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We shall work for a  
letter tomorrow.

*Blessings*

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## EDITORIAL

### Sri Aurobindo

August 15 is the birthday of Sri Aurobindo. Each year that passes sees him securely established in history—history of man, the world, the universe and beyond. He has laid the foundations of a New Age and through various means he is helping to shape the emerging future.

Even as a young student he found himself participating in the national movement for the liberation of his country. That was his sole preoccupation and even yoga—which came to occupy an exclusive place in his life later on—was undertaken by him in order to secure a divine power to achieve his objective of freedom of India. He organised a nationwide underground movement with revolutionary implications and in the fullness of time promoted an open campaign of resistance to the alien ruler. He wielded a pen that was mightier than any one's sword and converted a lethargic people into ardent votaries of the adoration of the Divine Mother in the form of the land of India. He was incarcerated, subjected to indignities, threatened with deportation, but his steel will would not bend. Even when, in obedience to an inner Command, he withdrew from politics, he kept helping the freedom movement in the ways that were open to him. And when the independence of India became a fact on the 15th of August, 1947, his birthday, he welcomed it as more than a coincidence. He took it as a sanction and seal of Providence on his efforts. Even after the attainment of independence by the country, he continued to take interest and warned the leadership against the possible danger of falling into the fashionable pattern of a military power wedded to *real politik*.

He foresaw the gradual fading of colonial powers and the rise of Asia (and later on Africa). He was among the first to note the world-trend signified in the victory of Japan over Russia in the first decade of the present century. He welcomed the outbreak of the Bolshevist revolution and foresaw the rise of Labour as a political force in the world. In a series of studies in the social and political development of humanity, he perceived a gathering movement towards world-unity and regarded the founding of the League of Nations as the first major attempt of its kind by the nations of the world. He was aware of its defects and the possibility—why, certainty—of its failure but all the same he looked upon it as the

initial tentative effort. He was definite that the United Nations Organisation which came to replace the old League of Nations during the Second World War, was a great asset and should not be thrown away whatever its shortcomings. The UNO is to be mended not ended. He envisaged a gradual acceptance of a global approach to world-problems by the community of nations represented in this forum of international polity. Events have largely justified his hopes. Despite certain atavistic habits in the sphere of political and military power, the one-world consciousness is gradually making its way ahead. Sri Aurobindo's Ideal of Human Unity is no more a utopian dream. It looks certain that we will be somewhere there by the close of the present century, if certain winds of change that are in evidence gather momentum.

A more important contribution of his to the progress of humanity is his successful orientation of the higher mind of man towards what may be called a spiritual positivism. His *magnum opus* The LIFE DIVINE has established the ideal of Perfection of life here on earth in place of the traditional goal of salvation beyond the earth. His philosophy of the spiritual evolution of Consciousness as the real meaning of life and the confident expectation of the formation of a new faculty of truth-awareness and truth-effectuation as the next step in the evolution of man are coming to be recognised and accepted more and more. Something more than Mind is in the throes of organising itself and the first signs of the workings of this gnostic Mind are already visible on the horizon. Falsehood is being exposed everywhere and the voice of Truth is making itself heard. As anticipated by Sri Aurobindo, the human society is slowly entering the spiritual age. The values and institutions of the older mental civilisation are disintegrating and deeper spiritual truths are emerging—at least in some parts of the globe.

In all these expanding circles—national, international and universal—Sri Aurobindo's work continues on its upward curve.

M. P. P.

## ONE WORLD

Sanat K. Banerji

### One in the Many

Of late it has become the fashion with some people to count the number of worlds we live in. There were two worlds after the second War. Now there is a third. Who knows how many more will crop up in the near future.

One is reminded of a story told by the Mother in one of her Talks.<sup>1</sup>

"One of my friends had been to India and she was asked to give an account of her travels. A very credulous old lady was there and she asked him: "In India, are the souls counted?" He replied, "Yes". "How many are they?" asked the old lady. And his answer was, "Only one".

There is only one world. It appears to be many depending on how we choose to look at it.

The unity is a fact,—*the* fundamental fact of existence. The multiplicity is also a fact, and not an illusion,—though sometimes it may become a very troublesome fact, as it has now become with the "worlds" in our newspapers. In more philosophical language, "The creation depends on and moves between the biune principle of unity and multiplicity; it is a manifoldness of idea and force and form which is the expression of an original unity, and it is an eternal oneness which is the foundation and reality of the multiple worlds and makes their play possible".<sup>2</sup> Sri Aurobindo here does not refer to the "worlds" of modern

politics, but to the worlds visible and invisible that rise as in a tier towards the Supreme.

But even at the base, even in this physical world in which we live and think and fight, the multiplicity is obvious. This can be seen everywhere, even by a superficial gaze. The human form is plainly different from the animal or the plant: all human beings are recognisably alike. And yet no two human bodies are precisely similar; "no two human beings are precisely alike in their temperament, characteristics and psychological substance."<sup>3</sup>

As with the individual so with the group: the principle of variation persists. Every community, each nation differs from the rest; "each develops its own character, variant principle, natural law."<sup>4</sup> And the important point is that this variation, this insistence of each on its peculiar way of living and of seeing things is not only necessary for its free growth; it is equally essential for the "healthy total life of mankind".

### The Problem of Unity

This gives a clue of enormous importance to the problem of world unity.

There would have been no point in creating—or shall we say, manifesting—a world out of the original Unity if the result were to be a uniform sameness, a dead level of uniformity where everything is an exact replica of everything else. It is for the joy of

creation, the delight of looking at Himself through the innumerable facets of a mirror that the Supreme objectifies Himself through the manifestation. It is the Truth-Consciousness of the Supreme "which contains and upholds the diffusion and prevents it from being a real disintegration, maintains unity in utmost diversity and stability in utmost mutability, insists on harmony in the appearance of an all-pervading strife and collision. . ."<sup>5</sup>

We are normally unaware of any such underlying delight, because we have lost touch with the One that manifests. We live mostly in the ordinary levels of mind where the sense of separation predominates; strife and collision become the normal stuff of our life. This naturally creates a problem. For, in affirming our own existence, our right to develop on our own lines, we tend to trample on or at least ignore a similar right, an equally imperative necessity on the part of others. If by some effective means, this ignorance, this oppression of others could be eliminated or minimised, the problem could be solved.

Man the mental being, *manu* of the Indian tradition, has sought to find a solution in the mental way. He has tried various means, these have served to some extent. But they do not provide the ultimate solution. Philosophy has helped. Religion has tried its best along with ethics, to curb and modify the ego-centric impulses of the normal man. Yoga and spirituality have made it one of their primary objects to help man get out of this egoistic ignorance. Education and culture, in the broadest sense of the words, have taken us a long way towards the goal. Society has imposed its restraints. Government has insisted on obedience to the law.

But the difficulty is fundamental, it cannot be altogether avoided by any of these means. "For the difficulty in mind and life is created

by ego, by separation of integers into component parts which figure as contraries, opposites, dispartes: all in which they separate from each other is easily felt, affirmed and stressed; that in which they meet, whatever holds their divergence together, is largely missed or found with difficulty; everything has to be done by an overcoming or an adjustment of difference, by a constructed unity. . . A farther difficulty is created by the absence or rather the imperfection of intuition and direct inner contact making each a separate being forced to learn with difficulty the other's being and nature, to arrive at understanding and mutuality and harmony from outside instead of inwardly through a direct sense and grasp. . ."<sup>6</sup>

### **Solution of the Problem**

The difficulty thus stated suggests the true remedy.

To get rid of ego, to change our consciousness into something more impersonal, to change our outer nature from what it is into something more akin to the real truth of things: this is the final solution. To be one with all "we must at first become impersonal and free from our ego and its claims and from the ego's way of seeing ourselves and the world and others".<sup>7</sup> Not only must we become free from the limitations of ego, lose it in our impersonal self, as it is called in yogic parlance; we have also become free and perfect in our outer nature. "It is only if our nature develops beyond itself, if it becomes a nature of self-knowledge, mutual understanding, unity, a nature of true being and true life that the result can be . . . a life of unity, mutuality, harmony . . ."<sup>8</sup>

This is a stiff demand, it may be said. And if it is difficult for the individual to fulfil the conditions, how much more difficult

it is for the community, the nation to arrive at this ideal consummation! It is a facile assumption to think that all the communities, all collective groups must lose their separate identity in order that the idea of "one world" should materialise. "Group units there must always be in any human unity, even the most entire, intolerant and uniform, for that is the very principle not only of human nature, but of life and of every aggregation . . ."9 Whether that group-unit should be the nation as we know it, or whether the nation-idea would give place to some other—the idea of *sans-patrie* has already come up in human thought—is a minor question. The important point to consider is: what will be the relation between group and group in the ultimate end.

We shall consider this question in fuller

detail later. Here it may suffice to observe that any ideal solution of the problem of human unity must be based on certain indispensable conditions. First, each nation or other group-unit must be assured of full "self-determination". Secondly, its union with all the rest must be a matter of free choice and not imposed from outside. Third, there should be sufficient guarantee that the "freedom" of one does not impinge upon the freedom of the rest, or in other words, that this freedom should not be a freedom to misbehave. These are elementary principles that must underly any viable form of world-union.

