A Working Model For Health

Educational Solutions Worldwide Inc.

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Newsletter vol. XVI no.2-3-4

December 1986, February/April 1987

First published in 1986/1987. Reprinted in 2009.

ISBN 978-0-87825-329-6

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This triple issue Newsletter is concerned with a model for health. Since it is a challenge which occupies many minds today, we hope it will be welcome as an instrument for coming closer to oneself.

The value of a model is to be found in its capacity to make us think on the subject, to allow us to shed some light upon hidden matters connected to the field for which the model is proposed.

A model becomes preferable to previous ones either because it is easier to handle mentally or because it encompasses new challenges and allows them to be reachable, or because it does both. A model imposes itself on its users on the basis of its fecundity, i.e. its capacity to offer again and again new openings of a certain importance. Copernicus in 1543, offered such a model for our solar system; Rutherford one for the structure of the Atom; Neils Bohr for the spectrum of the Hydrogen Atom in 1913; Einsten for Gravity in 1915 (within the broader frame of reference of General Relativvity). Each of these models within physics made previous ones obsolete or become a first approximation, and allowed an understanding of what was previously mysterious.

But model making transcends the exact sciences and is needed everywhere. Without models we grope in the dark. Thinking is coextensive with model making and using, and shares the qualities and the limitations of the one adopted. This explains a lot of the evolution of ideas and theories and even of actions, in many fields, making us humbler as we seek ways of producing better models for specific purposes.

Health is one of them and serves to illustrate the why and how of model making and to answer questions still pending in the field of health.

Announcements and News Items complete this triple issue.

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1 Thinking Can Only Be Done On Models

These words only mean that anyone capable of reaching his or her thinking will encounter a reality, which is made of a system constructed in certain ways and not others, is located in the mind and uses mental material although they are believed to have also another reality.

In fact, at the end of the study the statement becomes tautology. But not at the beginning. This is so mainly because it is not so easy to scrutinize one's thinking and find its constituents and dynamics, and to have enough experience of models and model making to recognize some resemblances and equivalences.

Each reader is invited to propose the examples which will supplement those we are allowed to bring forward in a writing as short as this one and find out directly whether it is true that one's thinking, in spite of all its powers, is only as good as one's choice of premises, one's methods of work, one's intellectual endowment, one's capacity to relate to what one perceives of and in, the challenges, one's determination to squeeze as much as possible from the model emerging in one's mind.

* * *

Whatever I write is a transmutation of what I think and since I use a language to express myself, I can encounter at once at work in my mental reality, the energies of which I can be aware. I can therefore notice that my thinking uses one substratum or more and find out what it is or what they are.

For instance, if I find that I use images and that these are products of my mind, susceptible of transformations, I can relate to these and take note of what happens.

Of course, there are many many things I do automatically and I do not need to be aware of, although in a number of cases I could become aware of them. So long as I am *not* aware, I cannot say whether I use a model or not. But as soon as I become aware, I can. For such reasons some people can enlighten themselves and others about how they think and what that means for example in terms of energy transformations or displacements.

By being watchful for the necessary durations (their frequencies and locations on the chronological time line) one can increase the value and significance of the findings. Watchfulness is a personal instrument more reliable in fundamental matters than recording instruments, since recordings don't read themselves, and the watchful person both receives data and looks at them with a searching and varying mind which is not part of physical instruments.

In fact, every instrument is the objectivation of a mental instrument whose awareness must precede the making of a physical one and objectify those selected awarenesses which are part of the study or investigation. The order is clear: first, become aware of something, then, discover the attribute of the resulting awareness and finally give that attribute a reality accessible to others as it is to oneself. In different cases, these three rough steps can be replaced by sequences of steps molded closer to the realities allowed to reach one's awareness than the broad net above. Thus a model is generated and refined by further scrutiny. The latter is talked of as "thinking."

Once we make ourselves sensitive to the above, we become conscious of the all-prevading recourse to models in *all* our thinking and from that to our participation in the creation of reality.

Even if it is very difficult and rare to develop one's watchfulness to the point that everything which takes place within is taken into account, such development may be a prerequisite of any real progress in any field. On top of a sensitivity to the contents of one's thought and an ability to make more and more of it explicit, there is room for an inner observer who watches all the appearances involved and seeks the realities behind them.

This tiering of awarenesses is a special spiritual experience uniquely individual and needed in order to progress at all in this fleeting and rarefied reality called one's inner life. The various tiers are not more than instantaneous or temporary objectifications called in for the purpose of making oneself aware of the realities generated. Then, the self decides on whether to make such awarenesses more permanent by allocating to them energies in more permanent form, or to erase them by withdrawing the allocated mental energy. It is still possible that a minute amount of energy is left behind as a testimony of the move taken. This belongs to what is one's memory.

In the inner dialogues recognized by the self as "thinking," one becomes aware that the mental energy used is so small and so mobile that it generally escapes notice. "Thinking" is then considered as belonging to the responses attributed to "nature," as one's somatic functionings do. This, of course, is not so and can be proved at once for areas where a certain expertise is needed just to enter into even a superficial and clumsy dialogue. In the areas where we have some familiarity with the subject there is need for cultivated sensitivity to start one off and keep on track.

A study of "models and thinking" shows that we are concerned at the same time with the effects of familiarity, which blur the issues, and with our clumsiness when we consider a new challenge, which discourages us from being open to it and to tackle it. But we also can notice that our model is somehow inadequate for the job we need to

consider now and instead of running away from this knock at the door we open up and wish to revise our model so as to accommodate the new item.

Inadequacy can force revision but not necessarily in all cases. For example, when we ask the question, "What is the shape of the earth?" we have to put together a number of facts or observations which do not appear to belong necessarily to each other; if we manage to see that the attribute of roundness must be cardinal for the model we give ourselves and end up sure that the earth is similar to a sphere and we endow it with great circles called meridians passing through the poles and circles perpendicular to the axis of the poles, putting all the points on them at the same latitude, we gain a model very useful for thinking as geographers or mariners. But as architects wanting to erect a new big building, that model is useless because unnecessary. The plot of land for the building must be thought of as a fraction of a plane, not of a sphere.

It is the purpose of the finality of the thinking which will force the choices of attributes which are retained to create the model. A model is a mental construct compatible with the dynamics found in thinking. Conversely some explicit question mobilizing some thinking trend will indicate the need for an altered model. For instance, once we doubt the obviousness of Euclid's axiom (on the uniqueness of the parallel to a straight line from a point outside it) we attempt to discover which are the non-Euclidean models permissible and do our thinking on them. Once we understand that there is a choice about whether a given operation can be commutative or not, we can start thinking of commutative or noncommutative algebras, themselves being models.

The French philosopher Condillac, of the 18th century, suggested that we look at Man as a blank statue which is molded by the impacts from the outside world — a model of Man which excludes attributes like the will or awareness — and soon becomes quite useless if we want to understand most of men's spontaneous manifestations. Such a model hampers thinking and condemns itself. Still philosophers keep it alive as a possibility for their thinking.

The complex model for health we are going to embark on is so much identified with our thinking that we cannot claim more for either than what their joined cooperation allows. This at least is clear to me.

2 A Complex Model For Health

A. Preliminaries

1 Sources Of Information

Somehow I need to start with something I can rely on. Is there something more primitive than *self-awareness?*

I am the one who knows whether I am hurt or in pain, or on the contrary free to engage in some activity, elated and full of energy with responding parts of me ready to be engaged in the chosen activity. I do not have to be fully taken by any of that, but I could if need be.

The *first* source of information *is* that self awareness, which generates awarenesses either to be handled per se or used for some other purpose.

When the awarenesses are of the inner states they are called *proprioceptions,* when they are of the states caused by energy added from outside, they are called *perceptions*. Hence at the beginning of the foundation of a model we must place one's self and its awarenesses. The self directs and commands all movements of energy within, and notices the energies received. The awarenesses of these energies and their dynamics lead to another awareness, that of *time*.

The self is in time, its activities are in time, the time *given* to all the cosmic conditions which led to the formation of the earth within the

solar system, which is within the galaxy of the Milky Way, which is one of the cosmic entities forming the space-time of cosmology.

This very recent awareness can be taken as part of those the self has given itself over the duration of man's evolution on earth.

For a model of health to be realistic it must contain a place for the components belonging to the cosmos, as man is finding them in his search of his condition.

Whatever the routes taken by this search in various individuals and in various collectivities, formed by these people, it remains that to exist, there is no escaping in postulating that man has found himself of at least three realms:

1. *the cosmic* (or nuclear, atomic and molecular),
2. *the vegetable* (or cellular) and,
3. *the animal* (or behavioral).

These as man has come to know them, in four centuries of enquiry in the Western civilization.

To know them is only man's concern as they have been codified in all the sciences of today. Atoms "know" something. We call that knowledge "affinity." It feeds back to each of them whether other cosmic entities can be used in some relationships thus generating molecules. These through some of their atoms can relate to other molecules and generate through "reactions" what man calls larger molecules.

In the cosmic realm this is "a way of knowing" which belongs to organized matter and we cannot take it away from matter. Nor that matter in space creates conditions, called "gravity" by man, which affects matter independently from affinity and gives it "mass-ness." Matter can hold together and thus generate aggregates.

One of these aggregates is called “a cell.” At the scale of man’s knowledge of himself-in-the-world, cells are very small and called “microscopic.” But at their own scale, affinity and gravity plus some other cosmic forces, generate *the cellular universe* in which “form” becomes an independent entity. Forms “know” not only how to constitute themselves, but how to “clone” themselves (or how to make more than one specimen of themselves) and also how to maintain themselves in space-time. This — in the universe called “the universe of the vital” — with an energy form (the vital) capable of directing cosmic energies to produce new things in the cosmos, which we call “plants.” Found on earth only (thus far) “the universe of the vital” displays all forms capable of doing the three things above: make themselves, make identical specimens of themselves and maintain themselves. A new plant is an entity in which adaptation to the cosmic conditions on earth, provides new molecules compatible with the preceding forms which integrate them. In plants the cells develop ways of knowing which allow them to constitute “tissues” and “organs” somewhat reminiscent of affinity and gravity but using other forms of energy.

The energy in plants or “vital energy,” knows how to use besides cosmic forms already given, vital forms far more complex. Thus in time, on earth, cells through these procedures, generated all the forms called plants that encompass microscopic bacteria as well as giant sequoia trees. Evolution in the vegetable realm consists in trying all that which vital energy can do with the cosmic material on earth. Only that which can continue the process remains to form the inventory of that realm.

At the level of the cell, on earth, another evolution could start, of allowing vital energy to spare some of itself — by not having to be used entirely for the constitution of its structure and its functions, as is the case in plants — so as to try what can be said to be bypassing the cosmic. Those forms, called animals, develop the means of consuming organic matter rather than cosmic matter. Thus instead of “synthesizing” cosmic matter, it “analyzes” organic matter on plants before it uses the results to reconstruct itself.

At the level of the one-cell individual, there are animals or protozoa, starting a realm for the vital which is the field of synthesis of matter

already organized so that what energy is saved by not having to reach that level of organization, is available for functions not yet explicit in the vegetable kingdom. These functions have been named “behaviors,” generally. One of them is the going to fetch the organisms wherever they are, involving these forms in mobility, in adaptability to an environment that can change by itself, while plants get their substance directly from a stable soil.

While cells in plants have enclosures (or membranes) which tend to separate physically their substance from the environment in animals they gain a flexibility which leads to various articulations which make the contacts with the environment a two-way traffic. Animals are organic matter too, so they can serve as sources of energy as plants do to some of them.

A viable attempt among plants to consume animal matter rather than cosmic, although successful and still obtaining after billions of years, did not seem to have generated a sequence of species bridging the vegetable and the animal realms.

Evolution in the animal kingdom consists in finding out which constellations of behaviors are compatible and which lead to a viable set of individuals forming a species displaying these behaviors.

The vital individual energy manifesting itself in an animal species has been given the name of “instinct.”

