrahamson. He writes: "Physiological changes that take place at this stage of development have a great deal to do with the problem of that youth. It is this physiological growth with which a person's motor co-ordination and to a large extent traits of psychological nature are associated."

Amongst the recent investigators who stressed the importance of the physical changes to account for psychological changes and emotional instability during adolescence, Stoltz and Stoltz (30) are important. Stoltz and Stoltz have made a 'courageous' attempt at understanding of the process of the dynamics of growth as revealed by a variety of simultaneous measurements on the same identified individuals repeated at intervals over a period of years. Their main study was directed towards showing the underlying process that have produced these *different* but equivalent products." That is, they have attempted to show that there are various paths to adulthood and that individuals with much the same dimensions may attain adult status by different patterns and rates of growth,

some growing fast, others slowly each travelling through the sequences of development at his own rate to the size and weight that are *idiomatically* his own. While summing up their final results they have indicated that physical changes cause psychological change in an individual and adolescent emotional instability has also to be viewed from that point of view.

Environmental Theory of adolescent Emotional Instability:

The other view which finds agreement amongst authors of adolescence, is that of attributing the cause to environment, social and cultural. Hollingworth (15, p. 223) for instance, criticising the view that glandular secretion at the time of pubescence is productive of characteristic adolescent instability points out; "Possibly, the introduction of new glandular elements, namely those from the sex glands into the physiological economy may have the effect of producing temporary emotional instability which is organic in origin. This remains to be proved. It seems far more likely that adolescent instability is an instability of socio-economic status rather than a physiological instability. Dissatisfaction with the present and uncertainty of the future are likely to produce emotional appraising in any person, regardless of the age of his glands."

Hurlock (16, pp. 122-127) who investigated the different causes that may give rise to heightened emotionality during the adolescent years, points out "that in each case, there was no evidence of physical or glandular disturbance. The causes are fundamentally social in origin. They are products of environment that in one way or another interfered with natural tendencies or strong desires on the part of the adolescent."

W. D. Wall (32) is another investigator who stressed the importance of environment in interpreting adolescent emotional instability. Wall's conclusion is based on a questionnaire study of the adolescents, regarding their 'Happiness in childhood and adolescence'. He states, "the emotional storm, its presence or absence in 'teens' cannot be assigned to anything but to a specific culture pattern in the broadest sense." Fleming 8, p. 239 is another investigator of the period of adolescence who stressed more of the environment than of the physiological factors to account for the adolescent emotionality. She says that in some cultural settings there is much storm and stress with its resultant emotional instabi-

lity and intellectual ferment. This according to her, is not biologically determined but socially conditioned.

Support for the Environmental Theory of Adolescent emotional Instability from the field of Anthropology.

Most of the investigators of adolescence who attribute emotional instability of adolescence to environment, cite evidences from the study of primitive people. For instance, Malinowsky (20), a well known anthropologist, has collected interesting data from the primitive people. On that basis he makes many observations. Amongst these observations, one which is relevant for the present purpose is this. He found in the adolescent boys of some primitive people whom he studied, considerable freedom for pre-marital sexual relationship is permitted, and also she found that there was no emotional instability amongst them. Malinowsky is of the opinion that since there is no cultural force operating on the functions of the sex need there is no emotional instability usually associated with adolescence in their culture. Thus he stresses the social and cultural factors rather than the physical and physiological factors.

Margaret Mead (21, 22, 23) is another anthropologist, who attributed emotional instability of adolescence to social and cultural factors. Mead's observation is based on her study of 'primitive' people of different culture. She writes: "The emotional tensions of the period of adolescence are the products of not so much of causes arising from within as of the environmental circumstances the developing organism finds itself."

Psycho Analytical View of Emotional Instability of Adolescence:

Interesting observations are from the field of psycho-analysis, regarding emotional imbalance of adolescence. Anna Freud (9, p. 149) who may be taken as a good representative of Psychoanalytical view writes: "Of all the periods in human life in which the instinctual processes are beyond question of paramount importance that of puberty has always attracted most attention." Explaining the cause of instability during adolescence she says: "The relation established between the forces of the ego and the id is destroyed and the painfully achieved psychic balance is upset with the result that the inner conflicts between the two institutions blaze up afresh."

Emotional Instability of Adolescence from Rankian Point of View:

Hankins* is another investigator who stressed the instability of the period of adolescence. She tried to interpret it in terms of the Rankian theory. She points out that the totality¹ which existed during the pre-natal stage of the individual is lost soon after birth. The process of development from childhood to adolescence is characterised by regaining this individuality and totality. This is made impossible by sexual generic forces which find fresh strength during adolescence. This drive offers a threat to his independence and sense of self which results in emotional instability.

Critical Evaluation of others's views on different aspects of Adolescence:

As may be seen, in the present day study of adolescence, there are differences of opinion regarding important aspects of adolescence. As such, any one, who enters the field of adolescence is left with confusion and dissatisfaction with the existing state of affairs. It is necessary that some order is brought out of this conflicting trends.

Suitable Definition of Adolescence :

We referred to three definitions which are currently used to refer to the period of adolescence. Definitions in terms of (1) "Teen Age" (2) "Arbitrary lines of physical growth" and (3) "Legal Age." Definitions in terms of 'teen' age and 'legal' age are more or less similar, in accepting the arbitrary chronological ages as their criteria. For a psychologist, these definitions appear to be unconvincing, because the arbitrary chronological age touches people of many different stages of psychological development-intellectual and emotional. Speaking of the 'legal' definition of adolescence, Burt (4, p. 14) remarks: "These clear-cut lines of chronological cleavage, however convenient for administrative needs, can hardly be accepted by the psychologist." He is also of the opinion that, chronological dividing line touches people of many different stages of mental development. The definition of adol-

*Quoted from Phyllis Blanchard (2).

1. TOTALITY: The human individual in the pre-natal stage is an organic part of the mother's body. At birth, when separation from mother's body takes place, there is a loss of totality by not being able to live by himself. This is considered as the loss of totality and individuality.

escence in terms of physical growth and puberty appears to have slight edge over the definition in terms of chronological age. Even, here, one should remember that physical growth and puberty tend to distract attention from those changes of behaviour and experience which gave rise to the psychological studies of this period. A definition, which will be suitable for the psychologist, should take into account the factors such as physical and physiological, intellectual and probably more important than these two, the factor of emotion. To find out whether an individual is physically mature or not, puberty can be taken as an indication. To find out his intellectual status, Intelligent Quotient can be taken. To find out his emotional maturity his emotional age and emotional (age) quotient in the lines of Intelligent Quotient should be taken. But to find out the emotional maturity level—[to find out whether the individual is emotionally mature or not] we do not have adequate tests, nor have there been serious attempt at devising tests with a view to finding out emotional age and emotional (age) quotient. To that extent a psychologist is handicapped. Chronological age physical development (puberty), I.Q. and E.Q., should be the factors which one should decide whether an individual is a child or an adolescent or an adult.

Influence of Environmental Factors on the Age of Menarche :

Since we have accepted physical age in terms of puberty as the one of the factors to be included to decide whether an individual is an adolescent or not, we have to consider the influence of environmental factors on the physical development of an individual. If their influence is important, then what is true of adolescents of one country, to some extent, may not be true of another country.

In our opinion, the operation of the environmental factors—social, cultural and geographical—cannot altogether be denied. Let us start with an indirect evidence from the field of experimental psychology to substantiate our point of view. Helmer (14) and Moore, making use of white rats as experimental specimens, tried to see the effect of temperature on the bodily structure and development and also the behaviour of these rats. Helmer divided several hundred newly weaned white rats into three colonies. As nearly as third as possible of each litter was placed in a room of 90° F, constant temperature, and the third in 55° F and one-third in ordinary room temperature (30° F). When the rats had reached the age of twelve weeks, Helmer examined their bodily

structure, and also studied their performance in a simple four alley maze. He found that body structure and behaviour patterns of the hot and cold rats were very different. This truth was later verified by Moore (24) by moving the hot rats to the cold room and *vice versa*.

Probably the best evidence to date to support the present investigator's standpoint is the mass of data collected and reported by Raymond Pearl (27) in the form of Biometric constants for age of menarche for almost all the countries in the world. The table he has presented in his book was prepared by the Department of Biology, School of Hygiene, John Hopkins University gathering materials from 169 sources. In that table Pearl has presented the mean age in years, median age in years, standard deviation in years, coefficient of variation (in percent) and also the sources of the information. A study of the table reveals: (1) There are differences in the age of menarche in races and in different countries; (2) Within the same race living in different places and countries there are differences in the age of menarche and (3) within the same population there is difference due to socio-economic factors. The following figures are taken from the table to illustrate the above points.

For countries like India (Native East Indians), Spanish (Valencia), American (New Orleans daughters), Jewish (Holland), Chinese (Shanghai and Wuchung), American (all daughters) India (Eurasians) etc., the mean age of menarche is between 13.17 ± 0.02 and 13.99 ± 0.08 ; median between 13.02 ± 0.02 and 13.96 ± 0.09 . For people like Finnish, Russians, Germans, Chinese (living in Famosa), Spanish (Asturia), the mean age is between 16.02 ± 0.02 and 16.98 ± 0.09 , median between 15.94 ± 0.03 and 16.95 ± 0.12 . Thus we find that the range of mean age and median age of menarche for different countries are 13.17 to 16.02 and 13.02 to 16.95 respectively.

2. Within the same race there is difference. For example age of menarche differs between Chinese in Canton (mean age 15.28 ± 0.04 ; median age 15.35 ± 0.05) and Chinese in Famosa (Mean 16.42 ± 0.11 ; median 16.41 ± 0.14). Similarly there is difference between Russian in Kharkew (Mean age 13.98 ± 0.06 ; median 13.83 ± 0.08) and Russian illiterate rural women (Mean 16.19 ± 0.08 ; median 16.30 ± 0.10).

3. The socio-economic factor is found to affect the age of menarche. Within the French population, for instance, the mean and median age of menarche varies according to the social and economic status. French (Marselles and Bouches du Rome) well to do classes, the mean and the median age of menarche are 13.73 ± 0.18 , and 13.73 ± 0.23 respectively). French, Paris-old nobility, financier and merchant classes mean and median respectively are 14.16 ± 0.18 and 14.21 ± 0.22 . French peasants living in the country, mean and median are: 14.26 ± 0.17 ; 13.95 ± 0.21 ; French labouring classes: mean 14.59 ± 0.11 ; median 14.28 ± 0.13 ; French (Paris) Middle classes, mean 14.88 ± 0.14 ; median 14.73 ± 0.18 . French Poor: mean 15.14 ± 0.13 median 15.13 ± 0.17 .

Such differences are reported for American, Finnish, Brazilian, German and other countries.

Again we find evidences for differences of age of menarche due to climatic conditions. In Pearl's table the age of menarche differs between girls living in extreme climatic conditions, such as Finland and India or Switzerland and South Africa.

The evidences quoted refer to girls only. But it is not unjustifiable to apply this to boys and thus say, in the boys also, factors such as race, nation, climatic and socio-economic factors affect the age of menarche.