It is only when these conditions are fulfilled that we can legitimately speak of "one world"

#### References

- 1 Mother, *Entretiens*, 20 1 51
- 2 Sri Aurobindo, *The Life Divine* (American Edition), Bk I, Ch. 27, pp 241-2
- 3 Sri Aurobindo, *The Ideal of Human Unity* (2nd. Edition 1950), Chapter 17, pp. 182-3
4. *Ibid.*, p 183.
5. *The Life Divine*, Bk I, Ch 14, pp. 119-20
6. *Ibid* , Bk II, Ch. 27, pp 896-7.
7. Sri Aurobindo, *Essays on the Gita*, Second Series (First Edition, 1928), Chapter 44, p 406.
- 8 *The Life Divine*, Bk II, Ch. 28, pp 917-8
- 9 *The Ideal of Human Unity* Chapter 16, p. 166

# **MANKIND DEVELOPMENT**

*A. Kannan*

Development projects are now undertaken on a global scale and are reaching out from the developed to the underdeveloped people so as to benefit them in meeting their economic needs. But man, placing his conflicting political, economic and social ideologies in the forefront and backed by his selfish motives is finding various difficulties in reaching the goal of mankind development. Science and Technology are the most powerful tools of development but not currently used wholly for the benefit of mankind. It has resulted in predictions of a gloomy future for mankind by the futurists which is, however, in keeping with the state of insecurity and survival consciousness prevalent more among the developed people. But if this state of insecurity were not to spread further among the developing and underdeveloped people and mankind as a whole were to benefit from the wave of development, man must utilize the sadly neglected tools of development, the true scientific and religious temper among the people. To bring about this change in the direction of mankind development, education along humanistic lines can greatly help by placing the emphasis on character and internationalism.

The governments of various countries of the world have been unduly biased by the ideologies of political, social and economic systems. These ideologies have been pursued as ends in themselves instead of being the means of achieving the goal of human welfare and development. Although the development of mankind has been the goal of all such piece-meal endeavors, in the process of achieving the goal the tools or means of attaining the goal have taken precedence over the goal itself thus proving detrimental to its achievement. In other words, mankind for whose development of mental, moral, intellectual, social and economic needs, the welfare plans and works are devised, is left in the background while the ideologies and tools of development are played about with as dogmas and weapons respectively. *Mankind development must relate to the comprehensive welfare of man as a whole not only by increasing the quantum and quality of giving such welfare to man but also augmenting the potentiality of man in receiving the benefit of such assistance.* Such development will be effective only if every unit of mankind development agency thinks and acts in terms of the whole and not merely when some centrally placed world government or federation of governments would act as the agency for development. If a closer definition of mankind development is needed it can be stated as: Management of man's potential being and active capacities, utilizing the disciplines and innovations to meet and contain the needs

of mankind within his resources by considering the smallest and the largest units of mankind as integral parts of the whole.

Fortunately the development of mankind on a global scale is receiving more attention today, but because of the errors of pursuing the goal several problems are being faced. In order that these well-meant ideas and projects may take root more firmly in the life of the people, the study of man must take precedence and instead of man being made a tool for carrying out the objectives of various ideologies, not merely political but of religious, scientific and other disciplines, mankind must become the primary object of development. The tools of development, which government, politics, science and religion really are, must be viewed in their proper perspective in order that human development may be more orderly and harmonious in its pace of progress. Thus politics will have to face a revolution instead of having been the cause of such revolutions in the past. In the world today it is a matter of common understanding that the vast majority of people have attained political freedom. But politics has not really liberated them because so much more of the lacuna in economic, social and educational bondage has been laid bare. As a graphic instance, we can see how the developed countries are locked up in economic bondage with the Middle East countries over the oil question, and within these Middle East countries the elite are unable to move forward into modernity because of the bondage of social customs, and above all the individual in the same countries as in so many other countries, is held in bondage of superstition and ignorance through limitations of education. If mankind were to be the centre of development in such a situation, education must take precedence so that socially liberated citizens become the leaders who in their turn will consider the needs of mankind as a whole. The whole process will tend to get reversed so that there is more of freedom at the social and economic levels and man will have the better opportunity of seeking spiritual freedom.

### **Mankind in the Centre and Tools of Development in the Periphery**

Man has been the wielder of the tools of development all along in history as well as in modern times. But only rarely has he risen to the heights of relinquishing his personal narrow interests to that of mankind as a whole. In modern times everyone of man's actions has widespread effect on everyone else in the world especially when such potent tools of science and technology are made use of. So when it is suggested that mankind should be in the centre it is clearly meant that each unit of mankind, the individual, community, nation and world community should think of the interests of mankind as a whole before wielding the tools of development which are increasing in number and variety. This concept about mankind should not be misunderstood as meaning that a world government or federation of governments, etc. can be the only agency of development. No doubt it can be the legitimate agency at the international level but each unit of mankind should be educated to think comprehensively so that the interests of the nextdoor neighbour, metaphorically speaking, should have precedence over the use of the tools of development. Naturally what the more inclusive units of mankind have considered about the use of these tools is worthy of consideration by the smaller units but always the interests of mankind as a whole should have precedence. This is a kind of democracy not in terms of political franchise and rights in governing but



in terms of weightage given to wholistic ideas and concepts. Mankind agency must be there for purposes of development but the concept of mankind must be living and real at every level so that the all-inclusive environment of both man and nature is never lost sight of. It is perhaps superfluous to paraphrase further to point out that "man in the centre" is not what is meant because such anthropomorphism has been responsible for the devastation of nature and the intellectual domination over man. Man as a one sided intelligent, political, technological exploiter is not to be in the centre.

The studies of modern developmental problems as well as the experience of man through history and civilization point to the same conclusion that mankind should gain the centre of the developmental goal. First the results of a study based in modern times. Henry Winthrop has concluded:

It will be a real improvement, if in the period ahead, future-forecasting is blended with political activism, legislative innovation, the creation of new institutions and a cross-section of the *contemporary* condition of man. The product of such a blend will probably prove more useful as guidelines for man to shape his destiny than our existing habit of often relying too heavily on the changing picture of scientific and technological development. ("The Alienation of Futurism from the Contemporary Scene", *World Union, The Next Future*, 8, 9, 10 January 1977, pp. 33-50.)

The author further points out the disparity in the lines of approach of "social activists"—politicians, administrators and experimenters in new ways of cooperative and community living—and the futurists who forecast the predicament of man based on scientific projections. The social activists are asked to come closer to the thinking of the futurists by making more use of the latter's "facts, ideas, research and practical proposals". The futurists are advised to shed their bias towards science and technology more in favor of the contemporary condition of man. In other words, the tools of development of mankind need to be recognized as not merely science and technology, political ideologies and so forth, but more comprehensively and used in their proper perspective towards not merely the survival prospects of mankind in the future but in terms of his full stature of potential capabilities of receiving and integrating with cultural and moral aspects as well. When man adds weight to both the proper perspective and methods and means of attaining the objective of human development it tends to become spiritual in character.

### **Tools for Mankind Development'**

Man has invented tools from early times primarily to make his life comfortable. Perhaps in those early days he did not think of mankind as a whole and anthropologists postulate that man was concerned with his own survival and hence he utilized such tools as he possessed to fight with each other before he even produced food, built houses or covered himself with clothing. All such activities were motivated by the survival instinct but one can easily discern that there must have been other laudable motivations also. Even today with civilization having spread across the whole of the earth, large sections of humanity are

surviving below the subsistence level of food, shelter and clothing. But there is perhaps less fear about survival among them than in more civilized countries. The overcrowding of the cities in America has taken place at such a fast rate that the population of the whole of the nation a few decades back is now living in those crowded metropolitan cities. The present fear is that this overcrowding will make people restless and the hopes of peace will recede further because their behavior pattern is predicted to follow those of animals in a crowded cage. One of the unfortunate features of the present day is that man thinks of his future gloomily because the pollution of the planet earth is taking place at such a fast rate that he may not be able to put a stop to it. Man is afraid of his very survival and so one often hears the cry, "Only One Earth". This is a paradox in man's way of living that he has to fall back upon the survival instinct because there is no surety that science and technology will bring contentment and happiness to mankind as a whole.

But this tool of survival to which man paradoxically relies even in modern times is not the only motivating force behind man and his civilization. Unesco sponsored an in-depth study of the history of mankind to deal specifically with cultural and scientific development of man and surprisingly they could point out that religion and science or technology have been consistently used by mankind as tools of his development. Guy Metraux reports on the study as,

Instead, what they present is a detailed study of economic and social events, religious and emotional life, the forms of artistic expression and the scientific thinking, and a comparison of these with the forms taken by the same experiences in other countries during the same period. (*Unesco Courier*, June 1963, p. 5.)

With this background that through history and civilization, as well as in modern times, man has variously resorted to the use of survival, religion and science as tools of his development, it must be clearly understood that *it is not the achievements of man* through the employment of these tools of development that we are concerned in this discussion but with reference to *how these tools are to be employed effectively for the wholesome development of mankind. Above all, mankind should be the central object of this development and not, as man himself is, made an instrument of survival, religion and science* and thereby subject to exploitation as it has so often happened.

