When Healing Becomes Educating

Selected Articles from the Journal of Anthroposophical Medicine (1986-1998)

Volume II:

Healing Out of Illness

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HEALING
OUT OF ILLNESS



Published by:

The Research Institute for Waldorf Education PO Box 307, Wilton, NH 03086

When Healing Becomes Educating Volume 2: Healing Out of Illness ISBN # 978-1-936367-34-4

Editor: Douglas Gerwin Layout: Ann Erwin

Articles originally published in the Journal for Anthroposophical Medicine c/o Anthroposophical Society in America 1923 Geddes Avenue Ann Arbor, MI 48104

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Destiny of Illness and Inner Human Development*

RUDOLF STEINER

Let us assume we have had an illness in life which has caused pain. At some point, when we are in the world of the spirit, we will experience the opposite mood or state of mind, feeling ourselves to be in health. This mood of being in health will strengthen us to the same extent to which the illness weakened us before.

This may come as a shock to the intellect; it may also enter much more deeply into the emotional life and irritate the soul. We know that certain things which are of the spirit must always be grasped at this level. We need to consider the following: Some kind of shadow lies over the connection between the physical illness and the health which gives us strength in the world of the spirit. The connection is a true one, but somehow we feel in our hearts that we cannot really accept this. This has to be admitted. If we really understand the connection, it has another effect, which may be described as follows.

For those who make a serious effort to absorb and study the science of the spirit, not just in theory, by merely taking in thoughts and ideas in the way other sciences are studied but as something like a spiritual life blood, awakening inner responses and feelings, for those who have the right ear for this science of the spirit, there is nothing in it which does not either uplift or allow them to look into the abysses of existence, in order that they may find their bearings. Those who truly understand the science of the spirit will always follow everything it has to say with their feelings. If we absorb this science, acquiring the habit of thought and formation of ideas, we actually transform our souls while still in the physical world. Serious study of anthroposophy is one of the best and most effective exercises.

A strange thing happens when people gradually enter into the science of the spirit. If they are doing the exercises—or not even doing the exercises

^{*}Original title: Krankheitsschicksal und innerer Entwicklungsweg des Menschen. Der Merkurstab 1996; 49: 339-41.

From a lecture given by Rudolf Steiner on 12 April 1914, in: Steiner R. *The Inner Nature of Man and Life Between Death and Rebirth*. Tr. D. Osmond, C. Davy. Revised A.R. Meuss. Bristol: Rudolf Steiner Press 1994.

which will make them into spiritual investigators but make serious efforts to gain real understanding of the science—they will one day have clairvoyant vision. It may be a long time before they have clairvoyant vision, but they will have it. If you let the science of the spirit influence your soul, you will find that the instincts of life, the more unconscious mainsprings of life, change in the soul. You do not become active in the science of the spirit without it having an influence on the life of instincts, so that it will have different sympathies and antipathies, be filled with light, and feel more secure than it did before.

This may be noticed in every sphere of life. If you are clumsy with your hands, for instance, and become an anthroposophist, you will find that, without having done anything but receive the science of the spirit, you become more skillful, even in the way you use your hands. Do not say: 'I know some anthroposophists who are very clumsy; they are far from skillful.' Consider instead how far these individuals have not yet truly made the science of the spirit part of their inner lives, to the extent their karma requires. You may be a painter and have mastered the art of painting up to a point. When you become an anthroposophist, you will find that the influences of which I am speaking flow into the way you instinctively perform the art. You find it easier to mix your colors, and the ideas you seek come more readily. If you are an academic person and supposed to do some scientific work (many who are in this situation will know how much effort it takes to collect the literature), when you become an anthroposophist you no longer go to libraries and borrow many volumes; instead, you will immediately lay your hands on the book you want. Spiritual science has a direct influence on your life; it changes your instincts and gives new mainsprings that make you more skillful.

What I am going to say must, of course, always be seen in connection with human karma, for human beings are always subject to karma. However, even if we take this into account, the following is nevertheless true: Someone who has entered into the science of the spirit contracts a particular disease and it lies in his karma that he can be cured. It may, of course, be his karma that the disease is incurable. If we are faced with an illness, karma never says in a fatalistic way that it has to take a particular course. The disease can be cured or it cannot be cured. Someone who has steeped himself in anthroposophy acquires an inner instinct which helps him meet the disease and its accompanying weaknesses with something that will strengthen him and be right for the situation. What would otherwise be experienced as the consequences of the disease, in the world of the spirit will work back into the soul as an instinct while you are still in the physical body. You will either prevent the disease or inwardly find your way to the powers that heal.

Clairvoyant consciousness finds the right hearing factors for an illness. The clairvoyant individual is able to have an image of the disease before him: Here is the disease; it weakens the human being in this particular way. Having clairvoyant consciousness, the individual perceives the counter image, the mood of overcoming illness and the growing strength welling up from that mood. He sees the compensation which will come to the individual who had the illness in the physical world once he is in the world of the spirit. The clairvoyant is able to give advice based on this. You do not even have to be fully clairvoyant; the advice to be given may come instinctively from observing the signs of the disease. The process which brings to clairvoyant consciousness the compensation which will come in the world of the spirit belongs to the signs and symptoms of the disease just as much as the upward swing of the pendulum on one side belongs to its upward swing on the other side.

This example shows the connection between the physical plane and the world of the spirit and how fruitful knowledge of that world can be for the conduct of life on the physical plane.

Rudolf Steiner

The Meaning of Health in Anthroposophy: The Nature of Illness – The Sick Individual*

THOMAS McKEEN (1953-1993)

Six physicians stood grouped around the bed of a patient who had just died of cholera. Five of them belonged to different medical sects, and they were giving their opinion as to the cause of death.

"Well," said the adherent of Sect 1, "he died as a result of being infected by the cholera bacillus."

"No," said the adherent of Sect 2, "he died because of his weak constitution which lacked sufficient resistance to the infection. If he had possessed greater powers of health he would still be alive."

"Oh, no," smiled the doctor who belonged to Sect 3. "Didn't you notice the position of the stars in the heavens in relation to his microcosm? It was entirely predestined! The stars showed that the departed was destined to die this death because the configuration of his soul required it!"

"Not so!" said the physician from Sect 4. "He had a weak ego! A coward! I had a chance to observe how frightened he was of the cholera. Fear provides the soil on which infection thrives! Many a person much weaker in body has survived the cholera. But they had something he didn't have, namely courage in their belly!"

"What a lot of nonsense you do talk!" said the fifth. "Don't you know that all suffering is sent by God as a punishment? If God had wanted him to recover he would have sent the right doctor in time. Illness is purgatory on earth. This fellow was not worthy of recovery here on earth!"

The sixth physician had not spoken. The others turned to him and asked: "Which of us is right?"

"Each of you is right," he replied, regarding them. "But each of you is also wrong! You are right in what you affirm and recognize, but you are

^{*}Taken from a talk prepared for the German radio station Hessischer Rundfunk, broadcast on 11-5-92. It illustrates the exemplary manner in which Thomas McKeen was able to present anthroposophic medicine to the public (Ed.).

Title of original German text: "Das Wesen der Krankheit und der kranke Mensch im anthroposophischen Gesundheitsverstaendnis." *Merkurstab* 1993; 46: 338-45. English by Johanna Collis, MIL.

wrong in what you deny and disregard as to the opinion of the others. If you desire to decipher the pentagram of the human being you must learn to read what the occult language reveals to the pupil but hides from the lay person; read in my *Volumen paramirum: de quinque entibus* about the five principles."¹

This scene is to be found in a book on the occult causes of illness by E. Wolfram. The book is about Paracelsus, but this conversation provides us with a point of view that can help us understand anthroposophic medicine. This point of view arises out of the various levels at which it is possible to regard a human being. Rudolf Steiner's anthroposophy initially provides us with four levels, and we shall discuss a fifth later. In anthroposophic terminology these four levels are the four principles of the human being, namely: firstly the physical body, which is visible, measurable and weighable, secondly the ether body or life body within which all the powers of life are at work, thirdly the astral body which provides the basis for feelings and sensations, fourthly the ego. This is each human being's individual core.

All physical objects, including minerals, have a physical body. Plants, in addition, possess an etheric body. Animals as well as human beings have an astral body or sentient body, but human beings alone possess an individual ego which develops and which is active in shaping the personal biography and living through it.

Returning to the conversation of the five physicians let us now compare their statements with the situation as described in anthroposophic medicine.