In the animal kingdom each instinct gave itself a form (similar to the one of the vegetable kingdom) best suited for the display of the energy of the corresponding behaviors. Instincts allow us to collect individuals and make with them collectivities called species. Hence, in the animal kingdom, energy evolves in letting one species generate another in that behaviors appear in some individuals which, although compatible with the preexisting form did not manifest themselves till then.

We therefore say that in the animal kingdom it is instinct that evolves and that in that kingdom all the viable sets of behaviors compatible

with the environmental circumstances can be represented by determined species.

Both heredity (the preservation of a species) and variation (which extends the pre-existing into new forms) are part of reality and in this section we wanted to account for it in beginning our model with a stretch of time covering the evolution of matter, that of form and that of instinct.

Man from the start is of those three realms. He is matter, he is form and he has behaviors, but he moved out of instincts.

In our model Man added to his properties handed on to him by universal evolution — and its earthian modality which permitted the generation of the cellular and the instinctual realms — the essential human property of awareness as it applies to itself. In other words Man is defined as capable of awareness of awareness.

Awareness itself is a property of animals, but it stops at the awareness of what can be perceived within the instinct of each species.

By making Man be without instinct, the definition we just gave will allow us to produce a model compatible with environments which are transformed by Man's creations leading today to an environment more and more man-made.

* * *

Our sources of information are therefore profoundly marked by Man's awareness of himself. As such they are temporary and are changeable whenever a major impact on them takes place. In the last hundred and fifty years some men in a dialogue with themselves and each other, altered considerably Man's knowledge of himself. Let us cite a few: around 1825, in the West, physiology became an established addition to anatomy which had been for centuries a frame of reference for those engaged in the study of sickness and illnesses. Around 1850, physiology was made to be seen as physico-chemical processes at work in the

living, whether sick or not. Soon after, germs were added as agents of some dysfunctions leading to diseases, health was defined as absence of diseases. Soon after those other miscroscopic entities (some just large molecules): hormones, vitamins, and viruses were found affecting the ways tissues and organs behaved. At the same time, genetics related individual and species (in the ralms of plants and animals) to each other over generations and started off what became the molecular approach to physiology and to illnesses.

This is where we are at in the West at this moment if we disregard two other major insights into human's constellations of behaviors. One is concerned with the role of the mind in health and disease (since 1870) and the other (since 1948) with the impacts of the social and economic environments on the same.

Thus a large number of components have been isolated. This made the production of models more difficult, particularly if they were to be used for action in the fields of human living, and they needed to be comprehensive and practical at the same time. In fact such a model has not yet been offered.

Another system for handling health and disease, developed in China over many centuries, follows very different lines. It is mainly concerned with the behavior of certain aspects of energy (called chi, yin, and yang) and with the harmonization of these with the energies at work in the universe around.

Health is the outcome of the harmonious working of the energies in each individual human being who is obviously part of the all-embracing environment. Illness occurs when this harmony, for whatever reason, is not made to obtain. Remedy is to restore that balance through medication, rest or acupuncture.

The Chinese and the Western models don't seem to have anything in common. This mainly because the West does not have one yet and because the Chinese model by-passes anatomy and physiology and stresses energy as such and not only its chemicophysical forms.

Chinese medicine has scored at least as many successes in treating illnesses as Western medicine and its working model, over the last millennia must therefore be as effective as the one used by Western physicians. But they are so different in their premises that neither group can use the other for its work with their patients. They prefer to consider them as complementary (i.e., for use in the areas of their failures) rather than as alternatives which we should attempt to reconcile in anventing a more comprehensive model.

* * *

By recognizing that Man is of four realms (i.e., the cosmic, the cellular, the behavioral and that of awareness reaching awareness) we already see that we have placed him in the most complex environment possible, thus taking into account the premises of at least both Chinese and Western medicine. According to the stress on some of his awarenesses and in his ways of handling them intellectually, he will be able to select that which will go to form a Chinese or a Western diagnosis of a human condition and invite suggestions for its treatment and, possibly, cure.

It is important to remain with the notion of "stressing some awarenesses" if we do not want to lose sight that to think on any matter, hence on health, we give ourselves a model. No model can become concerned with the whole of reality and much of reality will be left out in any case. But we need models to be able to think and we shall develop criteria for the preference for one model upon another, if we examine the areas of reality each can reach. The better model is the one which is more comprehensive and does more than the one it portends to replace.

By considering the task of producing a model which can synthesize at least the Western and the Chinese models for health, we let people know that extremely different outlooks of a certain aspect of Reality can be made to be seen as special cases of the new one. This specialization is done in two different ways by *stressing* some of the components included in the new model and by *ignoring* the remaining components.

2 The Unit Of The Person

From the appearances each human is an individual because of the "bag" that encloses it. Like all the components of the cosmos (nuclei, atoms and molecules) or of the other two realms (plants or animals), individuals in the four realms are cosmic units. But in each unit there are forces which keep it that way: distinct from all units even if one is a clone of another.

Such separate units have means to relate with others: "affinity," in the chemical realm: "fertilization" in the realm of the living; "absorption" in the same realm and "integration" in all four realms. The word integration was selected because etymologically it says "making one" of what was not one.

Because reality is in time, all relating is also in time, and integrating in particular, gains a new aspect when what is looked at is the "maintenance" of a unit in time. A unit which can have a continuum of changing forms as we find in growth.

Thus we find the need for a dynamic which in some things stresses the unit and in some others, stresses changes. In fact that is what it menas to be "in time.'

In the four realms this dynamic can be seen as the "law of integration by subordination," first discovered by neuro-physiologists early in this century, when they wanted to understand what they were encountering in their observations of growth in the nervous tissues from the embryo to the completed animal or human. Such growth was not simply the addition of new tissue to the existing one, it was that the new tissue had the property of taking over what was already there to make it merge into a new unit (integration) but also in affecting the working of the preexisting energy — locked up into the earlier tissues with some extra energy leftover to maintain in good working order all the previous structures — so that the old became dependent on the new (subordinated to it).

This law discovered in the West by embryologists specializing in the nervous system, is applicable as we shall see far beyond its original aim

and scope. Thus it gains a cardinal role in the model we intend to construct.

In the cosmic realms it creates new entities which while made of preexisting ones, are new. New nuclei, new atoms, new molecules. In each the old is integrated and subordinated to the new.

In the vital realms it creates new entities, which though displaying organizations already in existence are new “forms” adapted to the environments (from which they extract their energy for continuing to be, as is the case of plants) or new “instincts” (adding new behaviors to he preexisting ones as is the case of animals). The new forms or the new instincts integrating the previous ones, form the new “species” found in the vegetable and the animal realms.

In the human realm there is one cardinal difference, each species has only one member. This in order to account for the definition adopted here that Man is an individual aware of his awareness. And guided by it in his actions and behaviors.

Once this approach is adopted we are forced to look for what in Man we call the individual “self” whose own energy, from the beginning, is an amount we label “quantum.”

Since we use intellectual tools to produce our model and since we use words (which refer to concepts and therefore to indefinite classes) our readers must watch whether the construction of the model is coherent and consistent while referring all the time to the area it is supposed to serve.

An unfertilized ovum becomes matter and is ejected.

A fertilized ovum becomes a viable individual, but for it to be human, a human quantum must be present from the start, directing the uses of energy found in the mother’s blood and using the information stored by heredity in the DNA which links that individual not only to its progenitors but to the whole of evolution.

The self is at work from the start integrating and subordinating that which has been objectified into what is being objectified.

Within the conditions obtaining in the mother's womb the self at work is responsible for the elaboration of the somatic edifice — studied by anatomists and physiologists (both embryologists) and therefore known from outside — and for the energy left over by the self to keep the soma working properly at each stage of its development. This residual energy, part and parcel of the somas, but not locked up in structures, we called the "psyche." A soma is different from a material structure precisely because it includes the energies of the psyche which physiologists acknowledge only as needed to energize the functions they see in the living soma. For us, looking at what energy does with itself during the in-utero development, we see three aspects:

1. the quantum of the self directing the construction of new tissues,
2. the locked up energies in those tissues, and
3. the residual energy in charge of the dynamics of integration and subordination, as well as the maintenance of the already formed structures.

If those three aspects and states of human energy cooperate into being one dynamic entity reserving to each its role, we can speak of health. In-utero the self never yields its role as director of the process of development to either of its two forms expressing the passage of time: the soma as structure with a seemingly locked up energy and the psyche left behind so as to free the self to meet the immediate future. This for a long time consists in making new tissues and new organs according to the law of integration and subordination and therefore health is a normal state of the embryo and the foetus.

If the environment of that developing being is a given, because the mother's blood carries the chemicals to be used by the self guided by the DNA into making the appropriate molecules which are to remain in the tissues being generated, then there are two aspects to the health of the unborn child. One relates to the "good working" of the self with what is given and an in-utero health is being maintained; and the other

relates to the aptitude of the constructed soma to operate in a new environment after birth. Health can be extended, in one case to the time after birth, and in the other case, disharmony and dysfunction may become apparent immediately or later, when the environment is no longer only natural but also social. This lesson was learned when numerous “thalidomide babies” came into this world. When they were alive in-utero they demonstrated all the know-hows of changing the given into their own functioning psychosomatic system. If they remained alive after birth they demonstrated their inadequacy to cope with a manmade environment generated in conformity with psychosomatic states of being differing from their own. Most of them became so-called “handicapped,” and suffered from a social component which made them be considered as “sick” because they could not do what required a different soma.

This lesson on the relative meanings of health is very important and it can make us into better workers when we come to making a working model which remains in contact with as many aspects of life as are needed for the model produced to be realistic and useful.

Man shifts at birth from the environment of the mother’s womb (where he normally spends nine active months to make himself psychosomatically) to a natural and social environment, far more complex than the previous one and which requires a lifetime to be known by each individual and is known differently by different individuals. Therefore, we cannot expect that the dynamics of integration and subordination be one and the same all through life even if after a certain age there may not be need for as frequent adjustments as in the earlier years.

It seems quite easy to accept that someone confined in a womb is self-sufficient for the preparation to being born, but it is clear that as soon as one is born, the large number of variables involved in a complex natural and social environment in which one finds oneself will blur the issues and create complications that cannot easily be sorted out. Hence the urgent need for a model which attempts to put some order in all this.

Central to our model is the existence of that unit of the person maintained integral by the self and some of its functioning over time.

If we agree that *to live is to change one's time into one's experiences* and if we see *experience as energy objectified,* we can look for the conditions of living which make this transmutation of time and energy into our reality at the successive moments of one's life and attempt to define health at these successive moments. This will be the process of construction of our model.

Public time is linear and irreversible. But personal time allows the experiences of the past to be brought into the present. Man's memory can transform the linearity of time into a multitude of overlapping and jumbled durations. Hence, we distinguish in Man a public and a private time. The first will serve as a receptacle for the whole of Experience (made of experiences taking place at precise chronological moments) and the second will introduce the element of realism needed in order to have a bridge between the model and the actual content of lives.

Thus, we have a dual instrument whkch allows us to structure Experience hierarchically in time — an intellectual instrument — and also allows us to open a door onto the lived experiences when everyone fills the schemas with images and feelings, giving those schemas a chance to appear as appropriate realities.

The self can objectify energy creating realities but also dwell in them either directly as when the objectivation takes place, or by proxy through the psyche it left behind to take care of the objectified. The psyche knows the self as its source and spontaneously allows "I" to be uttered when referring to it, and the self which is used in the present to allow the self to allow the future to descend and become part of one's experience. This we call "affectivity."

Affectivity is, like the psyche, a link with the universal energy available in the three realms on earth, from which it stems, and is available in quantities required by the self to meet the circumstances it faces. Because of this availability of universal energy, the self does not need to be endowed with more energy than is required to direct the dynamics

which go to produce both the locked-up energies in the structures and the labile energies in the functions, always producing an integrated psychosomatic entity which holds together and works as one unit.

Within that entity the self lives its life, with access to the past and some openness to the future, by being present in the conscious acts of being. There can only be a functioning unit over time of the self is directly living, making use of the psychosomatic part and of affectivity which in the present serves to transmute the future into the past.