Human achievements are the result of both positive and negative aspects of human development from which we have to learn for the future. One of the negative aspects is survival which becomes a dominating issue, paradoxically in the more advanced but less populous countries. Fear and insecurity creeps into the psychology of these nations more than in other countries. The scarcity of food, energy and raw materials occurring in different parts of the world may be the cause of this insecurity whereas the pollution threat through employment of wrong technology combined with the more odious prospect of chemical and biological war, the seeds of which are discerned in biological research on genetic transplants, are all factors to reckon with. Then there is the fear that machines may become the masters of the very man who has invented them. It is not the point of discussion here whether these will actually occur in the future, in as much as they are proving to be the source of insecurity

and man retreats into that gloomy sanctuary of his survival instinct. Does not this situation indicate that man has made use of survival, science and technology to dominate his way of life instead of simply utilizing them as mere tools of development towards achievement of goals which mankind needs? How can man be made a puny creature whose fate rests in the hands of technology which necessarily means that there are individuals who can wield the power behind it utilizing the baser instincts of survival, etc. in man? This is the unfortunate reversal of the role of man being made a tool and science and religion used as double edged weapons instead of handy tools. Perhaps religion has been far too long with man in this role of a double edged weapon that it does not need a detailed explanation. The rigidity of organization and dogmatic assertions, without conveying the message of reality, peace and harmony, have made men run away from religion and, wherever men have remained loyal, it has resulted in more dissensions than unity among men. Otherwise we cannot explain the contradiction that all religions have been specifically ushered into the world for the express purpose of bringing about peace and harmony to result in enlightenment and yet there has been more proliferation of sects which invite attention to their own survival rather than go about ameliorating the condition of man. We have to point out that this is a generalisation with notable exceptions and we have to reiterate the fact that religion and science are referred to here as weapons and not so much as useful tools *only* because the right developmental objective has been ignored and wrong practical use has been made of these potent powers with which man has been endowed. It opens up our vision to the potential good use of these tools.

### **The Potential Right Use of the Tools of Development**

The three tools of *survival*, *science* and *religion*, with mankind as centre of the goal of development is our basic frame of reference. The details are chosen here only to serve as examples for illustration and not in any sense of comprehensiveness. Hence we can sub-divide these tools further depending upon the stage of development of mankind. Our preliminary discussion about survival as a tool of development has shown that *food*, *shelter* and *clothing* are not necessarily utilized by man by virtue of his survival instinct, but the other tools of development, namely, religion and science can modify their use. At the present stage of development of man, science has three sub-divisions of *energy*, *materials* and *technology*. Each of them can pose a threat to mankind if guided only by the survival instinct. But they can also serve mankind usefully if mankind were to be the focus of development. Religion likewise can be sub-divided into *art*, *humanities* and *education* in their role as integrating factors in human development in the present context but only their users are inspired by the fountain source of true religion. Each of these tools with their sub-divisions will be discussed now briefly from the viewpoint of their potentiality for mankind development as applied to three categories of mankind.

Mankind is basically a unity and when in the centre of giving and receiving the benefits of development, can be considered as categorised into the Developed, Developing and Under-developed people. The Developed people still need development because what they have on hand as tools of development are science with the help of energy, materials and technology. But

the centre of emphasis in terms of energy and materials is shifting towards the developing and underdeveloped people because the developed people are in the grip of insecurity due to possible shortage of these tools. On the other hand the developing people have the benefit of the tools of survival with a different meaning and significance in terms of emphasis of values which have helped them to survive through long years of civilization. But they need true education to bring out the benefit of these survival values in the modern technological age. The predominant factor in the economic development of these regions will be able to absorb the benefit of development if the focus of such development is on the people themselves, and not on what technology can directly do to transform the life of these people. Among the underdeveloped people the pace of progress has to be further deeply considered in terms of people's needs and the educational potentialities to be developed before the real benefits of technological development could be fruitfully considered. Hence the overtones of the potentialities of the people and their receiving capabilities have to be matched with what the tools of development can themselves deliver.

### **Survival of Cultural Values**

It is an astonishing fact that through the ravages of time, mankind has managed to hold on to its traditional values and culture although its significance and usefulness are not explicitly acknowledged in many parts of the world. The East has especially had a continuous and relatively unbroken civilization and many of these nations in the East belong to the category of developing people. In the past the hallmark of such traditional culture has been righteousness, nobility of character and tolerance. Whenever their development took place it was by placing the interests of spiritual man in the centre and building around him the tools of development. These tools were reflected in the systems of government, religion, science and the arts and they were unmistakably wrongly used at various times. Still the values and traditions have *survived* and that is how these civilizations have potential value to mankind as a whole. This survival is of a different character because they refer to the feelings, thoughts ideas and aspirations of the people which have endured through the ravages of time and not to the mere instincts of man of which that of survival forms a part, to which modern psychological sciences seem to pay much attention. The reference to the East in this connection should be understood in relative terms because every segment of humanity has had its rich cultural tradition and the potentiality of bringing out their proper significance remains to be fathomed.

Rene Dubois, the famous environmentalist has said, (*Science Journal*, October 1969, p. 80)

But while biological adaptability is an asset for the survival of *Homo sapiens* considered as a biological species, it can cause a progressive loss of the attributes that account for the peculiar values of human life.

So it becomes incumbent upon man not merely to preserve the traditional values for posterity in the spirit of veneration but to actually cultivate and bring out their use in the modern way of life if the wrong survivalist attitude is not to dominate man.

## **Food and Energy Towards the Healthy Man and Not the Overburdening Machine**

This building up of the integrated way of life must start anew with the binding force of traditional values and culture but it must be done with the materials available on-hand. Food sustains us in our physical life but we can use it as a tool of development if it is made a focal point of drawing out the deep sympathies and concern for each other among the people of the world and effectively utilize scientific knowledge to fulfil this deeper objective. Sunlight is the ultimate source of all human food and yet "it is a strange contrast that the areas where almost everyone is hungry lie between the tropics where sunlight is plentiful and two crops can be grown each year". These regions will have to develop by turning attention to this potentiality and all mankind has to act as one whole. "Further the average American enjoys the luxury of the highly inefficient animal conversion of grain into tastier and somewhat more nutritious proteins." Even when nutritious food is supplied in the form of milkpowder to developing and underdeveloping people, they are not used by impoverished children and pregnant mothers but sold in the black market. Old food habits are continuing to the detriment of the health of the people and in spite of our advance in nutritional knowledge, consumer education is proving the limiting factor in fulfilling this developmental need. Mankind is not thought of in these situations as one whole, resources are not exploited for the right purpose and man is not educated to free himself from superstitions. If man is to develop with his potential capacity for intelligence, etc. he must be fed the right type of nutritious food at least in the critical period of the first nine months of his life as it has been found scientifically that the intellectual capacity of man in later life is critically dependent upon this factor. Food has been used as a means of survival from early times but science and technology have revealed the factors which can turn it into a wholesome development tool. But is man utilizing food as a developmental tool for mankind as a whole? Is energy utilized to sustain man in his mental and physical state of health? The present trend is rather towards frantic efforts to feed the machine with energy. The discussion on food for development can also be extended to drugs and water supplies.

## **Clothing and Materials**

Clothing was evolved by man utilizing his capacity to adapt himself to various conditions of living. But when his capacity was turned towards the fulfilment of man centred exploitation for his needs, nature has been denuded and materials superfluous to his needs are evolved and then their scarcity poses one of the major problems in development today. This materialistic world is so-called not because there is something wrong in materials themselves but our outlook on life including our relationships with one another is overburdened with the delusion that materials form the centre of existence. That is how developmental activities are now ruled by money considerations alone and so little attention is paid to the people themselves or the materials which they can utilize readily. Research and development in industry has taken an unhealthy trend whereby through research new materials are forced on the consumer by locating his weaknesses. High pressure advertising directly hypnotises the consumer to go in for things which he does not need. So materials and clothing have to be tailored to the true needs of mankind and each man should be satisfied

about his actual need and share of materials, as in the course of development endeavors in the future man should be more concerned with the eternal and sustaining values. The developed people have through history experienced discontinuity of civilization. During the Dark or Middle Ages, the traditional humanistic values of the classical period were allowed to be forgotten. So if mankind development were to be in the forefront, these people have to particularly lay emphasis on learning to develop with less material needs which may help man to evolve with humanistic qualities.

### **Shelter and Environment**

Modern man is constantly on the move and the environment becomes a kind of moving shelter. But the environment is subject to so much radical changes that the object of providing himself with a shelter, i.e. primarily protection against the fury of elements, is defeated. The influence of the environment on man is becoming more and more total so that today pollution means not merely of earth, water and air but of the noise, the emotional state of man and even his mental capacity. The pollution of our environment is reaching a saturation point whereby wholesome development of man is held back. Ecologists and environmentalists are teaching us in their own language that man must be less selfish and more mature and mankind conscious. Finding shelter under our narrow selfish needs has had a rebounding effect on the environment and we must correct the situation by paying attention to mankind at large.