The first physician said that the patient had died as a result of being infected by the cholera bacillus. This sounds very familiar in the context of modern medical opinion. There is no doubt that germs with their toxins are one of the real causes of a serious illness. No doctor, anthroposophic or not, is in any doubt about this. On the contrary, as far as the level of the physical body is concerned, this is an entirely valid and indeed necessary basis for modern medicine, including anthroposophic medicine. Steiner said with regard to this: "It is not a question of opposition to modern medicine and its scientific methods. We take full cognizance of the value of its principles. It is also our opinion that what we are offering should only be used in medical work by individuals who can be true physicians in the terms of those principles."²

This is the broad basis on which anthroposophic medicine is founded and which is entirely in agreement with medical opinion based on modern science. This is obvious in many treatments used in anthroposophic hospitals and practices. Heart attacks or serious accidents are more than anything a matter of damage to the physical structure. Depending on the situation, treating these on the lines of generally accepted principles is more or less a matter of priority and can be life-saving. So where is the difference?

This brings us to the second level. In our little story the second physician said: "He died because of his weak constitution which lacked sufficient resistance. If he had possessed greater powers of health he would still be alive."

Now the questions begin.

Are there such things as healing or powers of life, or, as they are called in anthroposophic medicine, etheric powers? What are they and how is it possible to talk about them?

According to Rudolf Steiner they can be perceived and understood. You have to school yourself inwardly with exercises and thus learn to approach them.

Let us stop for a moment to consider what science has to say about this, using an occurrence in a university lecture hall as an example. Beginning his first lecture of the semester, a biochemistry professor said: "In former times it was thought that life was a power in its own right. Then it was found that all life is linked to chemical processes. Gradually the realization dawned that the chemical processes are what counts. For a while people considered that life went with chemical processes in an organism the way noise goes with a machine when it is running, but now we know that life is no more and no less than the sum of all the simultaneous biochemical processes."

So much for the professor of biochemistry.

The statement was: Life is the sum of all the simultaneous biochemical processes. The author, who heard this in his third semester as a medical student, was impressed by the courageous nature of this definition until it occurred to him that the lecturer, too, must be a sum of simultaneous biochemical processes. What was the value of a statement that was nothing but a consequence of biochemical processes? Indeed, when the professor's wife came to meet him at the door and gave him a kiss, was one sum of simultaneous biochemical processes kissing another sum of simultaneous biochemical processes? If the scientific view of human beings was that they were nothing but the sum of chemical processes, why bother with a highly-sophisticated medical science? Was it worth it just for the sake of the biochemical processes? Questions like this provided the starting point for Rudolf Steiner.

At the age of 25 he published his first book on the theory of knowledge in which he asked what kind of cognition was needed for comprehension of the phenomena of life. Giving full credence to the principle of causality on which the science of physics is founded, he sought to show that this was nevertheless a special case that should not be accorded general validity.

"The method of physics is merely a special instance of a general scientific method of research, with consideration given to the nature of the object under examination and to the field served by this science. If this method is extended to the organic, then the specific character of the latter is effaced. Instead of investigating the organic according to its nature, we force upon it a law alien to it. But so long as we negate the organic we shall never come to know it. This kind of scientific attitude merely repeats on a higher plane what has been gained on a lower plane."

Steiner here reproaches scientists for applying to living things the type of cognition that is suitable for inanimate objects. He concludes that the specific nature of life eludes us because this way of thinking cannot encompass it. If a biochemist concludes from his research that life does not have its own laws, Steiner would consider this to be merely a reflection of the methodology applied. Instead he turned to Goethe and his botanical studies in order to reach an understanding of living phenomena.

In Goethe's work he discovered a way of thought that endeavored to model itself on the dynamic processes of life although it did not account in detail for the scientific basis on which it was founded.

Here are the first paragraphs of Goethe's Metamorphosis of Plants:

"Anyone who devotes the least attention to the growth of plants can easily note that certain of their external parts are often transformed, assuming, either completely or to some lesser degree, the form of neighboring parts.

"For example, it is usually by developing additional petals instead of filaments and anthers that a single flower is transformed into a double one. Such petals are then either identical in form and color with the other leaves of the corolla, or may still bear visible traces of their origin.

"Once we observe that it is possible in this way for the plant to take a step backward and reverse the order of growth, we become all the more alert to Nature's regular procedure and become familiar with the laws of transformation by which she brings forth one part through another, achieving the most diversified forms through modification of a single organ."⁵

Steiner called this an evolutional approach. He described it in more detail and contrasted it with the method of causality applicable in physics. Eighteen years after publication of his book on Goethe's theory of knowledge he took Goethe's evolutional ideas further in his book *Knowledge of the Higher Worlds* in which he gave the following suggestions for meditative work on improving one's capacity to form inner pictures that could lead ultimately to a supersensible perception of the life powers:

"Let the pupil place before him a small seed of a plant. The point is to intensify the right kind of thoughts while contemplating this insignificant

object and through these thoughts to develop certain feelings. First, let him realize clearly what his eyes are actually seeing. Let him describe to himself the shape, color, and all other distinctive features of the seed. Then let him reflect as follows: 'Out of this seed, if planted in the soil, there will grow a plant of complex structure.' Let him visualize this plant, build it up in his imagination and then say to himself: 'What I am now picturing in my imagination will later be drawn out of the seed by the forces of the earth and the light. If I had before me an artificial object which imitated the seed to such a deceptive degree that my eyes could not distinguish it from a real seed, no forces of the earth or light could call forth a plant from it.' Whoever lays hold of this thought quite clearly, so that it becomes an inner experience, will be able to unite the following thought with the right feeling. He will say to himself: 'All that will ultimately grow out of the seed is already secretly enfolded within it as the force of the whole plant. In the artificial imitation of the seed no such force is present. And yet to my eyes both appear alike. The real seed therefore contains something invisible, which is not present in the imitation.' It is to this invisible something that thought and feeling are now to be directed. Let the pupil picture the following to himself: "This invisible something will presently transform itself into the visible plant which I shall have before me in shape and color.' Let him hold firmly to the thought: The invisible will become visible. If I could not think, then that which will become visible only later could not already announce its presence to me."6

This is one of several exercises. Steiner variously endeavored to show that the laws and powers of life reveal how they work in the way an organism is an integral whole with an inherent relationship to time. Evolution, coming into being, and dying away are all a part of life. A plant reveals its inherent law of life by expanding from a seed to form shoot and leaf, contracting into the calyx, then expanding again in the flower before contracting once more into a new seed. The plant is always whole yet never finished; it is always at some stage in its cycle of development. Seemingly an entity in space it is essentially a figure in time. By entering into the time-dynamic of its development we approach what Steiner termed the ether body.

These laws of wholeness, of cooperation and of metamorphosis also work in human beings. They are the second level to be considered by the anthroposophic doctor. In the plant world they appear as laws of metamorphosis which also apply, in a different form, in medical situations. An example of this are the different ways in which rheumatic fever manifests at different stages in life. It is a secondary illness that can result from a particular type of sore throat or tonsillitis.

In young children rheumatic fever manifests as Sydenham's chorea or St Vitus' dance with involuntary movements of the limbs and sudden jerks. Between attacks the musculature is flaccid and lacks tone. The brain is involved in this disease, which leaves no after-effects. After a certain age rheumatic fever ceases to manifest as Sydenham's chorea. With older children it is as though it goes further inwards so that it shows most often as rheumatic endocarditis an inflammation of the heart. The much feared consequence can be the destruction or scarring of the valves. The older a person gets the rarer is endocarditis, for the disease later manifests mostly in the joints. We see that although the trigger is always the same, the manifestation changes according to age, moving from the nervous system via the heart to the joints. The manifestation undergoes metamorphosis.

Observing a patient with the ether body in mind involves finding out how the disease has developed and what preceded it. At best this can quickly lead to a satisfactory outcome. For example in the case of a patient who for years had been treated for migraine it was discovered that her attacks were always connected with constipation. Once the constipation had been dealt with her improvement was rapid. In another case a young woman had suffered from allergic asthma since childhood. It turned out that her attacks were invariably preceded by coldness of hands and feet which gradually spread to the upper body. The attack commenced as the coldness reached the upper body. The circulation in her limbs improved with the help of herbal medicines and therapeutic eurythmy. It then gradually became possible to reduce the cortisone and inhalers which had been prescribed for the asthma.

This patient provides an excellent example of a diagnosis that takes the life body into account without being in any way contradictory to the views held by the medical profession in general. The allergic reaction in the bronchial mucosa leading to an asthma attack is the final stage of an overall situation existing in the body which can be effectively suppressed by cortisone. This might even be unavoidable. Nonetheless, an anthroposophic doctor will ask additional questions as to how the symptoms fit in with the overall situation, how this situation arises and how the tendency for it has developed in the course of the patient's life. Earlier symptoms that may have seemed insignificant will often point the way to the necessary therapy.

