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Editorial

Upon what does a person's optimism depend, as he faces world problems?

An immediate answer is that it depends upon how clearly he can see those problems, upon the weight of direct experience he has had in dealing with them, and upon the *realism* of his view of the world.

If this is the end of the answer, it opens the way for skepticism, cynicism or frustration and, finally, resignation or despair. There are many intelligent and talented people who, having tried to accomplish something of benefit to mankind, become disillusioned, and who now mock the efforts of those that they see striving as they themselves once strived.

Then what is a less superficial answer to the question? What are the sources of the optimism that strongly drives many people to invest their lives in the great task of bringing world peace and prosperity? There must be sources. (For example, it is evidenced by the mere existence of *Unified World* and its contributions.) But it may not be easy to describe them, convincingly.

Let us look at the contents of this issue.

Mr. Schreiber speaks from more than thirty years of experience, and concludes that he has "difficulty in finding a more worthy cause" than that of working to improve standards of behaviour of governments with regard to human rights, and working to maintain the application of those standards. Whether or not he has had direct experience of violations of human rights, he is in a superlative position to be aware of them, and so it is natural to take what he says very seriously. And, after those thirty years, he is optimistic.

Dr. Siddiqi, a scholar of outstanding qualifications as a scientist and an educationalist, bases his hope for mankind's survival and progress upon the possibility of "achieving. . .a combination and harmony between wisdom and faith". His vantage point is one that sees the present as the result of, and a part of, many centuries of human development.

The reader does well to descend from lofty heights of comprehension of the nature of man, down to the reality of a world in which many problems of human life and survival are actually *increasing*. It cannot be said that **Dr. Furlong** concludes his article optimistically. However, that he did write it, and that his continuing careeer is not remote from the reality of those problems, is hardly an expression of despair.

In a similar way, **Dr. Tredinnick** deals with very real problems, with dignity, and cannot express any easy or shallow hopefulness, but hopefulness is exactly what he does express.

Dr. Jantsch, and **Dr. Masini** (who's *Reply* the reader may well be advised to look at before the main paper), though writing of matters that may seem to some to be theoretical, abstract and, therefore, irrelevant, may on the contrary be closest to finding the key to understanding mankind's present crisis. Their concept involves the possibiltiy of man's understanding the flow of history which carries him and his world and, through understanding it, anticipating his future. This abstract concept, if properly linked to the practical tasks to be undertaken, is a very powerful source of hope.

It is the standpoint of *Unified World* that actual world-unification cannot take place without the emergence of a universal (and correct) world-view. This standpoint itself is not unusual; the problem is the abundance of existing and contradictory world-views (and disagreements over how to recognize what is correct). Therefore the strategy of *Unified World* is to seek the highest expressions, from the best qualified individuals, in the certainty that this strategy will not be in vain if, in fact, the coming years do reveal a universal world-view that can support, clarify or judge all the other world-views.

R.C. Rattley
Editor

The Role of the United Nations in the Field of Human Rights

*by Marc Schreiber**
Director, Division of Human Rights
United Nations

You hear in the international community, in the United Nations and outside, a somewhat new expression: "the common heritage of mankind". It is applied to some very material things such as the resources of the high seas, outer space or Antarctica, places where there are no human beings.

The first question I put to you is this: is there such a thing as the common heritage of mankind on the more spiritual level, as it is today expressed by the world quest for human rights?

I think there has never been a period when the words "human rights" were used more often. I do not think (and I have some basis for saying so, because I see the correspondence that comes to the United Nations about matters of human rights) that there has ever before been a similar concern for human rights, everywhere on the surface of this planet. It is not just a concern; it is really a call for action. Something has to be done; something more than has ever been done before.

Twenty years ago, in this part of the world, one would hear about abuses, shocking things, in remote parts of the world. . .remote from where you were, of course! And there was a feeling of passiveness, despair if you like, powerlessness: what could you do? It has always been like that. What more could you expect? So international action was more or less limited to some gentle ladies who would knit for the victims of natural disasters or cruelty of men, or to some charity being distributed at long distances by dedicated people.

That has changed. The demand now is for positive action. There are certain things that people do not want to accept any more, and they call for some kind of activity by the international community to have certain things stopped, or remedied, or in some way effectively acted upon. I think that is new.

As for this world organization which is the United Nations, everybody who wants to be there is there: there are 147 Member States now. Of course, the call to the United Nations is to do something which matters.

All the United Nations did at its beginning was to put into the Charter about seven provisions referring to human rights. Even so, when you look

*A talk given of a meeting of the New World Forum in New York City on Tuesday, December 7, 1976.

at the Charter closely you see that the United Nations has never guaranteed to "protect" human rights; it is to "encourage" and to "promote". That is about as far as the Charter goes. And even these provisions were not really initiated by the Governments; the insertion took place because of pressures from private voluntary organizations like yours and others.

As soon as those articles were put into the United Nations Charter, questions were raised. What do you mean by "human rights" on a worldwide basis? Does it apply to everybody in the same way? Does everybody want the same things? You want to promote human rights, but at the same time you have put into the Charter an article that prevents you from doing anything: Article 2, Paragraph 7 (we all know it; its text used to be repeated often; it is referred to much less often now), which says that nothing in the present Charter would permit the United Nations to intervene in matters which are essentially within the domestic jurisdiction of States. That was the international law as it was then, as possibly it is still now, though that is less sure. International law was based essentially on relations between States, and there was a kind of accepted principle that States do not interfere in governments' relations with their own nationals. This was something outside international law, not only not favored but on the whole precluded by international law.

Again, that was changed.

First, Article 2, para. 7 has been interpreted and analyzed; its scope is much less broad today than some thought it was. And second, governments themselves do not insist on it very much. They make their reservations and then go on to explain the situation in their countries. Sometimes (because I remember what used to happen) I really admire governments that voluntarily come before the United Nations forum and go to great lengths to explain their constitutional provisions, what happens and why things happen, and so on. These dialogues (often not more than a dialogue) are now currently taking place. And I think they are taking place with beneficial results for those concerned, governments as well as their nationals. I think this is another fact of life. I just do not have time to give you chapter and verse and quote too many examples. . .just for this evening believe me and start asking questions tomorrow!

These are some of the obstacles to overcome. They are very real and important obstacles, not without validity in the international society as it exists today.

What are human rights? Well, in the United Nations we (some of those who are in this room, and many others) spent 20 years to define human rights on a worldwide basis acceptable to everybody, understood by everybody and, in fact, aspired to by everybody in the world, because the United Nations is a world organization. If you do something, you have to do it in the same way for everybody, for every human being on this planet.

And it has been done. There have been far-reaching accomplishments in the area. There are common standards that have been negotiated, patiently and meticulously, for a very long time. They have been voted

upon, and adopted in most instances unanimously, because they were acceptable. Or because no-one could resist them, no government could vote against them. One does not vote against human rights in the United Nations. One tries occasionally procedurally and otherwise to find ways of not having to express oneself. There is no country that says "I do not agree: I am against human rights".

So now we have in the United Nations a code, provisions, which were accepted first haphazardly for the benefit of those who needed them most, refugees, those who were discriminated against on account of race, women, the stateless, and so on. And there are more general and more systematic International Covenants on Human Rights which have come into force this year, this very important year [1976] where there are common denominators, (and they are not low, they are very high common denominators) accepted by everybody, voted for unanimously.

It is now very difficult to keep asking, with more or less sincerity, "What are human rights?" Everybody knows what they are. If they do not, they can get the United Nations book, the one with the blue cover, and they can open it and find a definition, limitations, permissible restrictions; it is all in a language which can be understood by everybody, and in particular by lawyers who may be called upon to refer to them. But not only by practising lawyers. United Nations texts on human rights are invoked all over the world by those who claim that they are treated inhumanly or unfairly.

What of the question "Does everybody want human rights, everywhere?" My experience, whatever it may be worth, is, without any possible doubt, yes. Everybody, everywhere in the world, wants more or less the same things, the same respect for his inherent rights or worth as a human being, to quote the United Nations Charter.

Some would put greater emphasis on, let us say, the material rights, basic things like food, education, health services, the right to work, the right to social security; those are most important areas. But that does not mean that the same persons do not want to enjoy the other rights. Others would put perhaps a bit more emphasis on freedom of expression, freedom of association, the possibility for us to gather as we do tonight and speak openly. But the proposition that it is one or the other is not true any longer. Very few people maintain that position: first you have to fill your stomach and then you can start thinking about listening to the radio. That is not true. Nobody really thinks that way. You want a relatively full stomach and you know and express yourself about the world in which you live.

In fact it comes back to one basic, essential idea, one basic aspiration of every human being, that his dignity as a human being should not be injured but protected by the State in which he lives. It may take various forms, and dignity may be curtailed or infringed upon in very many ways. But this basic human aspiration has now become a right, of everybody,

everywhere. The rights have been proclaimed. They have been proposed, in a sense, to every country in the world: if you want to be a member of the international community, in good standing, you have to behave in this and that way towards your own nationals and those others that live on your territory.

As we all know, this is still not completely nor even generally the case, and there are many outstanding problems and concerns. But now we can come back to my basic idea. Are all the provisions and rules which have been painfully negotiated to protect the human personality and then adopted by the highest organized forum of mankind not the common heritage of mankind? What are they?

They are the common heritage of all world religions. Those are the points on which they all meet. I never heard of any contradictions, at least among the world religions having most adherents.

This is the heritage of the great philosophers, in whatever was positive in their thinking. It is the heritage of the great revolutions, again in their positive aspect, whether they are British, American, French or any other.

These elements which the United Nations has approved and proposed to mankind in our generation, is it not really the common heritage of mankind? The heritage which we want to preserve. We want to preserve it because it is under attack, in our time when things change so fast, when we seem to be overwhelmed by the progress of science, of technology, of means of waging war, of all these tremendous things that happen at a very rapid pace. So we want to preserve, to protect and to develop these important things which give value to our life: our right to dignity, to private life, to the satisfaction of certain material things which give quality to life, and also to what distinguishes the human being from everything else, this basic aspiration for basic and elementary freedoms.

Much was done. The task is not finished, and it cannot be finished, because things develop so fast. And you have to find the rules and norms and standards for any developments and adapt existing ones.

Again, the examples are very many. Let us say you take healthy organs and put them into an unhealthy body. How do you do that? To whom do you give these few kidneys or hearts which are available? How do you distribute them? Who decides? You have to regulate it; otherwise the doctor's friend will get it, or the one who can pay most for it will get it, or it will be done in a haphazard way, and our society would not accept that for long. Or another example: you manage to achieve progress in economic development. Statistics and production figures are not sufficient. We have to be satisfied that the results of this economic development are distributed to the great numbers, that they are not limited to a few.

All that is basic.

As soon as this work was done, or partly done, as soon as the Covenants were adopted in 1966 (they came into force only ten years later,

because they needed 35 ratifications by States), we immediately heard more appeals to the U.N. from all sorts of quarters, from public figures as well as people who would write and make claims, either directly or through various private organizations, to the following effect: now that you are proclaiming these standards, what are you going to do about enforcing them? We hear about this abuse and that abuse: what is the U.N. doing about it?

Now, it is no good telling them that the Charter has never provided that the U.N. should do anything except promote and encourage. That is not acceptable, not an answer to which people want to listen. One has to *do* something about it.

The last ten years or so have really been dedicated mostly to giving to this Organization the tools with which it could do something effective. It is still not very much. But it is all being strengthened and perfected, mistakes are being made and lessons drawn, the march is stopped and then resumed towards giving effective tools for protection of human rights to the world community.

We live in a society of sovereign states, and no-one really likes interference from the outside, or too much of it. One accepts discussion, but one does not always accept actual intervention. But methods have been found to enable the international community to make use of possibly the strongest of its powers at this moment, the power of publicity and call to public opinion.

Again, there is one thing that strikes me, in spite of all the criticism, all the emphasis upon weaknesses and upon not having achieved a perfect world in 30 years, and "we do things much better and why don't the others do what we do". In this particular area, the prestige of the Organization is still very high.