The term 'Emotional Instability':

We find the term emotional instability is used in different senses. These different definitions of emotional instability will be intelligible if one is aware of the fact that they all refer to the different levels of behaviour of an individual, some subjective and some objective. It may be possible to combine these different definitions into a single definition. For instance, the non-analytical writer refer to behaviour which is contradictory as denoting emotional instability. Behaviour for them may be subjective as inferred from the report of the subjects (self-report) or objective as observed by themselves. Psychologists who speak of instability as conduct disorder also, refer to it in terms of 'acts', such as stealing, lying, murder, illicit sex relations, etc. The psychologists, who speak in terms of symptoms and syndromes do so on the basis of the behaviour as observed by them and also as reported to them by the subjects. From all this, one may infer that behaviour which is contradictory, unsocial or abnormal is characterised as emotionally

instable. Actually all these are outward manifestation of instability of emotion, which is inside an individual, about which he may be conscious and often he may not be conscious. The instability of emotion itself can be interpreted as the resultant of the frustrated or unfulfilled basic needs of an individual. Such a conception is implied in a way in Burt's interpretation of emotional instability, when he refers to it in terms of 'liability of one single instinct'. From our point of view, dynamic energy for human behaviour comes from urges or needs of the individual and these urges or needs are closely connected with emotions. We learn things and we do things because of some disequilibrium of these basic sources of energy. Phrases such as "I want", "I need", and "I wish" are connected with such disequilibrium. The perceptions of goals as either desirable and hence to be sought after or as undesirable and hence to be avoided is always experienced with emotion. Thus when there are needs in an individual there is disequilibrium and instability and tension. Since emotion is connected with needs, there is instability of emotion also. This state of tension and emotional instability continues till the goal object is reached and equilibrium of the organism is restored. With the organism reaching its equilibrium emotional equilibrium is also reached. If an individual's needs remain chronically not gratified, he is continuously in a state of tension and he is continuously in a state of emotional unbalance. This condition of emotional instability may in one case express itself in the fluctuation of moods and behaviour between extremes; in another case in the forms of symptoms and in still another case in the form of 'conduct disorders' and in others all these, fluctuations of moods and behaviour; symptoms and conduct disorders may be present together. Thus the term emotional instability may be broadly defined in the following terms. It is the liability to exaggerated or inappropriate display of emotion, emotion being a hypothetical concept, standing for a dynamic expression of the needs which may manifest itself subjectively or objectively or both.

Theories of Emotional Instability :

It is recognised by all the writers on adolescence and 'delinquency' that adolescence is the period of emotional instability. However, the credit goes to Stanley Hall, who brought out the truth first. Phyllis Blanchard (2) writes: "It was Hall who first described the emotional instability of adolescence but at the same

time noted the enrichment of the emotional life at puberty, his description of adolescent anger is full of keen observation concerning efforts to conceal and suppress it, revengeful phantasies etc., his discussion of youthful suicide or suicidal phantasies includes such motivations as grief over loss of love, wishes to be revenged upon parents or a loved one who does not respond, disappointment in self and self-disillusionment. It was Hall too, who first collected from many sources and brought together data on the physical growth and physiological changes at puberty and indicated the relationship between biological changes at puberty and indicated the relationship between biological changes in the adolescent organism and the psychological phenomena observed at the period of life."

The chief limitation of Hall's interpretation in his over-emphasis on biological determination of psychological phenomena, his interpretation in terms of recapitulation theory, which has been to a large extent abandoned in the present day biology and psychology. Other important limitation of his theory is "...his failure to allow for the effect of social relationships and his apparent unawareness of individual differences and the consequent absence of adequate interpretation of those cases which deviate from the average of a group" (8, p. 38).

The Psychological and Environmental Theories of Emotional Instability :

In the author's opinion the two apparently different theories, namely, the physiological and environmental theory of adolescent emotional instability are only an echo of the old controversy of 'heredity versus environment, which at the present time no serious student of psychology accepts. On the other hand, that in an individual both physical, physiological and environmental factors coalesce and operate in such a way that to stress the importance of one at the negligence of the other will be missing the point. Of course for experimental purposes these factors are abstracted to see their influence as variables. But that is done with the knowledge, that any abstraction is artificial and knowledge gained by such an approach has limited frame of reference. It may be stated that in some cases, the environmental forces may be the deciding factors; in some other cases, it may be the physiological factors that may be the deciding factors. But that should not compel one to generalise that one or the other is the cause. For

instance, Kretschmer's theory of body types was for some time very popular amongst the medical psychologists. Kretschmer, as everybody knows, presented evidence that in mental hospitals elongated frail 'asthenic' physiques were found most frequently among 'dementia praecox' patients and the short and rounded 'pyknic' physiques were more frequent among manic depressive patients. Kretschmer elaborated this single finding into a theory of relationship between physique and normal personality from the common premise abnormal is merely an exaggeration of the normal. Thus elaborated, his theory requires that tall, slender physiques wherever found be ordinarily associated with such schizothymic qualities as introversion, formalism, idealism, and romanticism (normal variants in the syndrome of desmentia praecox). Correspondingly physiques which are rounded, heavier, shorter, with largest bodily cavities should belong to individuals who in the main are cyclothyme, sometimes moody and often jovial and predominantly extraverted, realistic, and objective (normal variants of manic-depressive make up). Kretschmer distinguished two additional types of body-build, the atheletic and dysplastic, both of which, like the asthenic are supposed to be associated with the introverted pattern of personality. Cabot (5) undertook to verify this theory of Kretschmer by applying it to adolescents. He employed a group of 220 boys in late adolescence for whom anthropometric records of growth were available for twelve preceding years. For physical criteria he employed various types of anthrometric indices which seemed fairly to represent the asthenic, pyknic, athletic physiques based upon the impressions of the boy's appearances. On the side of personality his criteria consisted of dozens of rating scales, tests, questionnaires all pointed in such a way as to obtain the optimum information, concerning the boys personality with special reference to Kretschmer claims regarding introversion, withdrawal, autism, leadership realism and the like. The results of the investigation offer little support for any of the Kretschmer's claim. The differences in personality of each physical type seemed on the contrary just about which one would expect according to a wholly different theory. Actually, social acceptability, physical vitality, compensation, were found to be the determining factors. These factors, all of them dependent upon the interaction of the boys constitutional make-up with the environment, were so outstanding as to cast serious doubts upon the *native* determination or pre-determination of an individual as required by the Kretschmere's theory.

There is another limitation of the physical and physiological theory of emotional instability. If we accept physical and physiological changes that take place during adolescence as the cause of emotional instability, we have to accept adolescent emotional instability as inevitable and like small-pox to let have its way with as little damage to the rest of the population as possible. The question therefore is: Is adolescent emotional instability as necessary and inevitable as the physical and physiological changes are during adolescence? There are adolescents who do undergo rapid changes during puberty and still found to be as 'normal' as others in other periods of life.

To the writers who stressed 'environment' alone as the cause of emotional instability, we are tempted to ask the question "why individuals who have been exposed to the same environment from the time of their birth, suddenly during the period of adolescence find themselves in a different environments? It appears to us the weakness of the environmentalists view lies in equating physical maturity with sexual maturity and in their over emphasis on sex need. They believe that sexual need gains fresh strength and fresh outlet and society does not permit its expression and emotional instability is the result. In the present writer's opinion, though puberty is associated with sex, it is partly true. There are in human individuals along with sex need, other needs, such as security, belongingness recognition, love, achievement etc., which are as important as sex need. It is true that sex need is the one which is tabooed much in any society. But other needs, also which gain fresh strength during adolescence, knowingly or unknowingly, remain ungratified. As such there influence on the emotional balance of an individual cannot be altogether denied.

Another limitation of those who maintain 'environmental' theory of adolescent emotional instability is this. It is their failure to differentiate the 'real' or 'objective', environment from the 'subjective' or 'individual' environment. Objective environment is outside the individual with which the individual has to come into contact. It is common for all. To some extent, it may be considered to continue to be the same for all individuals, except under abnormal conditions such as floods, famine, evacuation, etc. Even then, effect of these on the individual may be relatively same, the 'subjective' or the 'individual' environment is the result of the contact of the individual with the 'real' environment from his birth

onwards, for gratification his basic needs for his very survival in this world. The 'subjective' environment varies with individual to individual. This subjective environment may or may not be exact replica of the objective environment, and usually it is not. The 'subjective' environment, though, is the result of the interaction of the 'needs of the individual' with the environment, by the time an individual is an adolescent, it becomes a potent force, mediating between needs of the individual and his real environment. Thus from our point of view, there is (1) Individual, (2) Objective environment and between these two the Subjective environment, which is the outcome of the interaction between the individual (needs) and the environment (forces). The problems of adolescent emotional instability will be more intelligible, if we view it from this theoretical point of view. This point of view is not new to psychology. In one form or other it has been advocated by Freud (9), Lewin (17, 18), Murray (25) and Snygg and Comb (29).

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REALITY IS JOY : VIMUKTATMAN'S¹ CONCEPTION

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Reality is of the nature of *ānanda* or joy, *ātmā ānanda svarūpah*. The declaration in the Taittirīyopaniṣad, "*satyam jñānam anantam brahmā*," establishes the fulness and oneness of Reality. The same *śruti* states elsewhere that Reality is Bliss Supernal.² Vimuktātman adopts this description when he says '*ātmā ānanda-vigrahā*'.³

In critically examining the signification of the expression '*ānanda*', Vimuktātman prefers a positive interpretation of the term to a negative one, conceived, for instance, by the Nyāya realists.⁴ The kingdom of Joy is the consummate freedom, *niravādhyā uttamah pumartho mokṣa iṣṭah*.⁵ *Ānanda* is the supreme self-fulfilment. It cannot stand for mere absence of pain, a contentless void. A pure negation could never be the ideal end of spiritual endeavour.⁶ Joy is the beatific fulfilment, and not annulment of experience. It is *anubhūti* and not *suṣupti*.

1. Vimuktātman, a disciple of Avyayātman is believed to have lived anywhere between 850 A.D. and 1050 A.D. Prof. Das Gupta is inclined to place him much later. See Prof. Hiriyanna's Introduction to the text of *Iṣṭa-Siddhi* xii (Gaekward Oriental Series) and Prof. Das Gupta's *History of Indian Philosophy*, Vol. II, p. 198.

2. *Taitt-Up.*, 2-1-1.

3. The invocatory verse : *yānubhūtirajāmēyānantātmānandavigrahā*.

4. Release is freedom from pain. N. S. 1-1-22 *tena duḥkhēna janmanā atyanta vimuktiḥ apavargah*.—N. B. 1-1-22.

Though the essential conditions of freedom are : *abhayaṃ ajaram. amṛtyupadam, brahmakṣema*, (N. B. 1-1-22), the state of release is conceived in the likeness of deep dreamless sleep. *Yathā suṣuptasya khalusvapnādarśane rāgānubandhaḥ sukhaduḥkhānubandhaṇi vicchidyate tathā apavarge api*.—N. B. 4-1-63.

The sūtra says : *suṣuptasya svapnādarśane kleśābhāvātapavargah*. See also *Sarvadarśanasāṅgraha* on Nyāya-trans. by E. B. Cowell. "The absolute abolition of pain is the true liberation."

5. *Iṣṭa-Siddhi*, 1-1, p. 29.

6. *anyathā mokṣo apuruṣārtha syāt, sukhābhāvat*. *Ibid.*, 1-1, p. 29. Bāsarvajña says in his *Nyāyasāra*-mohāvasthatvān-mūrchādya-vasthāvadatra vivēkinām pravṛttir nayuktēti—iii, *Paricceda*, p. 96, ed. by Vasudeva Abhyankar.