Steiner discussed this type of treatment in the book *Fundamentals of Therapy* which he wrote in collaboration with Ita Wegman, who was a physician. In the chapter on typical illnesses we read:

"In this chapter we shall describe a number of cases from the practice of the Clinical and Therapeutic Institute at Arlesheim. They will show

how, with knowledge of the non-physical aspects of the human being, it is possible to achieve such profound insight into the nature of the disease that diagnosis directly tells us the medicine which should be used.

"Fundamental to this is a view which recognizes the process of illness and of healing as one complete cycle. The illness begins with an irregularity in the composition of the human organism with respect to its parts, which have been described in this book. It has already reached a certain stage when the patient comes for treatment. Our object must be to bring about a reversal of all the processes which have taken place in the organism from the beginning of the illness, so that we arrive at length at the organism's original state of health...

"In estimating the evolution of the disease, consideration has to be given not only the localized pathological process, but not the changes undergone by the organism as a whole ."⁷

Having taken our departure from the conversation of the five physicians standing at the bedside of the recently deceased cholera patient while discussing their varying opinions as to the cause of his death, we have so far sketched two principles of the human being from the angle of anthroposophic medicine—the physical body and the ether or life body.

The third physician spoke about the dead man's "configuration of the soul." In anthroposophy the third principle of the human being is termed the sentient or astral body. It provides the foundation for conscious awareness. The aspect added by the astral body to the life body becomes clear if we compare plant and animal. Plants are alive but their life is almost entirely dependent on external conditions in their environment. They unfold their vital processes in accordance with the nutrients available at the growing site, with heat and cold, and with light and darkness in the alternation of day and night and also summer and winter.

This dependence decreases stage by stage in the animal kingdom. Animals develop muscle tissue that enables them to move about independently; using up body substance they can regulate their own temperature; their sense organs, nervous system and hormonal glands give them autonomic regulation of metabolic rates. Desires, urges and instincts arise in the active search for food and in connection with procreation, together with a tremendous variety of behavior. All this points to an individual soul life combined with an inner world of experience. The Norwegian explorer, Thor Heyerdahl, described an experience he had after sailing for weeks across the Pacific Ocean. Beside his raft, the Kon-Tiki, the breath of a whale swimming beneath him rose slowly into the air. This calmly rising stream of warm breath gave him a sense of encountering the great soul of a brother.

It is this intimate feeling that unites humans and animals. Steiner described it as follows:

"On awakening, man's conscious powers well up from the unconsciousness of sleep as if from mysterious and hidden springs. It is the same consciousness which sinks into dark depths when man falls asleep, and then arises again when he awakens. To the science of the supersensible, what rouses life again and again from the unconscious state is the third member of the human being. It may be called the astral body.

"As the physical body cannot maintain its form through the mineral substances and forces it contains, but needs to be permeated by the etheric body, so too the forces of the etheric body cannot of themselves become illumined with the light of consciousness. Left to itself, an etheric body would of necessity be in a perpetual state of sleep-or, we may also say, could only maintain in the physical body a vegetable form of life. An etheric body that is awake is illumined by an astral body. For outer observation the effect of the astral body disappears when man falls asleep. For supersensible observation however, the astral body still remains, but it is now seen to be separated from the etheric body, or lifted out of it.

"... Man has his physical body in common with the minerals and his etheric body with the plants. In the same sense he is of like nature with the animals in respect of the astral body."

The functions of the astral body do, however, make human beings highly susceptible to disease. The waking-up process engendered by the astral body causes the individual to tire, and regeneration must be sought in sleep, for instance. Beyond this, the astral body develops tendencies in the organism which may cause pathological disorders.

Although human beings are related to animals there is a difference that we must take into account: Animals may not be entirely dependent on their environment for their life processes, but they are strongly linked with it through instincts and behavior. They are a part of nature. With human beings, on the other hand, the tendency to become independent is so strong that in the long run they can succeed in creating their own cultural space and also develop certain characteristics that are capable of working against nature and even against the laws by which human life processes are governed.

As a result of this, many illnesses are based on psychological processes that work against the life processes of the body. In addition to generally recognized psychosomatic disorders such as gastric ulcers or bronchial asthma, anthroposophic medicine considers that all pathological conditions involve an operative psychological level that any therapist must understand and take into account.

In an infinite variety of ways, from muscular tension via the chronic pain of a spastic colon to high blood pressure, a hyperfunctioning thyroid or seizures, the astral body can be seen having its effect. There is a wide field of possible application for art therapy at this level.

This brings us to the fourth level. The fourth physician in our introductory conversation described the deceased's lack of courage as the cause of his death. This is surely debatable, but there may be a grain of truth in it. The blind French author Jacques Lusseyran, a member of the French Resistance and prisoner in a concentration camp at the end of the second World War, reported on the vital effect courage and a positive attitude to life had on the health of his fellow prisoners. Laurens van der Post recounted similar experiences from his time as a prisoner of the Japanese. He had participated in setting up a kind of internal university in the prison camp in order to stimulate the prisoner's mental activity and keep up their spirits and their health. A good deal of what he described confirms the empirical findings of psycho-immunology, and it brings us to the characteristics which anthroposophic medicine ascribes to the ego. The ego is the fourth essential level at work in human beings, building up their constitution.

In anthroposophy this is not seen as a philosophical construct but as the real spiritual individuality of the human being, someone's personal identity. It is the part of the human being which never ceases to learn and actively endeavors to give meaning to life. This entity can overcome its own instincts for the sake of something it considers to be right. In short, it gives everything, including medicine, its human face.

In viewing a sick person from the aspect of the ego I would endeavor to discover everything that makes this person qualitatively unique, everything that goes beyond natural laws or statistical findings.

Two well-known psychologists had a son who noticed that his parents were constantly watching him in order to study the typical behavior of a child of his age. Things came to such a pass one day that he declared: "I can be quite different (German: anders) if I like." Later on he took to calling himself Guenter Anders ('Guenter Different'). It is absolutely essential for an anthroposophic doctor not to lose sight of the fact that every patient has this aspect of differentness. This shows in a person's face and becomes more and more marked as life proceeds; it expresses itself in people's talents, their psychological quirks, their physical proportions and the way they react to things, indeed even in their physical immune structure. In this sense every patient is a 'Guenter Different' who deserves to be treated in accordance with his or her very own internal laws. Above all this includes the opportunity for individuals to be actively involved and to learn what significance the disease might hold for their own destiny.

This is the aspect referred to by the fifth physician, who had maintained that diseases are sent by God. It could be a pointer to the destiny aspect. The life and work of a number of great people can make us aware of this: Dostoevsky and his epilepsy, Van Gogh and his madness, Beethoven and his deafness, Paul Klee and his sclerodermatitis that is revealed so movingly and with such greatness in his later works. Many great things have developed in people who have been forced to come to terms with a disease. It could become part of the task of a physician who trusts in a great scheme of things to promote this personal growth in a patient.

Finally we have to say that anthroposophic medicine, founded by Rudolf Steiner in 1920 when he gave his first course of lectures to members of the medical profession, is a young science. It has spread considerably since then, and in Germany about 30,000 patients are treated in anthroposophic hospitals each year, but this is only a beginning. With reference to ether body, astral body and ego, it will take a long time for professional knowledge to be developed that can compare with the admirable science achieved in conventional medicine in regard to the physical structure of the body. You will therefore find much conventional medicine in anthroposophic practices and clinics. Indeed, anthroposophic medicine currently poses more questions than it can answer. But they are questions well worth asking.

Thomas McKeen, MD (1953-1993)

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The Psychosomatic Concept in Anthroposophic Medicine*

MARKUS TREICHLER

The psychosomatic approach, which takes account of psychological factors in the genesis, evolution and treatment of physical illness, has enjoyed a long tradition in western medicine. Its most beautiful formulation, unsurpassed to this day but seldom achieved in medical practice, goes back to the physicians of ancient Greece and indeed Socrates as its forefather. In the dialogue with Charmides we find: "When a person's eves are sick one may not endeavor to heal the eyes without healing the head, nor the head without the body, nor the body without the soul... for, so he said, all that is both good and bad for the body and indeed for the whole person emanates from the soul... Therefore, he said, one must first and foremost treat the soul if the head and the body as a whole are to be well. The soul, however, O fortunate one, he said, must be treated with certain healing sayings, and these healing sayings are good conversations. Through conversations of this kind thoughtfulness arises in souls, and where thoughtfulness has grown and is present it is easy to bring health to the head as well as to the body as a whole."