I already mentioned that governments engage in dialogue. Sometimes some of our committees surprise me. You have a group of independent experts, chosen not merely because of their nationality but because they are professors, lawyers, world renowned figures who have a reputation to uphold, which for them is more important than the career they may make afterwards. They asked pointed questions. They know; they have studied the reports which governments sent them. They ask "Why do you do this?", "Why don't you do that?" and "Please explain". You have governments that do explain, or that say "I don't have the answer today; may I come back tomorrow or could I put it in my next report?" And periodically the governments report as to how they actually comply with the standards which the Organization has proclaimed. Then when those reports come, these bodies, which are or should be as independent and detached from politics as possible, very often say "This is not an adequate report. We don't want you to say in half a page that there is no racial discrimination in your country and therefore you have nothing to report. That's not suffi-

cient. Please explain to us, 1, 2, 3, 4, 5." There are questionnaires sent out, and these are answered, and then a dialogue takes place across the table between the committees and special representatives of governments, and facts come to light. Governments feel that if they want to preserve the respect of the international community then they have things to do, laws to pass, and not only pass but also to apply, report, produce court decisions, and so on.

Here, then, is another important element. Governments care very much about their international reputation. Maybe they do not have to but they do. It is not so much because of commercial relations or military alliances. Because of their public opinion, and in most cases because of the leaders themselves, they want to present to the world an image of the country they govern, an honourable image, an image of respect for human rights. They are very perturbed, when they think that there might be a report directed against them, that some things will be publicized which either they do not believe to be true, or are true; in any case, they are ready to do a number of things in order to prevent that from happening.

This is one of the strengths of the United Nations. It may not be inscribed in the Charter, but it is a fact. It has been known for a long time. Many years ago there was a British professor who was trying to analyze this element of strength and he spoke about the "mobilization of shame". What the international organization can do is to put governments to shame. That has its effects. It is proven, sometimes immediately, sometimes a little later. I believe that this is a very real and powerful weapon.

Reports are submitted. We have set up a number of procedures under which, when a government feels that another government does not abide by its obligations, it can initiate an action against that government by impartial and independent persons who will verify the facts, try to conciliate, recommend solutions to bring about improvements. Solutions are not binding, but it may be difficult not to accept them.

We cannot accuse governments without having some basis that is more substantial than a letter or ten letters or even fifty letters from private individuals. So we have to try to find a way of discovering what the reality is. Attempts are made to find such a way, and they are more or less successful. Maybe we can find a way. I think we are making progress. Not everything we do is above criticism, but again all this is new; we proceed by trial and error. In any event, it is unprecedented.

So this is the purpose: to preserve what centuries have given us, that heritage. And beyond merely preserving, to expand it to those who do not have that heritage, who never had it or are temporarily deprived of it.

You do it by example. You do it by aid. It is not enough to tell someone "You have to guarantee secondary education to all the children in your country", if that country will come back and say it cannot afford it. Here is

a problem, a task for the international community to help those who cannot manage by themselves.

It may be that I live it too intensely myself on a day to day basis, but when I really look around and think about it, and when I hear what is being said or read what is passed on to me, again I must say that I have difficulty in finding a more worthy cause, if I may use this rather simple wording. We have seen so many things of which we are ashamed, of which we do not wish to see the repetition. Perhaps because of all the abuses, the accent on correction, on action to improve, is stronger than it ever was before.

Having established a world-wide set of standards of behaviour of governments towards their nationals, and not only of governments towards their nationals but also as between nationals and groups of nationals, we can continue to work to improve, to better define, to enhance, and to increase the scope of these standards in the light of the needs of our times. And to maintain their application.

And really, if we manage to establish such a system by which a more or less well-organized international community can play an active role towards the achievement of these standards by the institution it has itself created, it may very well be that this century will be remembered by historians for that, rather than for the many other things which we were trying to undertake.

ABOUT THE AUTHOR

Mr. Schreiber began his professional career as a lawyer, practising in his own country, Belgium. Later he was with the Ministry of Foreign Affairs, working on problems of international organization.

In 1945 he was lent by the Belgian government to the Preparatory Commission of the United Nations for three weeks. He was never returned: he has been with the U.N. ever since.

He has worked in the Legal Office of the U.N.; then he became the Director of the U.N. Information Service in Paris. For the last ten years he has held his present position as Director of the Division of Human Rights.

The Ultimate Harmony Between Religion, Philosophy and Science

*by Dr. M. Raziuddin Siddiqi**
Secretary, Academy of Sciences
Pakistan

Interest in his own self was an inherent trait in the nature of primitive man. He reacted instinctively to his surroundings, and took cognizance only of those facts and agencies which affected him directly. As the horizon of his consciousness widened, and he developed powers of general reasoning, he must have realized that he could live a safer and richer life if he banded himself in a group of his fellow men. The idea of a family life thus dawned upon him which developed later into the tribal system of the early pre-historic society. The interest of the individual then became subservient to that of the tribe, and although this appeared at first to be against his own self-interest he recognized that it would be better for him to make his interest subordinate to the collective good of his group.

The dawn of history found human beings grouped together in small villages, each group forming itself into a unit distinct from similar units in other villages. In the early period of history, geographical factors were binding on man in determining the size of the group in which he had to live. He had no means of transport and communication other than his own legs or domestic animals, and it was not possible for him to cross a river or a mountain. Any piece of land surrounded by rivers and mountains was a natural unit for him, sufficient for his simple needs and safe from the onslaught of other unfriendly groups.

As the means of transport and communication developed the group units became bigger and bigger, going through the stages of towns, cities and countries, and culminating in the vast empires and commonwealths. This growth of geographical units has generally been proportional to the development of faster means of transport and swifter means of communication. Modern developments of science and technology have endowed men with the capability of travelling with the speed of interplanetary rockets and of transmitting messages with the velocity of light, thus annihilating time and space and making the geographical barriers physically insignificant and meaningless.

*A talk given at a meeting of the New World Forum in New York City on Tuesday, January 11, 1977.

Unfortunately, however, man's socio-political consciousness has not developed correspondingly with science and technology. He is still ridden with petty jealousies and rivalries like man in the early periods of history, and he does not realize that the tremendous power of destruction placed in his hands by modern science might lead to the extinction of the human species if he does not live in peace and harmony with his fellow men all over the globe.

This is the background in which we have to consider the problems confronting mankind today. Among these is the problem of unity of knowledge and of the interrelationship between the natural sciences, the social and moral studies and the religions and spiritual experiences, and the harmony which is evolving among them.

If we examine the working of the mind, we find that it operates in two directions—from the infinitesimal to the infinite and vice-versa. According to the famous dictum that whoever understands his own self can also apprehend his Creator, the exploration of the finite universe or the apprehension of the Divine Infinitude are both referred back to the understanding of the human self. But the human mind, however equipped it may be to come to grips with the reality of the universe, has inherent limits beyond which it cannot go. Restrictions are imposed upon it by the very nature of its operations. The mind accumulates its impressions in a piecemeal fashion; it apprehends facts and objects one by one. These scattered impressions of experience are then integrated rationally or intuitively into a composite whole.

Just as an individual mind, starting from limited observations and particular instances, is still capable of establishing a rational order in the diversity of its experiences, so also the collective conscious thought of the human race extends its quest in several fields of enquiry and orders its observations and experiences into separate branches of knowledge. But however diversified may be the various fields of enquiry, the conclusions arrived at in one field come to the aid of others. The entire course of human progress has been marked by such constant intercommunication of ideas and inter-dependence between the various fields of study.

For some time there was sharp conflict between the devotees of the three sectors, especially between those of religion and science. However, it is becoming increasingly clear that whatever may have been the situation in the past, there is no justification for the conflict to continue any longer. There is no incompatibility between the three important sectors and they can co-exist in harmony.

It is generally well-known that science, philosophy and religion are all engaged in the pursuit of knowledge and the search for reality, but the methods employed by them are different. Various ages in the history of mankind have been dominated by one or the other of these three powerful forces. For instance, the Greek Civilization was dominated by Philosophy,

the Middle Ages by Religion, and the Post-Renaissance period by Science. However, even in the Middle Ages, whenever it appeared that the extremist devotees of religion threatened to ban or suppress science, some great scholars tried to restore the sense of proportion. To give just one illustration, it may be mentioned that the famous savant and religious leader of the 11th century A.D., Al-Ghazzali, wrote in his book *Deliverance from Error*:

> Another difficulty is created by a bigotted follower of religion who thinks that in order to protect religion it is essential to deny all science. His prejudice in this matter goes to such an extreme that he does not accept even the theories of lunar and solar eclipse. When his denials are heard by someone who believes in these theories on the basis of sound arguments and can not doubt his reasoning, he concludes that religion is based on ignorance and denial of irrefutable reasons. Hence the bigotted follower who thinks that religion is strengthened by a denial of the sciences is not a friend but a foe of religion. As a matter of fact, there is nothing in religion which is against the sciences, nor is there anything in the sciences which is against religion.
>
> (*Deliverance from Error*, page 25)

This is a remarkably clear statement of the compatibility between science and religion made almost a thousand years ago, although even three or four centuries later scientists like Bruno and Galileo were condemned and punished for stating the helio-centric theory. It has also been recorded that when Kepler, the famous discoverer of the Laws of Planetary Motion, wanted to describe the force moving the planets, he had to assume that there is a soul in each planet which makes it revolve round the sun. Thus science was distorted through fear lest it become the rival of religion.

Obviously, the reaction of the scientific workers to such religious bigotry was bound to be strong, and, as usual in such cases, the pendulum oscillated to the other extreme. Thus, when the revival of science started with the Renaissance, the movement for materialism gathered momentum, and scientific workers started testing religious beliefs and practices on scientific criteria. Even those who did not reject religion entirely relegated it to the background as a personal affair between man and God. The human personality was thus split into sharp and mutually exclusive divisions, giving rise to a serious malaise and tension in individuals and societies.

The 17th century witnessed the definite beginning of modern scientific thought with the steady progress of astronomy and physics, and within the next two hundred years it had developed to such an extent that it embraced all the physical phenomena of the universe known at that time. This marked the triumph of naturalism over super-naturalism, and of mechanical laws over mystical forces in interpreting the working of the physical world.

Materialism reached its culmination in the 19th century under the impact of Newtonian Mechanics which led to a rigid determinism in the

interpretation of nature. It is a consequence of the laws of mechanics that if the state of a dynamic system is known at the present moment it can be calculated by purely mathematical methods for any instant in the past or in the future. This was the claim made proudly by the poet in the lines:

> Yea! the First Dawn of Creation wrote
> What the Last Day of Reckoning shall read.

The materialists had argued on this basis that there was no need to put forward the hypothesis about the existence of an extraneous Creator, since the world is going on by itself according to the mechanical laws.

The development of philosophical thought during this period by a host of outstanding thinkers was just as phenomenal. The parallel march of science and philosophy showed that the scientific outlook in its mechanistic form was gaining ground as time passed. There were, however, some interludes when philosophy diverged from the materialistic view. Berkeley's philosophy of idealism and Kant's *Critique of Pure Reason* were the most important among them. Despite such interludes, the onward march of science continued, and there was a tremendous rise in the materialistic movement.

This, however, proved to be an exaggeration of the role of pure intellect in human affairs. It overlooked the fact of man's inherent need for belief in a transcendent power, and the essential religious mindedness of the common people, which is indeed of special significance for those who feel a deep seated need for belief in some higher values. When the first flush of enthusiasm for material progress faded, and there were global wars and large-scale destruction, culminating in an inhuman struggle by unscrupulous individuals and groups for grabbing all powers and advantages for themselves to the exclusion of others, there was a general disillusionment with the materialist concept and disenchantment with the mechanistic views of life.

Thoughtful people have, therefore, started to wonder whether science is by itself adequate, and if it tells the whole truth about reality. They have begun to realize that there is something wrong with man's exclusive pre-occupation with material and economic affairs. It is being increasingly felt that religion is valid and applicable even in this age of science and technology, and that science and religion are not mutually exclusive or contradictory. This trend is being strengthened by the phenomenal revolution that has taken place in the foundations of physical science in the course of the last few decades. This may perhaps need a brief explanation.

It is a strange irony of history that just when classical physics was reaching its pinnacle at the end of the 19th century, there were some experiments and observations which revolutionized its whole character, and replaced it by modern physics based on the quantum and relativity theories. The age-old basic concepts of matter, energy, particle, wave,

atom, element, time, space and causality, acquired quite new meanings and interpretations, and even the Laws of Nature began to be formulated preferably on epistemological principles rather than by the method of induction which was being followed for centuries.