### **Integrated Technology Transfer and Science in the Humanist Spirit**

The power of science and technology as developmental tools is widely recognized and yet drawbacks in their use are obvious. Welfare of mankind must be the main goal and only secondary consideration should be given to the application of various ideologies of political, economic, and social nature in the governments of the world. The benefits of technological development could not reach the people all over the world in the expected manner because there was lack of integration between the people who matter and the technology that was offered to them. Henry Winthrop has summarized the present situation in technology transfer as:

There is also the associated problem, in dealing with technology transfer, of deciding whether *all* developing countries should be encouraged to import large-scale, capital-intensive technology in planning for economic and industrial development. There is a school of thought, traditionally represented by such activist figures as Staley and Morse, that has advocated in many cases the application of small-scale, labor-intensive technology for the conditions current in many underdeveloped countries today. In more recent years this advocacy of small-scale, labor-intensive technology transfer has come to the fore rather heavily through the efforts of Schumacher and those associated with him as well, such as the British journals closely allied to his work. (*loc. cit*, p. 43-4.)

Further, although keenly interested in technological development, some people because their values are more spiritually centred, would not agreed to transfer technology at any cost because it meant aligning themselves with people who will transfer both lethal weapons and constructive tools which is an anathema for development. Science must be pursued in its objective temper so that the humanist spirit pervades wherever its applications result in technology.

### **True Religious Spirit and Art**

In order that the development of mankind may be comprehensive, the tools of development have to be properly balanced. Science and technology advance through the use of the intellect while man needs to organize his aesthetic faculty to which religion and art have contributed largely in the past. There has been a general trend against religion, and because of man's narrow outlook and divisive tendencies religion has become sectarian and dogmatic. But religion is for mankind as a whole and in its true spirit its message is universal and so in a wholesome effort of development of mankind its place should be properly recognized. At present the experience of mankind is to develop a wider outlook of life moving away from selfishness, communalism and narrow patriotism towards internationalism. This should be clearly delineated and only for promoting this healthy trend should the tool of religion in its true spirit be employed. The imbalanced nature of present stress on science and technology which has led man into the blind alleys of materialism, survival consciousness, insecurity and so forth, should be corrected along developmental lines. The concept of development of mankind should take the lead so that all the different tools including the much rejected religion will find their proper place. The inspiration for art in general has been drawn from religion especially in the older civilizations. Any new and correct lead given to the revival of universal religious spirit will also automatically help in the development of arts and so in the development of mankind as well.

It is generally assumed that whatever deficiencies a man may be born with in terms of benefitting his development, can be made up by offering him the benefit of education, and humanities have traditionally played a major role in such education. Through such education man is put in touch with man's wider experience of life and when man's powers of comprehension are developed through the training offered by education, he will be able to fit himself into society with greater confidence and also be able to lead its developmental policies rightly. With the great increase in the number of people who need such liberal education, the goal of education has not kept pace with this broadening of the base. Now education is regarded as one of the acquisitions of modern man to fulfil the needs of society to improve in economic growth and hence the process of education has changed direction along technical and commercial lines. The character development of the educated man is not given prominence and with it the goal of mankind development has been pushed into the background. If we are to change the direction of human development then education is the axis around which the various tools of development we have considered are the spokes in the wheel of life. If the wheel of life will change direction towards the goal of mankind development then the asset and meaning of liberal education has to be explored further and

**preserved. It must help man to discriminate and make the right choices in life in the future. There will be no need to be afraid of what technology portends for the future development of mankind because the properly educated man will be able to face the situation.**

**The consciousness of the world is no doubt focussed on a world government as a remedy for many of the ills of mankind and hence as a step forward in mankind development. But such a government will be effective only when the representatives of such government are oriented to the ideal not in a partisan spirit but educated to fit into the new climate of thought. So world government will become the major tool of development when every other tool of development is subservient to the tool of liberal education with humanism and internationalism guiding them.**

*Even unity, exclusively pursued, ceases to be a true oneness.*

*Sri Aurobindo*



## **TWO POEMS**

*Timothy Shaughnessy*

### **Termination**

The children, tired of the restraint  
that orders households,  
not understanding not possessing  
all that can be seen or imagined,  
slay their mother to rule the house alone.  
The father, always quiet, seldom present says nothing,  
witnesses the bloody scene and retreats—  
certainly there are other homes and places  
and the children will never listen,  
they never have.

Only long ago Orestes,  
fleeing the horrible sight of  
dead Clytemnestra, for all her  
infidelity and cunning in life,  
was a corpse who unleashed  
the dreadful Furies and brought  
him to his knees in prayer  
to just Athena.

Will these children come to despise their deed,  
or have they even slain in memory  
these daughters of Acheron, river of woe?  
Is conscience a condition only of antiquity?

Seeing his house in ruins,  
ruled by parentless children  
arrested in their new freedom,  
already fearing one another,  
plotting in dark and confusing rooms,

**the father neither weeps nor rages,  
he simply alters his plans  
and unmourning, casually  
changes his address.**

### **The Dark Night of Duality**

**Perennial maladjustment between private and public,  
the gauze of alienation of both spirit and matter  
hovers incessantly like clouds  
upon the skies of my mind.  
I have become a stranger to both worlds,  
a prisoner of unsaturated duality  
where the strangeness of desks and file cabinets  
waits in offices like Sphinx to ask the riddle,  
"Of what am I composed?"  
And if failing to see God among the metal  
and metal among God,  
and I answer but one without the other,  
I shall be devoured in the delusion of ignorance,  
slicing Reality into unreal halves  
and standing inert between them,  
in this self-devised darkness  
between Light and Light.**

# TECHNOLOGY AND EDUCATION

*Sitaram Jayaswal*

☞ The modern age of science and technology is full of inventions and innovations resulting in a number of facilities for life. New machines have made it possible to produce goods on a very large scale. Thus we find an environment conducive to industrial growth and development. But it requires great care otherwise there may be several types of crises in all sectors of life. Keeping this in view, we have to consider the impact of modern technology on education. ☜

## Nature of Technology

Before we consider the impact of technology on education, let us understand the nature of technology itself. Broadly speaking technology means application of science in solving some problems of life and living. This aspect of technology is made clear when we consider the two general meanings of this term:

(1) The first meaning of technology refers to primitive or backward peoples and to periods prior to industrialisation in the modern sense. Keeping this in view the term technology refers to the body of *knowledge* available for the fashioning of implements and artifacts of all kinds.

(2) The second meaning of the term technology is in the framework of a well developed society. In the context of industrialised society, the term technology refers to the body of knowledge pertaining to (a) scientific principles and discoveries, and (b) existing

and previous industrial processes, resources of power and materials, and methods of transmission and communication, which are thought to be relevant to the production and improvement of goods and services.<sup>1</sup>

From the above it can be deduced that the term technology refers to both types of societies, namely primitive and developed. With reference to primitive society technology is indicative of the knowledge pertaining to the use of tools and implements and the use of raw-materials. Anthropologists use the term technology in this sense. Sociologists, on the other hand, emphasise the second meaning of the term technology and they use it with reference to industrial societies or such societies which are trying to develop industrially. ☜ (Prof. Wolfgang Bleichroth writes: "Technology is understood here as the necessary consequence of an essential quality which man has always had, that of coming to terms with the world actively and by shaping it—the primeval human function of 'making'. According to this, technology is 'fundamental and original, for the whole of the human race as well as the individual being'. Technology and science are bound together in a strange way, but different in essence.

"Technology can therefore not be under-

1. J. Gould & W. L. Kolb (ed.) *A Dictionary of the Social Sciences*, London: Tavistock Publications, 1964, p. 716.

stood in terms of natural science alone. It is revealed to young people only in terms of itself. Thus technological objects should only be understood as works of man, as 'artful combinations of means and ends'. The laws of nature, like the materials involved, are thus subordinated to the total function. The common theme is the constructive, technical principle."<sup>1</sup>

3. Thus science and technology are inseparable and therefore we cannot think of technology without taking into consideration the essentials of science.) Let us now consider the following two definitions of technology:

(a) "Technology is not only the joining of both science and invention in the realm of the physical world but also organisational management, control and leadership in the social and economic world." In this definition Odam has emphasized the social aspect of technology. It is accepted that technology is closely related with science and invention but at the same time it has its impact on the social and economic development of a society.

(b) "Technology . . . consists of the skills, their procedures and the knowledge by which a social group adjusts to its physical and biological habitat." In this definition, Lapière has taken into consideration the adjustment aspect of technology. How social groups adjust in terms of their physical and biological requirements is also a part of technology.

Thus any consideration of technology in relation to education has to keep in view the following:

1. Relation of technology with science.
2. Technology in terms of social skills.
3. Technology in relation to industrialization.