... "Then, O Socrates, (said Charmides) the young man's headache must be a boon indeed, if he is thus constrained to improve himself in his spiritual life for the sake of his head!"

"Indeed it is so," replied Socrates.

This concept, philosophically and anthropologically founded in the humoral pathology of Hippocrates as well as in the theories of the elements and the temperaments, was not always adequately observed even by the Greek physicians of antiquity: "That the physicians (in ancient Greece) fail to come to grips with so many diseases is due solely to the way they treat the eyes but not the head, the head but not the body, and the body but not the

^{*}Dedicated to Walther Buehler in honor of his 80th birthday, from the Department of Psychosomatic Medicine, Art Therapy and Eurythmy Therapy at the Filderklinik. Original title: "Der psychosomatische Gedanke in der anthroposophischen Medizin," in *Merkurstab* 1993: 46: (2) 168-76. English by Johanna Collis, MIL.

soul, for they do not know that it is the whole person they should be caring for..."

Despite all the great changes that have taken place in the history of medicine and therapeutics, little has changed in this particular respect Although all able physicians in all ages and cultures have found that psychological factors play a part in sickness and health, this has not been sufficiently taken into account in medical theory and practice, in pathology or therapy, to the detriment of patients and medicine alike.

In the early part of this century depth psychology and its successors began a counter-movement by stressing the psychological aspect. A wave of speculative interpretations linking body and psyche laid particular stress on the unconscious side of psychological experience and factors playing a part in the pathogenesis of neurotic and so-called psychosomatic illness. A characteristic mixture of speculation and dogmatism in the understanding and interpretation of psychosomatic connections led to the popular spread of the ideas emanating from depth psychology. Psychosomatic interpretations are all too easily taken for granted and can be quite superficial. They can easily take us unawares if we fail to bring an alert and unprejudiced attention to bear on them. The psychoanalytic interpretation of the genesis of a gastric ulcer, for example, states that it is an expression of an unconscious desire to be fed, in other words of a longing to be pampered and cared for in an unconscious regression to the oral phase of the early years of life. This interpretation culminates in the assumption that the stomach reacts to the unconscious wish to be fed by behaving as if it has something to digest and thus begins to digest itself, which then leads to the ulcer.

The anthroposophic image of the human being and of medicine takes an entirely different approach to the relationship between body and soul.

Walther Buehler's convincing formulation of the "body being the instrument of the soul" illuminates one aspect of the relationship between body and psyche. The soul uses the body as a musician uses an instrument: It plays upon it and as a result of its individual interpretation a (musical) work of art arises. The body serves the soul and as a result nonphysical (i.e., psychological) processes come to physical realization.

However, the body as an instrument or a tool can also put obstacles in the way of some of the aims or needs of the soul. Depending on how suitable or unsuitable an instrument it is, how well cared-for or neglected, how well-tuned or wrongly tuned, the body can spoil many a good intention or turn many a beautiful melody into an ugly disharmony. Conversely, the soul can despise its instrument, treat it badly, misuse it, tune it wrongly or play it badly...

Either way it is possible to gain a concrete picture of how illnesses can come about. "Somato-psychically" the body as an instrument gives the soul various experiences that may or may not cause it suffering, and psychosomatically the soul affects what happens in the body as its instrument. To continue with the musical analogy, just as music involves notes, intervals, melodies, rhythms and so on, so does the relationship between body and soul in the medical sense involve a range of qualities with varying prerequisites and differing conditions. A primary prerequisite is the description of the threefold structure of the human organization put forward by Rudolf Steiner in 1917 after thirty years of spiritual research. The psychological qualities of thinking, feeling and will assume reality and take effect in the world and in the human being by means of three bodily instruments: the system of nerves and senses, the rhythmic system, and the system of metabolism and the limbs.

At the physical level, a problem in the realm of thinking and the intellect will lead primarily to a disorder in the nerve supply and function of an organ. Catabolism, the forming of deposits, hardening, atrophy, exhaustion are the various clinical symptoms.

Conflict in the realm of feeling leads to disorders in the rhythmic activity of organs that are strongly connected with rhythm: irregularities in breathing and cardiac rhythm, or in glandular secretion; irregularities in the rhythmic activity of the involuntary musculature, especially in the digestive tract, may serve as examples.

A problem or imbalance in the sphere of the will can lead to disorders in the metabolic or the locomotor system: inflammation, swelling, tension and pain may be mentioned.

People's disposition for health or disease in one or another of these directions depends on their psychological and physical constitution, by which is meant their tendency to be more intellectual and introverted, more sensitive in their feelings, or more extrovert and active.

In the present context it would lead too far to go in more detail into the polar opposite concepts of the neurasthenic constitution (= organic and intellectual) and the hysterical constitution (in which environment and metabolism dominate). Rudolf Steiner considerably expanded the meaning of these concepts.

Relating the psychosomatic concept to the image of the human being and to medical practice

Compared to current traditional psychosomatic medicine, medicine extended through anthroposophy may be regarded as an extended form of

psychosomatic medicine. It could therefore be argued that it is unnecessary to apply the term "psychosomatic" to a system of medicine that has been extended and deepened by the application of anthroposophy.

Since the development of anthroposophic medicine has been entirely in isolation from conventional medicine, and, furthermore, since a kind of traumatization of anything relating to the inner life has been going on for many years, even to the extent of its being considered taboo, it is high time for the psyche to be introduced into anthroposophic medicine. We still frequently fail to give sufficient weight to what Rudolf Steiner said in his lecture to young doctors in 1924: "I am saying this as an introduction so that you may see how essential it is for the physician to pay close attention to the inner life of the patient. It is virtually impossible to develop a good diagnostic sense if you lack a perceptive eye for the inner life." Walther Buehler took up the cause of this psychological aspect in his lectures and writings. There are many more detailed descriptions of what is meant by a "perceptive eye for the inner life" in other lectures given by Rudolf Steiner, such as the first course given to doctors in 1920.²

I consider the term "psychosomatic" to be meaningful and justified at this time within anthroposophically extended medicine in order to emphasize, promote and give a basis both in content and method to this "eye for the inner life of our patients" in sickness and in health, and in order to encourage further development along these lines. It is true, after all, that health and sickness come and go in the interaction between the human soul and body.

In your soul see power of light
In your body feel force of gravity
In power of light shines the spirit-I
In force of gravity is the strength of God's spirit
But power of light must not seize force of gravity
Nor must force of gravity permeate power of light
For if power of light seizes hold of force of gravity
And if force of gravity permeates power of light
Then, in cosmic error,
Will soul and body unite in bonds of destruction.

Schau in deiner Seele Leuchtekraft fühl in deinem Körper Schweremacht In der Leuchtekraft strahlet Geistes Ich In der Schweremacht kraftet Gottes-Geist Doch darf nicht Leuchtekraft ergreifen Schweremacht Und auch nicht Schweremacht durchdringen Leuchtekraft Denn fasset Leuchtekraft die Schweremacht Und dringet Schweremacht in Leuchtekraft, So binden in Welten-Irre Seele und Körper in Verderbnis sich.

- Rudolf Steiner

The individual spirit of the human being remains untouched; it cannot be ill. It can, however, be prevented from intervening in physical or psychological processes or it can intervene and bring order and form to soul or body and restore health, or help in the mastering of a karmic illness.

What can be done, and in what sphere, to take account equally of both the somatic aspect and the psychological aspect in a psychosomatic approach to health, sickness and healing in anthroposophic medicine?

For the psychosomatic approach to be extended in the anthroposophic sense the physician must, in my opinion, investigate, know and take account of the following spheres or "organs."

The sphere of the physical body

Here the localization of the disease, symptoms or pain have to be considered. The morphology of the diseased organ or organic system must be known and understood. The relationship of the diseased organ to the threefold organization of the body must be taken into account. The importance of the affected organ for the patient and in relation to the other spheres (to be discussed below) must be considered as well as the subjective and individual consequences for the patient.

The sphere of life

Here the physician must pay attention to the physiology of organs, the vital functions, the changes and pathological limitations, the disorders of vital processes and the way the patient experiences these. The subjective state of health of the patient and how this changes daily and in the course of the seasons of the year must also be taken into account.

The sphere of the soul

This requires a trained eye for the psychological life of the patient. Account is taken of the patient's psychological condition, temperament, moods and the way they change, experience and are able to handle sympathy and antipathy. How observant is the patient, what are his thought processes, powers of concentration and memory? What feelings does he have, how

does he handle them, how can he react to or answer the feelings of other individuals? How well can the patient control his will and what decisions does he make and how good is he at carrying them out? How does he act in private and in professional and social life? What decisions and actions does he fail to carry out?