The unit, over the public time duration of one life to this moment, is concretely that of a "person."

3 The Attributes Of The Self

Using time and energy we gave our model a basis which links Man to the preceding three realms. Using the four terms of self, soma, psyche, affectivity, we were able to construct one unit functioning upon public time structured as future, present, past, in this order, giving the present to the self as its province, assisted by affectivity turned towards the future (and the unknown) and holding the structured-dyanmic-past in its psychosomatic reality.

In this section we need to assemble the entities which will give the self its reality and help us understand its unique and essential contribution to every human's potential for health. And this, in a way which allowed us to let energy and time produce that unit objectified in time from the universal energies in the environment found in the previous three realms.

We begin with the instruments capable of contributing to: (1) the fact tht the self, being human from the start, brings with itself — from the moment of conception — its own attributes, and to (2) the fact that the energies of the non-self affect those of the self. The first will provide the foundations for a study of what Man does by himself, for himself and with himself and the second for how Man-in-the-world relates to the contents of the universes surrounding him to maintain and develop his integrity.

It will be integrity which will ultimately allow us to grasp what health is, how to maintain it in a real environment, as well as who is responsible for this maintenance.

* * *

If the main criterion for an entity to be an attribute of the self is that it *cannot* be acquired from the environment or "learned," and must have been there from the moment the quantum started the processes of a human life, we shall be encountering attributes without a need for a temporal hierarchical order. That is, we shall not attempt to provide an order for them all. Neither in time, i.e., that one precedes another (unless it is obvious), nor in importance, which would assume an a priori system of values.

To work properly on these matters, we found that we needed to respond to the mention of an attribute by asking ourselves: "Could it be acquired?" or "Where or when could it be acquired?" The answer let us accept as an attribute the entity, isolated and pointed at, or reject it.

Awareness is an attribute of the self, because it translates presence of the self and *that* no one but the self can command. We shall according to our methodological needs use either presence of the self or its awareness, as the most adequate way of speaking. Awareness of presence is a possibility and only the self can give it to itself. Presence in one's awareness is also a possibility equivalent to being aware of one's awareness (which we chose as the definition of Man).

Concentration is an attribute of the self. In the waking state it means that the self can be aware of its energy being gathered in a certain way in order to be present on the task when this is well-defined. Another word for that is "focusing." The self can focus from the start.

Discrimination is as attribute of the self because it accompanies every awareness intended to convey to the self what it is contemplating in terms of the energy message sent to one's psychosomatic system.

Perception is the atttribute of the self which tells it the kind of energy it receives from outside or that the dynamic in one's psychosomatic system has been altered in any way. Perception is of those energies called sensations that are specialized through the sense organs to be called: visual, auditory, of heat, pressure, or chemical as in taste and olfaction, etc.

Will is the attribute of the self which it uses to alter the energy contents in objectivations whether these are somatic (e.g., in muscles) or psychic (e.g., emotions, actions, expressions). Our will is the response of the self whenever an energy transaction is considered.

Action is the attribute of the self which combines perception and the will to assess the correct amounts of energy needed to perform the activities the self gets engaged in. From the moment one learns to take in food from one's mother after birth, to mastering the demands of yoga and/or creative art.

Intelligence is the attribute of the self which allows it to seek new ways of relating to challenges which resist being met by preexisting spontaneous approaches already part of one's experience.

Sensitivity is the attribute of the self which gains its particularities as it relates to the various sense organs and later to their coordinations as multiple sensitivities, and thus opens up new universes of experience to the self.

Vulnerability is the attribute of the self which allows it to act on sensitivities to make them function in conjunction with one's outlook on life, sometimes opening new worlds, sometimes shrinking from them.

Abstraction is the attribute of the self which it uses to "stress" some awarenesses while "ignoring" the rest. In this way concentration and discrimination are made to contribute to any action (physical or mental) the self wants to engage in.

Freedom to remain engaged or to shift to something else, is an attribute of the self which cooperates with awareness to prolong some experiencing or to leave what one is working on and to enter into something new. It is known to the self as closely related to the will and thus known as "freewill."

Imaging is the attribute of the self which allows it to use the sense organs not as receptor of outside energy but as means of structuring residual energy in "evocations" that resemble perceptions and are called "images."

Imagination is that attribute of the self which applies mental dynamics onto images to obtain anything which appears to the self to be compatible with these and of which the self can be aware as obeying its instructions.

The Sense of Truth is the attribute of the self which allows it to actually reach the reality of time and energy in every involvement and to "recognize," i.e., be aware, that it is one's time and one's energy which are being involved in the activity under consideration. The sense of truth generates truth in one's awareness and provides the basis of reality. The sense of truth accompanies all awarenesses in a dialectic manner, one making the other an attribute of the self. The self being aware of awareness is aware of its truth and reality. These special awarenesses give the sense of truth its distinct reality acknowledged by the self as such.

The sense of harmony or well-being is an attribute of the self which feeds back to the self that it is free to engage in meeting what comes, the unknown, the future. It is the same attribute which notices, within the psycho-somatic system, that some dysfunction is taking place and alerts the self. Dysfunctions are not always known as pain, but pains are the forms dysfunctions take for the sense of truth to acknowledge that the sense of harmony has been unbalanced, and asks to be put back in order.

Surrender is the attribute of the self, connected with the will, which allows the self to trust that it is part of a reality beyond oneself in which

there is room for itself as it is and for what it is. Surrender is the self's form of trust, independently of what there is to trust in in the non-self.

Patience is an attribute of the self which indicates the self's intuition that the non-self is not at its beck and call; and that the domain of one's will is essentially within, with some extension onto the non-self which needs to be discovered in its reality.

Wisdom is an attribute of the self which is co-extensive with the self's ability to know all the time what is possible and keeps itself within those bounds.

Objectivation is that attribute of the self which permits the quantum to use the energies latent in the environment to change them into either structures of the soma or residual ones which energize the functions, or psyche. This is done in conjunction with the information carried by the DNA in the in-utero period, but goes on through all one's conscious life.

Passion stems from the self and expresses the concentration of its energy over certain durations. The mobilization of those amounts is spontaneous as is their maintenance at a proper level of functioning on those durations.

Adaptation is the form one's life takes as the self acknowledges directly and spontaneously that the reality of the non-self exists and has its own ways of affecting the self.

Acceptance of others for what they are is the attribute of the self which from the start allows the self to know the boundaries of its expression in the social environment and makes one obey parent's commands and to cooperate in all non-traumatic invitations to conform.

Learning is the attribute of the self which tells it it can change in time, in particular it can change through integration of the non-self impacts and through awareness of the dynamics of energy affecting one's perception of oneself.

Clearly, those attributes of the self are not acquired through accumulated experience. They are not passable or transferable from one person to another through heredity or social conditioning. They are accessible to one's awareness as concomitant manifestations of the self in one's inner and/or outer life. They exist, and at the same time create the criteria for their existence, perceptible to the self itself.

Of course, it is not assumed that these attributes impose themselves to one's awareness. Too many people soon after their early childhood get distracted into being concerned with a vast number of components of survival and rarely have the opportunity of becoming aware of themselves to the point where the attributes let themselves be noticed.

4 The Absolutes Of Individual Experience

If the attributes of the self accompany the self from the start, the work of objectivation stretches over the years of one's life. By following the spontaneous transformation of one's time into one's experience it becomes obvious that there are hierarchies in the transformations.

The presence of passion in these transformations is the criterion for their spontaneity and their significance to the self.

But they are also specific. It is in their specificity that we see the element we call absolute.

Until we look into self-education — which we must give ourselves in the various areas of experience — we cannot imagine how much we have to teach ourselves and therefore how much we must mobilize ourselves in order to master the numerous skills which form each of these activities. Passion is required to become and remain involved in these activities, and to refuse to be distracted from the tasks at hand as well.

We can find, by observation of others, that we do not immediately get engaged in certain activities and therefore that for some time we live without certain skills: we do not sit or stand or walk at once. This means that:

1 there are other priorities each self knows about directly and hence postpones putting its energies in distracting activities,

2 that some of these skills cannot be developed until others are, e.g., walking requires standing, running requires walking, and so on,

3 that new skills are developed until "mastery" is attained, so that it becomes part of oneself.

Self-education is the most important activity of the self through life and it is mainly of awareness. But it is also accompanied by objectivation, retention, organization of successive wholes which integrate and subordinate previous ones.

Putting all this together we see the spontaneous function of living as one in which the self transforms the time of life into a succession of integrated experiences and whenever possible, harmonized, to permit the construction of an objectified inner universe which gives the self the freedom to create a human life for itself. Human because it is free and creative.

Theoretically, this is everybody's birthright and when it works we know health manifested in every individual.

For nine months in-utero it is the absolute of one's psychosomatic construction.

For a few weeks after birth, it is the absolute of one's vegetative adaptation to the given environment, both natural and social.

For five years, after the myelinization of the sensory nerves, it is the absolute of perception, i.e., of the treatment of the energy inputs from the environment as well as the transformations of the inner energies needed to integrate those inputs.

For five years after that, it is the absolute of action which investigates the possible expenditures of one's energy compatible with:

1. one's psychosomatic powers, as well as
2. one's dynamics of perception as educated in the previous absolute.

During these five years the self studies the economics of energy through actions and discovers the benefits of virtual action, which while making action human, opens the future to the most effective actions.

Once adaptation to the environment is secured and one feels effective on the planes of perception and action, the self enters a new absolute, that of the inner life, also called adolescence, in order to know oneself as a dynamic individual open to the unknown future in which one will make one's life. Affectivity, as the residual energy needed to remain in contact with what comes, is the center of the self's attention and the passion, which accompanies its work on the inner material, is the sign of this new absolute. Emotions are explored per se, their shades and hues meaning a lot. Feelings as the characteristics of sets of emotions, form new virtual categories that go to nourish the sense of truth and the sense of harmony about what is right for oneself. To go on experiencing feelings and cultivating a selection of them, takes another five years of one's life just then. One then ends up knowing oneself as capable of love and of its variants: charity, compassion, sympathy; capable of total dedication to "worthy" cases which concern vast entities such as one's father or motherland, one's religion, one's political beliefs, etc., as capable of transcending the social given environment and opening up to other groups through selected friendships and gregariousnesses.

Exploring one's inner life leaves, instead of memories connected with events which appear transients and topical, an evolution of the self capable of making one into an autonomous and responsible being, one who trusts and wants to be trusted. But also one capable of recognizing the reality of the mental universe and desirous of cultivating it.

The work done at the end of the second absolute and which leads to a mastery of virtual actions, coupled with the work on affective categories in adolescence, give the self the opportunity to see the reality

of ideas and the meaning of thought. Hence, a new absolute unfolds in order to take care of the universe of the intellect and all that has been achieved by countless earlier generations, in the arts, the literature and the sciences. Now one can dedicate a few years or the rest of one's life, to the exploration of one's creative aptitudes in any one of the creative activities men have added to living in the environment. No more only adaptation to it, but transformation of it, to suit one's tendencies, aspirations, projects.

If the self reaches in itself the boundaries of one's intellectual capabilities and does not pursue a creative line of activities in that field, there is still room at this historic time, for another absolute which we call "the social absolute." Most people live their adult life in it and put their passion in social causes: political, economic, professional.

The lighting of the absolutes is extremely important in the construction of our model of health. It is concerned with the place of each individual person in life. It contributes to our understanding of how the self is attempting to meet the demands of life while remaining whole and integrated. It also allows us to see the vulnerable and the invulnerable sides of each human being at whatever age, and this will help us see why some people get hurt in the course of their relating to their environments, natural and social, and others do not.

That lighting injects into the model some concreteness which assists us in understanding the actual condition of people who seek help from the medical world in the West, in China, in India and any one of the tribes everywhere.

In the next section we shall concentrate on this.