1. *Education*, volume 3, (A Biannual Collection of Recent German Contributions to the Field of Educational

## 4 Technology and Social Life

The impact of technology on social life, especially in modern societies, has to be kept in view. According to the Kothari Commission, "A basic distinction between traditional and modern societies is the development and use by the latter of science-based technology which helps modernization of agriculture and the development of industries. In a traditional society, production is based largely on empirical processes and experience, on trial and error rather than on science; in a modern society it is basically rooted in science. . . . This close interlocking and interdependence between science and technology is a characteristic of the contemporary world."<sup>2</sup>

Now science and technology have become an essential part of society and culture. In a modern society science and technology are to be found everywhere. The life of the individual as well as the life of the society as a whole are being greatly influenced by science and technology, so much so that in the developed societies of Europe and America a warning has been issued against excessive reliance on them.<sup>3</sup>

In our country we need intermediate technologies, keeping in view the needs of rural India. We cannot adopt such technologies as are popular in highly developed societies of the West.

As regards the impact of technology on social life, it should be kept in view that the impact may be good if judicious use of technology is made; that is, the teaching of science

Research), pages 122-23.

2. *Report of the Education Commission, 1966*, page. 6.

3. See Alvin Toffler, *Future Shock*, New York: Random House, 1970.

is done in a manner that helps the individual in developing a scientific attitude and a spirit of free enquiry. If science and technology are properly handled, they are likely to be helpful in social growth. That is why the teaching of science and technology has to be done in a manner that "strengthens the commitment of man to free enquiry and to the quest for truth as his highest duty and obligation."<sup>1</sup>

5. The favourable impact of technology on society is seen when it "loosens the bonds of dogmatism and acts as a powerful dispeller of fear and superstition, fatalism and passive resignation. By its emphasis on reason and free enquiry, it even helps to lessen ideological tensions which often arise because of adherence to dogma and fanaticism."<sup>2</sup>

6. Thus we can say that the impact of technology on social life is favourable when the teaching of science is done in such a manner that it helps the individual to develop a spirit of free enquiry and scientific outlook. But unfortunately sometimes teaching of science has been misused by vested interests either in government or in big business.

7. In a welfare society the impact of technology on social life in general is healthy for no one wants to exploit the use of science and technology with a profit motive. The motive of service is needed if we want to have a desirable impact of technology on social life. Modern Indian thinkers plead for harmony between science and spirituality in order to have a humane impact of technology on life as a whole.)

### Technology and Education

In order to make use of science and tech-

1. *Report of the Education Commission, 1966*, page. 7.

2. *Ibid.*

nology for social and economic development, it is necessary to have a science-based education. We can make use of technology for desirable social changes provided we keep in view the following three questions.

(a) How to discover and develop the potentialities and personalities of growing people in such a way that these will continue to be viable in later life;

(b) How to pass on such accumulated wisdom or well proved devices as will be useful to the future progress of our pupils and mankind.

(c) How to ensure a happy blend of skill, character formation, understanding and sensibility through the instruction which we impart to them?<sup>1</sup>

The above three questions are central in the context of technology and education. Too much emphasis on technological knowledge without paying due attention to character formation will be extremely harmful. Modern educators have been quite conscious of these questions and hence certain didactics of science have been clarified. One of these is given below:

*Natural science and technology are realities in the child's life.*

Let us begin with the question of the realities of the child's life insofar as they are seen to be influenced by science and technology.

The essential problems which are bound up with these questions at the present time and which are discussed in the specialized context of didactics have already been presented. We therefore do not need to go into them again here. Beyond this, however, didac-

1. E. J. King, *World Perspectives in Education*, London Methuen & Co. Ltd., 1962, page. 126.

tics also has the task of separating out certain essential features and corresponding characteristics of the present manifestation of this complicated reality and drawing pedagogic conclusions from them.

A basic feature of this kind would for example be the fact that technological processes nowadays take place more and more shut away inside casings, and therefore are no longer directly discernible. Another characteristic would be the "plastics breakthrough" into all spheres of life. Ought not schools to show that nature lies behind plastics as well?

The question of the realities of the child's life must also be asked in the perspective of children as the grown-ups of the future. Two examples will show where notice should be taken of tendencies to future development and how they should be made a part of didactic considerations.

1. A clearly perceivable movement in technical development is heading in the direction of cutting out *man* more and more in the servicing and direction of technological apparatus and plants. *Automatic* is the magic word. It is not yet possible to see what influence this technical principle of automation will have on the soul of man. For the time being the school has the task of making this technological principle comprehensible, and to bring it within the child's intellectual grasp.

2. The atom is the source of energy of the future; of this there is hardly any doubt. Our school children will have to "live with the atom" even more than we do, and with all its possibilities of supporting or threatening life. Schools therefore are faced with the task of helping children out of their anxious insecurity and of making life in the atomic age possible for them. Didactics has the task of thinking

out ways and means of doing this.<sup>1</sup>

The teaching of science in the context of technology has to be done in such a manner that the following fundamental laws are understood and made a part of life:

*1. Physical science is a particular and limiting way of understanding nature, a viewpoint from which nature can be considered.*

This statement also covers the fact that this viewpoint is bound to a particular methodical procedure, namely the experiment. One of the most extraordinary and amazing facts about nature is that it yields to this method, and is prepared to answer questions posed by experiments. "The most incomprehensible thing about nature is its comprehensibility", said Albert Einstein.

A second fundamental insight which a young person should gain is as follows:

*2. Nature allows itself to be asked questions with the help of the experimental method, and it answers them.*

In connection with the first two a young person will then be brought to a third fundamental insight:

*3. Nature is arranged in accordance with certain laws.*

If science teaching succeeds in making these three fundamental insights strikingly clear by the end of a child's primary school career, then young people are seeing their world in a new light, they are understanding it in a deeper sense, they have been educated.

1. *Report of the Education Commission, 1966, pages 125-126.*

**4. Natural laws and exact arithmetical procedures fit together.**

The particular insight resulting from the following thoughts would also be an educational one: So-called modern physical science is still to a large extent only a science of models and pictures, of visual comparisons: electrical and magnetic lines of force, protons, electrons and neutrons are common concepts; everybody knows them. Here again it is an astonishing fact that nature allows itself to be understood in this way even though we are well aware that the full reality cannot be grasped like this. The extent to which a primary school child should acquire an interest in this world of models is, of course, an open question. Perhaps, however, with a few examples one could bring him to the following fundamental insight:

*5. Certain natural phenomena are only interpretable with the help of presentation by models (which do work, but which may not be considered as realities.)*

If we are of the opinion that technology is to a large extent educationally effective, we must also ask what its educational content is.

Here we can again turn first of all to Wagenschein. In his Tübingen Referat he defined the following aim: *"A child should learn to distinguish between exploratory and inventive thought."*

If a child really feels this distinction, he will also be able to distinguish between "created" and "made", between nature and technology. At the same time he will understand that there is at the basis of every invention an idea which is determined by the goal, by the task and by the purpose, and to which

the invention is subordinated. With this the child has gained a first fundamental insight.

In his article, "The Pedagogic Dimension of Physical Science", Wagenschein adds another three aims to this first one. I should like to quote them here.

1. Physical science is an aspect of nature; technology is the means of physical control which can be developed from it.

To pin things down more exactly he then says:-

2. Technology is (therefore), not the subjugation of nature, but a clever self-adaptation to the laws of nature within certain constructions (machines). Subjugation is nothing more than the keeping of a constant watch over this adaptation.

3. Technology is (therefore) not witchcraft.

With this we finish our reflections on the educational content of the subject in the sense of its fundamentals, in full consciousness of its being very much only an introduction, and turn now to the question of the educational subject-matter involved.<sup>1</sup>

## 9 A New Way of Thinking

The impact of technology on education is most remarkable from the point of view of our approach to problems of life. In those countries where science and technology are applied to teaching in a judicious manner a new way of thinking has developed, and has re-emphasised a method of examining and solving problems. How this new method of thinking and solving problems works is described below:

1. One recognises that an indeterminate situation exists, obscure or conflicting, which demands clarification.

1. Education, Op. cit., pages. 128-130.

2. One states the existing problem in manageable and understandable problems that are specific enough to allow action.

3. A plan of action is devised. It may include hunches or hypotheses before the data are gathered and appraised. The plan may use controlled observation, library research and/or experimental evidence.

4. The data are collected and classified, with perhaps some preliminary and informal appraisal taking place.

5. The data are reviewed and evaluated.

6. Statements, conclusions and/or recommendations are formulated from appraisal and evaluation of the data.

7. The conclusions may be tested against reality or, in other instances, by theoretical means.

8. The conclusions are modified if necessary on the basis of what is revealed in the seventh step.<sup>1</sup>

The impact of technology on education has been beneficial to the extent that it has encouraged a scientific outlook and an objective approach to problems of life. But it has its limitations also. Too much emphasis on reliance of this so-called objectivity may be detrimental. Indian thinkers like Sri Aurobindo

1. R. I. Miller, *Education in a Changing Society*, Ludhiana; Lyall Book Depot, 1969, p. 24.

have warned us against this danger. Science and technology are useful within a limited framework. According to Sri Aurobindo:

" . . . Science has attempted to move towards a control of mind and life processes by a knowledge of the material instrumentation and process of our normal and abnormal mind and life functionings and activities; the spiritual is ignored as only one form of mentality. It may be observed in passing that if this endeavour succeeded, it might not be without danger for the existence of the human race, even as now are certain other scientific discoveries misused or clumsily used by a humanity mentally and morally unready for the handling of powers so great and perilous; for it would be an artificial control applied without any knowledge of the secret forces which underlie and sustain our existence."<sup>1</sup>

The above statement of Sri Aurobindo highlights the importance of establishing harmony between science and spirituality. Any technological progress is meaningless without a spiritual base. Hence in India, while we are inclined to use modern technology for economic progress and are also using it even for instructional purposes, due care has to be taken to develop a harmonious relationship between science, technology, education and spirituality. )



## A VISION OF THE UNIVERSE IN THE PERIODIC TABLE—II

*Ram Ratan Agarwal*

### EVOLVING THROUGH THE PERIODIC TABLE

The pattern of the universe began with the formation of the first element, hydrogen, to represent the first universal phenomenon (period 1): nothingness. The elements following hydrogen represent successive phenomena or periods. Present time is shown somewhere in the lanthanide series. It is interesting to see how past phenomena confirm corresponding past elements in the table and how future phenomena are predicted from the positions and properties of their corresponding future elements.