The Nyāya realists imagine that the soul is an inert, unconscious substance and yet has an all-pervasive character, *vibhūta*. In the state of emancipation, it stays untrammelled by the discursive intellect and the distracting senses. Now it is free but inert. It is a qualitless nothing which, nevertheless, is. The supreme beatitude is a condition of painless existence. Knowledge and feeling are foreign to the soul and are mistakenly by thought by the undiscerning to belong to it. The cessation of this false knowledge brings about the cessation of all sorrow and pain.⁷ As this conception of liberation follows from the conception of soul in the Nyāya philosophy, a reflection thereon becomes essential.

II

Consciousness and its functions are intelligible only when the soul, in the state of bondage, is in active contact with external nature. When this interaction ceases, consciousness also ceases to characterise the soul-substance. The Naiyāyika must be here taken to mean only the empirical consciousness with its thought-processes, volitional tendencies and emotional attitudes. Gautama says that knowledge must be a quality of the soul, which includes memory also.⁸ But while knowledge is transient, the soul is eternal.⁹ Being inert in itself and possessing the property of consciousness through the *manas*, the Nyāya soul in bondage has a great resemblance to the Vedāntic *antaḥkāraṇa*, the empirical ego. Eliminating inertness and endowed with intelligence and awareness, it could be likened to the Vedāntic *ātman* with its eternal presence. To maintain, as the Naiyāyika does, that the soul is the cogniser and an intelligent agent to which *buddhi* is only an instrument and at once to make it a *pramēya* and inert substance,¹¹ represent mutually contradictory trends of thought.

Yet, like Spinoza's Substance¹² the soul in the Nyāya, for all its inertness, is an immaterial entity with its all-pervasiveness

7. The second aphorism of the *Nyāya-sūtras* says: "Pain, birth, activity, faults, false notions, since, on the successive annihilation of these in turn, there is the annihilation of the one next before it, there is.... final beatitude."

8. N. B. 3. 1. 18.

10. N. B. 3. 1. 1.

9. N. S. 3. 2. 39, 40.

11. N. S. 1. 1. 9.

12. "It is, however, a complete mistake on the part of those who say that my purpose..... is to show that God and Nature, under which last term they understand a certain mass of corporeal matter, are one and the same. I had no such intention."

and abstract purity. A distinction is made in the *Tarkasaṅgraha-dīpikā* and *Nyāyakośa* between all-pervading, *sarvagata* substances which have extreme magnitude and those which are corporeal and limited.¹³ Again, consciousness itself is considered to be an epiphenomenon of the interaction between soul and nature where soul is set over against nature in contrast. The liberation of the soul is the *summum bonum* of existence where nature is transcended and to which there is no return. Yet again, the soul is eternal and painless and all knowledge and activities born of nature are causes of bondage and give rise to pain. It is seen, therefore, that the Nyāya soul stands plainly contrasted with and totally opposed to all that is physical nature. If the soul is to be secured the natural world of senses has to be denied. The soul gets involved in nature only to be conscious of its true nature and to return to it. Thus, the world has only a negative value. It is known only to be denied. The Nyāya system portrays the soul-substance, too, as abysmally negative. It seems to have deliberately stayed in the negative. The soul which required the light of knowledge and consciousness to understand the futility and fatuity of the world of senses, leaves them behind on its self-redemption to rest in undisturbed unconsciousness.

While the Naiyāyika was forced to presuppose a permanent self to account for the continuity of consciousness, the whole account turns out to be a mechanical and disingenuous improvisation when it is asked how a consciousness, which is no more than a by-product, which is more an effect than a cause, could weld itself into a continuous flow with order and harmony.¹⁴ If the consciousness, though a by-product, is supposed to have the faculty in itself, the question arises as to how it inherits this faculty. Only through this faculty of consciousness, even the relation of the soul to the inorganic nature, from which consciousness itself results, is

13. See A. B. Keith. *Indian Logic and Atomism*, Spinoza-Epistle, 21, p. 186. See also N. B. 3. 1. 3.

14. The Nyāya thinkers were not unaware of this perplexing difficulty. Uddyotakara says: "For one who denies a soul, every cognition must be distinct with a distinct object of its own, and no cognition or recollection would ever be possible. N. V. 1. 1. 10. N. S. 3. 2. 40 says: *smaranthvāt-manojnāsvābhāvāt*."

"The recognition of one cognition by another cognition would be as possible as the recognition by one body of the experiences of another body."—*Nyāyabhāṣya*, 1. 1. 10.

to be conceived and understood. Now, if it is the self-conscious consciousness which knows and evolves the entire metaphysics of the soul and the external nature, registers and organises impressions into a continuous edifice of knowledge, and not the soul which is helplessly inert, of what use is the soul as a tertium quid? Why do we not reduce the entities and say that soul and consciousness are one, and this soul-intelligence inheres in all the vicissitudes of experience?¹⁵ Yet all the while, the Naiyāyikas are insistent, paradoxically enough, that it is the soul that cognises and conceives. Against Vātsyāyana, we can urge, taking the cue from him, that admitting the soul as the cogniser implies that it has consciousness. As he puts it against his opponents, it all reduces itself to mere names.¹⁶ The Sāṃkhya system has, in this matter, displayed a shrewder logic.¹⁷ Nyāya thinkers, to whom deliverance is an abstract uninhibited qualitless self-existence of the soul,¹⁸ could have hardly missed the unsatisfactoriness of the contentless nothing as the ideal consummation,¹⁹ while comprehensiveness and adequacy of logic would have demanded from them an ultimate soul-intelligence which is the prius and presupposition of all experience.

III

While discussing the meaning of the expression 'ānanda'. Vimuktātman tells us that interpretation of terms should proceed on the basis of the primary and direct sense, and not on the indirect

15. Udayana, however, is seen to endow the soul with joy and consciousness. Taking the Nyāya theory of the soul on the whole, it seems that Udayana could only mean by consciousness here the empirical understanding which the soul acquires when it is in the vicinity of matter and reacts to it through the sense organs.

Vātsyāyana's criticism that if that which produced happiness is the eternal cause, then the difference between the soul bound and the soul released would vanish, follows from the Nyāya metaphysical presuppositions which are none too sound. N. B. 1. 1. 22.

16. See N. B. 3-1-16.

17. Though Sāṃkhya, too, holds that release is a state of freedom from pain, his "puruṣa" is a principle of Intelligence set over against the inert prakṛti which plays a subordinate role to the knower, Puruṣa. Sāṃkhya's Puruṣa partakes of the nature of pure consciousness though he is not conceived to be of the nature of bliss, which, Sāṃkhya holds, can only be an attribute.

18. N.S. 1-1-22.

19. Bhāsarvajña says: nityasamvēdyamānasukhēna viśistātyamiko duḥkhanivṛttiḥ puruṣasya mokṣa iti—Nyāyasāra iii Pari, p. 98.

and secondary sense; particularly when the direct and primary significance is preeminently suited to the context in which the terms are employed. Only when the literal, primary signification is shown to be unsuitable, one can construe them in a secondary sense.²⁰ The expression 'ānanda' stands for the positive nature of Brahman with the indication of inherent completeness and fulness of joy. "Absence of pain", on the contrary, is a dark emptiness devoid of the felicity of perfection. It suggests a blankness and bankruptcy of being. The profound depth of existence is not conveyed by denial but by affirmation, not by 'is not,' but by 'is'. When Yājñavalkya eliminated the alternative characterisations of Reality saying 'not this' 'not this', the illimitability of Reality by empirical determinations was meant by him. The fulness and splendour of Being has no analogy in the empirical trifles; our thought can conceive of no parallel to the bewildering richness of Reality. Nothing partial or piece-meal can demonstrate the entirety and integrity of the Real. A Reality which is *satyasya satyam*, real of all reals, *pūrṇam*, full, and *prajñāna-ghana*, profound consciousness, could not be an essenceless vacuum.

Vimuktātman is not slow to point out that 'the absence of pain' is not left unindicated in the account of Bliss. Pleasure does imply absence of suffering. Reality is Infinite. The Infinity transcending space, time and cause excludes the possibility of pain. Pain is privation and follows a desideratum. In Infinity, there is no desideratum.²¹ The suggestion of plainness is implicit in the expression "Infinity" (*ananta*),²² and when, therefore, a separate

20. mukhyērthe bādhakābhāvānnopacārā kalpanā—Nyāya Sāra, iii pari, p. 97.

Vāsudeva of Kāśmīr writing on this, says: kim ca bhārakrānthasya tadapāye vāyavādi samparkavaśāt sukhotpāde satyēva sukhāśabda prayogaḥ, na punar duḥkhābhāvēna ca asamvēdyamāno duḥkhābhāvaḥ pravṛtṭyamgamiti mukhya sukhasyābhāve mokṣa pravṛtṭir na syātsukham paroktam āśakate. See also Nyāya-Sūtra, 4-1-59: pradhānaśābdānupapattēḥ guṇaśābdēna anuvādo nindāpraśamsopapattēḥ—Iṣṭasiddhi employs the same simile of the bhārakrāntaḥ, as Vāsudeva employs it. See p. 30.

21. anantatvāt sa ēva paramātmā,
tallakṣaṇasya tasyām paripūrṇatvāt.
anyatvē tadayogācca. ataḥ anantatvāt
sa ēva paramātmā. ata ēva ānandavigraha.

—Iṣṭa-siddhi, p. 24-25.

22. aduḥkhatvam ca tacchabдайrēva siddham anantādisābdaiśca na ānandaśabdam apēkṣate. Ibid., p. 26.

expression like 'ānanda' is employed, it can only mean a sovereign state of joy, peace and beatitude.

Secondly, pain, since it is liable to cease and be removed, is unsubstantial and unreal. Whatever is subject to contradiction cannot be ultimately real, though, for the time being, it may appear to have reality. Pain, on this criterion, should be relegated to the category of the unreal. The implication of this argument is that in the unity of Bliss, imperfections like pain get sublated. So the expression 'ānanda' need not refer to this phenomenon of sublation separately. Bliss implies the extinction of pain, too. When therefore, Bliss is spoken of, painlessness need hardly be mentioned.²³

IV

Vimuktatman proceeds to show that Joy is identical with Truth and Existence. Brahman is the only Truth. It alone is, all else is not. This self-existence cannot be passive unconsciousness.²⁴ Brahman's infinity indicates secondlessness. Such a state of completion and self-existence cannot but be a condition of supreme Joy. Thus, *satyam jñānam* and *anantam* are expressions of the same Reality.²⁵ They are not the expressions of the different aspects which are distinguishable in Brahman, nor are they attributes defining the threefold character of Reality, Infinity and Intelligence. They are Brahman. Cit is Brahman; sat is Brahman; ananta is Brahman; ānanda is Brahman; and, there is only one Brahman. Joy is cit and sat which are Brahman. Empirical language speaks in terms of distinction and conjures up fragments and dissected aspects. While empirical vision sees plurality and variety, Truth is simple and one. Grammatical rules of language will treat the

23. anyanivṛttyarthānām nivṛtṭēh avastutvāt na abhēda virodhitvam. Iṣṭa-siddhi, p. 26.

24. Śaṅkara in his commentary on the ānandamayādhikaraṇa draws the support from the Upaniṣadic statements for his arguments that Truth is conscious Intelligence.

So kāmāyata-Taitt-Up. 2-6, tadaikṣata tattējo asṛjata—Chand. Up., 6-2-13, etc.