Because of these fundamental changes, and above all, on account of Heisenberg's Principle of Indeterminacy enunciated in 1927, rigid determinism has dropped out of physics, and the materialists have lost their argument trying to base their belief on the mechanical determinism of the 19th century.

This may be considered as having restored in a way its rightful place to religion. Science is not content to work within its own sphere, nor does religion challenge the validity of science in the physical world. It is believed that in his observations and investigations of the natural phenomena, the scientist is attaining close contact with the behaviour of reality, and this sharpens his inner perception for its deeper vision. All search for knowledge is essentially a form of worship, and the scientific observer of nature will ultimately acquire that vision of the total Infinite which philosophers have been seeking all through the ages. Shaikh Sa'di, the great Persian poet, wrote about eight centuries ago:

برگ درختان سبز در نظر هوشیار
هر ورقی دفتریست معرفت کردگار

When the leaves of the green trees are studied by a wise man,
Each one of them is like a whole book leading
to the knowledge of the Creator.

The English poet Wordsworth wrote in a similar vein in the 19th Century:

One impulse from the vernal wood
May teach you more of man,
Of moral evil and of good,
Than all the sages can.

The interrelationship of wisdom and faith has been expressed most eloquently by Shaikh Mohammad Iqbal, the philosopher-poet of Pakistan, in the following words:

> Vision without power does bring moral elevation, but cannot give a lasting culture. Power without vision tends to become destructive and inhuman. Both combine for the spiritual expansion of humanity.[1]

The inner conflict of man in the modern age arises due to the fact that although science has given him unprecedented control over the forces of Nature, it has taken away from him the faith in his own future. The classical science of the 19th century led to the belief that there is no hope for a better future for man. Overwhelmed by this oppressing despair, he has ceased to live soulfully.

> In the domain of thought he is living in open conflict with himself, and in the domain of economic and political life he is living in open conflict with others. He finds himself unable to control his ruthless egoism and his infinite gold-hunger which is gradually killing all higher striving in him, bringing him nothing but life-weariness.[1]

The present age is one of great crisis in human affairs, and the whole world stands in need of spiritual revival if the human race is to survive and march forward. This can be achieved only through a synthesis of wisdom and faith. It is becoming more and more obvious that mere intellect creates imbalance in the human personality, and develops ultimately into a destructive force, if it is not accompanied by an equal development of moral and spiritual faculties.

The combination of intellect and faith constitutes the kind of force which would penetrate on the one hand, the mysteries of nature, and would be akin, on the other, to the prophetic vision. The salvation of mankind lies just in achieving such a combination and harmony between wisdom and faith.

[1] Shaikh Mohammad Iqbal, *Reconstruction of Religious Thought in Islam*, 1928, Oxford University Press.

ABOUT THE AUTHOR

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Population, Nutrition, Politics, and The Quality of Life In Latin America

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Introduction

All nations require water, land and energy as their most basic resources for survival. As populations continue to grow and as nations become more industrialized, ever increasing quantities of raw materials, food, water, and energy are required. Greater affluence also greatly increases consumption of these items.

Today Latin America has the fastest growing population in the world. It is an area where industrialization is increasing at a rapid rate. It is also one of the most urbanized areas in all the world. Many nations of Latin America have a higher percentage of their populations in cities than does the United States. The 1970's have also produced a dramatic growth in per capita gross national product in Latin America. According to the Population Reference Bureau, only two Latin American nations had a per capita GNP above $700 in 1972: Venezuela and Argentina. But in 1976 the same source reported ten Latin American nations with a per capita GNP above $700.[1]

What all this means is that food consumption and demand is increasing at its greatest rate in the history of Latin America. This rapid increase is not likely to diminish over the next decade, but will probably continue at somewhere near the present rate.

Because Latin America has traditionally been a very rich agricultural region, and because there is much empty land in Latin America, most North Americans perceive Latin America to be outside the population-land-food-energy crisis. Many people see the large rain forests of Brazil as the world's breadbasket of the future. Despite these popular perceptions, Latin America today faces fantastic land pressures, food and water shortages, hunger, malnutrition, and even starvation.

There are many problems and conditions in Latin America regarding population growth, distribution and utilization of land resources, agricultural production and basic nutrition. The political systems of the area also

create important policies affecting these conditions. This paper will attempt to identify some of the major conditions and obstacles that may prevent Latin America from improving its quality of life over the next decade.

The more than doubling of the price of coffee in the U.S. in 1976-77 may be our first major clue to some of the major agricultural problems that face not only Brazil, but all of Latin America today.

Land Distribution and Utilization

A high degree of land concentration in the hands of a very few people is one of the principle conditions affecting food supply in Latin America. This condition has existed in Latin America since the time of the colonization, and continues to exist in most Latin American countries today. Landless peasants have demanded that the Latin American governments create land reform programs and agrarian reform policies that may help alter and improve the conditions of millions of their people who live without land or merely work on land for very low wages or in a share cropping situation. In late 1976 we saw how such demand led to a crisis situation in Northern Mexico.

In countries such as Brazil 1.5 percent of the population control 50 percent of the agricultural acreage; in Colombia and Ecuador 1.2 percent of the farms control over 50 percent of the land; and in Guatemala less than 2 percent of the farms own over 60 percent of the agricultural lands.[2]

A result of this high concentration of land in the hands of a few people is that much of this land is not utilized to its fullest capabilities nor for its most suitable purpose. In many cases it would be feasible and more ecological to graze cattle and raise grass and trees on the sides of hills, and plant intensive crops such as corn, wheat, potatoes, etc. on the flat lands be less and where the yields would be much higher. More mechanized agriculture could then be utilized. Nevertheless in Latin America one finds the opposite occurring in many of the nations. The most fertile and level lands in the valleys are generally used for extensive agricultural purposes, whereas the Indians on their very small plots *(minifundios)* must raise their intensive crops on the sides of hills. This creates a reverse land utilization concept where the best land is used for pastoral purposes and the poorest land is used for the intensive crops.

In addition, many of the fertile lands are held by *hacienda* owners who only utilize a small portion of the land they own. This continually pushes the small subsistence farmer into marginal lands where his production is less and erosion is higher.

It is impossible in many cases to use mechanized agriculture in these marginal lands. The education of the peasant in the use of improved seeds, fertilizers, pesticides, and even irrigation is also lacking in many cases.

Therefore, his yields are minimal and exportation of his agricultural crops into the cities is also minimal.

The whole concept of the self-sufficient *hacienda* produces very little concern for excess production to export to the cities and outside the country. This continuing agricultural land apportionment creates a psychological effect which has hindered the increased production of domestic food stuffs in Latin America and consequently created food shortages throughout the continent.

Plantations that do use modern agricultural methods in contrast to the above do produce for export. But in most cases they produce such crops as coffee, sugar, bananas, and cacao which are not used for domestic consumption but are totally shipped out of the nation and into foreign commerce.

As a direct result of the above conditions, agricultural production for domestic use in Latin America has barely kept pace with the growing population. In the decade of the 1960s up through 1974, the main agricultural nations of Argentina, Chile, and Uruguay had an agricultural production which was smaller than the average population growth for Latin America. Haiti, Bolivia, Cuba, Peru, and Ecuador also fell significantly behind the increase in population.[3]

Where a major increase has occurred in agricultural production, such as in Mexico or Brazil, it has generally been due to production from previously unutilized or non-irrigated lands, and most of such increases took place in the export sector of the economy.

Increased imports of agricultural products are another result of stagnated domestic food production and increased demands for more and different types of food stuffs. For example, in Brazil in 1972 three million tons of wheat were imported at the cost of about 387 million dollars. In 1973, although Brazil will only import about two million tons of wheat, it will cost them close to 500 million dollars. Two other examples are sufficient to illustrate this problem. In 1973, Chile needed to borrow 24 million dollars to buy 4.4 million bushels of American wheat. In 1972 Chile spent ¼ to ⅓ of their foreign exchange for the importation of food stuffs. At the same time Peru was negotiating to buy about 200 thousand tons of Australian wheat, in addition to 500 million dollars already spent on agricultural products for that year.[4]

There are many other examples where such imports make it very difficult in the balance of payment problem because money is spent in an agricultural nation for something that an agriculturally producing nation cannot afford—agricultural products. This problem has been compounded since 1973 because of increased imports and prices for oil and most fertilizers.

Soybean production in Brazil is indicative of another element of this same problem. For a number of years Brazil produced large coffee

surpluses. In the early 1970s some coffee producers turned to the production of soybeans. The frosts of 1975 and 1976 drove more producers out of coffee and into soybean production. Today Brazil is a major exporter of soybeans but can no longer meet its commitments to the coffee market.

In most Latin American countries over 50 percent of the labor force is engaged in agriculture. Despite the fact that so large a percentage of the labor population is engaged in agriculture, the production of agricultural products does not meet the needs of the people and the country. In many cases anywhere from 30 to 50 percent is involved in subsistence agriculture where little is produced for consumption outside of the family that produces it. This compounds the problem of land distribution and utilization. The *minifundio* or extremely small farm is a ubiquitous agricultural condition in Latin America and is in many ways counterproductive for the society as a whole because the people produce very little that makes it to the marketplace.

The countries of Uruguay, Venezuela, and Argentina have the smallest percentage of the labor force in agriculture; nevertheless they have the highest productions of agricultural commodities. But these nations are also facing a number of production problems. For example, in Argentina in the last two decades there have been long periods of time when the cattle production of the country did not even meet domestic demands. Export commitments during many of these years exceeded Argentina's production, which in turn created meat shortages at home. In the late 50s this meant one or two meatless days per week which expanded to two-week meatless periods in the early 70s. Consequently, even the most productive agriculture countries are facing problems in the 1970s.

A condition that is difficult to measure exists in Venezuela. Venezuelans consume considerably more meat than they produce. Much of this meat comes from Colombia, but as contraband rather than through legal trading channels. This illegal import system has amounted to a hundred thousand head of cattle a year in the late 50s and early 60s. Despite the fact that Venezuela is another leading producer of agricultural products, it also has problems supplying specific types of food for its own population.

Brazil is even a more striking example. The coffee shortages of 1976-1977 have forced the world's largest producer of coffee to import coffee from Africa.

In order to increase agricultural production, a number of things could be done. Land utilization could be changed in order to bring into production those good sections owned by large landowners that today are undercultivated or misused. This would probably require either major land reform or the reform programs to force this type of change. More lands could be brought under irrigation and new lands could be cultivated. The problem with these two solutions is that there are few areas remaining where these solutions can feasibly be economically or technologically used.

The current problem is that many new lands and soil resources in Latin America are now coming to an end, and it is going to be much more difficult in the future to increase the acreages of farm land. The best lands for irrigation and colonization have already been taken. Few good lands remain that are not cultivated today.

The problem with much of the land in Latin America is that it is too high, too steep, too wet, or too dry to farm. In addition Latin America is plagued with poor soils which make the growing of numerous plants very difficult and growing highly nutritive plants nearly impossible. Only about one fourth of Latin America is horizontal and much of this is unusable (like the Llanos of Venezuela and the Amazonian basin of Brazil). In both cases, soils are either too poor for any realistic farming under current farming methods and techniques, or too wet in the wet season and too dry in the dry season to be used even as grazing land. According to many experts in Latin America, new land is just not available to bring into production. Current lands must be utilized better and yields must be improved in order that food production may be able at least to keep up with population growth over the next few decades.

Most agricultural land of Brazil, for example, has poor soils that lack important minerals. The grasslands are seriously deficient in lime and key plant nutrients. The soils of the rain forest are thin and lack most soluble nutrients needed to support plant life once the forest cover is removed. The soils in areas near the coast are quite depleted and heavily eroded. Because of these deficiencies, many diseases are commonplace in the crops. Fungi destroy vast amounts of plant life, and deficiency diseases are even passed on to livestock through the feed.