What obvious psychological characteristics, qualities, capacities, errors, weaknesses, talents or limitations are or were there? Do these relate to any particular organ in the sense of, anthroposophic organ psychology?³

This is the starting point for many and varied anthroposophic approaches to psychotherapy, art therapy and medical treatment.

The sphere of the psyche relates in many ways to the body and the vital processes as well as to the spirit, to individual development, and to the social and also the natural and cultural environment, to the individual's capacity to communicate and to relate to his destiny. This points to the wider spheres and indicates the central position of the psyche.

The sphere of the spirit

The first thing to consider are the three states of consciousness—awake, dreaming and sleep/unconsciousness—described by Rudolf Steiner as a threefold spiritual unity relating to the threefold aspects of body and soul.

Interactive relationship between body, soul and spirit

| BODY | SOUL | SPIRIT |
|----------------------------------|-------------------|--|
| system of senses & nerves | basis of thinking | location of waking consciousness |
| rhythmic system | basis of feeling | location of dream consciousness (semi-consciousness) |
| system of metabolism & the limbs | basis of will | location of sub-consciousness (sleep consciousness) |

Perceptive observation will show that all illnesses, both physical and psychological, go hand in hand with a subtle or not so subtle change of consciousness. This can help to find further aspects that are applicable to diagnosis based on anthroposophy. A subtle change in consciousness usually precedes the visible onset of a psychological or physical illness, so this can be taken into account as an indicator of a person's state of health.

In waking consciousness—especially when there is an illness or other crisis—people can and should set themselves aims and learn to distinguish between what is essential and what is not, which will give them a degree of certainty in their own inner attitude to the external life situation in which they find themselves. Old attitudes, opinions and expectations have to be reviewed and possibly corrected or revitalized.

This is only a brief indication of a path along which one can accompany a patient in psychosomatic or psychotherapy. It is an extremely demanding, difficult, lengthy and fulfilling path along which the psychotherapist may only accompany the patient for as far as that individual can or wishes to go. The patient must invariably be the one who sets the pace and the distance, while the physician or therapist provides suggestions, support, companionship, assistance founded on knowledge, experience and ability. These serve the patient's development (Greek therapeuein = to serve) but still leave him to do it himself, without laying down the law, a mistake made all too often, to the detriment of the patient. This is the point where the family practitioner of the old school differs from the therapist who is treating mature patients.

The sphere of expression and communication

Expression and communication are important capacities in social life. In the animal kingdom they are firmly tied to instinctual patterns of behavior, whereas by comparison human beings possess far greater possibilities of communication and the freedom to express themselves and behave in a sociable, helpful, unhelpful, unsociable, autistic or aggressive manner or indeed "more inhumanly than any animal."

This freedom to make use of so many contrasting possibilities naturally results in the most varied and differing modes of expression and behavior. Two aspects are important as far as the physician is concerned. On the one hand it is a matter of one's own perception of the patient and on the other the patient must be allowed to speak for himself, with relatives and other people connected with the patient also drawn into this if possible.

On no account must we fail to observe the patient's attitude, movements, gestures, facial expression, eyes, or speech. The way the patient is dressed and also the atmosphere projected by him belong to this overall impression, or rather, expression. How do all these things relate to the situation in which the patient finds himself, how much do they fit in or how much are they at odds with the situation?

The way people express themselves in situations of conflict or crisis, or how they do this when they are ill, the human relationships they have,

the extent to which they can verbalize their inner experiences, feelings and moods, or express them non-verbally, the effort they make or fail to make in this respect, the degree to which the various states of consciousness come into play: All these have a bearing on diagnosis and therapy.

Can the patient use artistic means in order to apply or extend his range of expression? This is a sphere where much can be gleaned about the patient's psychological and spiritual as well as the physical possibilities in general or in a particular situation, and it all has a bearing on health and sickness.

To enable, stimulate and expand possibilities of expression and communication is always an important element of therapy.

The sphere of relationships

Interhuman relationships arise naturally out of the way we communicate with and behave towards one another. They range from the intimate togetherness of two people via the family, friendship, partnership, acquaintance and colleagueship to the relations between neighbors; from fleeting "chance" meetings to encounters pregnant with destiny.

Humans are social beings who cannot live by themselves. We need our fellows. To live in our interrelationships is both the simplest and the most taxing, the most imprisoning and the most free, the most natural and the most complicated potential and need we have. It ranges between letting our relationships "develop as they like" or consciously shaping them, between experiencing the most wonderful fulfilment or the deepest misery, between receiving decisive impetus or encountering the greatest resistance.

One of the discoveries of psychosomatic medicine is the recognition of how important human relationships can be with regard to the genesis and evolution of disease. Here, too, anthroposophic psychology can provide an extension of our view about various aspects that affect our relationships such as, for example, the theory of the senses and of "social and anti-social drives," the processes of speaking, listening, understanding and feeling oneself understood, as well as the qualitative differences of sentient soul, intellectual soul and consciousness soul.

I believe the question of relationships also extends to supra-personal relationships expressed in causes, ideas and ideals. I think that a number of psychopathologic phenomena such as phobias, obsessions, ambition, irritability, avarice, aggressiveness, fanaticism, boredom, fear and depression can also be investigated and even partly defined in terms of relationships. The supra-personal relationships expressed in religions and world philosophies are very important in connection with health and disease.

Biography

There now exists a considerable body of anthroposophic work on biography, taking into account many angles on the connection and interaction between biography and illness, the case history, life history, pains and pleasures.

The significance of the patient's biography in the medical/therapeutic anthroposophic psychosomatic approach is not founded on any formula or overview of rhythms, mirroring or other laws. A biography is a process of development in which entirely individual factors meet and interact with entirely supra-personal ones. Development in the course of a person's life "is an important aspect in which we have to recognize overall laws which are frequently altered while remaining valid in broad terms. In order to come to grips with one's biography and find one's goals with increasing clarity one must understand and respect these laws... During the first half of a person's life a rhythmic process comes into play but in the second half the limits are no longer so clearly defined. Although spiritual science has always referred to these limits they are, in fact, inexact."

Events in a biography may be either surprising or expected. Everything has its cause and is in turn the cause of what comes later. Illnesses and crises within this evolution are like points of concentration, gathering up what has gone before as though new strength must be collected for what is yet to come. Both the new strength and what is yet to come are still only seeds during the time of the illness and convalescence. They are inwardly present spiritually and do not yet exist in the physical world. An inkling or a sense and awareness of what these might be can be developed with the help of an appropriate path of therapy to which the illness has given rise.

The background against which this individual biography stands out are the supra-personal laws of development. What outward point has the person who needs help reached? Where is he age-wise on this path that passes before us against the background of the laws of development? Also: What point has he reached inwardly in the development of soul and spirit? What quality of sentient or intellectual soul is he at present living in? What capacities of consciousness soul, or further stages of development has he achieved himself? What help does he need for whatever next step he is willing to take?

Recognizing what is at work in the background by bringing the past into the present can awaken the patient's confidence in the future. This enables him to set his own next goal!

Reincarnation and karma

An unprejudiced consideration of the connection between health, sickness and biography can show clearly that illnesses or crises can have not only a discernible reason in the past but also a goal and meaning which can find fulfilment in the future and which can perhaps be surmised or indeed recognized by someone who turns meditatively towards the future. The same can be said with reference to the larger time-spans of a sequence of lives on earth. In order to include the aspect of reincarnation and karma in medical practice we have to think of both past and future being present in the illness. "When we speak of health and sickness from the point of view of karma we simply mean: How can we visualize the healthy or diseased condition of a person originating in earlier actions or experiences of that person? And how can we visualize a person's present state of health or illness as connected with consequences that will come to meet him in the future?"⁵

By taking reincarnation and karma into account we expand our ideas about the past, present and future of a single life on earth to encompass the larger dimension of past, present and future incarnations of that same human individual.

When considering our patient's state of health or sickness we should always endeavor to bear three incarnations of this individual in our consciousness: the present one, the previous one and the next one.

*** * ***

It has been possible to only sketch these eight spheres in rough outline. They show the increased content given to the psychosomatic approach in anthroposophic medicine. The inclusion of these spheres in our medical thought and actions will demand above all a new attitude towards our therapeutic work with our patients. Anthroposophically extended psychosomatic medicine does not mean "the establishment of a new system of medicine, but spiritual activity."