Nārāyaṇa in his Dīpikā on Sarvopaniṣatsāra brings out the truth that Joy without consciousness is unintelligible.

25. "In all the passages treating of Brahman the subject to which the qualities belong is one, non-different. Hence the qualities attributed to Brahman in any one place have to be combined wherever Brahman is spoken of. This is what the sūtrakāra says."—Brahma-Sūtras—III Adh. 3-13.

expression *satyam*, *jñānam* etc., as non-synonymous. But the grammar of spirit understands them to mean the same supreme.²⁶

Therefore Atman is Bliss. Śruti bears the testimony for this declaration: "ānando brahmēti vyajānāt", "ānandādhyeva khalu imāni bhūtāni jāyante". Again, here are two statements: 'tasmādvā etasmād ātmana ākās'a sambhūtaḥ,' and 'brahmavidāpnoti param!' These two, put together with '*satyam-jñanam anantam brahma*,' *yovēda nihitam guhāyām*,' indicate that Atman alone is Brahman. Again, when it is said that 'ānandam brahmēti vyajānāt', the sameness of ānanda with Brahman is emphasised.²⁷ Only with reference to Brahman the expression 'ānanda' is repeatedly employed.²⁸

V

Life is a struggle towards purity and perfection. The satisfaction and glory of the ceaseless endeavour to achieve moral excellence, spiritual power and expansion of consciousness is symbolic of the veritable sea of Joy within. It is in immaculate purity that Joy shines.²⁹ A clean heart reflects the radiant Joy. With the

26. *evam sarvatra brahmavākyaṣu padānām avirodhēna samgatirdraṣṭavyā mukhyēṣu ānandādiṣu vyutpannā ānandādi śabdāḥ samānādhikaranatayā yadā prayujyante tadā tēṣāṃ arthānām anyonyaniyamanīyāmakabhāvēna avirodhēna vyavasthitānām sarva pramāṇa agocarāt ēkarasāt brahmaṇa anyatra paryavasāna asamabhavāt tadēva lakṣayanti na tu abhidhātī śabdā itī apadārthatvam abhēda samsargātmakavākyaṛthatvam-śabda pramāṇaktvam ca tasyeti—Iṣṭa-siddhi, p. 31-32.*

27. *yo vai bhūmā tatsukham—Chānd. Up., 7-13-1.*

bhūmaiva sukham—Śaṅkara's commentary thereon.

raso vai saḥ—

raso' hyevāyem labdhvā ānandī bhavati—

ko hi evānyātkāḥ prānyāt. yadeṣa ākāśa

ānando na syāt, eṣa hi ēva ānandayāti—Taitt. Up., 2-7.

vijñānam ānandam brahma—Brh. Up. 3-9-28.

28. *ānandamayobhayāsāt—Brahma Sūtras 1-1-12.*

cp. "Species or beauty has a likeness to the property of the son," viz. as Exemplar. In general, the form species, beauty, and perfection or goodness or truth of a thing are coincident and indivisible in it, although not in themselves synonymous in the sense of interchangeable terms—St. Thomas, *Summa Theologica*—I-9-39 a. 2. c. Quoted by A. Coomaraswamy—"Figures of speech", p. 72.

Iṣṭa-siddhi says:—*tasmāt jñānānandas'abdayoḥ na atra arthabhēdonumēyaḥ—p. 16.*

29. *tasmin s'uddhe sukhātmā pratibhāti—Iṣṭa-siddhi, p. 28.*

increasing degrees of moral excellence, of the fineness of thought and of purity of feeling, the inner core of Joy gets increasingly manifested.³⁰ Purity is pleasure.

The highest of material happiness that we can conceive, with all health, wealth and lordship that it implies, dwindles into insignificance and triviality and is not worth the name at all when it is considered in comparison with the supreme Joy of the Self.³¹

However, there could be no increase or decrease in the Joy that is the Real which forever integrally is. Impurities and ignorance by which it is conditioned in the empirical existence, cast their shadows on this one clear eternal radiance and make it appear in different degrees of light and shade. As distinctions like birth and death, smallness and greatness, purity and impurity, knowledge and error are superimposed on what is essentially one Pure Consciousness, as distinctions like room-conditioned space, pot-conditioned space, etc., are imagined in what is one continuous expansion of space, even so the degrees of pleasure are imagined in one changeless eternal Joy.³² What is eternally there is imagined to be attained and experienced piecemeal. Even the emancipation of the soul is not a distant goal. It is here and now. This illusion of attaining what seems to be as yet unattained is analogous to the plight of a man who, keeping the gold coin all the time in his own pocket, in forgetfulness thought that he had lost it somewhere and searched for it hectically only to find it tucked away safely in one corner of his purse.³³ Release is not the acquisition of something external and foreign to be held forcibly, but a return

30. antahkaraṇa-śuddhyā utkarṣādeva ānandotkarṣaḥ—*Ibid.*, p. 28.

31. *Bṛh. Up.* IV, iii. 33 gives the calculus of this happiness where the supreme Bliss is shown to be incalculably greater qualitatively than the ordinary pleasure that we know on earth. *Taittirīyopaniṣad* also does this calculus. One who has conquered the Cupid and the Old Adam in him experiences an intense joy surpassing the sensual pleasures—*śrotṛiṇāṃ cākāma-hatasya*—*Taitt. Up.*, II-8.

akāmahatavotkarṣāt śataguṇam ānandotkarṣaḥ—*Iṣṭa-siddhi*, p. 29.

32. kūṭastha ātmasvarūpa tvēpi ānandasyāpi
anubhavyeḥ bhrāntyaiva janyatvādi
prasiddhi upapattēḥ—*Iṣṭa-siddhi*, p. 28.

Also, ēkatvēpi uttarottarotkarṣo
ghatākāśamathākāśamahākāśavat yojyam—*Ibid.*, p. 28.

33. hestavismṛtasuvarṇaprāptivat—*Ibid.*, p. 29.

to one's innermost self. There is neither going nor coming; but only being.

VI

Atman is the dearest.³⁴ It is Love. It is dearer than one's dearest, tadētat prejaḥ putrāt. Things of the world possess value, not in their own right, but because they are dear to the Self. Even the ardours and ecstasies of physical love have their ultimate reference in Ātman.³⁵ No Joy belongs to the empirical 'me'. It is to delude oneself to think that pleasure is derived from an external source by an external means and is experienced by the mind. The self is all-Knowledge and all-Bliss and their externality is an illusion.³⁶ There are, therefore, no two orders of joy, the transcendental and the empirical.

The Joy of spiritual experience is vouchsafed by the accredited mystics of every climate, Eckhart, Śaṅkara, Plotinus, Blake, Law and a host of others. But the conscious formulation of the concept of Reality as Bliss, Knowledge and Existence, as a transcendental unity of experience. *anubhūti*, is unique to the temper of Indian thought. There is no need to say that the happy formulation sums up God, man and the universe in an unparalleled simplicity.

34. ātmaiva priyo nānyaḥ.

35. strīpūṃsayorapi śarīramēva anyārtham,
na tu ātmā—*Iṣṭa-siddhi*, p. 29.

36. antahkaranavṛttiviseṣe ātmasukhābhivyañjake avivekā
sukhatvabhramolokasya, *Iṣṭa-siddhi*, p. 30.

Principal Miller Lectures, 1954

THE INNER MEANING OF HUMAN HISTORY AS
DISCLOSING THE ONE INCREASING PURPOSE THAT RUNS
THROUGH THE AGES

LECTURE II

Religious Transfiguration

by

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The topic for the lecture to-day, "Religious Transfiguration" reminds me of two beautiful thoughts from the same author, Olaf Stapledon:—

The first is: "Great and terrible and very beautiful is the Whole; and for man, the best is that the Whole should use him".

And the second: "Man himself in his degree is eternally a beauty in the eternal form of things. It is very good to have been man".

It is indeed good to think that man is "eternally a beauty in the eternal form of things" and that it is best for him that the great and terrible and very beautiful Whole should use him.

But the questions that automatically arise are, how are we to understand man as eternally a beauty in the eternal form of things? Is man really that? Do we honestly mean, what we say, when we say, "It is good to have been man". We, who are so used to the idea of using the "Whole" for our ends, can we really believe, that for man, the best is—that the "Whole" should use him? Was this brief music that is man designed to sing his way through light, love and laughter, full of grace and beauty, with a heartstuffed with the joyousness of life? The answer comes straight from the wilderness, that "the man that was designed to be beauty and music is dead; with him have died the Design, the Designer, and the Design-

ed. We alone are left in their place "The Hollow men". In the words of T. S. Eliot :

"We are the hollow men
We are the stuffed men
Leaning together
Headpiece filled with straw—Alas !
Our dried voices, when
We whisper together
Are quiet and meaningless
As wind in the dry grass
Or rat's feet over broken glass
In our dry cellar.
Shape without form, shade without colour.
Paralysed force, gesture without motion ;
Those who have crossed
With direct eyes, to death's other kingdom
Remember us—if at all—not as lost
Violent souls, but only
As the hollow men
And stuffed men".

The great and terrible and very beautiful God, cannot possibly be the creator of these hollow men, stuffed men, men with heads, of straw, nor can senseless nature be held responsible for this sorry state of things, chained as it is by its own limitations? Nor can we blame the stupid machine, as quiet and meaningless for this mechanicalness of "mimeses". (Arnold Toynbee, explains the mimeses thus: This mimeses is a kind of social drill; and the dull ears that are deaf to the unearthly music of Orpheus Lyre are well attuned to the drill sergeant's word of command And just because mimeses is a kind of drill it is a kind of mechanisation of human life and movement). It may then be asked, if God, nature and machine are not responsible for the mimeses that we face, who then is the villain of the play? Meredith gives the answer briefly thus: "In tragic life, God wot no villain need be! Passions spin the plot, we are betrayed by what is false within".

The very first man was given the image of God to be carried inseparably through life and death, the transcendent aim being to enable him ever to remember that he essentially and eternally belongs to the eternal order of things, and as such, it is required

of him to realise the Ideal Form, never yielding to the temptation of being betrayed by anything false within or without.

Dr. S. Radhakrishnan in his illuminating article on "Progress and Spiritual Values" writes : "We have long been familiar with calculating machines, and it will be more interesting if we can get thinking machines. It will be possible for us to know, what the machines think of us, which will be more accurate than what we think of ourselves. Man's difference from the machine lies also in the power he has to conceive himself as other than he is. The thinking machines will show up our crudity of mind and insignificance." The philosopher thinks that we are really labouring under two big illusions, because we have not the courage to see ourselves as we really are. The first illusion is that we have attained refinement of mind, a product of cultures and civilisations, which we have not; and the second is, that we are indeed creatures of great significance capable of accomplishing anything for that matter which is also not true. The fact that we have turned out to be first class robots capable of 'turning the world into a well run hotel or cafe' does not speak for the refinement of mind. The capacity to organise or specialise in any field may speak for outward success, but that has nothing to do with the culture of the spirit. Commenting on the great short story of Oscar Wilde, Dr. Radhakrishnan says, "Oscar Wilde is here pointing to the distinction between life and the appurtenances of life, between living and the ends of life. Science and inventions are concerned with the outward organisation, not the inward living. They can remove hindrances to the good life, but cannot create it. They can diminish illness, but cannot tell a man what he shall do with his health. They can remove poverty and cure unemployment but cannot tell a man what he shall do with his wealth or leisure". The point he brings home is this: Scientific knowledge is all right up to a point, but ideal values by which alone life-par-excellence is sustained do not flower in laboratory test tubes or on library shelves. One must look for them beyond factories, laboratories and libraries.