Compounding the problem of poor soils in Latin America is the traditional problem of water shortage. Throughout many areas of Latin America there is not sufficient rainfall or access to good water to make intensive farming feasible. For example in Mexico there is only one year of sufficient rainfall out of every three. The west coast of South America is another area that has chronic water shortage problems. In 1968 Chile experienced the worst drought in 102 years. The western coastal areas of Chile and Peru are traditional drought areas. Drought and other problems in Uruguay and Argentina caused some decrease in cattle herds in the past few years. There are tremendous water problems throughout the whole of Latin America. Many areas cannot be irrigated, others have bad drainage problems, and most areas have insufficient and unpredictable water supplies. Water problems complicate the bad conditions created by the thin and poor soils that abound throughout much of the horizontal land in Latin America. Under current techniques of agriculture, it will be extremely difficult if not impossible to bring into cultivation the millions of areas necessary to improve the quality of life among the growing populations in Latin America.

As if the original soil and water problems were not bad enough, these are compounded by the problems of soil erosion and poor forest management. Much of Brazil's North East or the hump area has succumbed to disastrous soil erosion since colonization by the Spanish. In Mexico one fourth of the forest lands have vanished for each century that has passed since the conquest. This is not only true of Mexico but is is also true of much of Latin America. With the devastation of the forest, the top soil was washed away in many cases and the watershed was also destroyed. Instead of creating new lands, Spanish practices destroyed many fertile areas and turned them into vast wastelands that are beyond agricultural use.

In some countries of Central and South America the erosion damage is so serious that a total of between 70 and 140 million acres of land have been made unsuitable for cultivation today. In some regions the eroded acreage amounts to up to sixty percent of the total land area. Although this is difficult to believe, one only has to visit some of the slopes in the Andes or some of the areas in Central America to realize what complete devastation has taken place.

One more example from Brazil should be sufficient to illustrate the problems of soil erosion and poor soils. Georg Borgstrom states that the coffee plantations have been on the march and moved from one area to another but as they have moved and entered into new lands they have left behind eroded and impoverished soils. Coffee has climbed higher up the slopes of Brazil until it has reached the high plateau and there the coffee plantations continue to expand in spite of the increased problems of bad weather, frost and drought. As the search for new soils continues, the older soils that have been depleted and destroyed continue to create problems for reforestation, watershed, and run offs that are not controlled or maintained.[5]

The continual pressure on Latin American forests not only results from a search for new lands for cultivation but is also due to a search for fuel resources. For example, four-fifths of Brazil's energy consumption which comes from domestic sources is derived from wood.[6] Brazil is one of the most modernized countries in Latin America and yet wood is the principal fuel used for heating, cooking, and for running many of the railroads. Wood is a principal fuel not only in Brazil but throughout Latin America where over fifty percent of the forests have been destroyed. As the forests disappear, much of the land is also destroyed, because the very thin layers of top soil are immediately washed away in succeeding rain storms.

The "slash and burn" method of agriculture practised in many of the tropical areas of Latin America is criticized greatly by North American technicians. Nevertheless this type of agriculture at least preserves the soil and makes it usable for three or four years. Despite the fact that production and yields are not very high under this agricultural system, at least the poor soils are preserved and the poor forests are not completely destroyed. This

method, used before the Spanish arrived, utilized tropical forest lands for major agricultural production which today have returned to forest in Panama and the Peten region of Guatemala. In the foreseeable future this may be the only method for food production that can be used in many of the tropical areas of Latin America.

If the "slash and burn" method is the principle agricultural method for these tropical areas, then the idea that these regions may feed millions of people in the future is obviously false. Therefore, we must not put our hope on the future food production of the tropical areas as the bread basket for Latin America's millions of people. We must look elsewhere to find sufficient resources and good enough soils with sufficient water supplies in order to provide the food for the growing populations throughout this continent.

In addition to the problems above, numerous pests and unusual diseases are found in tropical areas. Insects destroy as much as 25 to 50 percent of some tropical food such as cacao. Coffee in Brazil is also destroyed by a number of insects. Many diseases found in Latin America but not found in other areas of the world have a tremendous impact on trees, shrubs and other plant life. Termites penetrate woods of all kinds and destroy a number of plants. Other insects, unique to the area, continually destroy huge quantities of agricultural products every year. Chemical warfare against these pests has been really quite ineffective. In addition to the problem of lack of soils, lack of water, lands with too great a slope to be really useful, and poor soils, the pests, fungi, and diseases that exist in Latin America will continue to cut agricultural production significantly for the foreseeable future.

Nutrition and Quality of Life

Because of the problems in agricultural production, basic nutrition has not improved significantly in the past twenty years. Diets traditionally have suffered from a lack of proteins and have generally consisted of starchy foods.

For example in Peru and Bolivia the major portion of society consumes corn and potatoes. In many of the tropical areas starchy root plants such as the cassava, manioc and other types of root products form the basis of the diet. In many cases throughout Latin America there is a low consumption of fish, meat, milk and other high protein foods.

In the United States the recommended daily grams of protein required as a minimum are 60 to 70 grams of protein per capita. Many of the Latin American countries fall below that consumption. Uruguay and Argentina have the highest consumption, amounting to over 60 grams per day. However, seven countries fall below 20 grams per day, and all the other Latin American countries consume less than 30 grams per day.[7] Also,

depending on the type of physical activity, the number of calories needed to sustain active life ranges from 2500 to 3000 per day, but most Latin Americans fall short of that needed requirement. Such countries as Bolivia, Haiti, and El Salvador fall far below the necessary requirements to sustain healthy daily life: less than 2000 calories per day. Thirteen of these countries consume between 2000 and 2500 calories per day.[8]

It is this type of condition that affects the quality of life throughout much of Latin America. Health is affected by it; ability to work long hours, the ability to think, study, and learn and the ability to enjoy life are all affected by these shortages in the basic physical building blocks that are necessary for human health and nutrition. This condition is compounded by the fact that all the population is competing for all of this food and food production is not keeping up with the population increase. Although Latin America has not yet reached the point where the majority go hungry, there is a point that is reached at which human life is on a survival basis only. This level has already been reached by at least 25 percent of the population. If one considers the quality of life, then the per capita consumption must go up at a much greater rate than the population. Currently in Latin America anywhere from 25 to 50 percent of the population is below standard with respect to quality of life. Therefore a great deal must be done to bring these people up to a minimum daily consumption standard for proper nutrition.

Another index for looking at the quality of life that relates to population growth and nutrition is infant mortality. The infant mortality rate for Latin America as a whole is 75 compared to 17 for the U.S. and 9-12 for the Scandinavian countries. The countries of Honduras, Nicaragua, Bolivia, and Peru all have infant mortality rates above 100.[9] These infant mortality rates are very high and indicate a real problem with regard to quality of life. This would indicate either poor nutrition on the parts of the pregnant mothers or lack of correct health facilities, basic health requirements and nutrition for the infant. All these elements must be taken into consideration as part of the problems of population, nutrition and the quality of life.

Not only are there problems with caloric intake and protein deficiencies in Latin America, but a number of other problems result from insufficient diets and malnutrition. Malnutrition is not a primary cause of death among children under five in Latin America but it surely is a secondary cause of death for these children. When the body is weakened because of malnutrition it is more susceptible to diseases; so there is a continuously high rate of child deaths throughout a number of countries in Latin America. Malnutrition is a principal associated cause of death, at least 50 percent of the cases of children under five years of age.

A great deal more could be said about the quality of life in Latin America. One has only to mention slum areas that exist in many large cities of Latin America to conjure up the image of poverty, malnutrition and low standards of living. In most of these areas there is a complete lack of

potable water, sewage facilities, garbage collection, public lighting, electricity and other such items that might be considered necessary for a reasonable standard of living. People live in some of the worst conditions that can be imagined. Even basic family life is destroyed in these circumstances.

A study done in the late 1960s by one of the leading newspapers in Peru indicated an additional problem of life. According to the study some 30,000 children were homeless, living in the streets and severed from their family ties. In Latin America where kinship ties are so important the breakdown of the family seems critical to the society and the quality of life. Yet it is occurring with increasing frequency in the slum areas and the major urban centers of Latin America.

Despite the fact that rapid population growth is partially responsible for this deteriorating situation in Latin America, there is little knowledge or opportunity to practice any dignified type of birth control. Where knowledge and the desire are there, the methods to control birth are not available. The pill, IUD's, condoms, etc. are generally unavailable to the vast majority of people. Because this situation exists and because few people practice any sophisticated methods of birth control, the abortion rates in many countries in Latin America are extremely high. The countries of Uruguay, Argentina, and Chile are examples of this condition. One report indicates that as many as two out of every three pregnancies in some areas of Argentina, Uruguay and Chile result in abortion.[10] This would indicate that there are some real problems regarding the quality of life and the attitudes of mothers with respect to bringing children into the world under the conditions in which they are forced to live.

In contrast to the above situations an interesting phenomenon occurs when improved economic and social conditions take place within segments of a society. A basic change in diet is one thing that occurs when people become more prosperous or change their traditional cultural orientations. In Latin America, which traditionally has been a corn consuming area, wheat has now become one of the most important grains. This has resulted in fantastic importation of wheat into many of the Latin American countries. In the 1960s, Brazil, Costa Rica, the Dominican Republic, El Salvador, Haiti, Nicaragua and Venezuela all imported over 90 percent of the wheat they consumed. Brazil, which was considered to be one of the great potential agricultural nations of the world, is one which has imported the most wheat in the last decade and continues to import massive quantities.

Another important dietary change occurs when incomes go up: the demand for meat increases considerably. This has occurred in Argentina where the demand for meat practically has reached the point where domestic consumption could consume Argentina's total production. In the United States this is what happened in the period from 1940 to 1970 when the per capita consumption of pounds of meat increased by 33 percent: as people

became more affluent they ate more meat. In the U.S. with beef alone the increased per capita consumption from 1950-1970 was over 110 percent. This same phenomenon is expected to occur among segments of Latin American population, and it will be difficult to meet the increased demands for meat in this area.

Milk is another item that is consumed more as the affluence goes up. In the 1960s, seven Latin American nations imported over 50 percent of the dry milk consumed domestically. Consumption of meat and milk continues to increase but production has not kept pace with the demand and will be unable to do so in the near future.

Policies on Government

The decisions made by the politicians and those with political power often have a great deal of influence on population, on nutrition, and on the quality of life within a country. Land reform and land utilization in many cases depend upon government decisions or government sanctions to continue with current practices. As long as the current practices in agriculture continue, significantly improved yields will not be forthcoming in much of Latin America. There is a great need to identify the type of agriculture, the type of plants and the type of technology that can be used, given the conditions of the soil, the availability of water, the fertilizers, the pesticides and fungicides that can be used in order to greatly improve agriculture production in many areas of Latin America. Nevertheless the pressure for these kinds of changes and types of input are not forthcoming from either the public or the private sector.

Export policy is another element of public policy that has a direct impact upon people and their consumption of food. Many nations of Latin America export their major agricultural crops and do not retain enough for domestic consumption. In Argentina, for example, since the time of Peron's first regime, commitments have been made on cattle production that have deprived the Argentine people from consuming the amount of meat that they demand. It reached a point where meatless days were changed to meatless weeks in order that Argentina might meet its commitments abroad while the Argentine people demanded more meat and received less. It is also true in many other Latin American countries that are protein deficient, such as Mexico and Brazil, that meat is exported to the United States and other areas. In Colombia, contraband meat is exported into Venezuela; the same is also true in areas of Central America.

The use of fish meal in Chile and Peru is another example of export policy which has a direct impact on the domestic population. In 1964 Peru became the world's number one fishing nation; yet all of the fish meal, which was the principal product of the Peruvian fishing industry, found its way into Western Europe, Japan and the United States to improve meat

yields in poultry. Peru suffers from a fantastic shortage of protein, in particular meat protein. There are many villages throughout the highlands of Peru that cannot ever afford to eat chicken. Yet those policy makers who could influence the possibilities of increasing the chicken and other poultry industries of Peru and thus improve domestic consumption, instead sold the fish meal on the international market in order to improve foreign exchange and their own profits.

One could continue examining the many other products throughout Latin America which are exported and where acreage could be used to grow food for domestic consumption. The vast acreages of coffee, of cacao, of cotton, of sugar cane and of myriads of other products including even the Brazil nut, could add a protein dimension to domestic diets, but instead are used mainly for export to the more industrialized nations.

In summary, it can easily be shown that export policy in Latin America has had a direct and constant impact upon food consumption in the area. Malnutrition, insufficient caloric intake and large shortages of protein consumption are found in the same areas that export fantastic amounts of agricultural, meat and fish products which could be otherwise utilized domestically.