5 Vulnerability And Immunity

For two hundred years, Western scientists (biologists and physicians) have been noticing the fact that in epidemics not all the members of a community struck by a plague fell victims to the disease, and a vague concept of immunity was put in circulation. Those who fell ill were considered either predisposed for it or vulnerable to it in themselves. The concept became clearer some time later when germs became part

of the model and somatic reactions to their presence were seen in terms of the soma producing antibodies and antigens from which some vaccines have been developed. The immune system gained in significance and importance.

In the Chinese outlook where germs had no place it was the general conduct of each person which involved them in changes of states some of which were considered as diseases and required treatment. Herbs or acupuncture, or both, helped in restoring harmony but it implied changes in conduct as well. Rest, restrains, self-control, refusal to indulge in excesses, were as significant as the taking of herbs or of being needled.

The Chinese model explicitly makes use of all the energies recognized in living and functioning human beings, some visibly connected to the soma, some to social environmental sources and it requires that both be considered in treatments.

The Western model did not integrate the somatic (called physical or biomedical) and that psychic, which could not be reduced to a physico-chemical basis. The expression psychosomatic was used, and physicians felt there was some reality behind the effects of psychological conditions but they did not know how to entertain them in terms of their changing model. So they kept the areas of the mind separate from those of the "body," and resigned themselves at not understanding much of what their patients were going through. Nor why there was so much talk of "alternate medicines."

Vulnerability rather than immunity can help in this quest.

To treat this matter better it is perhaps *essential* to go back to the co-presence in and around, one's self of a number of absolutes, some past, one active and possibly some to come.

To be in an absolute means that the self is spontaneously, passionately, engaged in knowing a field of experience which it has not yet gone through to know what this kind of awareness represents. For that, it

uses all the masteries of the past assuming they have been reached. Most people live in their own absolute, but since there are at least five co-present in modern Western communities from early childhood through adulthood — each wanting to assert its values expressed in the absolutes — conflicts do take place.

At the social level these conflicts take all sorts of forms.

Each of us is quite certain of what has been achieved that leads to one's independence, autonomy and responsibility. *In the areas of mastery each of us is invulnerable* in the sense that we have criteria and can confront those in the environment who want to impose on us a will which differs from ours. So, essentially, in those areas, our conduct agrees with our criteria and we do not doubt that we are entitled to being what we try to be. The unit self-soma-psyche is functional and we know ourselves as being well, even if we have to struggle for our freedom of action in our own environment.

But in the areas where there are *no* masteries as yet, it is very different. The will of those in the environment can interfere with our own, precisely because there are not yet criteria which we can call upon to restore situations involving us. Our hesitancy, our uncertainty (which is equivalent to not having criteria) make us vulnerable in the sense of being susceptible to being hurt.

From this perspective it follows that our participation in maintaining our health depends on whether we receive assaults from the environment in those layers of our experience which are or are not yet, integrated and leading to harmony.

Thus, we are less vulnerable, somatically, in-utero and for a certain duration after birth. But we are totally dependent about whether we are fed properly and given conditions of living the self can spontaneously handle adequately. In particular, the self, well informed chemically and electromagnetically, can face environmental components nobody suspects and avoid showing diseases a baby's helplessness might suggest. This explains why in specific circumstances a baby manages to heal himself or herself without any intervention of the grownups

baffled by their incomprehension of what is going on and are prevented from acting by the presure of their ignorance. Physicians say the immune system took charge and took care of what there was to do.

If this were so, why would a baby a few weeks old (4 or 6) withdraw in a kind of coma for a day or two to handle the aggression with all the know-hows still existing and brought into its environment at birth, and get cured by him or herself?

A baby is not only a somatic system ruled by the laws operative in the vital realm, it is a human being changing its time into the proper and possible experiences. It is a functioning unit whose integrity then is, as at all times past or future, the responsibility of the self, creator of the locked-up energies of the soma as well as the two residual energies: of the psyche, which keeps the soma going, so as to free the self; and of affectivity, which permits the self to face the descending future, the unknown.

If we managed to remain concentrated on what the present demands, if we were able to give ourselves to the challenges we can face at that particular age we would have no problem in remaining healthy, that is in harmony with those aspects of the environment whose structures and functions resemble our preexistent experience.

We are healthy therefore, because the self can continue to give mastery its proper place, that is, can integrate new experiences by subordinating to them that which is already at work functionally.

But when we are threatened in our integrity by happenings and events which call in areas of experience we have not yet come in contact with, or we are barely beginning to explore, we become vulnerable and may be hurt in those areas. The analogues of the immune system of the somatic level, for the levels of experience which correspond to the successive absolutes must be found and spelled out so that the challenge of understanding health all through life be met.

What this means in particular is that somatic health is a quite reduced aspect of health and that physicians who deliberately restrict themselves to that aspect, may make their work at understanding health almost an insuperable task.

The soma and the psyche are the first objectivations of the self and essentially come into full existence in-utero. They will remain essential for the rest of one's life and they will be altered considerably by growth over the years, and by adaptation to the successive environments offered by the successive absolutes. Even in terms of appearances the changes will be notable and harmony will mean many different things over the years.

As we hinted earlier the actual problem of one's health cannot be restricted to the actual states of one's soma, as it seems is required by Western physicians for them to be sure that some illness is present. It cannot either be restricted to the actual state of one's psycho-somatic system as seems to be required by Chinese physicians and a certain number of Western psychiatrists. There are other components in one's integrity, the basis of one's health, and they too have a part to play in the appearance and reality of one's health or illnesses.

The self as integrator of all one's experience and as the director of one's actions, inner and outer, must be given its cardinal place. With it all its attributes gain their significance in the establishment and maintenance of one's health.

It is the self which places us in the absolute which guarantees that one's time is exchanged for the proper experiences and these made to integrate all that is connected with them in one's psyche to produce a more experienced person and a grown psyche. It is also the self which judges that the role of an absolute has been fulfilled and that it is time to shift to the next and to mobilize oneself with passion to conquer a new universe of experience.

It is the complete person — self, affectivity and one's psychosomatic system — which, plunged in the surrounding environments, finds

whether it is helpful, indifferent or hostile to oneself and what one is engaged in.

The self gave itself two states of consciousness, the awaken one and the one of sleep, used every day to allow one to get into the environment and also to withdraw from it. In the state of wakefulness each of us, our person, uses attributes of the self to accomplish all we projected for the day, mobilizing what is needed from within to take into account all that which is required by the reality outside us we are working on. When this is permissible we are effective and our activities contribute to our health. When this is opposed somehow by elements (human or not) of the environment, we take to our state of sleep our impressions and work on them with the help of our psyche which is the whole of our past.

Hence, the self gave itself sleep as the duration in which all that can be done in this isolated condition to restore the balance or even the harmony of the person is done after it had been affected, the day before, by the inputs from the environment which were what they were and to some extent unpredictable. Sleep serves the cause of health provided the traumatisms of the day are not excessive and need to be resolved, in one night or a succession of nights of sleep.

It is clear that the individual can contribute to the maintenance or the restoration of health on a day-to-day basis. But this may not be sufficient. Whenever people in the environment understand that for the foundation of a good health more than somatic conditions are required and they cater for them, it is possible to move from an haphazard health to a collective and constant health.

Therefore, it becomes clear that a working model for health will be much more complex or even more complicated than one which restricts itself to a physical terrain assaulted by chemicals and organisms in the environment.

What is new here is that we start with time and energy, with individuals and collectivities, with growth and evolution, with presence of the self and with objectivations.

The latter are always individual. They require the self, its attributes and its states. They form a certain set at a certain date and the passage of time makes them become integrated wholes, unique for each individual even if it is possible to find many connections with those of others which thus generate communities.

To function properly at any stage is the work of the self which integrates and subordinates. This process is the source of the balances and the harmonies recognized as equivalent to being healthy. Through the construction of healthy hierarchies, the self finds that to be healthy demands that it be in a certain state: alert, concentrated, feeling with the challenges which are at hand.

Those challenges, in the concreteness of life, are different for most of us and no one has one key valid for all. Not only each of us has to cope with environmental pressures applied to oneself, but has to watch that we do not create pressures on others ourselves. When we know how to do this we contribute positively to the well-being of others. Health gains its corporate dimension and becomes a community task.

Recently we learned how to take steps to protect ourselves and others from the spreading of a number of infectious diseases. We feel encouraged to believe this can be done for all diseases, but we may be totally unaware of what we do to others in the areas of experience which correspond to the absolutes they have not yet entered. Unwittingly we interfere in each other's lives.

The maintenance of individual and collective health can only be achieved when the selves and their environmental areas are completely taken into account.

B. The Actual Construction Of The Model

This we shall do in two stages, one concerned with the individual's part and one between the individuals and their collectivities.

In the first part we will treat of that which an individual finds within his province to do to maintain his health, in the second how the social environment can cooperate with the first to prolong health within the environment. When such cooperation does not exist, illnessess can ensue.

1 The Individual Side Of Health

By being of the four realms, a human is directly acquainted with its own atomic and molecular aspects; with his own cellular and vital aspects and with his own behavioral aspects. In the fourth realm he lives the *integration* of the previous three.

Animal, plants, materials do not have to be concerned with health because:

1 animals have species' instincts which take care of their integrity by holding within them what is allowed to get in and by not allowing in that which their instinct cannot handle;

2 plants, issued from the soils and blossoming in the open, made themselves so that their individual forms unfold conditioned by the contents of the natural environment; their command of their chemistry holds them together, as a living integrated whole;

3 materials, by themselves are selective, by affinity, of which other materials they connect with, excluding all others.

Humans, integrating the previous three realms, are chemically sensitive, cellularly organized but, lacking instincts, they can generate any number of behaviors including some which do not behefit the individual and that animals would not have selected for themselves, like overeating or starving themselves.

Because we define humans as aware of awareness, and this from the start, awareness of the processes of using latent energies (supplied by the mother's blood) and the information contained in the DNA, are the powers used by the self to maintain health in-utero.

It is important to see that all we learn about our somatic health is of that period when we were not distracted by any other involvement. Hence humans are born healthy, if there has not been any interference with the unfolding processes in-utero, simply because the self knows what there is to do and does it. Interferences can be chemical, physical, biological and caused either by alterations in the DNA or in the mother's blood following strong emotions or some addiction.

After birth and for a few weeks, the self concentrates on the adaptation to the conditions in the environment. On the physico-chemical plane, the soma is highly expert and continues the work done in-utero but this time, on new demands: digesting food introduced through one end of the digestive tube, eliminating in the urine and feces the materials not needed or produced by the soma selecting what it does not want to retain and which represents the degraded results of metabolisms already functioning in-utero. During that period of adaptation the self uses the middle brain and by not myelinizing the sensory nerves, keeps the hemispheres uninvolved.

In the Western civilization, biased as it is on chemistry, there was no incentive to discover another protective system the self gives the soma and which the Chinese elevated in their science of acupuncture, although they have not yet seen it as a shield for the inside of the soma placed in the electromagnetic fields around. At birth, an electromagnetic shield (in the form of what is known in the physical science of electricity as a Faraday cage) constitute itself on the surface of the soma, also called skin, and electrons running through that network keep external fluctuations out of the soma. The Chinese by needling at certain points introduce electronic beams in the soma to produce electromagnetic fields whose resultant pinpointedly affects specific cells of the soma generating energy shifts which often reestablish somatic balances.

This electromagnetic aspect of Man, although expressed in other terms, belongs to Chinese medicine but not to the Western model and it is an integral part of the one being constructed here. The individual plunged in the earthian environment, has to cope with all the energy changes which may affect his psychosomatic objectivations. These changes are

of several natures that we in the West label as: chemical, mechanical, heat, magnetic, electrical, biological, psychological, and social. The self first sensitized itself to each so as to know its nature and then educated itself to cope with its effects on itself.

Vomiting, for example, is one way awareness handles “poisons” or chemicals in disharmony with the soma. Special reactions of the digestive tube to chemicals placed in the soma, like diarrhea, indicate that the psychosomatic self is a chemist equipped to start off reactions capable of restoring the harmony which existed before these chemicals were ingested.