We have already lived through the birth of at least twenty six major civilisations and the death of many more. It had been an endless process of learning and unlearning. Civilisation is on trial once again and we are facing another world crisis. Ten thousand years of cultures and civilisations we find have progressively reduced us to what we are to-day, "Hollow men, stuffed men, head-

piece filled with straw". All that seems conspicuous about us is 'the crudity of our mind and insignificance'.

The more mechanical the world of our every day experience and life itself as a process becomes, the less is the spiritual satisfaction which people get out of it. Then as some critics say, "As if to compensate for the brutality and flatness of every day life", the subjective world of imagination is liable to become more sensitive and significant. What is peculiar about the world of art and literature as it is with morals, religion and social economics is "everywhere there is the same lack of unity, the same absence of authority, the same break with tradition".

The gradual decadence in the cultural life is no where more conspicuous than in literature and art. We may roughly divide modern history into three big periods to study the progressive decadence of culture. The first period, at the very beginning of the renaissance, was as it were rooted in religion or in spirit. Man did believe God created man in His own image. Man was always conscious of his high destiny. The image of God was reflected in his poetry, prose, painting, music religion and philosophy.

Then came the second period with the spiritual basis of humanism, culture being rooted in nature. During this period man tried to make himself in his own image—the image of the natural man. Every aspect of culture reflected the influence of the image of the natural man. Then came the last period—the age of the machine. Here man tried to make himself in the image of the machine. We all belong to this age, aspiring as it were, to live the life of a perfect machine. Cultural parallelism pertaining to these three periods make a fascinating study.

When culture was in the service of religion, the art produced was a class by itself. The arts were consecrated for the use of religion and religious ideals. Sculpture and painting, poetry and music, literature and philosophy all were directed to the service of the soul. These were days which saw the rise of cathedrals and churches, magic images and carvings, pictures and poems of heavens and angels, Madonas and Saviours, saints and sages. The academicians "reproduced" what their eyes saw. They too in their own way recognised the symbolic function of art. They tried to represent through the medium of their arts the eternal order and harmony of the universe.

During the nineteenth century, Humanism in terms of Naturalism was the basis of all cultures. The artists for example tried to imitate as faithfully as possible the physical appearances of objects and things at a particular time and space. A major portion of the naturalistic paintings of the world is credited to this period. The camera helped to perfect the technique of imitation to a great extent; portrait and landscape art, illustrations from everyday life, parodies of original classic and romantic art, were most popular. One also saw a kind of degeneration in the very technique used. For example, in painting Wilenski says "Michelangelo did not have a model from the ceiling when he painted "God creating Adam". Raphael did not group his fifty figures in temple and keep them motionless for a month or two while he painted "The School of Athens". The Naturalists used photographically naturalistic technique and depended on immobile objects and light in their procedure. The same applies to every branch of cultural life. There are parallelisms in thinking and interpretation, whatever be the aspect of culture under consideration.

Coming to the last and third period, mechanical art has a special appeal to the people of to day, and it also betrays the fundamental concepts of value by which the people of our days live their lives. Herbert Read in his book "Art Now" writes, "The obvious ground for the appeal of mechanical forms is the presence in our daily life of so many machines: of so many objects, expressing in their lines and volumes a certain functional perfection to which we cannot deny the name of beauty . . . and it would therefore seem legitimate to attempt to transfer to painting the same qualities of perfection which we find expressed in machines". He also gives what he calls a profounder reason "for the appearance of a mechanical or geometrical sensibility in modern art", "the reason is the *reason* underlying all the recurrent phases of geometric art in history." He further explains in what he calls "the only theory that accounts at all adequately for the geometric, abstract nature of various types of art". "What I want to suggest is, that there are conditions in modern life which give rise to a similar attitude in men, and to a similar expression of that attitude in art. We have it is true, a mental equipment far different from that of primitive man, but is our outer world, in its state of political, economic and spiritual chaos one which man can face with "universal piety", sensuous satisfaction, spiritual aplomb? Is it not rather a world from which the sensitive soul be he painter or poet, will flee to some spiritual

reality, some sense of stability? And is he not likely in that tendency, to desert the perceptual basis of the empirical art of the immediately preceding epoch, in favour of a fixed conceptual basis?" Read describes the social significance of abstract art in general as the "art of despair; and art merely of escape from the complexity and confusion of modern life". So we find our culture, in its various manifestation is nothing more than a mere reflex of the religious, social, economic and political condition of the state in which man lives and it also betrays the practical every day religion of man.

Berdyayev, in his book "The End of our time" commenting on contemporary art writes "contemporary art, finished with antiquity and the renaissance, looking only to the future and worshipping the future, is bent on dismembering the human body and its eternal forms; in the likeness of man must at last disappear". Berdyayev writes that Futurism including all movements like Cubism, Vorticism, Dadaism, Surrealism and Gaggaisin does away with the images of nature and of man, and with them goes the essential character of the Renaissance art, which looked only to eternal forms. It throws over the work of Michel Angelo and Leonardo, and turns its back on nature and antiquity. For its forms it turns to the machine, for it is caught up in the process which dismembers all unity into mechanism". If we for example take Picasso, who is supposed to be the founder of 'Cubism' we find that he has already torn the human body limb from limb, so that in his paintings there is neither the 'unity' nor 'clarity' which are so essential in what is called "artistic identity". Futurist paintings says Berdyayev, "where in the ideas of to-day so soon give place to those of to-morrow, pushes the dispersion of human identity still further, the clarity of natural forms is brutally violated, everything passes into everything else and man into inanimate things; scraps of advertisements, bits of glass and the sole of a shoe break into some natural form and destroy it. The shapes of the human body are necessarily antique shapes, to destroy them is to break definitely with antiquity". The same principle naturally applies to futurist poetry and literature, and all other forms of cultural life.

D. H. Lawrence, in the foreward to his book of poems "Pansies" writes: "...I offer a bunch of pansies, not a wreath of immortelles. I do not want everlasting flowers, and I do not want to offer them to anybody else. A flower passes, and that perhaps is

the best of it. If we can take it in its transience, its breath, its may be mephistophelian, may be paley ophelian face, the look it gives, the gesture of its full bloom, and the way it turns upon us to depart—that was the flower, we have had it, and no immortelle can give us anything in comparison. The same with the Pansy Poems, merely the breath of the moment, and one eternal moment contradicting the next eternal moment; only don't nail the pansy down. You won't keep it any better if you do." Here is one of his poems called "*The Death of Our Era*".

Our era is dying.
Yet who has killed it?
Have we, who are it?

.....
Who struck the bell?
Who rang the knell?
Not I, not you
Yet all of us.

.....
And all that we can do
Is to die the amazing death
With every stroke, and go on
Till we are blank.
And yet, as we die, why should not our vast mechanised
day die with us,
So that when we are re-born, we can be born into a fresh
world.

Here is a second poem: This is entitled
Why—?

Why have money?
Why have a financial system to strangle us all in its octopus
arms?
Why have industry?
Why have the industrial system?
Why have machines, that we only have to serve?
Why have a Soviet, that only wants to screw us all in as
parts of the machine?
Why have working classes at all, as if men were only
embodied jobs?
Why not have men as men, and the work as merely part
of the game of life?

True, we 've got all these things industrial and financial systems, machines and Soviets, working classes.
But why go on having them, if they belittle us?
Why should we be belittled any longer?

Nothing can be more instructive than Toynbee's comment on the intellectual progress of man in the closing pages of his book "Civilisation on Trial". He writes: "The progress with which we are here concerned is a progressive improvement, continuous and cumulative from generation to generation, in our social heritage. By progress, one must mean this; for there is no warrant for supposing that, within 'historical times' there has been any progress in the evolution of human nature itself, either physical or spiritual Western man, at the present high level of his intellectual powers and technological aptitudes, has not sloughed off Adam's heirloom of original sin and to the best of our knowledge, homo aurignacius, a hundred thousand years ago, must have been endowed with the self same spiritual, as well as physical characteristics, that we find in ourselves. Progress then, if discernible within historical times must have been improvement of our social heritage and not progress in the improvement of our breed, and the evidence for social progress is of course impressive in the field of scientific knowledge and its application to technology, in everything that is to say, which has to do with man's command over non-human nature Man has been a dazzling success in the field of intellect and 'know how' and a dismal failure in the things of the spirit, and it has been the great tragedy of human life on earth that sensational inequality of man's respective achievements in the non-human and in the spiritual sphere should, so far at any rate, have been this way round; for the spiritual life of man's life is of vastly greater importance for man's well-being (even for the material being in the last resort) than is his command over non-human nature".

Since the first man, ten thousand years ago began to use his mind, senses, and imagination to explore the possibilities of exploiting non-human nature for his own material ends, we have indeed progressively improved from generation to generation and to-day we are the proud possessors of what the historian calls a rich 'social heritage'. By social heritage we seem to have understood the art of dealing with non-human nature, by unearthing her secrets, and using that knowledge of her for our own ends, i.e.,

to satisfy the primitive needs of life, like food, shelter and clothing arising out of biological and intellectual needs like hunger, sex, fear, etc., and a thirst to understand non-human nature resulting in the acquisition of material knowledge. The various attempts to give proper expressions to our emotional and other impulses through art and crafts gave rise in their turn to the different kinds of cultures and civilisations. We have succeeded so well in satisfying these needs that our eating, drinking, clothing, housing, merry making and the process of gathering knowledge and civilising have become fine arts in the art of living. But somehow we have failed to develop the art of dealing with human nature in ourselves and in our fellow beings which alone justifies the description of our progress in terms of "social heritage". Nor have we succeeded in getting into right relations with god, the sole, worthwhile foundation for all social relations.

I am very much inclined to take the historical view of development as given by Toynbee, for I do feel with him, we are very much where the "homo aurignacius" was hundred years ago, so far as social, moral, and spiritual development is concerned. Our dazzling intellectual achievements and the corresponding progress in technological skills which have incidentally created for us the numerous cultures and civilisations of which we are so proud, should not be however confounded with moral and spiritual development, which we have not developed at all, for we must accept the fact that there has been "a sensational inequality of man's achievements in the non-human and in the spiritual sphere. Twentieth century man we accept is a civilised and cultured being but he is not certainly a spiritually evolved person.

Man using mind, senses and imagination to understand the world of non-human nature is quite a different thing from god using man to realise the higher values of life. It looks as if the distinction between the two issues is still not clear to man.

The birth of one great civilisation and the death of another, has set us thinking again. We are indeed getting tired of the endless process of learning and unlearning at the wake and break of every great civilisation. This time we tell ourselves we must evolve a kind of civilisation which will stand for all time based on surer, saner foundations.