Another example of the political impact of domestic consumption is the price control policy of Bolivia in 1973 and early 1974. Because prices were controlled in Bolivia during this period of time it became much more profitable for the small landowners and peasants to sell their products across the borders of Bolivia, Argentina, Brazil and Peru. It reached the point in early 1974 where bread could not be found in La Paz because the flour, the wheat and the corn were all being exported for improved profits. These actions created a political crisis in Bolivia and caused the government to increase prices as well as wages in order to combat this problem.

It is evident from the above that contraband is an important illegal element that often has precedence over legal channels in the export of many products throughout Latin America. When the political system is unable to supervise its own borders, this in a sense is a political decision that has a direct impact upon domestic consumption of agricultural products. Throughout Latin America the borders have been notoriously utilized for the transfer of illegal contraband. In days now past much of the contraband was of an industrial nature, from transistor radios to cars. Now it is surprising to see that there is much contraband in agricultural products. The illegal trading of cattle between Colombia and Venezuela, of rice between Peru and Brazil and of wheat and corn between Bolivia and other nations are factors that have a direct impact upon the nutritional levels of the common people in Latin America.

Political relations between nations, other than trading and contraband, can also have important impacts on the quality of life within an area. An example of such a condition occurred when in 1969, Honduras and El

Salvador engaged in a short war which had a lasting impact on the people of that area. At that time the Central American Common Market was trading better than any other trading group within Latin America. The destructions and disruptions caused by this war nearly destroyed the Central American Common Market. It also created a number of trade distribution problems and completely disrupted trade between the nations of Central America. This had a direct impact on the foodstuffs traveling through this trade mechanism, as well as on the people who had been used to consuming foods and other products imported from other nations.

Conclusions

Political decisions of all types continue to have a tremendous impact on the nutrition levels and quality of life of the Latin Americans. The decision to try to farm the Amazon basin by constructing the Trans-Amazonian highway may result in an ecological disaster at worst and at best will have little impact on improving agricultural production in Brazil. Major changes in land use and ownership are vitally needed, yet significant agrarian reform is still a long way off in most of Latin America. Education of the agricultural labor sector, improved credit and use of better seed, fertilizers, irrigation techniques and pesticides are all needed, but little in this area is actually being done. Export and import policies need to be re-evaluated. Contraband and taxation policies must be controlled and altered. All of this is needed if the common man is going to have an opportunity to make a better living, improve the diet and health of his family and increase his standard of living. Under current conditions he will be unable even to maintain the life style he presently has.

The problem of finding sufficient food is becoming increasingly difficult in many of the Latin American countries. Per capita agricultural production is barely keeping up with the population growth. With the problems enumerated here, the future does not look bright for improved quality of life and improved nutritional levels for the masses of the people living in Latin America. Unless some significant changes are made and some massive breakthroughs in technology and in agriculture yields come very soon, malnutrition may well grow to starvation in a continent that has been known in the past for its bountious harvests and its very healthy and varied agricultural products.

FOOTNOTES

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El Derecho del Mar y los Países Sin Litoral

(English version follows)

por Dr. Felipe Tredinnick
Embajador—Delegado de Bolivia
a la Tercera Conferencia de las Naciones Unidas
sobre el Derecho del Mar

Es difícil poner en duda que uno de los grandes objectivos nacionales permanentes de todos los países sin litoral es su acceso al mar y desde el mar, como derechos consagrados por el Derecho Internacional.

Algunos países sin litoral—como Bolivia, por ejemplo—aspiran a obtener no solamente esos derechos de acceso, sino una salida propia y soberana sobre algún océano o mar del mundo.

Esta aspiración vital—o reivindicación, si se quiere—tiene, obviamente, trascendentales efectos multiplicadores, pues la obtención de una salida propia y soberana a algún mar por parte de los países sin litoral implica el dominio territorial de la costa, la posesión de un mar territorial, de una zona contigua y de una zona económica marítima, que muchos países sin litoral quieren que se les administre en forma regional o subregional.

Sin embargo, y sin que ésto pueda ser interpretado como renuncia alguna a la legítima y justa aspiración portuaria y marítima de Bolivia, como país sin litoral no puede estar asimismo ajena a los nuevos intereses oceánicos dentro del marco del nuevo Derecho del Mar, que se encuentra en pleno proceso de revisión y de cambio, pues nadie pone en tela de juicio que el Derecho Internacional constituye un ordenamiento jurídico esencialmente evolutivo y que, por ampliación elemental, el Derecho del Mar representa, evidentemente, la rama más sensible a los modernos procesos de cambio, cuyas manifestaciones se ponen en relieve, periódicamente, en la Comunidad Jurídica Internacional y más propiamente, en el seno de la Tercera Conferencia de las Naciones Unidas sobre el Derecho del Mar.

Me parece básico afirmar que los nuevos intereses marítimos de Bolivia y de los otros países sin litoral residen en el acceso equitativo a las futuras "zonas económicas" marítimas, que serán implementadas entre las futuras 12 millas del mar territorial y el límite máximo de 200 millas,

medidas a partir de las líneas de base aplicables en la costa, desde donde se mide el mar territorial.

Claro está que, además de su participación en las zonas económicas marítimas, los países sin litoral tendrán que participar en la distribución de dividendos provenientes de la explotación de los fondos marinos y oceánicos y su subsuelo situados fuera de la jurisdicción nacional, y además tendrán que contar con una representación equitativa tanto en el Mecanismo Internacional como en la Empresa que se encargarán de la exploración, explotación y distribución de dividendos.

En cuanto al derecho de libre acceso al mar y al derecho de libre tránsito asimismo al mar y desde el mar de los países sin litoral, se fundan, en mi opinión, en el derecho a la soberanía supranacional que, precisamente, se proyecta a la Comunidad Jurídica Internacional a través de los derechos de libre acceso y libre tránsito al mar y desde el mar de los países sin litoral.

Estos grandes temas que interesan sobremanera a los países sin litoral, en forma directa, dan una idea de la complejidad de las negociaciones dentro de la Tercera Conferencia de las Naciones Unidas sobre el Derecho del Mar, que significa una de las búsquedas de compromiso más vastas y críticas de la historia.

Los países sin litoral y los llamados países de geografía marítima desfavorable o también, en mi opinión, países de zona económica menos favorable (países que sí tienen salida al mar, pero ella es muy estrecha o pobre), aspiran a encontrar en la nueva Convención sobre el Derecho del Mar todos aquellos derechos e intereses justos y legítimos debidamente consagrados y, con ello, aprobarán con muy buenas razones el nuevo texto de la Convención que será la primera garantía evidente de que sus aspiraciones serán una realidad concreta y objetiva.

Y, así, los países sin litoral en vías de desarrollo especialmente, como Bolivia, tendrán la oportunidad de diversificar su economía y contribuir al desarrollo económico y al progreso social de su territorio y de su pueblo, que son postulados consagrados por la propia Organización de Naciones Unidas.

ACERCA DEL AUTOR

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The Law of the Sea and Countries without a Coastline

by Dr. Felipe Tredinnick
Ambassador-Delegate of Bolivia
to the Third Conference of the United Nations
on the Law of the Sea

Without a doubt, one of the great, permanent national objectives for all countries without a coastline is their access to and from the sea, as their right according to international law.

Some countries without a coastline, Bolivia for example, aspire to obtain not only their rights of access but also a sovereign gateway of their own to any ocean or sea in the world.

This vital aspiration, or vindication if you like, obviously breeds far-reaching effects, since the attainment of a proper, sovereign gate to the sea by countries without a coastline implies territorial dominion of a coast, and possession of a territorial sea adjacent to it, with a maritime economic zone, which many of the countries without a coastline want in some regional or subregional form.

Bolivia does have legitimate and just reasons behind its desire for port facilities and its maritime aspirations. However, as a country without a coastline, it cannot be aloof from new oceanic interests within a framework of the new Law of the Sea which is currently changing and being revised. No one would deny that international law constitutes a judiciary ruling ordinance which is essentially developing.

At its very core, the Law of the Sea obviously represents the greatest sensitivity to modern change; this is periodically manifested in the International Judiciary Community, most specifically in the bosom of the Third Conference of the United Nations on the Law of the Sea.

It seems basic to me to affirm that the new maritime interests of Bolivia and of the other countries without a coastline hinge upon equality of access to future maritime "economic zones", which will be implemented between the future 12-mile territorial sea limit and the maximum limit of 200 miles, measured from the coastal points from which the territorial sea limit is measured.

Clearly, besides participating in maritime economic zones, each country without a coastline will have to participate in the distribution of the dividends of exploitation of the sea and the sea floor and subfloor, outside its national jurisdiction, and will also have to be equitably represented both in the international body and in the enterprise which will take charge of the exploration, exploitation and distribution of the dividends.

As for the right of free access to the sea and the right of free transit within the sea and from the sea to the countries without a coastline, they are founded, in my opinion, upon the right to supranational sovereignty that is precisely being projected to the International Judiciary Community on the basis of the rights of countries without a coastline to free access and free transit to and from the sea.

These great themes, of obsessive interest to countries without a coastline, and directly conveying an idea of the complexities of the negotiations within the Third Conference of the United Nations on the Law of the Sea, signify one of history's most vast and critical searches for compromise.

Countries without a coastline, and the so-called countries with unfavorable geography or, in my opinion, less than favorable economic zone (countries that do have a gateway to the sea, but one that is too restrictive or poor), aspire to find, in the new Convention on the Law of the Sea, all those rights and just and legitimate interests properly granted. Then those countries will find very good reasons to approve the new text of the Convention, for it will be the first evident guarantee that their aspirations will become a concrete and objective reality.

And so the countries without a coastline, especially those that are on the road to development like Bolivia, will have the opportunity to diversify their economy and contribute to the economic development and to the social progress of their territory and their people, which is the proposition of the United Nations Organization itself.

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The Quest for Absolute Values

by Dr. Erich Jantsch
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Absolute values reflect the search for an identity of principles at work in man and his world. The unfolding of order in the human world permits a systematic ordering of absolute values as manifestations of three processes of integration—grounding, socialisation and individuation. Value dynamics thus becomes an integral aspect of the evolution of human consciousness and the human world: it forms the core of an internal (non-Darwinian) learning process of mankind as a whole and makes history a self-balancing order of process.

Values in a dynamic perspective

The notion of human values is inherently linked to some notion of order, though whether this order is objective or subjective cannot in my view be resolved. But the current predominance of a static world view, as it has developed out of the mathematical Greek cosmos and is manifested in the constructs of the classical scientific disciplines, seems to encourage attempts to define values in the framework of a static objective order. "The place of value in a world of facts", the slogan characterising a phenomenological, gestalt-theoretical approach to human behaviour in the 1930s,[1] still provides the bias for current discussions.

In a dynamic perspective, values become the subjective means to bring order to apparent chaos—physical as well as social and spiritual. But in an evolving world these values are not simply external tools to be picked up or given to us: they themselves evolve, and this gives them a dynamic perspective.

Values bring order to apparent chaos at the level of the individual, of society, of mankind as a whole. This chaos may be as trivial as an open

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In mankind's psycho-social evolution, the focus shifted significantly in the matrix formed by the three spaces and the three levels of inquiry (see Table 1), bringing into play a variety of expressions, of phases of the evolving system which we call absolute values. Also, what constitutes the microcosmos in the Law of Correspondence changes significantly. I shall discuss the evolving value system briefly in the systematic way suggested by Table 1; in the following section, I shall try to link it to the more complex unfolding patterns of history.

I view the evolution of absolute values as the continuous attempt to establish *re-ligio* in physical, social and spiritual space—to link backward to the three aspects of the Beginning from which human life unfolds and which the ancient Chinese called the Tao of the Earth, the Tao of Man, and the Tao of Heaven. The *I Ching,* the Book of Changes, is based on the interaction of these three taos. In Western terms, their reflections may be recognized in the three primal values: the Beautiful, the Good, and the True (the Sacred).