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Out of Which Forces Does the Healing of Man Arise?*

JOOP VAN DAM, MD

Rudolf Steiner once gave a lecture (*Nervosität und Ichheit*, January 11, 1912, GA 143) to members of the Anthroposophical Society, in the course of which he advised them how to cure, to overcome the pathological symptom of nervousness that occurs so frequently in our time. He recommended to them a set of seven exercises.

The first exercise concerned the strengthening of the memory. When one finds that one is continually forgetting where one has put a particular object, one should form a picture in one's mind of the place where one is putting the object when one puts it down. The second exercise is changing one letter of the alphabet in one's handwriting. The third exercise is to imagine events (a day, a play, a piece of music, etc.) in reverse order. The fourth exercise is to perform an ordinary, everyday action in a different way, e.g., doing the washing-up with the left hand, walking with a different gait. What is one doing in these exercises? One is engaging the etheric body. In the first two it involves making pictures: a picture of the spot where one has put something, a picture of the letter one is forming. For this the imageforming powers of the etheric body are necessary. For the third exercise one uses the power of memory, which resides in the etheric body, and puts it to the test. The fourth exercise involves the formation of a new habit. Not doing something once, but doing it for a long time with such deep incarnation that the etheric body is altered. The etheric body becomes stronger and healthier through these exercises.

The following three exercises involve summoning up the Ego. The first is to forego the fulfillment of wishes, provided that this causes no social problems. The second is, when one is intending to perform particular activities, to consider the pros and cons before one puts them into action. The third is to refrain from passing judgment on people and situations.

^{*}Author's draft of a lecture at the medical conference in Driebergen, August 4-10, 1985. Translated by A.C. Barnes, with the assistance of the author, of M.L. Barnes-VanDriel and of G. Feder.

Many judgments prove to be self-protective. Nine judgments out of ten, says Rudolf Steiner, can quite properly be omitted without it causing any problems in one's life. Three exercises involving holding something back: in the first, sympathy; in the third, antipathy; in the second, keeping yes and no side by side before acting. This strengthens the Ego. Nervousness is cured by these seven exercises. By the power of the etheric body, by the power of the Ego. These are the two gateways through which recovery sets in. They enclose the astral body, from which the disturbance emerges.

Two gateways

This evening's question: "Out of which forces does the healing of man arise?" is answered in a preliminary way by this lecture. Healing forces flow on the one hand through the gateway of the Ego and on the other hand through the gateway of the etheric body. Both give access to worlds where forces for health reside.

THE GATEWAY OF THE EGO

We are familiar from experience with the force that can work curatively in the patient's Ego. I should like to describe an example which possesses an archetypal quality. A long time ago I was greeted by a very old patient with the words: "Have you heard that Dr. Zeylmans died?" I asked her to tell me something of her memories of him. She had a daughter who had been ill for three years, the last three months bed-ridden. She was examined by various specialists but none of them was able to find the answer to the question posed by her illness. It was obvious that she was gradually falling into a decline. Dr. Zeylmans visited the woman and talked alone with her for an hour. Then he came back to the mother and said: "Your daughter can recover. Tomorrow she should get up briefly and do some light housework. She should take a pinch of this powder three times a day." In three months the woman had recovered and she became a valuable member of the community. What had happened in the consultation? From what the mother told me I noticed that there had been one key sentence in the consultation. At one particular moment Dr. Zevlmans had asked: "Madam, have you ever had an ambition?" She had thought about it and suddenly her face had lit up and she had replied: "Yes, I always wanted to be a nurse, but it was not possible financially with so many children in the family." To which Dr. Zeylmans had responded: "But haven't you still got the chance to do it even now?" She at once took up his suggestion. The warm enthusiasm made her penetrate into her body again, cure herself and finally become a well-liked district nurse in Haarlem. The sentence "Madam, have you ever had an ambition?" is a key sentence with many possible variations.

The will to become healthy and the will to make healthy

In the *Course for Young Doctors* this awareness aspect of the healing process is described from a particular aspect as the patient's will to become healthy. This is awoken by the will to heal of the doctor or therapist. The will to heal is fed by awareness and this must be of a high quality, otherwise he cannot awaken the patient to (so to speak) incarnate again from the top down.

A patient can feel that he is being addressed in a special way if he knows that he is enclosed by a therapeutic circle, a community of people such as is possible in a therapeuticum or a hospital. "It is really as if I have a fan club," as a patient once expressed it. But a group of people will function as a community only if they grapple in a concerted effort for insight into the riddle of the patient's illness. Then the higher consciousness that the group can achieve can get to work on the patient's will to recover, blessing and awakening it.

The path of training

For modern man the way to a higher consciousness is given by Rudolf Steiner as lying through the development of imagination, inspiration and intuition. For the physician he specified this by saying:

- the diagnosis becomes possible through imagination,
- access to the remedy is gained by inspiration,
- the proper therapy is found by intuition.

This is a long way, but one can take the first steps upon it.

Imagination

I want to try to describe which first steps are fruitful in my experience, from the work of the therapeuticum in which I participate. At the first consultation patient and therapist are together. Usually the patient tells his story together with the doctor the current complaint, the past history and review of systems and finally a short biographical sketch. Thereafter either can ask further questions, as a rule about constitution—sleeping and waking, the preferred taste, and other data that can give an insight into the constitution. After that the circle splits up again. Until the next session (a week later) the task of everyone in the circle is now to recall the image of the patient each day, usually in the evening. One allows the figure to form again in one's mind. The shape of the face, the position of the lips in relation to one

another, the chin, the hands. One tries to re-experience the voice, whether it is low-pitched, whether it is modulated, whether it comes out or stays inside. It is particularly these precise, easily observable data that are used for this constructive activity in the evening. As the days go by the image becomes clearer and more intense. After, for example, four days one tries, once the image has been constructed, to let it gradually fade without allowing other image-contents to intrude into the mind. And then one listens to the mood that is there. This mood can be a feeling: heaviness, purity, doubt. It can also have a touch of pictorial quality: yellowness, angularity, etc. The following day one can repeat the same procedure. The last two days one listens as the whole patient with all his phenomena is again built up and then fades away, to see whether a new image takes its place. One must be open-minded during all this and not push aside the images that appear but accept them as true, even if one does not yet understand them. Teachers have far less difficulty in doing this than therapists do and bring to it a healthy naïveté. We tell each other these moods and images at the meeting a week later. I still remember vividly the first time that this method of working was used in connection with the observation of nature over successive days. There was some diffidence on the part of the participants at the beginning. Finally someone plucked up the courage to take the first step. And while he was talking an expression of surprise could be seen to appear on some of the faces; they sat up and could hardly wait to speak themselves. The first said, "You've told my image" and the second, "I have a follow-up on that." Very often the images seem to overlap to a great extent. How does this come about?

Observation is an active occupation; it is a movement of the will. The will is actively involved in the outward gaze and arrives at what is being observed. It really is of decisive importance how the will-directed soul interacts with what is being observed. Whether it gets pleasurably involved in what it is doing and seeks out the things that it likes and whether it withdraws to a distance while looking and passes judgment. Or whether it conforms and is obedient, unselfish and chaste. Goethe spoke of the *Nachahmungstrieb* (urge to imitate). The power that a small child has, before it is shackled by memories or a capacity for making judgments.

If this surrender of the will comes to life (and one can acquire it by practice), it will eventually happen that our will does not act but is acted upon, so that what is observed directs our will (just as our eardrums are acted upon). And then comes the movement of the mind that arises in us very close to the creative movement made by what we observe. And then the mood that we have after the image has faded away is the first expression, the

still dreamy experience of the movement that has been awakened in us. This same movement then creates in us the new image that we get. Although we make this image so far as the substance is concerned ourselves (from the data that have come to us in the course of the biography), the arrangement of it and the selection of the substance can to an important extent come from the observation.

Let me mention a few images from a consultation with a young female patient. Someone sees a beach, the water gradually withdraws, then there is a place that moves up and down and finally disappears under the sand. A second person sees a hippopotamus and their attention is drawn to its foot with its armour-clad plates. The third has a heavy sensation that finally condenses into the image of a tortoise. This was one category, one group of images. A second category: a stall in a market-place with brilliant yellow lemons. A portrait of the girl in the style of Van Gogh with a hard yellow as background. A black castle without moat or vegetation in a yellow desert.

The next thing is to read these images. And it then turns out that you must have ideas. Observation without thought is in any case impossible. Without mental images observation is blind. In his anthroposophy Rudolf Steiner has given many anthroposophical images, typologies, and it can happen that the observational images draw forth one such typology as a magnet attracts iron. One of the most fruitful Gestalt-ideas of Rudolf Steiner is the conception of the threefoldness of man. In the case of this girl the images spoke very clearly in the direction of the hardening, stiffening nerve- and sense-organ processes, of the pressing upon the foreground of the desiccating yellow. And this provides the start of a dynamic diagnosis of the relation of the sheaths of man. So much for experiences with diagnosis and imagination.