Perspiring is the psychosomatic way of handling changes in heat affecting the individual. Shivering the way of meeting a reduction of heat.

Movements of the soma or on the soma, restore equilibria disturbed by some mechanical energy added to the soma through say falls, accidents, pressures, twists, etc.

Biological disturbances are handled by the so-called immune system which in this model is only one of the ways the self copes with energy variations affecting it and mainly using what was objectified in-utero for those kinds of aggressions.

Magnetic and electrical disturbances have not yet been studied sufficiently in any civilization to suggest what the self developed to cope with them. Isolation of the inside of the soma from the environment so as to render it unassailable by such variations is the only one known and objectified by the Faraday cage of the Chinese acupuncture system of points and meridians. This has nothing to do with acupuncture medicine that Man invented and found effective. Instead of isolating, the needles invade the soma and pour in beams of electrons which have their own physical existence which acupuncturists exploit as a source of energy affecting the energies of the psychosomatic system in the ways they think fit.

Each of us in the environment does not come only with a soma, we are in it with:

1 our self and the two forms of residual energies we called the psyche and affectivity, and

2 a place in the social organization around.

We spend our time to gain experience and each of the activities which widen our experience, requires energy and states of being which the self must attend to. Ordinarily the self does just this and we all learn a great deal, particularly in early childhood when we know what we want and do it while the people in the environment leave us alone to do it. We are healthy because the self is in charge, can give itself to the successive stages of learning, does not set itself impossible tasks, wants to be sure and thorough, has no one to please and is dedicated and open, just as is required to succeed in those areas.

The main reasons for the absence of interference from the environment is that every one of us must conquer the unvierses of perception and action, that almost every one does it by oneself and knows it is the only way to mastery. In a way, we all succeed in those layers of life because the only real authority is the reality of learning which is known to all who have had to go through it, i.e., everybody.

Psychologically, we are healthy when we use the time of life to produce those experiences which form a continuum, of available possibilities and know how to use our past to permit the future to descend in the present and occupy us in conquering something new. The state of being of someone who exchanges time for conscious experiences is the state of health. If these exchanges cover long spells and many varied experiences our state of health can be co-extensive with all our life.

Note that each of us knows the difference of quality between the activities the self goes through in the waking state and what needs to be done in sleep. The first involve expenditure of energy, the second the smoothing of experience and its integration to form Experience, the one which represents our past till now and serves as a basis for the next involvements. The difficulty of making all this fully conscious to every

one of us comes from the fact that we lose contact with the familiar and stop seeing the obvious. So we lose the meaning of our sleeping every day as the one that re-establishes our mental health.

So far, we have selected for inclusion in our working model for health:

1. The existence of a "self" whose energy does not need to be more than a "quantum," present from the first fertilized cell or egg and whose function is to give all the subsequent unfoldings the stamp of this unique individuality. The self is at the helm of all objectivations.

2. The edifice of the psychosomatic objectivations, taking place in-utero normally over nine chronological months, is formed through the law of "integration and subordination" leaving the quantum at the top and unifying at each moment all the past at the service of the work the self is doing in the present, which is to let the future descend and become one's Experience.

3. Though Experience changes character in the months after birth, the law of integration and subordination remains the way the self uses to adjust to the environment first (over a period of a few weeks) and then to allow that environment to be known by a succession of objectivations of mental energy ruled by the laws present in each absolute.

To construct an inner universe integrating the psychosomatic system and opening life towards the future, the self must give itself all the entries possible (in the circumstances) to own in itself a continuum (multidimensional) made of organized and connected objectivations whose substance is one's own energy structured in time to reflect what the self has made of perceptions. These are individual while the energy the environment outputs belongs to all. Hence, each individual holds in itself a unique image of the outer world which by definition may differ radically from that of others.

To form that universe of perception, which is the responsibility of everyone of us, the self mobilizes itself in a manner we called an "absolute" where the stresses and ignorings are individual variables. We end up with a collectivity which, to exist, must devise inter-

connections simultaneously stamped with the unique perception of oneself-in-the-world, and those of the others of oneself.

Such inter-connections between individuals and groups are variables which permit the human reality to be as varied as anthropologists, sociologists, psychologists and historians have found and continue to find. The instruments for the treatments of these aspects of the human reality are special to each science but all concur to giving humans some independence and some autonomy from the schemas cultivated in those sciences.

Supported by the vast Experience constituted over the years of the absolute of perception, the self explores the absolute of action upon the environment by noting the expenditures of energy needed to reach the mastery of the mechanical aspects of the universe of perception already well-structured within. The mental universe of action is made of the dynamics found in all the experiments on action and retained as the only forms compatible with the psychosomatic system and the organized remnants in the brain of the successive perceptions which consumed one's time of life. Each of us constantly counts on the availability in the present of all this well-knit experience and knows how to call on it at every moment. Hence we do not notice its existence until such moments when we are hampered by finding that our experience is inadequate and we move to remedy these failures.

The first ten years of life in most humans are used to give ourselves the equipment which puts us on top of the natural environment and on top of those aspects of the social environment reachable through the instruments of perception and action.

We are generally allowed to remain healthy during those years, in the sense that the rest of our community group does not wish us to be deprived of the benefits of a thorough exploration of the universes of perception and action necessary to maintain the economic level of survival in any environment: forests, bushes, deserts, farming areas, fishing regions, animal farms, etc. The tacit acceptance of children's activities and the dominance by the self of its psychosomatic system in all past societies (tribes or clans), explains how humans have managed

to evolve on earth over the last three million years with very little attention to the maintenance of health, which is a very recent concern.

But for all the past few thousand years things have changed. New absolutes appeared, some as recently as a few hundred years or even decades ago.

The "absolute of affectivity" became a universe to explore only when humans had mastered the natural environment and found that they had surplus energy available to explore universes they could create through awareness of their own awarenesses. Since these were not necessary nor imposed by the environment, we find humans projecting their inner discoveries, making use of the mastered instruments of perception and action.

Weaving, painting, dancing, music, agriculture and above all the creation of languages (of which there are many on earth based on very different criteria), all are there to tell us that humans could transcend the given and use it and themselves to objectify the new, the unprecedented, in the environment. A turn from the impacts of the given to the inner life is needed to make the individual sensitive to what is not yet objectified and to confirm that one's use of oneself may lead to a perceptible reality marked by one's own impacts. Creativity assumes:

1. a feel of oneself as capable of expressing in any one of the mastered media — movement, color and shape, perceptions, structuration of components to make wholes — projections of one's vision into preexisting materials;

2. a freedom with respect to what exists and how it can be altered;

3. a mobilization of energy in order to use it outside the survival channels or the channels of expression retained by the group.

This period called the absolute of affectivity gains this name because it is clearly affectivity which is needed to keep the self at work on the new and the uncertain until a visible and perceptible testimony is sufficient

to convince one of the worthwhileness of one's involvement in a certain non-prescribed activity and for the necessary duration of realization.

Behind all this creation, there is a human background totally inner and reachable to the self and only to the self. Aware of it as such it is labeled one's "inner life." Hence it is permissible to define, in terms of individual exclusive exploration, the absolute of affectivity as the absolute of one's inner life. Clearly, humans become distinctly humans when they enter that absolute and dwell in it, and this is in their dialogue with themselves, by-passing all intermediaries which existed outside oneself in the absolute of perception and in the energy to expend to know the universe of action.

At the same time as this deliberate return to oneself, in some cases exclusively, one's separation from the human environment implies some dangers: one's behavior may be objected to by the others and pressure from the outside begins to generate a cleavage which did not exist so far between individual and group. Conflicts may result from it which at the individual level may be experienced as interferences and resented by that individual who suddenly finds himself alienated, perhaps for the first time, and inexperienced in coping with it. Contrary to all previous relations with the human environment which were supportive of one's actions and experienced as such, now the individual knows himself as having to distract inner energy to protect himself from the environment. The first tensions are lived as not beneficial and the cleavage is experienced as a breach in one's health.

During the absolute of affectivity mental dis-eases can make their appearance. Inexperienced young men and women face the new no longer as exciting and mobilizing them, but as obstacles they must overcome. In our modern societies this absolute is explored during the few years of what we call "adolescence." In earlier societies it could stretch over many more years, even to the rest of one's life.

We need to define health in that absolute as a harmonic use of one's time to explore one's inner life. No clear objectivation corresponds to it, except what will become the various arts and the mystical experiences. The healthy person is the one in close contact with his

affectivity and using the energies it represents to generate the new, that which is not only new to oneself but may be also to the others. The mobilizations which result from one's contact with the reality to one's inner life, are those which make affectivity real and as distinct from one's psychic manifestations which involve the soma and the dynamics known to be one's past.

During those years, the universe of experience is shot through with a special energy, to oneself clearly one's own, powerful and available in quantity, capable of propelling oneself towards the future. It creates the moods of optimism or pessimism, of cooperation with others or the energy to oppose aggression. The vection towards one's future makes that energy look special and transcending one's soma, even one's psychosomatic system. It makes us recognize it as existing per se and available to the self when it needs it to enter a new adventure. It is it which sustains our resolves, which sweeps away any suggestion that we are going to meet insuperable obstacles and makes us ready to take risks. These risks can be physical in actions, social in relationships, economic in business adventure, spiritual in some conversions.

A strong affectivity at one's disposal is a sign of individual health and of its maintenance.

But in our modern Western societies other absolutes found their place beyond the absolute of affectivity and can take us to other objectivations and require our selves to operate differently. New hazards to our health, if we do not dominate their demands, new lights on our health if we do.

The first is the "absolute of the intellect." Known in other civilizations and cultures, it made its contributions like the previous absolutes by allowing our given time to become new dynamic structures that the self added to the developing psyche. Passion in their handling proves its naturalness as an attribute of the human self.

All of us are endowed with an intellect but only those who acknowledge its existence, its right of place, its enticements to pursue its dynamics, contribute to the exchange of the time of life into intellectual or mental

dynamic structures first individual and afterwards available to others in one's community. The products or the activity of the intellect are called thoughts or ideas. Each thought acknowledged for itself can serve as a path towards the acknowledgment of the intellect as a human attribute, a power of the mind. Once acknowledged as existing per se, it can be developed and occupy more and more of the time of life. Legitimately and, maybe, passionately.

The sources of our thoughts are dual:

1 "virtual actions" at the end of our time in the absolute of action, and

2 feelings as categories of emotions.

This is work we do on our own, and which resembles all the spontaneous learnings of our early childhood. Therefore, we know how to make it part of our harmonious functionings which form our health.

As humans we developed over the millennia a capacity to store in our psychosomatic system, which includes our brain, energy processes which utilize little energy or at least far less energy than the inputs which acquaint us with the outer world. Images, at the level of the absolute of perception, hold in us the reality which gave us energies processed by the sense organs. Virtual actions, at the level of the absolute of action, are those sketches of action which have the potential of being changed into actions but do not reach that stage. They are acknowledged as possible actions though not actualized. Their dual reality in terms of energy reach us in what the word "virtual" entails: a recognizable polarization of the self but not an implementation. Once we find the usefulness of such a dual reality we tend to cultivate the less expensive aspect and become experts in the use of virtual actions. Halfway between the inner contact with such actions and the actual ones we find the human invention of the graphic arts.

Besides images and virtual actions, a third reality comes our way during adolescence: while emotions are actual energy coagulations, experienced as such during the time they last, the self finds in them a quality which corresponds to a tension in the various emotions, and

extracts that quality to make it into a reality. In English this quality is called “feeling.” A new realm of experience, superimposed on the actual emotions — carrying perhaps much energy — is created, which uses far less energy each time but could trigger emotions. So now, every one of us recognizes, outside the actuality of events, happenings, involvements, accompanying realities which reside within us, a reality which can be evoked at a much lower cost. The realm of feelings, constructed over the many months of adolescent experiencing, gives us another dual entry into our own world, full of energies which could be fully objectified as emotions but are only sketched as feelings. Within that new reality our inner life gains an efficiency comparable to those attained in the previous two absolutes. The healthy adolescent is the one who has no problem with the dynamics of the small amount of energy carried by feelings, forming feelings. A healthy adolescence is one during which we found how time can be exchanged for those experiences we call feelings through the process of creating emotions for ourselves and discovering their dynamics which lead to feelings. Our inner health coincides with this deeper acquaintance with the inner energies which form actual emotions and with the tensions of these actualized energies which can be extracted to constitue the reality of our affective potential life. The wider the range, the subtler the feelings which we acknowledge to exist, the richer the life we give ourselves.