I honestly think, it is time we discarded the very thought of building up again these pseudo-cultures and pseudo-civilisations. Our meaningless preoccupation with these cultures and civilisations, is as meaningless as the preoccupation of an unimaginative but optimistic child who proposes to spend his entire life on the sea shore collecting pebbles, building sand-castles and baking mud pies. I think the only business of man so far as his sensuous and mental equipment is concerned, is to use it, to appreciate what is given, in terms of both human and non-human nature in all its endless varieties and manifestations. What real purpose is served by wasting whole life times in one kind of imitation or another or by reading abstract symbolic contents in anything given, and representing it in grotesque shapes and forms and leaving that to posterity? I do agree with Mahatmaji when he says "Have I not gazed and gazed at the marvellous mystery of the starry vault, hardly ever tiring of that great panorama? Have I not the forests and the seas, and the rivers and the mountains, the fields and the valleys with which to slake my thirst for beauty? Could one conceive of any painting comparable to the vermillion of our emergent dawn or the gold of a parting day? I need no inspiration other than nature. She has never failed me yet. She mystifies me, sends me into ecstasies. What need have I for the childish colour schemes of humans? Besides god's handiwork does not man's fade into insignificance? How can art be so thrilling after all, when nature the mightiest artist is there to cater to us?" "Is it not grotesque to claim—as so many artists do, that art is the crown of creation, the last meaning of existence?" Life as he says "must immensely exceed all the arts put together".

If we analyse what we call culture to-day we shall find, in the ultimate analysis, it is but so many arts and crafts put together in a particular way, which is devoid of both life and soul. Any culture which has evolved through the mechanism of the human mind or imagination can but serve as a hot-house for the human plant to grow.

I have often thought, there must be something intrinsically abnormal with us human beings who absolutely blind to a world so dynamic with living, soulful beauty everywhere, should spend, time, money and energy pouring over parodies and caricatures of god, man and nature in put up shows, held in artificial dust laden, museums and theatres.

I do agree with our greatest patriot when he says "To me the greatest artist is surely he who lives the finest life". Perhaps it will take a very long time in soul-culture to realise and appreciate the Gandhian meaning of art which runs thus: "I do maintain that asceticism is the greatest of all arts. For what is art but beauty in simplicity and what is asceticism but the loftiest manifestation of simple beauty in daily life shorn of artificialities and make-believes? That is why I always say that a true artist not only practises art but also lives it". I cannot help raising the question, to how many of our greatest artists, the major custodians and contributors to all cultures and civilisations, can we attribute this definition of the true artist?

Tolstoy in his: "what is art" gives us some idea of the life of the artists. He writes: "The artists of various sects, like the theologians of various sects, mutually exclude and destroy themselves. Listen to the artists of the schools of our times and you will find, in all branches, each set of artists disowning others. In poetry, the old romanticists deny the parnassians and the decadents, the parnassians disown the romanticists and the decadents, the decadents disown all their predecessors, and the symbolists Among the novelists, we have the rationalists, psychologists and naturalists all rejecting each other. And it is the same with dramatic art, painting and in music so that, art which demands such tremendous labour sacrifices from the people, which stunts human lives and transgresses against human love is not only a thing not clearly and firmly defined but is understood in such contradictory ways, that it is difficult to say, what is meant by art, and especially what is good, useful art for the sake of which we might condone such sacrifices as are being offered at its shrine".

If we patiently try to understand how communities build their cultures and civilisations, we shall find to our great surprise, fifty per cent of it is the product of imitation and the rest the product of exploitation of nature, both human and non-human. The idea of exploitation of nature in the cause of culture can be briefly illustrated thus: A flower on a bush, which I come across is beauty in simplicity In it I find intrinsic joy, fragrance and life abundant. If I put forth a crude, careless or selfish hand to pluck it for any personal or impersonal use, artistic or otherwise, in that very possession through exploitation there is an around irreparable loss created. The flower delicate and beautiful and so much alive

in the bush droops and dies in my hand, a premature death. With the death of the flower, something also dies in my soul, and the proud and happy bush loses that brief joy of its life's fulfilment. It has been in fact a loss allround and that an irreparable one. So it is with all kinds of exploitations great or small. Cultures and civilisations built upon such exploitations and imitations, how are they going to help man in any way to realise his highest self?

The term culture understood in its real sense may be defined as a thrilling joyous response to life, by the harmony of the senses, the imagination and the intellect. It is the response of a naturally sensitive man to the 'natural', and not an artificially induced thrill to an artificially created life. With the latter kind of pseudo culture with which modern life is becoming more and more involved we have nothing to do here.

The kind of thrill which an individual of intensive or intrinsic culture experiences when in natural contact with real life, must however be distinguished from another kind of thrilling experience which one experiences, when in contact with the supernatural or the spiritual. This experience is not of the kind of experience which a highly civilised person feels. The experience is altogether of a different quality, of the kind the men of god experience, not when in contact with natural life, but with supernatural life. This kind of thrill which any saint or spiritually inspired man experiences when in contact with divine presence, is called spiritual ecstasy.

Sometimes when people talk loosely about say the "religion of an artist", we find, they are invariably confusing between the ecstasy of a saint, which is a definite religious experience and the thrill of an artist, which is nothing more than a natural response to a purely natural situation. This confusion invariably leads to culture becoming a substitute of religion. Just as it is vitally important to distinguish pseudo culture from real culture so also it is equally, if not more important to keep the distinction clear between the real heart stirring experiences of a really cultured person and the spiritual ecstasy of a spiritually inspired person. To assert that the religion of the artist is the same as the religion of the saint is I think one of the spiritual illusions of our times. Whereas it is possible for the saint to be an artist, the reverse is not true. For the intensive experiences of a saint being of a higher order, in its very transcendence, it does include the experiences of a lower order in all its purity. The spiritually inspired man, being

the greatest of all artists if he wished can contribute in some ways to material culture. But very rarely is a saint, interested in the arts or crafts, and as such very rarely do we find a saint who is also an artist. And the reverse is also true, very rarely is an artist, a saint in ordinary life. For the artist, to become a saint must let go the "muse" which possesses him, and very rarely is an artist inclined to give up the muse he worships. Saints and muses are like oil and water, they do not mix. The muses can give man culture, but they cannot give man, god. One must rise above pastels and poems to enter into the realm of the spirit.

The intuitive spirit par-excellence is perhaps best present in the mystic. But intuition is of the mind, of the earth and earthy. To confound the experiences of a mystic with that of a saint is again one of that age-long illusions of mankind. A saint because of his cosmic sensitiveness is invariably a mystic, but the reverse is not true. Any mystic need not be or is not ordinarily a Saint. A mystic is an athlete and mystics as such are also the greatest and richest contributors to real human cultures and civilisations. To them may be attributed most that is best in art, literature, philosophy, and science.

A "genius" is a glorified mystic, not necessarily an intellectual giant; he is one on whom is conferred this extra-intellectual or super-intellectual perception, i.e., intuition in its purest form, in flashes. A genius is a freak, an accident, who is not always happy or comfortable in himself or even in the company of others. He is treated by the world as a lucky accident, in so far as the world outside is concerned for he benefits humanity and enriches cultures. Lord Byron was one such mystic—genius, who was as it were 'possessed' when he wrote. But 'Child-Harold' was not the product of the spirit. Thus we can say, a saint may be a mystic, a carpenter, a house-wife, a scientist, a street singer, a mathematician or merely a genius of some kind. But the reverse is not true. A saint on the other hand is rarely any of these, he is merely a saint in the sense he knows truly and really that he is a mere nothing, and because he knows himself to be such, we call him a saint.

John Cowper Powys in his book, "Culture and Religion", writes "And it seems to be only religion that can do what religion does. The cult of the senses, their awakening, and refinement can bring and can be made to bring ever increasing opportunities of delight,

but there are few epicureans among us whose presence radiates unconquerable ecstasy! The cult of philosophical endurance can bring and can be made to bring, steady, obstinate, stubborn content; and there are few stoics among us from whose personality ecstasy flows forth like a luminous flood! But when one thinks of St. Francis's "Hymn to the Sun" or of William Blake's "Songs of Innocence" or of Alyoska Karamazov's weeping upon the earth one is confronted by what undeniably is the greatest experience possible to sentient beings namely a hightening of happiness till it thrills through body and soul with a quivering absoluteness that passes understanding". If religion can accomplish something more than what real culture can do for man, that is, if the ecstatic bliss and peaceful contentment which a saint experiences, is any day far superior to the thrilling joyousness of life which a really cultured person experiences, and if a truly religious minded person is also simultaneously a cultured person, full of the finer sensibilities and sensitiveness to life as a whole, then the question may arise, where is the need for cultures as a separate discipline, which is a product of centuries of careful training and development?

We do find, more often than not, to quote Powy again "Culture is nothing less than a substitute for religion, where the absence of faith, in the modern person's being has rendered religion unattainable". We must realise at the most, culture can only play the role of a substitute, where there is a conspicuous absence of religious faith. "The loftiest manifestations of simple beauty shorn of all artificialities and make "is certainly not a product of culture". As Powy writes "The most beautiful effect which religion has upon human character is just this very simplicity. The greatest benefactors to the world were always men of religion, who were at the same time men of very great refinement in mind and spirit, though, they in themselves were not the product of the cultures and civilisations of their times. They were in fact altogether indifferent to all that goes on in the name of culture and civilisation. They rarely, or never talked or taught in terms of culture contacts or universal civilisation based on education or economics, psychology or sociology as a probable solution to any world-crisis.

The relation between culture and religion is so subtle that even the best of definitions, seem, somehow to be vague if not misleading. Mathew Arnold for example is of opinion that culture is much more comprehensive than religion, and that religion is

but an element in the total culture complex. T. S. Eliot on the other hand in his recent 'Definition of Culture' makes it clear, that the relation between culture and religion is one of identity. There are again whole schools of thought which believe either, that culture is a product of religion or that religion is a product of culture. I am however inclined to take the view that culture being the product of intellect, imagination and the senses, is capable of catering only to the intellectual, Aesthetic and social well-being of a person. In short our entire 'Social heritage' is a product of cultures and civilisations. But cultures by themselves are incapable of making a person truly moral or spiritual. A man of "culture" is made as it were by nature and nature. A man who would be truly spiritual in the technical sense of the term must be 'born' or 'reborn' into the world by an act of faith, through grace. The life-spiritual is not won through the labour of the mind or of the body. The selection is not made on the basis of 'blood, property or achievement' either. It is not a spatio-temporal event. It is in fact an eternal event, pertaining to the eternal order of things, appropriated, realised and lived, if need be, in a spatio-temporal world; it need not be a historic event, and in the metaphysical sense it is not a historical event either, for it is super-historical in its significance and context.

Less than 35 years ago, people were facing what may be called a crisis in religion. It was the time when scientists were trying to apply the principles of evolution to the study of religion. It was also the time when religion became an "objective problem". Scientific thinkers like Julian Huxley actually studied religion by the objective method of science. The actual problem on which their minds were working was, whether the scientific approach can throw any light on the problem of religion and whether it is possible to use some of the principles and impulses on which religion as such was founded for the solution of world social problems. They discovered that religion was amenable to scientific interpretation and that it was also possible to use the many religious impulses by which people were strongly motivated to create a world-social welfare state. Julian Huxley in his book "Man in the Modern World" has given a very enlightened exposition of this transfiguration of the very concepts of religion in the service of a future welfare state. He calls it "the recasting of religion, a recasting of a very fundamental sort". Briefly how he and his fellow scientists went about recasting or socialising religion for the benefit of humanity may be

given mostly in Huxley's own words. Julian Huxley in his book "Man in the Modern World" says "The particular situation that confronts the religion of Western civilisation is this: The concept of god has reached the limits of its usefulness; it cannot evolve further. Supernatural powers were created by man to carry the burden of religion. From diffuse magic *mana* to personal spirits; from spirits to gods; from gods to god—so crudely speaking, the evolution has gone on. The particular phase of that evolution which concerns us is that of gods. In one period of our Western civilisation the gods were necessary fictions, useful hypothesis by which to live.