A diagnosis is in itself something detached. It is a judgment that is being made. But in the judgment a strong inner force can be awakened: the force of astonishment, of "Staunen." Of the exceptional, superb fact that someone has such a long neck or lives so exclusively in the middle sphere. But then comes the second step that can redeem the judgment. Empathy, objective compassion with the patient. To be able to feel what it would be like to have such a long neck or to be almost unable to move with rheumatism. And then you go on to experience what someone has taken upon himself by putting on such a jacket for this incarnation. For someone's illness or constitution is not the person himself but is the envelope, the jacket that he has put on. You can achieve a deep respect for the higher being of the patient if you experience in this way, by empathy and compassion, the task he has set himself. And then comes the third inner movement. That one says yes to

this illness and the will and conscience awake to work through and overcome this problem together with the patient. Astonishment, compassion and conscience, these are the steps that begin to be taken already at the time of diagnosis.

Inspiration

The step from diagnosis to remedy is a difficult one. The reverse of this often happens: that one finds the way from a remedy to a patient. One is occupied with a particular plant or metal, gets a feeling for the processuality, the dynamic that is active in it, and suddenly one sees before one the patient for whom this can be the therapy. And sometimes it even happens (every physician is familiar with this) that patients turn up in surgery hours who are appropriate for the remedy with which one has achieved a relationship. One could call this a form of anticipatory therapeutics. It is of supreme importance for the physician that he not only be occupied with the current health problems that his patients bring to him, but also that he keep himself continually occupied with the healing forces that lie hidden in the world.

Access to the remedy, says Rudolf Steiner, is found through inspirational consciousness. What is inspiration? Being able to use the astral body as an organ of observation quite separate from the physical and etheric body. This is the situation into which every person comes when he falls asleep. Then the astral body (together with the Ego) functions separately from the physical-etheric, that remains lying in bed. In the *Course for Young Doctors*, in the fourth lecture where he introduces the meditation of healing spirits, Rudolf Steiner goes into this nocturnal situation in detail. Every night we penetrate with our astral body into the world that surrounds us and experience the healing forces that are active there.

Another image can here surface into memory: the image of the temple-dream from the Greek healing-mysteries. As you know, there were two kinds of dream that the patient could have. The diagnostic dream and the dream of the therapy. In the case of the first kind of dream the astral body was still joined to the physical-etheric and portrayed its own constitutional situation: This was the diagnosis. In the second kind of dream there occurred what appears in real inspiration and in further sleep: The astral body had left the body, expanded into the environment and there experienced something of nature. A specific part of nature. Why did it arrive at that particular spot?

One could say: The astral body was as it were "tuned" by the impression it had received from the etheric body, it had been given a very definite tone. Something was wrong. There was a lacuna, a disharmony. With that impression the astral body left the etheric body and went into the world

of nature. The astral body at night, the astral body in its spiritual reality, commands a view of the totality. The separate entities become "legible" in their mutual relationship. The astral body notices what is lacking in the lacuna, observes the tone in the totality of the surrounding world which can bring the disharmony back into harmony. For the astral body is our "relational body." It is known from phenomenological studies that it is fruitful to study not one plant but two together, e.g., an oak and a beech. The reason is that it turns out that the two plants throw light on one another. A direct conversation can develop between the two plants. An interval sounds. A music. For the astral body is also our musical body. That is why it is a good idea when studying remedies to try to start from the totality of a particular area. Not to study one metal, but always this metal in its relationship to the other six. One will discover that Rudolf Steiner very often applies this method of working. He will seldom speak of lead without dealing with silver as well.

In the eighth lecture of the *Course for Young Doctors* he deals with the triad of lead-gold-silver. With silica the polar activity of calcium is brought in at the same time. Twenty years ago in the doctors' circle we discussed plant families with Bernard Lievegoed: the labiates, the solanaceae. The individual members of the family became clear only when one sets them beside their brothers and sisters. Only then did the genius of a Solanum dulcamara, for instance, become visible—or rather "audible." It turned out to be the Mercury of the solanaceae.

Everything that is practiced in the manner during the day is preparation for the night. It is as it were the entry-permit for the kingdom of the night, where our astral body sees everything in a different light and can perceive in its totality whatever we have tried to establish a preliminary relationship with during the day. Then the will to heal (*Heilerwille*) comes into being. It is not unimportant for us to consciously involve the night in our life in this way.

For only by this means does it become possible to execute the third step. The step to therapy proper.

Intuition

The diagnosis is found by imagination. Inspiration gives access to the kingdom of the remedies. Intuition establishes the connection between diagnosis and remedy and leads to therapy.

Just as inspiration is possible through the feeling that lives in the astral body, so has intuition to do with the will and the Ego. During intuition the will becomes an organ of observation. And the will is an expression of the Ego, it is Ego-substance. During intuition the path of training becomes individualized, it becomes a matter of individual responsibility. Intuition only becomes possible when one makes one's moral will available. And then, as it were, the path of training turns into a reverse direction. One seeks to connect back to the earth what one experiences. One has to do it.

When experiencing inspiration one enters the general spiritual world, the world of the night, one could say. In intuition the task is set to bring the experiences of the "night" back into the daylight. For Ita Wegman with what Rudolf Steiner describes as her "wonderful inspirational-intuitional capabilities" ("wunderbare inspirativ-intuitive Fähigkeiten") it was necessary, when she had had such an intuition, to make it true for herself, to understand it, so that she might be responsible for it. It is an ongoing to-and-fro process.

A case history

An experience of my own may serve to illustrate the above-mentioned steps. A patient who had to contend with what is called post-concentration-camp, syndrome. Twenty or twenty-five years after people have been in a concentration camp they can suddenly develop all kinds of psychological and physical complaints: particularly abdominal and heart complaints, followed by insomnia, anxiety, hypersensitivity, fits of temper. This patient also had that and life became almost unbearable for him and those around him. I had tried to make him incarnate, particularly in his metabolism, but without much noticeable result. At one particular moment I had to consider calling in assistance from a psychiatric hospital. He had not worked for three months. It was an existential situation.

I then built up an image of the patient over a number of evenings and asked myself what the trouble really was, without directly giving a final answer to the question. With that I fell asleep. A few days later while on my rounds the idea came to me that this patient had to have Iscador[®]. I did not understand this but took the idea seriously. In the course of the day the insight began to mature.

Iscador is the specific for carcinoma. In carcinoma the situation arises that the higher components of the individual, the Ego and the astral body, do not work fully incarnating. A carcinoma is a sense-organ in the wrong place. In a sense-organ the Ego and the astral body are almost completely free from the organ. What happens in a concentration camp? People continuously experience shocks, greater and smaller. They cannot deal with these shocks, for then the problem only becomes bigger. They cannot incarnate. Under a shock one excarnates. Ego, astral body and even the etheric body come free to some extent. In a concentration camp this becomes a permanent state,

something that remains. This can last for twenty or twenty-five years and then comes the reaction. Iscador helps one to incarnate again. Now it was beginning to become clear.

The problem in this case had not yet become physical, not yet a carcinoma. It was situated on the border between the astral and the etheric body. Hence it was necessary to give the Iscador not in massive doses but in a higher strength, e.g., St. 7. And to follow the rhythm of the astral body: the weekly rhythm. On the next visit the patient was given Iscador P St. 7. A week after the first injection he said: "I feel a bit better." After the second injection: "I'm beginning to be happy again, I've laughed for the first time in ages." And after the third week he reported: "Tomorrow I'm going back to work." The injections were given six times and repeated after six months. This treatment proved effective also with other patients and when given by other colleagues.

The first step was to look at the illness afresh with an open mind, with astonishment: taking the first step, diagnosis, in daytime consciousness. This tunes the mind, which empathizes, which possesses the objective power of compassion. The power of feeling gives the astral body wings to enter the kingdom of night with a specific direction and there to behold the remedy. Of course one finds only those remedies with which one has built up a relationship. The third step: bringing the treatment back from the night into the daylight. "Seizing hold" of the insight, this takes place only when the situation has become existential. When the unreal personal things, the wishes, vanities and fads, have been burnt away by the fire of reality. When you have become unselfish. Only then can you observe (with your will) what the situation requires, and then the conscience can speak.

If one tries to put into practice anthroposophical medicine in this way, training oneself, putting one's own inner instrument into the service of healing, one thereby opens the gateway from which the healing forces flow: the gateway of the Ego.