On such a dual basis (of virtual actions and of feelings) we begin our intellectual conscious life at the end of our adolescence. We enter the “absolute of the intellect” and we dwell in it for years attempting to master as much of the content of this universe as our gifts, experience and time will permit.

We come to this absolute also equipped with language and we find in it at once a huge storage of sketched experiences which we try to pin down and give them more place in our consciousness. Though we already know that words cover concepts, that concepts correspond to classes and that those hollow classes can accommodate realities knowable by the means of the previous attributes, we now accept words (i.e., concepts, i.e., classes) as real as what we have experienced before. The feeling of the immensity of the class which corresponds to a word

can overwhelm us and give to that class and that word a reality that goes beyond the minute energy needed for its actual utterance and still less than its virtual utterance. This process generates “ideas” whose reality we no longer doubt, though it exists in a new realm. In that realm many utterances can remain at the level of noises which we can capture and even repeat and not trigger realities which others may acknowledge because they are sensed as such.

Nouns are classes and their indefinite content does not worry us. On the contrary, we find in this property of words, and especially nouns, that our preparation in earlier absolutes gives us a facility to do more for less. Pronouns go one step further and cover classes of classes, taking us one rung higher in the use of our capacity for abstraction: the real power in the absolute of the intellect. It is in these games which allow us to generate realities we acknowledge on the one hand as hollow schema and on the other as the most important constituents of our human universe, that we delight and entertain our passion. The intrinsic rules of generation of new hollow schema from preexisting ones, become the objects on which our self concentrates and uses as a factory to furnish the duration of this absolute. The better we do this kind of work the more valuable we are to ourselves and maybe to our community.

So long as we find nourishment in any one of the possible pursuits of the generation of schema which can be frozen for some time in a recognizable human reality, we find ourselves happy in that absolute. Such happiness is the sign of health at that level. The intellectualist in us delights in the feeling of this creative power. Through it we generate endless new realms of entertainment called the sciences: of nature, of man, mathematics, and we find can constantly create new ones, broaden existing ones, revamp old ones and so on.

The reality in the absolute of the intellect, goes much further than those met in the three previous absolutes so much more centered on the individual than is now the case. Out there there are worlds, many of them, indefinite, unlimited, attractive and captivating so that if we let them reach us we sense that the time of our lives will be totally

insufficient to do justice to them. In the absolute of the intellect we can get lost forever, as if nothing else existed.

In our modern Western world, recently (less than two centries ago) humans who had a good command of the universe of ideas, entered a new absolute which we can call “the social absolute” and which requires new kinds of awarenesses.

While in the previous absolutes the individual can remain enclosed in his Experience and live life according to what he or she did with him or herself, now the reality perceived, acted upon, felt, conceptualize, is made of “human relations.” What can I do in conjunction with others? The new “force” is that of the “union of individuals.”

A new world opens up in which individuals throw themselves with passion and create a new reality by giving themselves to it. To the point of even producing a community in which the individual must lose his individuality for the benefit of the larger group. Not only does the individual become a cog, a cifer, an insignificant part of the whole, but the whole projected by powerful intellects gains a life of its own in the form of the sovereign State or the Nation, or at a smaller scale, the corporation, the commune, the club, the team, the association, etc. The individual in that absolute agrees that the collectivity whichever it is, is more valuable, even for himself, than himself.

In experiencing this new aspect of himself, Man becomes a social being who can approach his own survival problems through the work of the community. Many of the challenges he encountered in his life and could not handle by himself he can now face up through collective action; hunger and poor living conditions, lose their individual appearance and can be taken care of by laws and measures to which all citizens contribute. Infant mortality, old age handicaps which in the four previous absolutes could not be made lesser, are now the concern of society. This establishes centers of research, prevention units, mutual support and hospitals open to all to prove that a social consciousness can work where no other was operative.

Still, this journey, in the West, has not so far led to more than a number of experiments in social health centered on those aspects of human life which can be treated by this new set of hollow schemas proposed by social scientists and those who listen to them. Governments with their systems, their bureaucracies; organizations, national, international and supernational, all ultimately feel the need to transcend this latest absolute and to shift to a new outlook on the inhabitants of the earth as a complex of ages, needs, environments, means — at the levels of individuals and collectivities — until an overall balance of all creative forces can bring about ways of living which take care of everybody's health and to maintain it.

But this is still only an outlook, a vision, a project.

2 The Collective Side Of Health

By beginning with the individual and his objectivations all over the duration of his life we stress, in our model, what can be reached by the awareness of each of us assisted by the work of evolution which only retains that which works. We begin with health and stay with it all along. That which has been learned over billions of years, "the wisdom of nature" so to say, has been made available to each individual human being by the continuous integration and subordination that describes evolution in the large and the work done by individuals, who are then of the four realms.

In each life we have to start from one original cell and see something in it, the quantum, a minute quantity of energy, extract from the immense storage of earthian-cosmic energy which the mother's blood brings to it, the energy to re-construct the edifice of the psychosomatic system in-utero, assisted by the storage of information enclosed in the hereditary molecules.

So long as the wisdom of nature operates and links us to the cosmos and its long sorting out of what is worth keeping from what must be discarded, we are by definition, healthy.

In the case of humans, defined as *not* ruled by the work of instincts, there enter new variables after birth. Each of us, drowned in a human

environment, is exposed to that which the members of the group retained from the experimentation of their ancestors or had found imposed on them by the pressures of that environment.

So long as the human environment leaves the individual alone to do what in the successive absolutes is imperative in order to use one's time to objectify the experience considered equivalent to one's living, the in-utero health is prolonged, as we saw in Part B of this construction, beyond birth. But this state of affairs is often disturbed and each individual who *must know* — in order to use his gifts to make a new human life represented by his human individuality — *must experiment*. The two states of consciousness (of wakefulness and sleep) are integrated to produce the unique personality of each of us. Because of these two dynamics, that of the vection of the demands of individual life in order to reach all the masteries required by a self which needs to be free to forge ahead, and the one at work in the invisible web surrounding each individual, sickness makes its appearance. Part of the self there is distracted by having to deal with dysfunctions which are actual and real, but not necessary.

Sickness is a phenomenon to be seen against the back-drop of health. Health deals with sickness to make it leave the arena when one is spending one's time to replace one's time by valuable and more tangible experiences which gain the stability of being one's past.

Sickness cannot start at the level of structure. It always begins at that level where the invisible, non-deliberate functionings, in the environments interfere with the processes singled out in #1 as those truly human and extending over the whole of the individual's life.

The two domains, of the individual life and the environmental life, can either cooperate or conflict. In the first case, health can continue as the individual's responsibility and in the second, one or more things may happen and have happened in human histories.

Because humans function on the basis of awareness of awareness, what one finds as beneficial or harmful may be passed on to others who then learn about remedies or dangers and make those experiences part of

their handling of daily events. Falls, accidents (like bites or stings), poisonous plants or animals, do not need to be learned the hard way, they can be borrowed from other people's experiences and made part of one's experience. Not everyone must discover the value of holding a broken limb between hard supports to recover its use later. A pharmacopoeia can be established through cumulative experience and its uses made anonymous and universal. Knowledge of properties of natural items like mushrooms, herbs, barks, concoctions, can be confirmed by every individual user and made part of individual experience through collective experience, itself based on individual findings.

This about the beneficial passage of information held in the group to the newcomers in its midst. But there are also deleterious impacts from the environment to the individual.

Particularly today, in modern urban and industrial societies, where fragmentation is the preferred state of being and specialization a rule of society. Not only the contemplation of the constant increase in knowledge leads us to the awareness that no one can hold it all and we must be content with dwelling in narrow fields and accept ignorance, sometimes total ignorance in others, but we see specialization as a plus in the circumstances.

As to health, this plus is certainly not there. Parents cater for the material and economic needs of the family, but rarely to their growth in experience. Teachers are supposed to shorten the time taken in each life to integrate the gains of the community which employs them so that even school students start life where others have left it.

Physicians are allowed not to know anything parents and teachers and also priests and social workers, do and to concentrate on the illnesses their patients bring to them.

In fact, in our societies, *no one* is concerned with the whole of each of us, except perhaps some among us who see life as a whole and growth as a whole. This alone creates hazards and the study of health requires that we draw attention to the new attitudes we must foster among the

members of societies for health to be also a real concern of the various generations which constitute our modern societies.

The actual state of affairs is that people who live within various absolutes are in contact with each other and as they normally cannot picture the effects of passion on them, they only identify with their own outlook on life thus refusing legitimacy to the outlook of others.

For parents, their children must obey them in many matters, even or particularly, if they do not understand what is asked of them. This generates a parental pressure felt at the level of the functioning of the will. If the will is broken or prevented from doing its job as an attribute of the mind, the individual, who is by nature submitted to his own self which knows what is good for himself, is invited to organize his own inner life around what is not functional at that stage. A prolonged living in such conditions entails that the individual is no longer himself and cannot be in charge of those aspects of his life which depend essentially on him above all.

In such cases the first and most dangerous human disease is the loss of the integrative mechanism which belongs to the self. To recuperate it means opposing the family members who believe to be entitled to what they request. The “generation gap” is the name given to the diverse views of reality which confront each other, but it does put the blame where it belongs: the older generation has lived through the same absolutes and lost contact with them. It does not recognize the necessity of the experiences of the young it now objects to. It only sees the reasonableness of its own views and the stubbornness of the young generation refusing to acknowledge that reasonableness and abide by it.

All this is from outside. Inside the young, the vital experiences should go on even at the cost of peace at home. Both old and young lose sight of the essentiality of going through those experiences because they represent the continuation of the way we formed ourselves in-utero and know how to maintain inner harmony as well as the integration of the collective experience which gives us our place in the historic

continuum. The clash of absolutes affects us at the level of the functioning of the self. And this is a major threat to our health.

Besides parents, there are teachers in schools who discharge *their* duties for which they have been hired without any consideration for which experiences should result from the consumption of the students' time. On the one hand, a curriculum dictated by adult considerations only, puts the stress on the last two absolutes: intellectual and social, still far away from the students' reach in terms of spontaneous involvement and passion, until they reach the "senior" high school levels. On the other hand, the use of the time in the classroom is deliberately unconcerned with the reality of learning at the various ages and is only centered upon memorization and retention of information which may mean little to the recipients.

Worse than this is the fact that the school "education" is strongly opposed to the healthy integration of the new from birth, i.e., through criteria which make sense to the student and resemble those he has lived with in all his successful learning. Now someone else, not him, is judge of what is true and real. Only if approved by a "knower" what he reaches in the exercises and his studies is acceptable. He, in a way, is deprived of his confidence, his certainties that he has the means to obtain the needed knowledge by himself as has been the case in all his successful and integrated learnings.

Public or private education on this basis is a constant assault on the students' integrity. To adapt to it is another aggression on the self and its ways, this time done with its cooperation. General education of this kind is the unsuspected source of other human illnesses all based on the surrender of the most precious attribute of the self — its integrity — to an anonymous entity called society or the state, for something whose value is not immediately perceptible: school grades and diplomas. Such surrender of one's integrity can clearly only lead to a non-centered life, a life of a follower of self-appointed leaders, rudderless and aimless at the time it is taking place. How can one reconcile one's direct knowledge that there are purposeful activities essential to one's growth and evolution, and this robbery of one's time for mostly futile activities. Adaptation to this state of affairs means compromising one's health,

for, now, one is a divided person, a defender of what is false and harmful and what can only be justified by inferences from unwarranted actions put into circulation because this is easy enough in comparison to a true and functional education as was exemplified in the early childhood by all and at school by the resisters to social pressures who accepted to become outcasts.