"But the gods are only necessary or useful in a certain phase of evolution. For gods to be of value to man, three things are necessary. The disasters of the outer world must still be sufficiently uncomprehended and uncontrolled to be mysteriously alarming, or else the beastliness and hopelessness of common life must be such as to preclude any pinning of faith to the improvement of this world; their god can, and social life cannot, provide the necessary escape-mechanism. The belief in magical power must still be current, even if it be in a refined and sublimated form. And the analytic explorations of his own mind by man must not be so advanced that he can no longer project and personify the unconscious forces of his super-ego and his Id as beings external to himself.

"The advance of natural science, logic and psychology have brought us to a stage at which god is no longer a useful hypothesis. Natural science has pushed god into an ever greater remoteness, until his function as ruler and dictator disappears and he becomes a mere first cause, or a vague general principle. The realisation that magic is a false principle, and that control is to be achieved by science and its application, has removed the meaning from sacrificial ritual and petitionary prayer. The analysis of human mind with the discovery of its powers of projection and wish-fulfilment, its hidden subconsciousness and realised repressions, makes it unnecessary to believe that conversion and the like are due to any external spiritual power and unscientific to ascribe inner certainty to guidance by god".

Huxley thinks theological logic intending to unify the different conceptions of god has resulted in a self-contradictory and incomprehensible monotheism which is in no way better than the

polytheism it replaced. If religion must play an important role in life it must drop altogether the idea of god or at least relegate it to a subordinate position. God just like other spiritual entities like gods, angels, spirits etc., is a product of human mind, arising from ignorance, and due to man's helpless feeling with regard to his external environment.

With the advance of knowledge however he says "god is simply fading away as the devil has faded before him, and the pantheons of the ancient world, and the nymphs and the local spirits Milton wrote of the fading of all the pagan gods, and Milton's god too is joining them in Limbo. God has become more remote and more incomprehensible, and most of all, of less practical use to men and women who want guidance and consolation in living their lives. A faint trace of god half metaphysical and half magic still broods over our world, like the smile of a cosmic Cheshire cat. But the growth of psychological knowledge will rub even that from the universe.

"However—and this is vital—the fading of god does not mean the end of religion—Gods disappearance is in the strictest sense of the word a theological process, and while theologies change the religious impulses which gave them birth persist".

Huxley continues "The disappearance of god means a recasting of religion, and a recasting of a fundamental sort. It means the shouldering by man of ultimate responsibilities which he had previously pushed off on to god".

The scientific humanism of Julian Huxley and the atheistic Existentialism of Jean Paul Sartre, both are agreed upon a "recasting of religion", a kind of scientific transfiguration of the very fundamentals of religious concepts. They both affirm that in the previous ages man shifted his ultimate responsibilities on to "divine insurmountability"; the slogan was "god moves in a mysterious way". Now, in terms of the new transfiguration, "man would place the entire responsibility for his existence squarely upon his own shoulders". Man's destiny is not in god's hands, but man is free to control his own fate and that of his planet as well. Man must become used to the idea that he is indeed a trustee of the evolutionary processes going on in the individuals and in the race, and that he alone is responsible for that trust. Not alone is man responsible for the "long-range control of destiny" but he is responsible

for everything that concerns his immediate future. Sickness and slavery, misery and poverty political, social and economic failures and mal-adjustments are certainly not divinely appointed order of things. These are phenomena which must be objectively understood, interpreted and controlled, as any other phenomena which interests a chemist or a geologist. As man's knowledge increases and as he learns to control his environment effectively he will find the traditional superstitions and supernatural religions dying a natural death. According to scientific humanism, science and technology can bring about the collapse of supernaturalistic theology.

Sociologists, social psychologists and politicians are trying to evolve what may be called a religiously organised socialised state. In Russian communism one could see the process most clearly; in it, all the elements that go to make a religion are easily discerned. The same is true to a great extent with German Nazism. "God Religion" is slowly giving place to "Social Religion". Huxley predicts that "The religious impulse, itself one of the social forces, to be more fully comprehended and controlled will increasingly find its outlet in the promotion of the ideals of the socialised states". Huxley is however unable to predict how exactly this is going to happen but he feels the process will go through all the different stages that an ordinary religion has been through from the cruder beginnings toward developed monotheism. In the long run he says "The nationalistic element in socialised religion will be subordinated and adjusted to the Internationalistic". So Huxley and all scientific minded humanists, believe the religion of tomorrow will be universalistic humanism. He also predicted then that man will realise that economic and social planning will not solve their problems so long as ignorance and absence of control obtain in regard to their own minds. Psychological science will then come into its own, with social psychology as its dominant branch. The probable result will be in the socialised state the relation between religion and science will gradually cease to be one of conflict and will become one of co-operation. Science will be called on to advise what expressions of the religious impulse are intellectually permissible and socially desirable, if that impulse is to be properly integrated with other human activities and harnessed to take its share in pulling the chariot of man's destiny along the path of progress".

The limitless power which man possesses, with advance in scientific discoveries and techniques creates a kind of feeling in

modern man to look upon religion as an "expression of impotence". In fact Marxism is grounded on the thesis "Religion is the expression of impotence". Reinhold Niebuhr in his book "Faith and History" says "But the essential idea was borrowed by Marxism from the liberal culture of the eighteenth and nineteenth centuries. It was generally believed that 'the illusion of power over the external world, promised by religion, has been achieved by science, which accounts for the decline of the religious mentality. To Engel religion was a reflection of the extraneous forces of which man ever despaired. He thought 'when therefore man not only proposes but also disposes, only then will the last extraneous force which is still reflected in religion vanish and with it will also vanish the religious reflection itself'".

According to modernists, a study of pre-scientific magical rites to the advanced religious rituals only reveals man's fear of the external environment. It is supposed to be an observation of Bertrand Russell that "Fishermen with sail boats incline to be religious, while those who boast of motor boats divest themselves of religion". Niebuhr quoting the boast of Eustace Hayden that the task of man "is to impose human purposes upon the cosmic process, to shape the course of the flowing stream of life", comments finally "The illusion of budding omnipotence, which inspires the change that a religious sense of providence is the expression of a primitive impotence cannot be stated more clearly".

All through the ages the ultimate end which mankind as a whole, consciously or unconsciously sought to achieve seems to have been the unity of mankind. Man has tried various means to effect this unification. He has to a certain extent succeeded in achieving an outward unification of mankind through commerce, industry, scientific culture and civilisation. We indeed are constantly reminded that we are progressing, i.e., advancing towards our goal of ultimate unity by leaps and bounds. On the other hand we cannot but see with all this talk about progress and advance the problems of existence have not diminished but on the other hand that they have grown more insoluble, wider and deeper than in the previous ages. Our new technological and scientific progress which was hailed by many countries as a redeemer of mankind from ordinary drudgeries of life and from the various perplexities and economic difficulties have failed to fulfil their missions. In fact it has unexpectedly created for us fresher and subtler

problems. The cult of scientism as a cult seems to have done a disservice to both civilisation and science. The many divisive tendencies which man set out to resolve have become more pronounced. Civilisation did aim to integrate men and nations into a whole. But unfortunately for man, they were able to achieve diametrically the very opposite result. Whatever the so-called civilised man touched disintegrated in his hands. The very civilisations which man built up through laborious processes rhythmically disintegrated and disappeared. A Catholic Professor of Philosophy in a broad-cast talk is quoted by Max. C. Otto to have said: "The old wells have run dry, the staff of unlimited progress on which we have leaned has pierced our hands, the quicksands of our belief in the unqualified goodness of human nature have swallowed up the superstructure of our materialist world. We are definitely at the end of an era of history The world is pulling up its tents; humanity is on the march. The old world is dead".

It was Heraclitus who said "Nature loves to hide". Man, when he got completely engrossed in the mysteries of finite nature forgot "something in everything always escapes measurement". Now he realises in the words of Gilbert Murray: "The life of man can be divided, like the old maps of the world, into the chartered and unchartered. The chartered is the finite and the unchartered is the infinite".

Man's life is a challenge from start to finish. Two conflicting forces are always meeting him at every level of thinking and acting. There are two opposite ways of meeting this challenge to life. He may if he chooses take his stand firmly in the temporal and live an ephemeral life, considering that stand his opportunity and destiny or he may awaken to a deeper and broader vision of life, take his stand in the eternal and seek a wider unity with the whole cosmos, and with the author of the cosmos Himself. Man in his unwillingness to face the arduousness of life-spiritual, chose the temporal stand. But now he knows the world that he created with his hands is dead or if it is not quite dead, it must be allowed to die, along with the irreligion which sustained it. What is needed is a new-world-order which spells an integrated life for both souls and bodies. To quote Paul Richard: "A new Yoga of truth and beauty, illuminating everything, within and without. A new world forgetting the past—that the past may bloom into future". A "new

millennium of civilisation and culture" for the whole world, East and West. To effect this, what is required is a change of front. Social idealism must be transformed into a supernatural cult. Man must face the Challenge to take his stand in the eternal and seek for a wider and deeper unity, with fellowmen, god and nature. It is said long ago, Alexander the great realised that "the brotherhood of man presupposed the fatherhood of god, a truth which involves the converse proposition that, if the divine father of the human family is left out of the reckoning, there is no possibility of forging any alternative bond of purely human texture which will avail by itself to hold man-kind together. The only society that is capable of embracing the whole mankind is a Civitas Dei, and the conception of a society which embraces mankind and nothing but mankind is an academic 'Chimaera'. The stoic Epictetus was as well aware of this supreme truth as the Christian Apostle Paul, but, whereas, Epictetus stated the fact as a conclusion of philosophy, St. Paul preached it as the gospel of a new revelation made by god to man, through the life and death of Jesus Christ".

A very recent development in religious thought is well illustrated by Dickenson Miller's contribution to "Current Religious Thought" a monthly magazine—It goes thus: "May be there is something wrong with John Dewey and nothing wrong with St. John; may be there is something askew with H. G. Wells and nothing wrong with Vincent de Paul, may be there is something wrong with Gertrude Stein and something right about St. Gertrude; may be there is something wrong with progressive education and nothing wrong with the Light of the World. May be we had better get back to god". What the world desperately needs I think is a shaking from a supernatural source. Forgetting the past, man must prepare himself for a new experiment, which only men of great daring and courage have undertaken, all through the ages. The new experiment proposed is "Religious Transfiguration" of men and nations as the only and best solution for the present world crisis.

To most religion means perhaps just what it means to A. N. Whitehead when he says, "Religion is the vision of something which stands beyond, behind and within the passing flux of immediate things; something which is real, and yet waiting to be realised; something which is a remote possibility and yet the greatest of present facts, something that gives meaning to all that passes, some-

thing whose possession is the final good". Whitehead however continues to say something more with which at least some of us will not agree; he says Religion is something which is "beyond all reach" "the hopeless quest". I believe religion is something which is within man's reach, and that it is a very hopeful quest, perhaps the only worthwhile quest that a man of courage can ever dare to undertake on earth and succeed with lasting satisfaction.