When man emancipated himself from the animal world and entered his psycho-social evolution by developing a self-reflective consciousness, the relations with his physical space were most intense, only dimly and subconsciously guided by relations of the spiritual kind. Later in his evolution, man's total space became more richly structured, encompassing all three aspects—physical, social and spiritual—in increasingly conscious ways. Table 1 traces this development as it unfolded from an emphasis on physical space toward an emphasis on spiritual space; certainly, the notions pertaining to physical space changed significantly as social and spiritual space moved into primary focus, taking the lead, so to speak.

With *re-ligio* focusing on physical space, the Earth stood for the microcosmos which matched the macrocosmos of the universe. With the emphasis shifting to social space, humanity became the microcosmos, and with *re-ligio* in spiritual space, the microcosmos is contained in self, becoming "God within man" and expressing the universal divine principle. Accordingly, the three aspects of *re-ligio* may also be called *grounding, socialisation,* and *individuation.* They constitute processes of integration which are not simply run through in sequence, but build a hierarchy, a system of processes. Socialisation builds on grounding, and individuation builds on both. But human life is neither integration nor dualistic unfolding in any undirectional sense—it emerges from the creative interpenetration of both cross-flows, integration and differentiation in one.

All three processes of integration become activated in the development of mankind as well as of the individual—ontogeny recapitulates phylogeny also in the evolution of consciousness. In phylogenetic terms, the processes of grounding, socialisation and individuation bring out the value systems connected with physical survival, social relations and syntony (the harmonious sharing of values). In ontogenetic terms, they may be

understood as processes for the balancing and integration of body, soul and mind, respectively. A. Maslow's popular priority-ordering of values—physiological needs, safety (security), belonging, esteem, and self-fulfillment—seems to trace the ontogeny of consciousness, but becomes reversed in the emerging value hierarchy of the mature individual; there, self-fulfillment governs the role of values in social space (esteem and belonging) and physical space (safety and physiological needs).

At the mythological level (man's subjective starting platform for building the overall systems of relations with his world) *fear* is a dominant motivating factor—the fear of spirits in an animistic world, the fear of the consequences of violating social laws and taboos, the fear of falling from divine grace. At the evolutionary level, *hope* dominates—the experience of being embedded and conserved in the unfolding of a metasystem, a macrocosmos, and of leading a meaningful life in this superior context. At the rational level, *certainty* rules—but an artificial and often deceptive certainty, obtained at the expense of cutting the umbilical cord linking us to our own world. In our time, where the failure of rational certainty has brought back fear, only renewed hope is capable of giving gracefulness and balance to the lives of humans and human systems.

Seeing life whole

In physical space, man first brought order into chaos by feeling the gestalt—the life-qualities of objects and forces of nature. They all appeared to him as personified spirits. Such a mythology of natural forces forms the core of *animism*. In order to defend himself and to survive in the chaos of spirit-entities, man resorted to magic through "sympathetic action" by placing his feelings into the physical entities themselves—by acting like an animal, the animal spirit could be mastered. Chaldean astronomers tried to identify with stars by exposing their bodies to the rays of a particular star in order to "feel its essence". Sun and moon appeared as "great spirits".

The world became a home for man when he became capable of feeling himself as a manifestation of an all-pervading life-force. The basis of this *vitalism* was an understanding of the periodicity of life processes, including the phases of the moon and the movements of the sun and the planets.

The objectivation of physical space came much later with the static Greek cosmos of Parmenides which gave rise to natural science in a dualistic mood. Regularities in nature became interpreted as natural laws, independent of man, and measurable quantities established the relations between them. For the first time, man saw himself outside nature—he accepted himself as a builder of culture and projected the constructs of his own reason on to his world.

Many spiritual systems of early and more recent cultures have revived the grounding process, the *re-ligio* of physical space, in a new light. Hinduism, in particular, which grew out of a vitalistic basis (Shiva's dance

penetrating the earth), places a high value on the human body as the pure vehicle of instinct as well as of the spirit. Similarly, yoga, the way to spiritual integration and enlightenment, incorporates much physical exercise toward physical integration. So do the approaches of the Sufi, the philosophical/mystical system of personified relations in Chinese internal medicine (especially acupuncture), and certain Japanese ways to physical/psychic integration and balancing such as the martial arts (e.g., archery) and Hara. In our time, bioenergetics—focusing on liberating and balancing physical, emotional and psychic energy flows through work on the body (in contrast to psychoanalysis which searches only the mind for causes of blocks and disturbances)—has pioneered a new wave of techniques approaching man as a unity of body, soul and mind. "Listening to the body" is again becoming recognised as a valid source for the recognition of absolute values.[6]

With the focus on social space, man tried to extend his web of personal relations to the macrocosmos through polytheistic religions which were characteristic of earlier cultures. The result, at the mythological level, was *morality,* an *individual ethics* which made man personally responsible to the gods. On earth, social systems were built to match these hierarchical relationships and special links were provided between the divine and the social systems of responsibility by the concept of *legitimacy* of political organisation in the name of the gods; sometimes even a direct bond was established by declaring the secular rulers as direct descendants of the gods (e.g., the Japanese emperors).

An impersonal principle linking the microcosmos of the state to the macrocosmos became introduced with Emperor Sun as *li,* the universal moral order: "Guide the people by virtue and control or regulate them by *li,* and the people will have a sense of honour and respect" (Confucius). The same notion appears later in Plato's *Timaios:* "There is only one way in which one being can serve another, and this is by giving him his proper nourishment and motion; and the motions that are akin to the divine principle within us are the thoughts and revolutions of the universe." In our time, the *ethics of whole systems*[7] attempts somewhat more timidly the same integration of social space toward human systems and ultimately one humanity.

The dualistic objectivation of social space at the rational level of inquiry has found its theoretical framework only in our time in the form of social science with a behavioural credo which underlies *social technology* and its vastly increasing applications. But its way had been paved for a long time by the imposition—through social laws and taboos—of selected behavioural patterns, or *ceremony,* upon social systems and relations.

Integration of the spiritual space moved into sharp focus about twenty-five centuries ago with a new phase in the autocatalytic development of human consciousness, namely, the emancipation of the human mind through abstract thinking. It contributed greatly to bringing order into

physical and social chaos, but it opened up a new chaos of a psychological kind. Dualistic detachment turned wisdom into intellect, and sometimes into sophistry. Man started out to find himself and to link his own individuality to the divine principle at work in the macrocosmos, to become "man made in the image of God". Thus, God was in turn conceived in the image of man and the corresponding mythology was that of *monotheistic religions*. Their central notion is *virtue*, life in the divine spirit, in the light of God. Feeling the "God within" gives a meaning which needs no further construct to be legitimised. To speak with Jonas[8], the experience of oneness is here that of God giving himself up in order to transform himself in evolution, within and through ourselves.

The striving towards identity of self with the greater Self has only been partially successful so far. The *Christian* faith became increasingly dualistic, separating heaven from the earth and concentrating on hope for "the other life", in which freedom from fear was to be found. But fear returned to the largely unordered psychological jungle this side of the separation line. Both Christianity and most versions of Buddhism (except some of the Tibetan teachings) turned against the body and sought integration only in spiritual space, sometimes also recognising social space. However, Buddhism became a most elaborate evolving system in itself which permits a study of the various stages in spiritual integration, or individuation, within one and the same religious faith: where *Hinayana Buddhism* focuses on the mythological level, seeking precision in seeing things in a dualistic perspective, *Mahayana Buddhism* is geared to *prajna*, or transcendental knowledge, to be found in the *re-ligio* to *shunyata* in which man establishes his oneness with the greater Self; but the highest stage is *Tantra*, the dancing out of energy, the continuous linking backward to the origin in order to energise life, the fluctuation between oneness and dynamic duality—individual life unfolding itself meaningfully as an agent of universal evolution.

Thousands of years ago *Hermetic philosophy* stipulated for man the goal of individuation, of identification with the greater Self. Medieval *alchemy*, one of its offsprings, took the same approach of a "psychological vitalism" with the hope also of mastering physical transformations in the same spirit, of building a world to the measure of man by subtle regulation of cosmic forces—not an *a priori* impossibility if we think of the small amount of energy needed for controlling large-scale energy flows in cybernetic systems in which the principles of the microsystem match those of the macrosystem in precise ways. The *Kabbala*, in contrast, took the approach of a "psychological animism" by attempting to master "astral" forces through magic and thereby achieve physical transformations. The successor to these attempts, modern *technology*, developed at the rational level, first with the same aim of mastering physical nature and later extending to social space. Like the magician in the *Kabbala*, we have to

feed it now with our soul.

The rational approach to spiritual space—the manipulation of self through *human technology,* or *ritual*—has so far been peripheral to mythological approaches. Psychotherapy in a variety of versions and the techniques developed in the name of humanistic psychology and practised in "growth centres" and esoteric schools may be regarded as forerunners to future attempts toward the "planning of self" in analogy to physical and social planning. We have not yet reached a stage where the rational pursuit of spiritual values plays a dominant role.

The systems of absolute values, categorised by the fields of the matrix in Table 1, form a certain hierarchy. The ascending orders of physical over social to spiritual space, and of the rational over the mythological to the evolutionary level of inquiry, form stratified hierarchical systems in which meaning is enhanced as one ascends and there is better resolution of details as one descends. Reductionism in the human world, with the higher manifestations of absolute values gradually being cut out and no longer serving as guides to the lower ones in this hierarchy, has been most graphically described in Lao-Tzu's *Tao Teh Ching:*

> Failing Tao, man resorts to Virtue.
> Failing Virtue, man resorts to humanity.
> Failing humanity, man resorts to morality.
> Failing morality, man resorts to ceremony.
> Now, ceremony is the merest husk of faith and loyalty;
> It is the beginning of all confusion and disorder.

History and absolute values

History may be viewed as the unfolding of *brahman* in the human world. Elsewhere[5, 9] I have tried to describe this complex order of processes in terms of "waves of organisation" succeeding each other and building a hierarchy of human systems, orchestrating human life ever more fully. These waves, which I have called ecological, social and cultural organisation—and which correspond to the filling of physical, social and cultural (spiritual) space—emerge from an unconscious source of oneness, from the Tao. As each unfolds it first passes through a phase of subconscious coordination—bringing into play what Whyte[10] has called the internal factors in evolution; it then enters a phase of increasingly conscious struggle emphasising Darwinian (external) processes of competition under environmental constraints, and finally internalises these struggles again, but this time in the form of conscious coordination, of human design. Thus, each wave may also be viewed as passing through the three levels of perception/inquiry, from the evolutionary over the mythological to the rational level (see Figure 1). The *brahman,* then, unfolds through an interplay of waves, which emerge from oneness and act out their energy in a dialectic and finally in a fully dualistic framework.[11] In the former they