#### **Nothingness**

Nothingness is still an undigested concept. From the study of quantum mechanics we know that both matter and energy could be described as either particles or waves depending on the circumstances under which they are observed. What is permanent in the "ultimate" particles of matter is their shape or organization. They appear to be pure shape without any material substratum. Shape and organization are nothing but the *forms of nothingness*. It is really hard to subject such things as shape and organization to scientific study, because they are difficult to "take hold of" by tests and measurement.

I think the universe began with nothingness and will end in nothingness, completing a grand cycle as if attaining its ultimate goal. The possibility of nothingness being a starting point of the universe could be shown in the following way: From the cosmogonist's conventional expansion theory, everybody now knows the universe started from a highly compressed and intensely hot homogeneous material. But the cosmogonist never goes beyond to ask from where that material came. There must be something before that. The searching process may end by finding such a thing before which no other thing can at all be possible. Such can only be "nothingness". Nothingness must therefore be the starting phenomenon of the universe. Incidentally, steady state theory assumes that new matter is being continuously created from nothingness.

Let us look at period 1 or the first universal phenomenon—nothingness—with the help of the periodic table shown on pages 26 and 27.

## **Nothingness—Hydrogen and Helium**

The beginning element, hydrogen, should represent the beginning phenomenon, nothingness. Hydrogen is here placed in group IA of the alkali metals and group VIIA of the halogens, although in its chemical properties it is not closely similar to either group. Hydrogen is, in fact, the most individualistic of the elements; is even unique, being the only element that cannot conveniently be considered a member of a group. Similarly, nothingness resembles the invisible active energy and "mental" properties of a superhuman existence, but in its properties it is not closely similar to either energy or a super mentality. Nothingness is in fact unique and is the most individualistic of all things in the universe. As hydrogen is the lightest of all elements so nothingness is the lightest of all periods.

There was only nothingness at the beginning of the universe. Now the question arises, what nothingness was doing in its own atmosphere. The answer may be given by the properties of helium, the only other element present during the period of nothingness. Nothingness was in a state of deep concentration to find out what to do next. The state of concentration is inactive and inert resembling the chemically inert property of helium.

## **The Origin of Energy and Matter—Lithium**

The second period, energy, does not mean there was only energy without any matter, but during the first 2.5 thousand million years of the universe's evolution, the density of radiant energy was so high it exceeded that of ordinary matter; so energy was more important than matter then. As the expansion progressed the density of radiation dropped faster than that of matter and it made matter gravitationally more important than radiant energy. That began period 3, the period of matter.

When energy with matter came out of deep concentrated nothingness, thermal reactions of 150 million degrees centigrade might have occurred, representing the highly reactive property of lithium in comparison to properties of the preceding element, helium.

## **The Origin of Life—Potassium**

Periods 4 and 5 are of plants and animals respectively. The properties of potassium, their starting element, are found resembling the origin of life in plants as follows: Potassium ions are absorbed by the soil much more readily than other ions, such as sodium, which were washed away to the seas. Soil becomes barren when potassium compounds (potassium chloride is an important fertilizer) are exhausted. Potassium is important for the nutrition of plants and its compounds are contained in most plant and animal tissues.

Again, during the period of plants it does not mean there were only plants. Actually, plants and animals evolved almost together and interdependently, with the role of plants more important than that of animals during the plant period and vice versa.

## **Deep Concentration After Exhaustion—the Noble Gases**

At the completion of each period we find the six noble gases: helium, neon, argon,

krypton, xenon and radon (group 0 in the far right column). Their inert property may resemble deep concentration after exhaustion at the end of each cycle of evolution. When the universe was "exhausted" at the end of the energy period, it went into deep concentration in the form of the balance of energy and mass. When it was exhausted after the formation of heavenly bodies, the condensation of earth resulted in a calm atmosphere for the birth of life. And when it was exhausted in the period of plants and animals, changes in the earth's geography and climate yielded grasses and grazing mammals with teaching and learning possibilities; that is, the foreshadowing of the birth of the human mind.

### **The Origin of Mind—Cesium**

Period 6 regards human beings who are characterized by mind. Cesium, its starting element, emits electrons when illuminated by visible light and thus is widely used in photo-electric cells and pick-up tubes of TV cameras. It is not usable in the earth's atmosphere, but one pound of cesium in outer space will theoretically propel a vehicle 140 times farther than any known liquid or solid fuel. These properties of cesium suggest qualities like rapid exchange and wide facile movement, which are associated with the growth of mental properties.

### **Present Time—Lanthanides**

The lanthanides comprise the fifteen metals from lanthanum to lutetium (57 to 71 near the bottom), all having virtually the same electronic structure. Consequently they are so similar to one another in physical and chemical behaviour that their separation from a similarly complex mineral mixture took more than a century. This reflects the present state of scientific, political and religious knowledge, which is varied as the fifteen are, and yet is so similar and interdependent in the binding purpose of realizing truth: the lanthanide series closely resembles the present times.

### **Into the Future—Period 7 (A Few Predictions)**

With the increasing knowledge of science and philosophy, human beings may be able to establish on earth the ideal of one state, one world—the unity of all. This will help in understanding the earth, the moon, the planets and solar system in a full manner. By that time we might meet some other life in space with which to confirm our results. At this juncture a deeper concentration might occur resembling the property of the inert gas, radon; and then the period of superhumanity would follow.

The heads of superhumans may have evolved into a larger shape and their hands and feet may have become smaller, in accord with decreasing use. This might result in superhumans being largely of round shape, consisting mainly of the head portion.

Superhuman beings will mainly be moving in spacecraft to study the stars, galaxies, and the universe as a whole. To achieve a complete understanding of the universe, various theories will be developed by these beings. Such theories will be extremely interdependent,

# THE UNIV IN THE PERIOD

PERIODS 1-7		Group IA	Group IIA						
1	Nothingness	1 H Hydrogen Nothingness							
2	Energy	3 Li Lithium Origin of energy	4 Be Beryllium						
3	Matter	11 Na Sodium Formation of galaxy	12 Mg Magnesium						
				Group IIIB	Group IVB	Group VB	Group VIB	Group VIIB	
4	Plants	19 K Potassium Origin of life	20 Ca Calcium Precambrian	21 Sc Scandium	22 Ti Titanium era	23 V Vanadium plants	24 Cr Chromium and	25 Mn Manganese animals	26 Fe Iron
5	Animals	37 Rb Rubidium	38 Sr Strontium	39 Y Yttrium	40 Zr Zirconium	41 Nb Niobium	42 Mo Molybdenum	43 Tc Technetium	44 Ru Ruthenium
Paleozoic era fishes, amphibians and reptiles									
6	Human mind	55 Cs Cesium Origin of mind	56 Ba Barium Cenozoic era	57-71 * Lanthanides	72 Hf Hafnium	73 Ta Tantalum	74 W Tungsten Complete	75 Re Rhenium study	76 Os Osmium of
7	Super humanity	87 Fr Francium Complete	88 Ra Radium study of	89-103 ** Actinides universe	[104]	[105]	[106] N	[107] O	[108] T

*Lanthanides (present time)	37 La Lanthanum	58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium
	Similarity and interdependabil					
**Actinides (future)	89 Ac Actinium	90 Th Thorium	91 Pa Protactinium	92 U Uranium	93 Np Neptunium	94 Pu Plutonium
	Artificial					



**extremely similar in nature—resembling the similar and interdependent properties of the actinides (the fifteen elements from 89-103 at the bottom of the table).**

**There are eleven trans-uranium elements which, as we noticed earlier, are made artificially by man (Uranium, 92, to Lawrencium, 103). Similarly, the proof of complete understanding of the universe will be evident by artificially creating matter and life out of nothingness.**

**After understanding the universe completely, there remains nothing more to be attained, and superhumans would be equivalent to gods. So everything would be reduced to nothingness, completing the grand cycle of the cosmos. From this phenomenon, the fate of new elements beyond the 103rd, lawrencium, could be predicted. These new elements may be possible, but their time of existence (half-life period) would be equal to non-existence; that is, negligible, as there is nothingness after the 103rd element. Such elements may run up to 118—fifteen elements more—completing the final period in the periodic table, the period lying beyond the mind.**

## REVIEW

**Choose Life: A Dialogue**, by *Arnold Toynbee* and *Daisaku Ikeda*. Madras: Oxford University Press. £9.50 (in the U.K.).