The present pressing need is not a stress on spiritual evolution but religious transfiguration. Regarding evolution as such in spiritual life I firmly endorse the Russian thinker, Nicolas Berdyaev's view. He says: "It is not a naturalistic evolution, but a development which proceeds from the spirit. Such free development has indeed nothing common with that which derives from necessity, for it is creative, rather than determined action. It is only the outward expression which has its origin in freedom. There is no universal law of development or progress. The optimistic theory of a continuity of development and universal progress is fundamentally naturalistic and anti-spiritual, nor can it be reconciled with the freedom of the human spirit and of creation. . . . the triumph of the divine principle of good in the world is not achieved by gradual stages. The good is the result of freedom, not of necessity. Various elements, principles and organisms, taken in isolation, develop and progress, but development and progress are not an obligatory law for the life of the universe as the whole".

When Christ said "seek Truth, and Truth shall make you free" he did not mean in the sense that truth is revealed to man progressively in gradual stages. The story of the thief on the cross is a case in point and St. Paul's conversion yet another. It will do us all a lot of good to meditate for a few minutes on these spectacular transfigurations. That is exactly what I mean by religious transfiguration. The spirit is not subject to nature's law of evolution. The spirit is dynamic in the Heraclitan sense of the term, (as someone has said), full of fire and energy, and not Parmenidian. The world of the spirit is not a static reality.

The life-spiritual is an arduous enterprise. When it was suggested that "Religious Transfiguration may be accepted as an experiment to solve the many world perplexities and world problems in its many phases, it was not suggested it is going to be a "research after comfort". Ten thousand years of research after 'comfort' physical mental and spiritual has left us comfortless,

physically, mentally, and spiritually. Life is, as it were strung on a series of paradoxes. We are more familiar with a dualistic world of mind and matter and some of the laws pertaining to both. We try to interpret the incomprehensible mysterious universe in the light of those few miserable laws. We deliberately apply some of these laws for certain material ends, which somehow seem to work in their respective fields. But all the time there is a kind of dim awareness, that we still do not know the real truth about the universe in which we live or even the truth about ourselves. Perhaps J. S. Haldane is a hundred times correct when he says "The universe is a spiritual and not a dualistic world of matter and mind". Perhaps that gives us some clue as to why, the very laws by which man seems to profit so much on the material plane, are found to have the reverse value in the world of ultimate values.

The life-spiritual is an arduous enterprise, but this does not include in it the idea of mortification of the flesh or of the spirit. The invitation is to a life abundant. Christianity is perhaps as someone has remarked the most materialistic of Religions for it does not preach the mortification of the flesh as a means to salvation, nor does it condemn the flesh as a stumbling block to the spiritual life. The aim is not to free the spirit from the corrupt body, but to spiritualise it and illumine it and raise it to the divine status. That is why Christianity preaches not only the resurrection of the soul, but also the resurrection of the flesh. The Resurrection of Christ's in His glorified body is a proof that literally the ultimate purpose of god with man is not to deny any aspect of life in its many manifestations, physical or mental, but to transform or transfigure that which belongs to a lower order and relegate it to its original splendid state. "It is only within the spiritual world that a real regeneration of life becomes possible which involves absorption of nature into spirit and the overcoming of the intractability, inertia, impenetrability and divisiveness of the natural world".

I believe we are in eternity now. Religious transfiguration has very little to do with a so-called life—hereafter. What the world needs is liberated souls, here and now. Dr. S. Radhakrishnan in his introduction to the Principal Upanishads gives a very true picture of the idea of the upanisadic seers regarding the life and function of the liberated souls in this world: He writes "Those who have attained life eternal, live and wander about in the world, to

all appearance like ordinary mortals. They wear no special signs. Only their activities are centred in the highest being and are completely under their control, which is not so for those who live in the world of *samsara*. They are tolerant, sympathetic and respectful to the unliberated who are struggling with unsatisfied minds to diminish the evil and imperfection in the world. These are helped by the seers who accept the conventions with the idea of refining them. They live and suffer and rejoice as other mortals do, but they have no doubt in their minds, no fear in their hearts. For the liberated soul, *samsara* and *moksa* or *nirvana* as the Buddhists call it, time and eternity, the phenomenal and the real are one. Though the liberated soul lives in the world of becoming, he lives with his consciousness centred in the divine ground of all being. As a matter of fact, his consciousness, because it is centred in god, is intensified, and so his life in the world is more vital. Holy calm, supreme self mastery and religious action characterises the lives of Saints. They become a light, a power of the Truth to which they have struggled and obtained, and help the development of others. They will be engaged in the work of the world, sustained by the rare vision, until the struggle with evil and imperfection is altogether overcome and the world is restored to spirit".

When I first received the invitation to give these lectures I asked a dear friend of mine what should be the essence of the subject. In reply he said "Man's soul is still away from its own point of peace and sleeps in exhaustion and ennui. Individuals and nations the world over profess different religions, yet souls adhere to *Nidraism*, the religion of sleep. Some arose from sleep for the sake of others, only to get insulted. We think that we have moved from one stage of culture to another. This is no doubt true. But cultures may rise, mix and change, religions never. Though every religion advocates *Netism* at a critical moment of its own evolution, we have only learnt to practise *Nidraism*. It is easy to say "I am not this, I am not this". But in the very process of saying this, our *nidra* is disturbed, and our souls withdraw, to arise to a consciousness which is free from *Nidra*. If we learn to die when we live, we follow *Netism* to achieve a perfect temporal unity of souls. When souls unite in *Netism*, they realise the truth of *Viswarupa*, I am I. Deny your *nidra*, the tragedy of soul wrought by dogmas and doctrines, pamphleteers and infectious *Rasputins*. Compassionism is our only Faith. In compassion there is no need for a language. When words end, you are your own maker—the

sleep of souls must end. Deny the world, and the world will not deny you. Cultivate the smell of a flower in your soul. Even if it lasts for the wink of an eye, it has a meaning. We are all born to live, not to relive. Live away from *Nidraism*. Have your own philosophy with courage and confidence. Realise that you too are a word of God, as everyone else was, then why not be bold to speak your word in peace and love"?

I have said, what I wanted to say with peace and love. I shall end up by recapitulating the three basic thoughts, which form as it were the foundation of these lectures.

The First is: "Great and terrible and very beautiful is the whole; and for man, the best is that the whole should use Him".

The Second: "Man himself in his degree is eternally a beauty in the eternal form of things. It is good to have been Man".

The Third and the last one: "Man must work for the illumination and spiritualisation not only of his soul and body, but also of the soul and body of the whole universe".

BOOK REVIEWS

India: Paintings from Ajanta Caves, Introduced by Madanjeet Singh. Published by the New York Graphic Society by arrangement with UNESCO. Price Rs. 75.

This is the first publication of the Unesco World Art Series devoted to the rare art masterpieces of the world. It is quite fitting that Ajanta should have been honoured in this manner. As Prime Minister, Sri Jawaharlal Nehru observes in a Foreword, "the appeal of Ajanta is not merely to the artist or the expert, but to every sensitive human being." The frescoes which are reproduced here have a universal significance—a significance that takes one beyond time itself. The passage of time has not made their importance less, although the paintings have suffered physically through time's ravage and man's neglect. It is heartening to note that there is a re-awakening everywhere in the world, and especially in India, and that as a consequence there are attempts to preserve and encourage works of immortal art.

The present album contains thirty-two reproductions in colour; and they are quite representative of Ajanta paintings. We see in a grand procession the Buddha and Bodhisattvas, gods and humans, monks and laity, royalty and common folk, dancers and musicians, animals, birds, and decorative motifs. There is a brief introduction by Sri Madanjeet Singh, who was also responsible for taking all but one of the original photographs. The book was produced in Italy. It has been published by the New York Society by arrangement with Unesco. The Indian agents for its sale are New Book Company Ltd., Bombay.

All art-lovers will be proud to possess a copy of this album.

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Kangra Valley Painting, Introduction by M. S. Ranadhwa. The Publications Division, Ministry of Information and Broadcasting, Government of India, 1954. Price Rs. 18.

In the present publication forty works of the Kangra Valley school are reproduced in colour. Kangra art represents the great blossoming that Rajput painting had in the Panjab Himalayas,

Tehri-Garhwal, and Jammu. Most of the paintings are anonymous even as many of the classical Indian literary works are. But whoever painted them have become immortal. The great religious movements of India from the 11th century onwards are behind the 18th century Kangra Valley painting. As Sri Ranadhwa remarks in his Introduction, "Kangra art is the visual expression of a cultural movement with roots in a great spiritual upsurge". Even human themes such as love and disappointment are lifted to the plane of divinity by the Kangra artists. What one finds in their lyrics in line and colour is the expression of a process of sublimation.

The reproductions are beautiful. The Introduction enables one to gain an insight into the cultural background of Kangra art. The Ministry of Information and Broadcasting is to be congratulated on this fine piece of work.

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Sculptures from Amarāvati in the British Museum, Douglas Barrett. Published by the Trustees of the British Museum, London, 1952.

The sculptures which are the subject of this monograph have gained their rightful place among the greatest sculptures of the world. The British Museum is naturally proud of possessing them; and the publication of the monograph is itself an evidence of the great place accorded to them in the Museum. Mr Barrett, Assistant Keeper in the Department of Oriental Antiquities, gives all the aids necessary for appreciating these sculptures. He traces the early history of the Deccan, tells the story of the discovery of the Amarāvati Stūpa, figures out a reconstruction of the Stūpa, discusses the date and style of the sculptures, and lists the Amarāvati sculptures that are in the British Museum. The Keeper of Oriental Antiquities, Mr Basil Gray, informs us in his preface that the account of the monument and the sculpture now lodged in the Museum is securely documented and will stand the test of time. The reproductions of the sculptures are given on 48 plates. A map of Deccan and a reconstructed picture of the Stūpa are also included.

The Trustees of the British Museum deserve the thanks of all concerned for a publication which will go to strengthen the bonds of friendship between Britain and India.

The Vedic Octave and Extracts from Saṅgīta Sāra in Abhinavabhārata-sāra-saṅgraha. Sri Varalakshmi Academies of Fine Arts, Mysore.

The Vedic hymns constitute the earliest hymnal music known to humanity. An analytical study of the frequencies of the notes employed in singing those hymns, is of interest to students of comparative musicology all the world over. The scale of Sāma-gāna is the primordial scale of Indian music. In the music of the Sāma-gāna, the note Komal Rishabha (D flat) does not occur but this note occurs in the recital of the Rig Vedic hymns in South India. This lends support to the view that the gāndhāra grāma, at least a part of it, still survives in South India.

The Varalakshmi Academies, Mysore, can be congratulated on their first publication, which contains two learned contributions. Interesting conclusions are given in the Article on Vedic octave. The author will do well to actually demonstrate and prove his conclusions with a stringed instrument.

On p. 15, the statement that the normal range of human voice is about $3\frac{1}{2}$ octaves is not correct. The average range of a cultivated human voice is only $2\frac{1}{2}$ octaves and singers with a tristhāyi śārīram come rarely in the life-history of a nation. If by $3\frac{1}{2}$ octaves, the author meant the compass of the male and the female voice taken together in absolute pitch, even then it cannot be correct.

In the extract from *Saṅgīta-sāra* appearing in the latter part of the book, we come across some new names for the śrutis. The attributes of a svara mentioned on p. 42 are of more than academic interest. Useful tables are appended at the end.

It is hoped that this book will be followed by more and more publications of research value from the Varalakshmi Academies.

P. SAMMOO

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