Parents and teachers create the ground on which the first illnesses can begin, physicians build on it. Physicians who ignore the role of one's integrity, of one's will and of the intimate contact each of us has with himself, insist that illness is only real when it has reached the structural stages and that all preceding signs are "psychological," i.e., unreal to them. Physicians, fragmented in their own specialized education, further fragment their patients in not seeing that health preexisted before the illness set in and in refusing to revise their own education for gaps and misconceptions. Physicians' education has changed in the West to the point of only seeing molecules at work in all phenomena which come their way.

In so doing, they see health as a remote concept, as a metaphysical entity about which philosophers can speak but not they, mainly entrusted with the lives of their patients. Treatment is an objective reality, cure a miracle, not in their province. Patients, who put themselves in their hands, do it at their own peril for they will be treated as if they are of the first two realms, the molecular and the cellular. Sometimes as of the third realm when diseases are caused by certain habits the patients entertain.

The Chinese doctor who has a comprehensive view of life as an energy system plunged in the vast energy system of the world, sees his patients more as a whole than his Western colleagues, but ignoring so much of the microscopic structure of the soma and altogether the place of the will in the individual, he resorts to herbal medicine, acupuncture and conformity with its social dynamics to moderate the dysfunctions and often to make them disappear. To the Chinese doctor, patients are psychosomatic systems which respond selectively to inputs of energy when falling into illness as well as when coming out of them, with the help of the physician. One big difference with the Western conception

is that health is the frame of reference within which illnesses make their appearances first as functional, and if treated in time, would never reach the structural stage.

* * *

All these incidental remarks seem necessary to this writer offering a working model of health, first because the model is presented solely in words and not in diagrams and mathematical formulae and second, because in order to make it as comprehensive as life, we must point at the missing components in the two medicines included in this work and invite readers to attempt a rethinking of the meeting of health and disease over the span of one life and over the mutual impacts of the components found in the natural universe and its evolution, and the social environments in which other humans live their own lives.

There has been little room in all this for the motives which make one human do something for another. In China it is the sense of duty, made cardinal in social living by Confucius. In the West it is love and compassion which move one to take upon oneself the care of the needy, the sick, the disabled. In this model love or duty force the door for the truth of human beings whose selves evolve through the conscious experiencing in any one life which has led over the generations to our present awareness: only in a relativistic and temporal model will we find the means of reaching a comprehensive understanding of health. Relativistic because of the number of absolutes which are co-present in any portion of our human world; temporal because human reality is changed by the impacts of what each of us can reach through awareness and make available to others through education.

A model, like the one sketched in words in all the previous pages, lends itself to a proposal of an education for health which humans can adopt. In a few sentences it can be sketched as:

1 Let everyone know himself as of the four realms, chemically vulnerable, psychosomatically vulnerable, culturally and socially vulnerable.

2 Let everyone know that the agent of integration of one's life in all its aspects, is a self, a quantum of energy, endowed with a number of attributes which evolve in the acts of living, which can be taken care of separately and jointly by the self which owns them. In particular which knows and cares for integrity.

3 Let everyone know that health suffers if it is circumscribed to anyone of the four realms and its degraded states, isolated as a reality sui generis which manifests itself in diseases and illnesses. That these are consequences of an abandonment of some of the integrating functions of the self for a variety of reasons, among which chemical indulgence in drugs, are now so prevalent. But also through adherence to unproven beliefs disseminated within one's society at the stages when one is not yet aware of the existence of criteria which would make those areas areas where one can stand his ground firmly.

4 Let everyone know that a maintenance of health all through life is possible and can become a birthright of all once the dominating powers of the day allow themselves to become sensitive to the human reality beyond the first three realms. By acting upon families so that everyone in it lives fully his or her present absolute — by acting upon educators so that they do not rob their students of their time and distract them from real learning by asking them to accept false authorities and these statements of theirs which are not exchangeable for criteria. By going beyond home and school and reaching the professions so that no one believes that the appearances of today are all there is in the universe as it exists and might reveal itself in the future. Mankind has never been defined by any one of the single formulae which can characterize, more or less accurately, the many collective experiments called cultures and civilizations which we have come to know today because of our intellectual and social absolutes and interests.

But Man as a being aware of awareness, unifies past and future, all the pasts objectified in cultures and a future to be constantly renewed in contact with the unknowns met on our earth in all the fields of inquiry.

Just as we slowly improved our standards of living by becoming aware of more efficient ways of doing things; improved our objective knowledge of energy and time in terms of our inner and outer lives through all the sciences; we can now find that the large challenges to mankind, of which health is one, require new ways of knowing which we are every day more able to encounter in our reflections, our inquiries, our open-mindedness, our intuitions.

Because of this we can now face the challenge of health rather than the numerous challenges of illnesses and then define health as the absence of illness. We can now be more optimistic because more realistic, and see a time when all of us will work together to maintain the health we give ourselves in-utero and to enhance our living through our concrete awareness of relativity and evolution as well as our more correct appreciation of time and human energy.

While working on a model in which realities are replaced by schema, we have learned that by resisting simplifications and attempts at a small number of principles, we have come closer to our own mental functionings and kept these as close as we can to the actual experiences which constitute the concreteness of our actual lives.

A model is a very important instrument, very helpful when we want to think and manipulate substitutes of realities, but it is not reality. The reality of health is lived and felt and can become the norm in our lives because we have been helped by all there is to consider in the making of our model. Now *each of us* can endeavor to take responsibility for his or her health with the result that *all of us* can be kept in that state. The numerous steps we need to take in order to cope with the numerous challenges we are becoming aware of every day, look like possible and can be made easier every day. In our model we have watched biases and kept them in check as far as we could. We have deliberately produced a constantly self-correcting temporal model open to all sorts of feedbacks. Thus we gave it the greatest chance for being a WORKING MODEL for HEALTH.

News Items

Six weeks of seminars and workshops in Europe (end of October, beginning of December, 1986). Almost 500 people participated in five cities to one or more of nine seminars in Bristol, Besançon, Paris, Geneva and Trento. All of them had a practical slant and almost all the participants expressed their satisfaction that it looked possible for them to use their learning in their lives and places of work.

1 In *Bristol* (England) fifty people, mainly teachers, spent 20 hours studying the meaning of "only awareness is educable in Man", which many had heard for some time but were not quite sure they understood fully. Verbal explanations could add some light but demonstrations were much more helpful. So two lessons were made part of the seminar, one for people who declared themselves as "mathematical illiterates" (of which there were quite a number) and one for a class of 13 participants who declared themselves not knowing any Spanish and to which a 70-minute lesson was given with the rest of the group as observers.

The class-within-the-class approach has been often used in our seminars and workshops and reported in these News Items. It is one technique which allows the whole group to gather evidence from a concrete example and provides for a feedback session on material lived by all on the spot. This time too its power has been stressed by many.

The math lesson (of which two other samples were added at Besançon a week later and in Geneva two and a half weeks later) was

straightforward, starting from scratch and taken as far as the students and the time allowed permitted. As instrument, the hands of the students and some instructions from their teacher seemed not only adequate and sufficient but a very useful means to force awarenesses and to give enough practice so as to ensure that everyone had a positive experience leading to some knowledge. The teacher only gave some commands and never confirmed a right answer either in words or facial expression: a further question was the signal that all was going well and a request for another trial a sign that errors were allowed to creep in. The pace was dictated by the speed with which unanimity that the task had been handled properly, was reached by the class.

The question which took most of the time was concerned with the number of ways a subset of the fingers of two hands could be counted, an easy enough challenge which allowed for perception and action to be used to reach the answer. Thus the students remained in close contact with the challenge and could check with each other whether their conclusions were correct and expressed correctly. It was as much a language lesson as a math one. The starting subset was made of three fingers and, taking their time, the students convinced themselves by doing it fully on their own, that there were six ways and only six.

A beautiful and dramatic moment followed when considering the question of four fingers, every student realized that the experience just acquired could serve to make this problem less demanding than the first. Holding three fingers in front of them they saw them as mainly carrying the six counting possibilities just worked out and they made correct calculations in their heads, verbalizing their awareness as well as any expert in the field and ending up with an answer which seemed certain to them and therefore acceptable to anybody. They could become aware of their ways of working in detail and analyzed them with competence and confidence, an astonishing feat for the observers-mathematicians who were watching the happening.

The extension to all subsets up to 10 fingers grew easier at each step and encouraged the teacher to extend the challenge to the language of factorials and to make students calculate in their heads questions like: “If you divide factorial 7 by factorial 5 what do you get?” All seemed so

easy to the “illiterates” who had always ran away from entering such questions in the past, that the lesson looked to all as a succession of daring steps but closely-knit so as to suggest transfers of learning rather than acquisitions of knowledge. The happy atmosphere during that hour escaped no one. The feedback lasted an hour and was an occasion for the group to see how one can systematically use awareness to remain in touch with the students’ work and for the students never to lose the problem all were working on, although their minds were visibly simultaneously working at various levels on the challenge kept in sight all the time.

The Spanish lesson included mostly observers of the math lesson who thus could see the difference between looking into and participating in, a lesson. Here too the ground covered was a function of how the students got hold of the challenges and curbed them to become part of their awareness and be retained easily. A beautiful lesson, joyful, moving smoothly and fast, each student fully responsible for his or her progress and feeling how much ground was being covered.

The observers had among themselves non-Spanish people who spent years in Spain, these were amazed at the accuracy of the speech they were hearing from these strict beginners who never heard the teacher say anything in Spanish during that hour. Some even said how much longer it took them in Spain, to reach a flow of words in Spanish comparable to the one achieved by the students under their own eyes. The joy of learning, the total involvement of the students in the lesson seemed as high as in the earlier math lesson. The instruments for teaching were the Castillian Fidel and a pointer. The statements were selected so that immediate comprehension was possible and a number of variations on the theme would yield the conjugation of a useful prononimal verb knowing exactly which words to call in according to some perceptual criteria selected for that comprehension, like looking at one or more of them, or simply pointing at them. It seemed that that learning would never leave them, so natural was the spontaneous speech put in circulation by the students in the class. The analysis by the group of the content of the lessons in terms of what the students did, how it was elicited from them by the teacher and the connections of this content and current curricula, showed the advantages of

proceeding in these ways. Other examples were used in the rest of the seminar to ensure that the subordination of teaching to learning was seen in terms of various forcings of awareness followed by sufficient practice to secure retention with comprehension and a good level of performance. Although all were not quite clear about the initial question of the seminar, they were satisfied some progress could be made on it by recalling privileged moments of the demonstrations and their sequels.

2 In *Besançon* (France) the theme of Bristol had been retained there too and fifty five people attended, including members of the staff of the Center of Applied Linguistics at the University of Besançon. Here too there were two demonstrations, one of mathematics for illiterate adults and one of English to beginners. The Math lesson was a variation on the one in Bristol and was taken beyond the point reached there. It was not less spectacular for the three knowledgeable teachers of math and physics to senior high school students present, who could judge the range of the work put together in that lesson. The language lesson was with six adults trying to become fluent in English of which they had no idea or very little. The instruments were the sound/color chart and a pointer and most examples practiced were of the question and answer type which were selected so as to provide everyone with useful phrases when more language would be offered.

Although the weekend had 20 hours and much more than the above happened, to write more on that event would be repetitious of what was said about Bristol. For the participants it was rich and full, varied and intense, above all a joyful experience to remember.

The organizers at both Bristol and Besancon contributed a lot of themselves. In Bristol, a concert was offered on Saturday evening; it was highly appreciated as a remarkable performance as much as a treat for all. In Besancon a banquet was offered to the participants who liked being treated so lavishly.