In confutation of the claim in the celebrated couplet, "Oh! East is East and West is West, and never the twain shall meet", two typical men, Toynbee and Ikeda, representatives respectively of the best in the West and in the East, met and discussed a number of topics of interest and importance to the whole of mankind.

Toynbee has earned the homage of the world as an international sage. Ikeda, a Mahayana Buddhist, is the leader of a lay organization, with millions of members, devoted to the promotion of education, culture and peace. The dialogue between these two outstanding men, presented in this book, discusses many of the issues which confront contemporary man, both in the West and in the East.

Man is in peril. His predicament is examined by these two eminent men in all its aspects. Considered in the book are man's personal and social life, his political and international life, and his philosophical and religious life. The specific subjects dealt with range from individual issues such as suicide and euthanasia to national and international problems posed by population increase, pollution and dwindling natural resources. The stress throughout is less on abstract answers than on the impact of developments on the individual human being.

The dialogue and discussion pose the choice: "Will solutions of the problems lead to subjugation to totalitarian regimes, or can a human revolution in thinking and morals enhance mankind's destiny?"

Considered by these two remarkable men, in addition, are not only the immediate problems affecting human affairs in the present era, but also "the perennial ones regarding the nature of man, his relation to other creatures, to nature, and to the universe".

The two seers agree that mankind is menaced by man's ability to destroy his natural environment and by "the imbalance between his moral immaturity and his technological prowess."

But they are confident that man-made "evils can have a man-made-cure". They draw comfort and hope for a secure future from "the essential oneness of mankind and the universe."

The Industrial Revolution in the West has enabled it to take the lead and play a dominant role in modern times. Toynbee believes—and he gives the reasons for his belief—that in the future, leadership is going to be taken over by Eastern Asia. Mankind has already been

united on the technological plane by West Europeans' world-wide activities. The authors hope that in the next chapter of mankind's history, humanity will succeed in unifying politically and spiritually.

Ikeda is more hopeful than Toynbee that this great change can be brought about voluntarily, on terms of equality between all sections of the human race, without further domination of one section over others—"an evil that has been the price of political and spiritual unification in the past on a less than world-wide scale". Toynbee, on the other hand, fears that "mankind will have to pay a high price for bringing about the profound changes in attitude, objectives, and conduct that are indispensable conditions for the survival of humanity".

Toynbee is more pessimistic than Ikeda, probably because he is particularly conscious of mankind's tragic failure, hitherto, on the political and spiritual plane of human life—a failure that is accentuated by its contrast with the brilliance of mankind's achievements in technology.

Toynbee and Ikeda believe that religion is the mainspring of human life. They agree that a human being should overcome his innate propensity to exploit the rest of the universe, and "put himself so unreservedly at the service of the universe that his ego becomes identical with an ultimate reality which is not a human-like divine personality". They accept the doctrine of karma: "You reap what you sow". "But the karma-bearer can change the balance, for better or for worse, by his further acts: he is thus, partially at least, a free agent.

The authors agree that a human being's supreme spiritual task is "to overcome his egotism by expanding his ego until it becomes co-extensive with the ultimate reality from which it is, in truth, inseparable". The Hindu says, "Tat Tvam Asi"—the ultimate reality is what a human being is. But this statement of the identity of "Thou" and "That" is only a proposition: it must be turned into a practical reality by strenuous spiritual exertion. This spiritual exertion, say the authors, on the part of individual human beings, is the only effective means of social change for the better.

The authors, in their psychic probes, have found that elements of human nature are the same in all human beings always and everywhere, in virtue of being the offspring of the ultimate common ground of existence that is at the root of all phenomena. Our times are fortunate, say the authors, in witnessing the birth of a common worldwide civilization that has originated in a technological framework of Western origin, but is now being enriched spiritually by "contributions from all the historic civilizations".

This extraordinary book is a friend, philosopher and guide to man. It emphasizes the importance of man who "himself must choose." If man chooses rightly and acts accordingly, he can establish peace and goodwill in this world. This is the message of this book.

[COURTESY: *The Sunday Standard*, 12 June 1977]



# FOCUS

## IMAGINE ALL THE PEOPLE—A. B. PATEL IN EUROPE

*Imagine there's no heaven,  
It's easy if you try,  
No hell below us  
Above us only sky.*

*Imagine all the people  
Living for the day.*

*Imagine there's no country,  
It isn't hard to do,  
Nothing to kill or die for  
And no religion too.*

*Imagine all the people  
Living life in peace.  
You may say I'm a dreamer  
But I'm not the only one,  
I hope some day you'll join us  
And the world will be one.*

*Imagine no possessions,  
I wonder if you can,  
No need for greed or hunger  
A brotherhood of man.*

*Imagine all the people  
Sharing all the world.  
You may say I'm a dreamer  
But I'm not the only one,  
I hope some day you'll join us  
And the world will live as one.*

John Lennon

I wish I could play this song of John Lennon's for you; the words will have to do for now. It was played in Pondicherry recently as part of a taped interview of M. P. Pandit from a California radio programme called "New Dimensions". And the experience of an Indian house vibrating with a former Beatle's musical plea for oneness in the style of American pop was an experience of oceans—of the East and West, of the wise and the young—coming together in an awesome felicity.

Now, with A. B. Patel soon to return from an extraordinary trip to Europe, it becomes easier and easier to "imagine all the people"; for it appears that he has done just that in a practical way. As you may know, he participated in two great assemblies: the World Constituent Assembly and the World Citizens Assembly in Innsbruck, Austria during the last half of June. As their names imply, the two world assemblies are the most recent part of a sustained and rather comprehensive non-governmental effort to create a constitution for the coming of a world government and to generate a group of world citizens as the core of the people a global constitution is to serve.

After years of more limited meetings and circulating drafts of this constitution around the earth for legal thinkers' emendations and suggestions, this constituent assembly was the final coming together for deciding whether to adopt the finished text of the Constitution for the Federation of Earth. Voting delegates were literally elected by their own natural constituencies in different parts of the world, with 400 persons attending from twenty-two nations. A. B. Patel writes us that welcome and keynote addresses were delivered by participants from each continent of the planet.

But, according to his letter, it was also a very hard working and well disciplined assembly which organized itself into five working sections:

1. Draft of the World Constitution
2. Ratification Campaign
3. Preparations for the World Parliament
4. Provisional World Government
5. Proposed Legislation on World Problems

The steering committee of these working sections met at the beginning of every morning for an hour, and the working sections met immediately afterward for the morning's remaining three hours and for four hours in the afternoon on most of the fourteen days of the assembly. In addition, plenary sessions (full sessions of all 400 delegates, volunteers and observers) were called several times to adopt reports made by the working sections. Further education of the delegates usually absorbed the hours of eight to ten P.M. when panel discussions were organized around these subjects and others: (i) How to Obtain Ratification of the World Constitution; (ii) How to Obtain Disarmament Under World Government; (iii) Requirements for a New World Economic Order; (iv) A Five Year Plan, Including Organization and First Actions of a Provisional World Government. And finally, there was a joint plenary session of the World Citizens Assembly and the World Constituent Assembly on the last day of the two assemblies, 29 June.

One of the most important, and already historical, results of these gatherings is the successful adoption of the Constitution for the Federation of Earth, which will be printed and circulated as soon as possible. Among others who went to their home countries to work for its ratification on a national level were fifteen Indian delegates, who appointed five among them as an ad hoc committee to undertake this task.

Other important achievements of the fourteen and five day gatherings will be sent by A. B. Patel in his next communication, but we can already see something of the shape and magnitude that this trip and these assemblies project. As far as we are aware, this is the first somewhat large-scale, sustained, sophisticated laying of the constitutional foundations for the dream of centuries: representative world government. It flares up into the words of Sri Aurobindo's 15 August 1947 message we have been half-knowingly repeating for so long:

The third dream was a world-union forming the outer basis of a fairer, brighter and nobler life for all mankind. That unification of the human world is under way; there is an imperfect initiation organised but struggling against tremendous difficulties. But the momentum is there and it must inevitably increase and conquer. Here too India has begun to play a prominent part and, if she can develop that larger statesmanship which is not limited by the present facts and immediate possibilities but looks into the future and brings it nearer, her presence may make all the difference between a slow and timid and a bold and swift development.<sup>1</sup>

The prominent part that India has begun to play, and through her the spiritual force is contributed to by what has just happened at Innsbruck. World Union as a movement, we remember, exists on the truth of the work in its statement of purpose: "A world union based on the fact of human unity realising the truth of the Spirit". It is the concentration on the Spirit by A. B. Patel that has moved him, and through him World Union, into a remarkably prominent role in the work of the World Constitution and Parliament Association of Colorado, U.S.A., which sponsored the World Constituent Assembly. Not only was our A. B. an inaugural speaker in both assemblies, and a several times chairperson of working section sessions and of some planetary sessions and panel discussions, he was also catapulted to the frontline collective leadership of the association itself. Mr. Reinhart Ruge of Mexico had been re-elected president of the World Constitution and Parliament Association for many years, but on this occasion A. B. Patel and he were unanimously elected co-presidents.