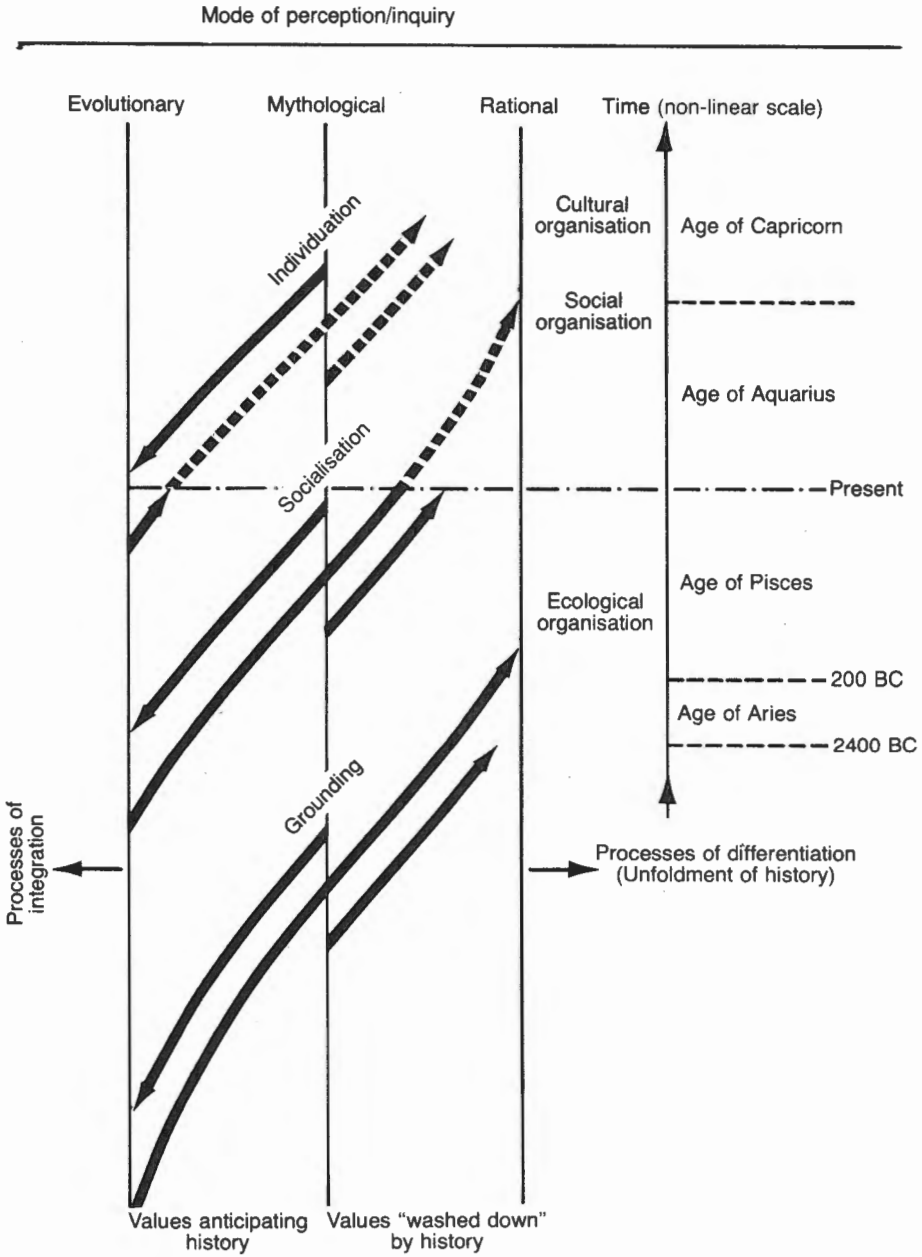

Figure 1. The interpenetration of processes of history—the dialectic unfolding of energy in the human world—and processes of integration, linking backwards to the oneness in the origin. Absolute values are brought into focus by the process of integration, *anticipating* history between the mythological and evolutionary levels, and *following* history in its moves towards the rational level.

"derive their vital harmony from the proper blending of the two vital Breaths" (*Tao Teh Ching*); in the latter they maintain balance by receiving guidance from the subsequent waves. This is one of the reasons why it is so important not to isolate forms of organisation in the human world. With physical organisation in a rational phase separated from social and spiritual guidance, the complex unfolding of the integral *brahman* of the human world tends to become unbalanced—as witnessed in our time of overemphasis on rationality and the mastery of the physical world.

The interplay between waves of organisation is such that at present the human world is characterised by ecological (physical) organisation being in a rational (consciously coordinated) phase, social organisation past the peak of its mythological (Darwinian) phase and going toward increasing rationalisation (planning), and cultural organisation still in its evolutionary (subconsciously coordinated) phase approaching a Darwinian phase of increasingly competitive cultural pluralism.

If history, thus, may indeed be viewed as the unfolding of *brahman* in the human world, then absolute values, as unfolding aspects of *atman,* may be basically understood as manifestations of internal, coordinative factors which are to come into play in the evolution of the human world. However, absolute values do not simply enter at the rational level of conscious coordinative factors, or human design, and meet the waves of organisation by "running up" against them as the latter unfold. Rather, they surface at the subjective mythological level where man interacts with the outer world by projecting the order of his inner world on to it and entering into a feedback relation, a dialogue, with his environment. The process of matching order without and order within can only start in such a feedback way, with both sides still malleable in their expressions. But in trying to express *atman* as comprehensively as possible, absolute values subsequently tend to move toward expression at the non-dualistic evolutionary level.

Thus absolute values evolve with history in a curious way: they enter at the mythological level, obviously *in anticipation* of a wave of organisation which has not yet reached the corresponding stage of unfolding. From there, still in anticipation, they "lap upward" toward the evolutionary level, thereby pre-ordering a reality which is yet to unfold itself in the opposite, "downward" direction. This perhaps constitutes the best guarantee for the emerging organisation really becoming a human world: *atman,* the true essence of human self, has the first word in determining the internal factors of coordination which will shape the initial phase of each wave of organisation. Since everybody shares in *atman,* absolute values can become the accepted nucleus for the crystallisation of new cultural patterns through syntony, still leaving freedom for the expression of individual values of a secondary order.

But "as to foreknowledge", says the *Tao Teh Ching,* "it is only the flower of Tao, and the beginning of folly". After having illuminated Tao, the focus of absolute values eventually moves down to the rational level at a

later stage, but apparently no more in anticipation, but synchronised with the unfolding of the corresponding wave of organisation, as if it were "washed down" by it. Rationality in the physical domain appeared with Greek science long after the animistic and vitalistic stages of archaic cultures, and even long after new expressions of absolute values had illuminated social and spiritual aspects of man's total space, and social organisation was well under way. The values that go with social planning and behavioural science are about to make their full impact only in our time concurrent with social organisation actually moving into a phase of conscious design.

Thus absolute values, after surfacing as subjective expressions, bring order to the emerging objective (or objectivated) reality in two ways:

- in a non-dualistic and anticipatory way in terms of essence (of self and reality), as *"objective normative forecasts"* prefiguring the emerging order of the human world and acting as powerful "self-fulfilling prophecies"; and
- in a dualistic, actual (non-anticipatory) way in terms of differentiation in the unfolding of energy, or a dynamic phenomenology.

The restriction of the anticipatory, normative role of absolute values to bringing light to the mythological and evolutionary levels—or, in other words, the favoured "upward" movement of the evolving value system in Figure 1—seems to emphasise the intuitive recognition of internal coordinative factors which are pre-cast as innate norms for the continuity and balance of the historical process. This is not a deterministic concept, however, though it may be called finalistic. If consciousness, or the total human world, are viewed as evolving non-equilibrium systems, such innate norms (perhaps formulated as "internal objective probabilities") replace any *a priori*, external concept of probability or causal determinism. Whereas physical systems, according to quantum theory, have the possibility of testing their future by trying "virtual" transitions in actual physical processes of extremely short duration with the aim of finding and realising their innate norms, and bioorganisms learn by testing their metabolic functions, human systems seem capable of casting virtual, unconscious mind processes thousands of years in the future. As the innate norms of future development (history), in the form of absolute values, impinge on the present—even while they are still below the threshold of conscious recognition—they act as powerful fluctuations initiating mutations of human systems to new dynamic regimes. The *internal* generation of such fluctuations seems to be a characteristic of the autocatalytic, self-reflective consciousness distinguishing the human world. It forms the core of mankind's internal (non-Darwinian) phylogenetic learning process. This is also the reason for values surfacing at the mythological level of feedback relations.

The dawning of the Age of Aquarius

The emerging hierarchy of order develops in two opposite directions: whereas the waves of organisation gradually bring into focus human systems of widening scope—from individuals over social systems, cultures, humanity, to the noosphere,[5-9] the microcosmos, for which absolute values are formulated, shrinks from the whole earth (grounding) over humanity (socialisation) to self (individuation). But this is only a further aspect of the Law of Correspondence, of matching *brahman* with *atman:*

> How do I know about the world?
> By what is within me.
>
> *Tao Teh Ching*

The time-scale in Figure 1 is not linear. Mankind's psycho-social evolution supposedly started some 40-50,000 years ago. But at least around our time the illumination of the future through the emergence of new expressions of absolute values seems to be closely linked to the cycle of the "sidereal" zodiac, which spans approximately 2150 years.[12] The great monotheistic religions emerged some 1900-2500 years ago, already prefiguring, at the beginning of the Age of Pisces, the future process of individuation and the corresponding wave of cultural organisation, while history was only setting out to move its focus from ecological to social organisation. One cycle further back, before 2000 B.C., polytheistic religions of personal relations, and the system of Chinese internal medicine linking the order of the human body to that of the universe in terms of family relationships, shed light on the process of socialisation and the future wave of social organisation, while at the same time primitive agriculture marked the transition from competition to conscious coordination in ecological (physical) organisation, and social organisation was still in its infancy. However, it appears that absolute values as "objective normative forecasts" do not just encompass the impending wave of organisation, but can also bridge larger periods of future history. Hermetic philosophy, which is supposed to be older than all other philosophies and to go back to the time before Moses, certainly constitutes an astonishing anticipation of the individuation process and of evolutionary theory as it emerges from science only in our time.

One "objective forecast" seems to be on the safe side, namely, that the process of individuation which has been illuminated so brightly at the beginning of the Age of Pisces, will be the great task to be carried out in the Age of Aquarius on whose doorstep we now find ourselves. This insight forms the core of the message which C.G. Jung formulated at the end of his life. This man of extraordinary sensitivity for both the emerging *brahman* and the *atman,* who had made insight the central subject of his life-long study, foretold:

I think that this is what can be said at the end of our aeon of the Fishes, and perhaps must be said in view of the coming aeon of Aquarius (the Water Bearer), who has a human figure and is next to the sign of the Fishes. This is a *coniunctio oppositorum* composed of two fishes in reverse. The Water Bearer seems to represent the self. With a sovereign gesture he pours the contents of his jug into the mouth of *Pisces austrinus,* which symbolizes a son, a still unconscious content. Out of this unconscious content will emerge, after the passage of another aeon of more than two thousand years, a future whose features are indicated by the symbol of Capricorn: an *aigokeros,* the monstrosity of the Goat-Fish,[13] symbolizing the mountains and the depths of the sea, a polarity made up of two undifferentiated animal elements which have grown together.[14] This strange being could easily be the primordial image of a Creator-god confronting "man", the Anthropos. On this question there is a silence within me, as there is in the empirical data at my disposal—the products of the unconscious of other people with which I am acquainted, or historical documents. If insight does not come by itself, speculation is pointless.[15]

FOOTNOTES

1. Wolfgang Köhler, *The Place of Value in a World of Facts* (New York, 1938; republished New York and Toronto, New American Library, 1966).
2. See also Dane Rudhyar, *The Astrology of Personality* (New York and London, Lucis Press, 1936; reissued Wassenaar, The Netherlands, Servire, 1963 and Garden City, New York, Doubleday, 1970), in particular the Prologue, "Prelude to a History of Astrology", from which this article benefited.
3. Lao-Tzu, *Tao Teh Ching,* translated by J.C.H. Wu, P.K.T. Sih, ed (New York, St. John's University Press, 1961).
4. According to a recent, unorthodox interpretation, this is already recognised in Hegel's conception of history: by assuming a three-fold separation of man from outer nature, society, and his inner nature, Hegel attempted to constitute identity between nature and history, with the latter, as "spirit", continually causing the very separations which it strives to overcome. See Jürgen Habermas, "Können komplexe Gesellschaften eine vernünftige Identität ausbilden?" in *Zwei Reden* (Frankfurt am Main, Suhrkamp, 1974).
5. For elaboration of these concepts, see Erich Jantsch, *Design for Evolution: Self-organization and Planning in the Life of Human Systems* (New York, Braziller, 1975).
6. *Ibid,* Chapter 9, where I have tried to present a brief, systematic overview of such approaches. See also Claudio Naranjo, *The One Quest* (New York, Viking Press, 1972).
7. See C. West Churchman, *Challenge to Reason* (New York, McGraw-Hill, 1968).
8. Hans Jonas, *The Phenomenon of Life* (New York, Delta Books, 1969).
9. Erich Jantsch, "Organising the Human World: An Evolutionary Outlook", *Futures,* Vol. 6, No. 1, February 1974, pages 4-15.
10. Lancelot Law Whyte, *Internal Factors in Evolution* (New York, Braziller, 1965).
11. There seems again to be an analogy with Hegel's conception of history in Habermas' interpretation (see ref. 4).
12. The "sidereal" zodiac cycle is one twelfth of the "sidereal" year, generated by the rotation of the earth's axis in a 26,000-year cycle, or, in other words, the time it takes the solar equinoxes to move through one of the twelve signs of the zodiac, if the latter is divided into precise 30° sectors.