3 In *Paris,* two meetings had been arranged, one mid-week seminar on the Computer in Education and a weekend on “Renewing Oneself.” To the first only fifteen came, to the weekend forty-two. No

one was an expert on the computer but all were eager to learn more of its application to the field of education, where they had some desire to become active in the near future. Most of the time was spent on examining examples in which the use of the computer gave both a meaning to "forcing awareness" and to "directing one's own practice" which leads to mastery in the fields illustrated. This defined a clear place for the computer in education instead of some unsatisfactory use for drill and repetition and as a surrogate for book learning. The few disks (on mathematics and for literacy and for spelling in English) which were available could serve the purpose of showing that there are activities in which the computer does things so much better, more smoothly and forcefully, at the same time, than any other means available to educators today.

A somewhat less precise definition of future work made the time spent on these discussions very worthwhile indeed — so said the participants.

At the weekend the theme of our renewal had to be made more precise for the participants to be able to contribute their own experiences in the study which brought them there. As usual, in this type of work, the forging of the proper instruments of study took some time. Although the word affectivity is more commonly used by the French people than by the Anglo-Saxons, it had not become quite clear to all as yet. Hence, it was necessary to distinguish it from the psyche (psychisme in French). Exercises were devised to force awareness of both so as to distinguish them. In one of them a physical obstacle was offered to be jumped by a participant who was not prepared to risk the jump. Previous experience clearly interfered on the perception of the danger and paralyzed the person in front of the obstacle. This concerned the energy stored in her psyche which was mobilized automatically by the sight of the obstacle and suggested a refusal to try and test oneself. The energy needed to lift oneself over the object was psychic energy already known to be available for such activities, but the energy to counter the effects of previous experiences and to command the jump in the here and now was clearly different and could be labeled differently, here as affectivity. One was linked with one's past (the psyche) and the other with the demands of the present and the immediate future (the affectivity). Both, in this case, involved the soma (since a physical

activity was the challenge concerned) and the question remained of distinguishing them, for instance, in the case of purely intellectual activities. The location of any prejudice in one's psyche and its dissolution served that purpose. Our renewal is of that kind every time it takes place. Then we feel that we have taken a step forward, even occasionally a leap, belonging to affectivity and thus can find that our inner growth differs radically from the accumulation of knowledge or information better located in the psyche whose bulk can increase while affectivity does not increase in quantity. Affectivity is the lever of renewal and it dwells in our sensitivities when we involve them to take us further than we have reached so far in our spiritual endeavors.

Though affectivity in humans is the tool of the self seeking spiritual growth, it can be seen as being analogous to the workings of evolution in the three other realms (of matter, of the vital, and of animals). In these realms horizontal evolutions consume the time able to objectify all that which is possible until an impasse is reached in each of them and requires a vertical leap to open up new ways of working for energy. In the case of humans such leaps can be daily happenings leading to one's renewal, through specific growths (in French dépassements) sustained by one's affectivity.

When we understand that renewals are the expression of vertical evolutions at work in us and if they are in harmony with our horizontal evolution covering the whole of our life thus far, we may reach an understanding of ourselves and our inner dynamics which open our lives to more of our being rather than to being lived: a closer realization of ourselves than otherwise.

4 In *Geneva,* there were three one-day meetings with city public school educators, the first with teacher trainers for secondary and for elementary school teachers, the second and third with middle school teachers of all subjects. At each meeting about eighty-five registrants sat in a steep amphitheater type of classroom as if only ready to be lectured at, as usual. But if the setting was rigid, it was not ncessary to make the address of the same kind. Four sessions a day of about 100 minutes, each gave scope to a meeting which threw everyone onto him or herself requiring closer examination of oneself, one's functions as

trainer or teacher so that the “hollow schemas” everyone is used to handling in the classroom situation be replaced by genuine dialogues between people. It took place in the here and now as the speaker threw questions which had echoes at once, so that one single session changed the meeting into a self educating gathering where everyone felt provoked to scrutinize the contents of one’s mind to find what was there rather than what one was expected to give back as an obedient student. Though many expressed the usual worries of working with unmotivated students, the majority felt compelled to take responsibility for what was happening to them on the spot through their willingness to participate. The training of trainers left them seduced by the possibilities of doing with their trainee teachers what was presumed possible for those being trained to transfer to their own students. Instead of ideas presented as methodological steps to be followed by all to achieve a success (which rarely comes), techniques were suggested which brought people back to what could easily be labeled their creativity. Games as lessons appealed to them and a certain number were supplied which proved that such a change was possible and had attractive qualities. The City as employer was not asked to make changes it might be unable to consider, and the trainers were only asked to attempt the feasible while teaching those curriculae deemed necessary to prepare students for exams instituted by society for its convenience. This resulted in a joyful climate that helped convince the group that the proposals made to them were realistic and, for some, preferable to what is going on now.

Some of these participants came back voluntarily the next day intrigued to see some applications to the middle school level reputed the hardest.

The second day started with a look at adolescence no one ever tried out but was found at once to have roots in the lives of those present. In such a revival of the significance of the experience of adolescence it was possible to obtain that most of them drop their habits of arguing for arguing sake and looked how to link the aims of society in using schools to bring its youth to the present level of its culture and the nourishment of eager minds who yearn to be better acquainted with their inner lives which open up so widely at that age. Two lessons were

offered to illustrate how it was possible to gain the confidence of the students by making them live intensely, some learning charged by affectivity and still connected to the school work allocated to that age. That it was possible to leave out drill and repetition, to stress involvement, rapid yield of amazing experiences which included retention rather than memorization, helped to change the climate of the session into an exciting and joyful learning one. No one felt coerced to accept anything which stemmed from the leader and almost all surrendered to the activities that could be examined critically afterwards. And found sound, useful and capable of being tried out in their classes whatever the subject. The lesson was the acquisition of a good Spanish pronunciation in about 40 minutes using the Infused Reading disk. The other was with seven "math illiterate" women who performed so beautifully that they and the rest of the group remained stunned with the ease and clarity they proved in mathematizing some games with their fingers leading to subject matter placed at the senior high school level by the offical Geneva curriculum. In one hour or so, the field covered coincided with what takes months of study normally and all the mathematics statements made were completely developed by the students, themselves prompted by questions from their teacher who never took their place.

On the basis of this "high" the second day with this group consolidated the bases on which the subordination of teaching to learning takes place under a non-interfering teacher, with far reaching consequences for education.

Two lessons that day dispelled a number of preconceptions. The larger group of 80 or so participants were taught Hebrew for 75 minutes using a sound/color chart and a pointer. The two participants who knew that language were needed to make everyone believe that what was being uttered by everyone was indeed Hebrew and at a level of competence they stated they did not reach themselves before a long time. This first Silent Way lesson in an unknown language and with such results kept the workshop on its practical tracks while uplifting the spirits of the participants who were so happy to have had the experience of this course.

The second and last lesson was in mathematics and in reply to a question about how much could be done with such a simple and handy instrument as the fingers of one's hand. A chapter of the Combinational Calculus was started from scratch and taken soon out of the hands and into mental work without notes on paper and still showing that common insights were possible, naturally transmuted into statements which sounded mathematical to the learned. At the final feedback it was heard that the excitements in that amphitheater had spread beyond it to reach the many who could not come and were now eager to learn how to improve their yield per hour in their own classes.

5 In *Geneva,* there were two more seminars. One for teachers of German (becoming a compulsory subject at the elementary grades) and the weekend one (like every year since 1972), this one on: "How to think usefully and in valid ways about the future of our children and grandchildren."

There were 25 teachers attending the one evening and one day workshop in which 24 children of 10 formed a demonstration class in German, for two lessons of more than 1½ hours each during their school day. The 3-hour evening session was used to familiarize the adult participants with some of the Silent Way techniques and materials. In particular, with the sound/color chart since the German version of it would be used the next day with the children. These students had already mastered the French sound/color chart and only had to extend their mastery to a few additional sounds belonging to German.

No one knew what might happen with 24 beginners of German having a teacher they never met, being surrounded by a crowd of adult onlookers. But soon enough it became clear that the powers of the Silent Way in the hands of a knowledgeable teacher sweep obstacles, create a joyful climate and make learning an engaging activity. Lesson #1 made students speak to each other saying a few things about themselves and making the correct required transformations with ease and certainty. Lesson #2 took up the German numeration up to numbers of 12 digits allowing for a spontaneous flow of words

modulating the melody of that language while taking into account the few irregularities of that system.

The observers acknowledged the involvement of every student, their good pronunciation without hearing any model except themselves and only guided by the sound/color chart code. That all of them worked for so long without giving signs of fatigue, enjoying every moment of it and learned so much, did indeed form an impressive show. Comments of the students themselves confirmed that language learning can be easy, joyful and effective. No one among the observers asked whether all that would be retained beyond that lesson and whether repetition would be needed. It was clear to all that besides forcing the awareness of the tasks on the students, the techniques provided so much practice that there was no danger of their forgetting anything.

The workshop would have been more effective for the adults had there been two more hours for discussion of the lessons.

The weekend seminar was well attended and the work done found useful and inspiring by those who expressed themselves. First it was necessary to reach the certainty that one can “think of things useful” about the future. Comparing what each of us can do against the Nuclear Winter with the threatening reality, gave a measure of the challenge. If life went on on earth we would still have the question: “What to do for our children and grandchildren, so that their lives are worthwhile and possibly better than ours?” Not much was forthcoming. To provide ourselves with means to help us handle the question we spent some time finding our respective places in our human world. While doing that we could secure for our generation the distinction of being the first which can use the instruments of evolution and of relativity in order to attack difficult problems involving individuals and groups of various ages and involvements in society.

Working on the instruments themselves was found fascinating and on their applications, useful, so that finally the weekend was seen by most as contributing to the enlightenment of the participants and to easily think about the future of humanity if it is allowed to exist. Self-education and general education could both benefit from the powers

the dual instruments for thinking, of evolution and of relativity, taken separately and blended together when possible. Much work for the next year was left with everyone.

6 In *Trento* (Italy) the format was: three evenings from 3:00 to 7:00 p.m. and two hours on Sunday morning, offering less intensity than 16 hours in one intense weekend as was the case in all other places. But that was all that could be provided and comfortable for the participants working all day, mainly in teaching. The theme was: "Prejudices and how to reduce their power on our lives."

Because prejudices and preconceptions elude those who have them, it was necessary to work in ways which brought them forth. But it was not easy and the first evening was not sufficient for most to reach one or more of them. Some exercises helped but it was mainly after the second afternoon that it became possible to force awareness of their existence in oneself. Taking the themes of last summer long workshops on freedom and love, it appeared that these profound human concerns were wrapped up in prejudices which kept away their reality. Many were shocked to find that such prejudices, on the one hand, distorted their perceptions of their own freedom and of their acquaintance with love, and on the other, took away their chances of doing justice to the other people around including their loved ones. At the feedback session it came out, loud and clear, that a lot of work for the future was left for everyone but that it was welcome for the sake of truth.

All the seminars and workshops were recorded and might be available in the course of 1987, from the organizers, in English for that of Bristol, in Italian for the one in Trento, all the rest in French from the group in Besançon already known for their outstanding work.

About Caleb Gattegno

Caleb Gattegno is the teacher every student dreams of; he doesn't require his students to memorize anything, he doesn't shout or at times even say a word, and his students learn at an accelerated rate because they are truly interested. In a world where memorization, recitation, and standardized tests are still the norm, Gattegno was truly ahead of his time.

Born in Alexandria, Egypt in 1911, Gattegno was a scholar of many fields. He held a doctorate of mathematics, a doctorate of arts in psychology, a master of arts in education, and a bachelor of science in physics and chemistry. He held a scientific view of education, and believed illiteracy was a problem that could be solved. He questioned the role of time and algebra in the process of learning to read, and, most importantly, questioned the role of the teacher. The focus in all subjects, he insisted, should always be placed on learning, not on teaching. He called this principle the Subordination of Teaching to Learning.

Gattegno travelled around the world 10 times conducting seminars on his teaching methods, and had himself learned about 40 languages. He wrote more than 120 books during his career, and from 1971 until his death in 1988 he published the Educational Solutions newsletter five times a year. He was survived by his second wife Shakti Gattegno and his four children.