1. Sri Aurobindo on Himself, Sri Aurobindo Birth Centenary Library edition, volume 26 (Pondicherry: Sri Aurobindo Ashram Trust, 1972), page 405.

This is an opportunity for not only the general secretary, but all World Union members, and World Union itself, to contribute toward the movement into an active consciousness of world government, one of the reasons for which World Union took birth. Most of us now are attentive to local news, at most to national—or international items connected with our nation—when we read the papers or listen to the radio. Our horizon, our sympathies, our interests, our information, our mental formations, our avocations and service and projects are invited to take a global bearing in the new, active role of World Union, to “imagine all the people sharing all the world” in each gesture of this work.

## FUTURE CHILD

From the small wilderness town of Salmon Arm (in British Columbia), Canada, has come an invigorating new periodical, *Future Child*. Its recently received first issue is heralded by this poem on the inside cover:

But yield who will to their separation,  
My object in living is to unite  
My avocation and my vocation,  
As my two eyes are one in sight.  
Only when love and need are one,  
And the work is play for mortal stakes,  
Is the deed ever truly done  
For Heaven and the future's sakes.

*Robert Frost*

Some additional excerpts, which are taken from the opening pages, illuminate the character of this new publication.

*“Future Child* has the great disadvantage of being written under the stress of a multiplicity of practical projects and problems. It has the great advantage of being integrally related to life, for this is a farm and a work center, complete with children, rather than a meditative cloister or a sheltered academic environment.

*“For this reason, Future Child* has taken long to make its appearance, and may have to struggle hard for its existence. In any case, we will continue our work here, and everything will come to pass in its own time. . . .

*“Future Child* is concerned, not with quantity but with quality. Concerned, that is, that we intuit the true potential of the child and take steps to develop it on all levels, not as the schools do now, but with an approach that is at the same time more free and more integral. . . .

*“It is not only the schools, it is all of us that are at fault. Small children are unimportant to us. Sometimes we see them as cute, sometimes as a nuisance, sometimes as an empty jug to be filled with our superior wisdom, but seldom as individuals to take seriously. It is*

easy not to understand their language, to fail to respond with the word, gesture, or vibration that will help their healthy blossoming. . . .

"There is an allegorical legend coming from the East, quoted by Professor Robert Bainbridge. It is told as follows:

For many years in a particular countryside each evening at dusk a brilliant golden disk appeared in the sky. Its nearness to the ground and rich beauty and magnetism tempted many from far and wide to come in hopes of touching it, for as the legend was told, any who might succeed in this effort were assured a life of unending joy and abundance. But although some came very close to reaching this supremely luminous disk, it always remained just out of reach of all who tried. One day, observing the attempts of those who had gathered, an ancient mendicant suggested to the crowd, 'Since none of you seems able to make the contact yourself, let us lift up this little child here above our own reach. In such a way, perhaps she will receive the blessing.' Whereupon all of those present, responding to the suggestion, pressed the little child skyward until her tiny hand contacted the disk in a blaze of white light. And, lo, the supreme grace which each had so ardently sought flowed through the essence of the child, transforming everyone present who had thus aided her.

"The time has come to heed this legend and to create centers to 'hold up the child'. Centers of information and materials, of creative experimentation and innovation. Centers bright with national spirit but wide and strong in international outlook. Centers consciously participating in a rapid evolution towards a challenging future. Centers of fresh air.

"*Future Child* is written by people with the dream of creating such a center in Canada. A center with films, sound recordings, library, creative learning materials of all sorts, and a laboratory school. But, most of all, and regardless of the quantity of material paraphernalia which is gathered, a center for a new consciousness and integral approach to education.

"*Future Child* is an expression of this dream. But it is not planned as a mere philosophical journal. Succeeding issues will bring reports of pioneers already at work, concrete suggestions, usable ideas, specific know-how."

Horst and Dorothy Bohmé, the editors, are the formers of the Canadian center which is also their and their four children's home near Salmon Arm. A professional puppeteer and filmmaker, Horst Bohmé is complemented by Dorothy with her teaching experience in American schools. They are people with that indomitable spirit often read of in fairy tales and myths.

A homey periodical, *Future Child* contains not only revolutionary articles on education

and educational ventures, but informatively nutritious and attractive recipes, informal reviews of unusual books, experiential descriptions of physical play and education devices. Four issues are planned per year. The address is:

Discovery Train  
Box 1419  
Salmon Arm, British Columbia  
Canada V0E 2T0

## ORGANIZATIONAL ACTIVITY

### World Union Centres

*Bangalore* In a lecture meeting held this summer, Dr. P. R. Brahmananda, professor of monetary economics at the University of Bombay, spoke on "Economic Distance between Countries". He indicated this distance is growing in a striking way: in 1938, rich countries had 31% of world population and 76% of world income; twenty years later, they had only 28% of the population but 83% of the income!

Other aspects of the situation he commented on are: rich countries are pooling their interests defensively; poor countries need to develop economic and technological cooperation and stop eyeing the rich as models. Some other beneficial initiatives Dr. Brahmananda explored that poor nations could take are: using discrimination in receiving what often turns out to be obsolescent technology; establishing a stable peace which will free military funds—defence and domestic—for development; replacing competition by cooperation; and restraining population growth.

Bangalore reports a lively, informative discussion after the lecture. (Chairman: Sri Sri Thandaveswara.)

*New Alipur* A member of the Sri Aurobindo Ashram, Rajan Ganguly, was a special guest of the centre and spoke about Sri Aurobindo's and the Mother's ideas and work for world unity during the monthly meeting. New Alipur Centre also arranged an *aikya sammelan* [unity gathering] for the two days of 21 and 22 May in Nabadwip, West Bengal. It was organized by Sri Sukhumar Mukherjee, chairman of the centre, to encourage a coming together of a large number of centres dedicated to Sri Aurobindo's and the Mother's work in West Bengal. Sri Aurobindo Pathamandir of Calcutta responded to the occasion with its full cooperation and valuable suggestions, and the large number of delegates present were unanimously positive about the gathering. Dr. Mukherjee there stressed the Mother's statement on the importance of what he called "spiritual unity": "We must replace competition and strife with collaboration and fraternity".

*United Kingdom* We have just received a new publication from World Union United Kingdom Centre, a monthly "page" containing a short and very lively essay by the chairman, Mr. J. I. Patel, and a newsletter section. Modestly cyclostyled (mimeographed), it has some interesting information which goes beyond reports of the centre's meetings and activities. Included are addresses, names of leaders and descriptions of organizations and movements kindred to World Union—most of which the centre, incidentally, has established affiliations with; announcements of existing and forthcoming periodicals and publications; and notices of talks and gatherings around noted visitors passing through London. The publication is convenient, fresh, and brief—containing about two or three pages.

The centre itself reports that World Union now has about sixty members in the United Kingdom, with twenty-five of these as life members. Some are in Scotland and Wales. The newsletter comments: "It is hoped that in the year to come members will increase in numbers and the need may arise to coordinate the work in the U.K. There is a great potentiality for expanding work. Any member can take steps to foster get-to-gethers and meetings of cross sections of the society to discuss themes of common interest or arrange for study groups to think on the noble ideal of human unity. Cultural programmes can be arranged to foster understanding."

*Uttarpara* Their monthly seminar for June was titled, "Why a New World Order?" The two speakers, Sri P. K. Banerjee and Sri S. K. Gupta, said the old world order had proved to be futile in bettering socio-economic and socio-political conditions; hence the necessity for a new world order. (Presiding: Sri S. K. Gupta.)

July's seminar, "Rishi Bankimchandra and Rishi Sri Aurobindo" was led by the speech of Professor Buddhadev Chakrowarty. He evaluated Bankim's entire life in the light of Sri Aurobindo, and threw rays on previously unknown aspects, to many, of Bankim's literary genius—which was keenly appreciated by the audience. (Presiding: Sri S. K. Gupta.)

In the June seminar, Sri Samar Basu was sent off to the Innsbruck, Austria assemblies and related Paris meetings with wishes for successful work there; in the July seminar, he submitted a brief report of his participation in these European assemblies.

### **New Life Members**

- |                               |  |
|-------------------------------|--|
| 311. Mr. Amarendra Nath Dutta | 25 Ramlal Agarwala Lane<br>Calcutta 700050 |
| 312. Mrs. A. N. Dutta         | 25 Ramlal Agarwala Lane<br>Calcutta 700050 |
| 313. Srimati Debrani Bose     | 8/15 Jessore Road<br>Calcutta 700028       |

**314. Sri Dharendra Chandra Sarkar**

**44 Dr. Nilmoni Sarkar Street  
Calcutta 700050**

**Building Fund**

Acknowledged in the last "Focus"	Rs. 1,45,899.67
Sri S. K. Rattan	125.00
<b>Total</b>	<b>Rs. 1,46,024.67</b>

*Ronald Jorgensen*  
23 July 1977