13. In the original text, there is the following footnote: "The constellation of Capricorn was originally called the 'Goat-Fish'."
14. In this context, it is perhaps interesting to note that in a sweeping vision of universal evolution from its origin to its end—apparently reflecting considerable insight, enhanced by the foreshadows of the Second World War (C.G. Jung experienced his great revelatory flow of images before and during the First World War)—the highest evolved civilisations in the universe are those of symbiotic creatures, especially of a kind which consists of physically separate, but psychically and mentally linked parts one of which lives on land and the other in the sea. See Olaf Stapledon, *Star Maker* (London, Methuen, 1937; reissued Harmondsworth, Middlesex, Penguin 1972).
15. Carl Gustav Jung, *Memories, Dreams, Reflections* (New York, Vintage Books, 1961).

ABOUT THE AUTHOR

Erich Jantsch was born in 1929; he earned his Ph.D in 1951 at the University of Vienna.

Dr. Jantsch has made important contributions to science and philosophy, and has held visiting appointments, chiefly at the University of California, Berkeley, but also at: Massachusetts Institute of Technology, Portland State University, Technische Universität Hannover, Universität Bielefeld, Technical University of Denmark, University of Paris, Institute of Advanced Studies in Vienna, University of Lund in Sweden, and the Graduate School of Economics and Social Sciences in St. Gallen, Switzerland.

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The Quest for Absolute Values

A Reply

to Erich Jantsch

by Dr. Eleonora Masini
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In the incredible dynamics of transformation, which involve the external environment, the social context, and man's own inner aspect, man today increasingly feels the need to discover the principles of order. These principles are not static: they flow through man's history and his personal being, giving a meaning to them.

That is to say, people want to find a meaning in the events involving them, but above all they want to find the link with all other people in the past and the future. This link is not easy to define; it might perhaps be called value dynamics.

Jantsch's work is a great attempt to understand not what these values are (this would be exactly the opposite of his intentions and would crystallise the apparent order in a series of formulations), but rather to see this order in the movement, the fluctuation in the process of consciousness of the flow of life. But this flow has a "sense", a meaning, and Jantsch's search is for the roots of this meaning. As he states in *Design for Evolution,*[1] this is the attempt to extend Prigogine's discovery of "order through fluctuation" (which seem to govern the physical and biological systems) to human systems.

The initial assertion—that human values in themselves are linked to some notion of order and that Jantsch does not know whether this order is objective or subjective—is in fact the key both to his reasoning and to his intuition. The fact that he does not know exactly demonstrates what he describes as the schematisation of order: that it does not matter whether order is objective or subjective (because this would already be conceiving reality in dichotomic terms). Both approaches are involved, because both the object and the subject are involved in reality.

Values are therefore principles of order, and are themselves dynamic principles in the flow of life, principles of order which in some way govern relations between the microcosm (man), and the macrocosm (the world). I have elsewhere[2] described this mediation as the passage from the ontologi-

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cal level—"absolute values" which govern the world and which are outside of time—to the internalisation of the values at a given historical and spatial moment by man, the "existential" level, which is always differently internalised in a dynamic process. Values are therefore the link between the two levels which, however, are not as separate as the words describing them, but are part of each other. This is what Jantsch refers to as the concept of correspondence in Indian mysticism between *atman* and *brahman*.

Hence the objective and the subjective do not exist, but pervade one another on the basis of a fundamental identity which is known and recognised according to the two levels (*atman-brahman,* ontological-existential, objective-subjective) and which is the evolutionary moment. The meeting point is the "within me" and this is the moment of everything, able to contain everything (e.g. the Tao which is empty and never fills).

Order thus comes from the recognition of absolute values as a continual, never-ending process of the search for and the recognition of that identity which is in continuous flow. I would perhaps say, along with R. Benedict and A. Maslow, that it is a continuous synergetic process, in the sense of continuous reinforcing discoveries.

But what is man in all this? Man who lives in a physical, social (or psychosocial), and spiritual space. The physical space is where man "has, to survive" biologically; the psychosocial space is where he "has, to be" and places himself in relation with others. It is therefore the space of the I and of the I-You. The spiritual space is where man "is, to be", in which the I-You-We relation is central and in which he tends towards a search for "absolute values", and for his own limits—which are not confines because beyond them is the unknown and the unknowable.

To analyse these three spaces, Jantsch says, there are three approaches, and herein, too, lies the importance of his analysis. The evolutionary approach does not distinguish the subject from the object; there is everything, it is the identity we go on discovering in life and through time. This is the confiirmation of "order in flow" and the identificatory moment. In the "mythological" approach, the subject and the object influence one another and there is therefore the prevalence of the subject. In the "rational" approach the object, separate from the observer, is dominant.

Here then is the root of our times. There is a prevalence of the observer-object position in which, in every human space (physical, social, and spiritual), there is detachment, noninvolvement, and hence little recognition of absolute values and of identity, which can only exist in the evolutionary moment when the subject identifies itself with the object—with the eternal in the spiritual space. In the spiritual space, but at the rational level, there is psychotherapy and human technology, but assuredly there is no recognition of identity (see Jantsch, Table 1, page 37).

The evolutionary level is an interesting development in Jantsch's work. Here, in the passage from physical space to spiritual space, there is

gradual recognition of the Tao, the flow of life, on earth, in man, in the heavens; this last is in fact the highest moment of identification at the various levels and within the various spaces.

Jantsch holds that in ontogenetic terms we can refer to A. Maslow, for whom man, by gradual awareness through the well-known hierarchy of needs, attains the capacity of self-actualisation and recognises absolute values as principles of order in the flow. I think Maslow's self-actualisation may be understood as the "evolutionary" moment in Jantsch's terms in which the identification of the subject with the object gives us the capacity to recognise "the order in flow", and goes beyond a recognition of values in the physical and social spaces. In fact, Maslow puts forward the concept of primary creativity. This is able to embrace the links which go beyond those perceptible by reason and which science has not taken into account because it is intent upon the development of a secondary creativity that is capable of following logical links. To this primary creativity one may perhaps refer man's potential capacity to acquire, at the evolutionary level, the identification of the object with the subject in the physical space, but mainly this occurs in the social and spiritual space. This is a question which is still open to discussion.

Three Levels

Another extremely interesting point made by Jantsch is the positioning of the basic concepts of the three levels:

- *Hope,* at the evolutionary level where the junction lies in the identity between object and subject, and thus where everything is possible, everything is open and never conquered.
- *Fear* at the mythological level, where the subject seeks dominion precisely because it is afraid.
- *Certainty* at the rational level, which appears to be a step beyond the other two levels, but which instead reintroduces fear in different terms.

The cycle is renewed and finds a solution, or at least a temporary solution, only in the renewed identity between object and subject, and hence in rediscovered hope in which fear and then certainty are again born, thereby continuing the flow. Certainty is in fact not a synonym for security, but rather it is a cover-up of fear by being conscious of the rules, laws, or structures.

Historical application

When Jantsch goes on to the historical application of his theory, his line of thought clearly emerges: man in the first phase is pervaded by the objects which surround him: in "vitalism", man is part of the phases of the moon and the movements of the sun and of the planets. Then he attempted

to master them through the possibility offered, for example, by animism, in which there is penetration, but on a different level. Thereafter man becomes detached, his physical space objectivated in the search for regularities in nature independent of man, and man felt himself outside nature, an observer qualifying relations. That is, man has created what many people call "second nature", *viz.* a partly artificial environment, the product of technology, of man's capacity for reflection, of abstract thought. Lewis Mumford described it as "science discovers, technology executes, man conforms". Man is no longer tranquil in life but terrorised by his own implements and inventions. All this takes place in the physical space in the various evolutionary, mythological, and rational stages.

In the social space at the evolutionary level there is a search for the ethics of whole systems (the Tao which is pervades all, even social relations), at the mythological level there is the relation with the object governed by man through individual ethics and legitimacy. At the rational level man has found laws of social survival, the regulation of the problems of population and peace through social technology, i.e., regulation from outside through abstract laws, coined by the observer from that reality which is foreign to him.

And what can be said about the spiritual space? At the evolutionary level, there is pervasion by the supreme being, which totally pervades every aspect (body and soul); this is the level beyond which human understanding cannot reach (if it is a question of understanding). Understanding is in fact easier at the mythological level, at which man relates himself to being in the anthropomorphous religions or, in some ways, in monotheistic religions, and reproposes the dichotomy between the aspects (body and soul, creation and earth), with the object vulnerable to domination through *fear;* lastly in the spiritual space, at the rational level man dominates by "ritual" with manipulatory *certainty* which conceals fear without being able to attain *hope*. This is the historical moment in which we are living: the ritual is different but we strive to "exorcise" fear by certainty and rules, without reaching, or for that matter even seeking, the identity of the object-subject. Consequently fear will again emerge. This is what Lao-Tzu calls "ceremony", the beginning of all confusion.

"Will we rise again" in an "ascensional" order toward the evolutionary level where there is neither *certainty,* nor *fear* but only *hope,* which is an opening, an awareness—never reached, never conquered—of that which is not known? Is this the possibility of historical analysis through the dynamics of absolute values (of the *brahman*) and at the same time knowledge of the *atman,* the essence of being (self) of which the *brahman* is a manifestation? But the discourse does not end so easily.

Balance

The main point is that the origin of order and the origin of flow are in the source of Oneness, of the Tao, from which these waves of life depart,

which involve all three levels and which fill all three spaces. When there is no such Oneness, imbalances are created. We have seen an example of this in our time "of rational level", in which the spaces are involved at different moments: physical space, social space, spiritual space.

The physical space at the present time is dominated mainly by the rational level and only in a few societies is the spiritual space also involved (psychotherapy and human technology are only considered in a few societies at present). Today the social space is mainly still in the mythological phase (of the power of some over others). An imbalance of the waves is thereby created at different levels which involve different spaces. How is it possible not to realise that the imbalance is real even if our consciousness is not always so, and that the physical space is reached by different levels of these waves than the spiritual space? Are we not perhaps, as stated, at the mythological level in the social space, at the rational level in the physical space, and only partly still at a rational level in the spiritual space? Hence we are able to exploit natural resources to the maximum (perhaps) and still tend (in the social space) towards the use of power by the few over the many (manipulation), while in the spiritual space we are actually only trying to exorcise the object through laws of virtue made once and for all, and static in time.

But consciousness of "absolute values" understood as principles of order, says Jantsch, occurs at the mythological level and they are "in anticipation of" an upward movement (they "lap upward") towards the evolutionary level. To be sure, this is possible if the evolutionary level is considered at the moment when there is no differentiation between the *brahman* and the *atman;* the moment towards which mankind moves because of the consciousness reached at the mythological level, at the individual ethical level, i.e., at the level when the absolute values "enter". Here we have another concept whereby the *atman* (the essence of the self) is the impulse of the absolute values which come into conscious play after they have emerged in the mythological space; previously they are not there, or men are not conscious of them. So the history of humanity becomes human when it responds, in tune with absolute values, to the presence of *atman*. In terms of "objective normative forecasting" this response is to man and mankind. Thus the discourse is constantly dynamic and linked to the movement of *atman* in the *brahman,* of absolute (ontological) values in the existential and hence they are recognised at the moment of choice. But the waves continue and return to the rational level and to non-understanding, and there is no longer talk of anticipation but of certainty, not of dynamics but of statistics.

The "order through fluctuation", being part of the flow of life, does not end. The "order through fluctuation" becomes decisive when internally generated; it is self-reflecting and conscious as regards the human world.

Only in these terms can one effectively talk of anticipating the flow. In this I am absolutely in agreement with Jantsch. In these terms one can really share the main points, not trajectories, of the history of mankind, part of the flow of life, points which renew themselves in the flow and in fact are transformed as such. These are the "absolute values" which if only at *atman* level, that of "the essence of self", could not be part of history, nor anticipate anything of it, but would be fixed; whereas if the *atman* joins the ***brahman***, then "existence" is realised, concretely and in continuous dynamics, and hence anticipates "the essence of reality". This is perhaps a real message of hope, not of fear, or of certainty. It is up to every man or society to feel part of the flow surrounding them, which has an order and does not bear out *fear,* does not seek *certainty,* but opens itself rather towards ***hope***.

FOOTNOTES

1. E. Jantsch, *Design for Evolution* (New York, Braziller, 1975).
2. E. Masini, "Basic needs and changing values", draft, 1975.

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