THE GATEWAY OF THE ETHERIC BODY

The second gateway for healing is the etheric body. I shall give briefly a few points of view for it.

The Hermetic or Mercury-mysteries

When in the southern mysteries a person was conducted into his own being by the initiate, it was priests of Hermes or Mercury who accompanied the aspirant upon his entry into his etheric body. The first experience that appeared there was that one entered into time—the etheric body is the time-body. One came backwards into the flow of time and passed through the gateway of birth. First one saw oneself and then in the course of time one saw many generations, of which one had the impression that these were one's ancestors, until the moment when this experience ceased. The mystagogue made clear that from a particular moment on one is occupied via one's ancestors with working on one's own etheric body with its heredity, until it possesses the quality that one requires in one's earthly life. This was called the heavenly part, the upper part of the etheric body. That which accompanies one from the spiritual world to the earth.

After that the neophyte became acquainted with something else besides. He encountered something that was at first strange to him but which the Hermetic priest explained to him that it nevertheless belonged to him. He became acquainted during regression with the etheric body as it was when he passed through the gateway of death the last time. That was the moment when reincarnation became a reality for the aspirant. And karma too. For the essence of that previous etheric body lives on in his present etheric body. And in it he met the lower part of his etheric body. The terrestrial, chthonic part. That part harbors the disturbances which stem from the previous and earlier earth-lives. These are a source of illness. The Mercury initiate is concerned with the etheric body. He must as it were transpose everything into etheric terms. The ultimate cause of illness lies in the astral body. But the unresolved situation from earlier lives lies hidden in the etheric body. And so it is a typical Mercury-sentence when the second chapter of Fundamentals of Therapy,* "Why is Man subject to illness?" (Warum erkrankt der Mensch), ends with the sentence: "Thus healing must consist in the treatment of the etheric organism" (Heilen muss daher in der Behandlung des aetherischen Organismus bestehen).

Elementals and the cure of illness

How is a cure set in motion? The Course for Young Doctors gives an elevated point of view on this. And speaks of healing spirits (heilende Geister).

In the meditation suggested there it is very clearly the elementals that are associated with the plant-world. Elementals are descendants of the hierarchies. They are the messengers of the third, second and first hierarchy, who allowed themselves to be banished into condensation when the world came into being.

The world arose from warmth. At the moment when the warmth begins to work in such a way that on the one hand light arises and on the other

^{*}Fundamentals of Therapy, R. Steiner, I. Wegman, Rudolf Steiner Press, London, 1967.

hand air or "smoke," some of its spiritual power is transmitted to both spheres. Spiritual beings must associate with the smoke. And similarly an enchantment of spiritual beings is associated with every materialisation. Everything that is material is "smoke." Rudolf Steiner then poses the question: Can we do anything for these enchanted elementals? Elementals enter into us when we observe nature. But if we observe nature in such a way that we try to penetrate to her very being, or, more concretely expressed, to the beings that work in her, then we release the elementals and then they find, when we die, the way back to their origin. By his inward warmth man forms fire again from the smoke. Before the inner eye the image of the old customs of sacrifice can loom up. In the smoke of the sacrifice the priest sends his prayers and thereby leads the spirit linked to the smoke back to the spiritual world.

But the elementals were not only banished in space at the beginning of the world, but also in time. The rhythm of the day, month and year became possible because elementals made the sacrifice of allowing themselves to be banished to the darkness of the night, the new moon and the dark winter. Rudolf Steiner also provides inner activities of man for the release of these elementals (see second lecture of *Spiritual Hierarchies and their Reflection in the Physical World*, GA 110.).

Preparation of remedies

In one of the conversations Rudolf Steiner had on his sick bed with Ita Wegman, he made the suggestion that a spinnable fibre be made from peat. This would release the elementals banished to this mummified plant-substance. They would thereafter protect man from harmful influences that in the future will increasingly threaten him from the earth's atmosphere as a result of technical developments. One could make clothing from the spinnable fiber. From this background Rudolf Hauschka developed the preparation Solum Uliginosum.

This story is an archetypal image for the preparation of remedies and the operation of elementals as "healing spirits" (heilende Geister).

We know that the essential aspect of anthroposophical remedies is their preparation. Natural substances are not of themselves strongly efficacious remedies. They become so by undergoing preparation. A substance becomes curative when it is brought along the road to the spirit. One can also say: only when it is conducted into the realm of the etheric, when it acquires a relationship with the etheric body. Roughly speaking there are two possible ways of bringing this about.

Space-Warmth

The first way is that of warmth-treatments. Cold extractions, digestion, distillation, infusion, decoction, carbonization and ash-preparations. This is cooperation with and release of the first group of elementals.

Time-Rhythm

The second way is to bring the substance into relationship with our timebody, our etheric body. This begins already when one takes into account the time of day when one gathers the substance: at the beginning of the day, for instance, the leaf (in the "Blättermorgen"), somewhat later the flower, at the end of the day the root. But also the time of year is important: belladonna in the summer, when it is in full bloom, oak-bark when the first leaves appear, etc. When one has gathered the primary substance one can go further in working with the rhythms of time. For example by adapting oneself to the forces of blessing of the morning and the evening, as is the case with the Rh preparations of Weleda and many Wala preparations. There is here even a matching of rhythm and warmth-treatment. Beside the daily rhythm the yearly rhythm also has its place in the preparation of remedies. One may think of the vegetabilized metals that undergo their development through three yearly cycles. Or of Iscador, in which summer and winter saps are combined. In these rhythm-treatments the other elementals stand in the background, particularly those of the day and the year. Day and year have their reality in the relation between earth and sun. Working with these rhythms brings sun-quality into the remedies.

The Hermetic or Mercury-priest inspected in the earthly, the chthonic part of the etheric body the unresolved spots, the "islands" in the current. Wherever something had dropped out of the healthy rhythm or where it threatened to become too much "smoke." Remedies which have become substances on the way to the spirit provide the possibility of resolving such stoppage or disharmony and to restore a proper development. The elementals become "healing spirits" because man carries nature a step farther. They become helpers, servants of Raphael.

Michael and Raphael

The question was once put to Rudolf Steiner: How can one achieve a linkage with Raphael? His answer was surprising. "That cannot be done without something else. First one has to make an acquaintance with Michael. For Raphael is in a realm at whose gateway Michael stands." ("Das geht nicht ohne weiteres. Da muss man zuerst Bekanntschaft mil Michael machen. Denn Rafael ist einem Reich an dessen Pforte Michael steht.") Of the seven archangels

who (so the Tobias story tells us) stand before God's throne, most work in deep unconscious levels of man's being. The fact that there are many legends about Michael, whereas the other archangels are scarcely known in this way, is an expression of the fact that Michael stands the closest to our consciousness. Michael is the inspiring force in every battle to keep the spiritual horizon free, to stand open before the future. Whichever archangel one seeks access to in our times, we always go via Michael. The first step must always be a step in consciousness.

Man's etheric body has two sides. One side is at the disposal of consciousness, the other part works tied to the body, organ-directed. One could say that the free part of the etheric body, the consciousness part, is the sphere in which Michael works. The organ-bound sphere is the realm of Raphael.

In the consciousness part, the cultural side of the etheric body, man can work healing if he does it by the power of his free Ego. If he lives by ideals, if he is active artistically creating, if he trains himself inwardly, then this is simultaneously health-making. The Ego is then the gateway through which health-making forces are awakened in the etheric body. In this sense one can also understand that Michael stands at the gateway of the realm where Raphael is.

We have spoken of two routes by which the healing forces can flow into Man. The image can now arise:

- at the Ego-gateway stands Michael and shows the way with his illuminating sword,
- at the etheric gateway stands Raphael and there brandishes rhythmically his staff of flaming fire above the abyss.

Awakening to Consciousness in the Etheric*

JÖRGEN SMIT

"Awakening to consciousness in the etheric" is a very special subject. First, we need to define it more clearly. A particular problem in modern life, indeed a pathological situation, is the split people experience between their inner life and the outside world as is seen in material terms. Anything we experience in the material, physical world has an existence of its own, far removed from any spiritual, moral qualities. Conversely, the life of mind and spirit has an inwardness that is partly subjective and does not influence the physical, material world—it stays in isolation. In anthroposophy, we endeavor to overcome the split by seeking a path of knowledge that leads to the spiritual in man, and from the spiritual in man to the spiritual in the universe. This will only succeed if the spiritual comes alive in us, assuming reality and is taken into the physical realm and made to be active in the physical, material world.

All our thoughts have shadow nature in the conscious mind as inner thoughts although, in reality, they well forward from the etheric world of the spirit (without it, there would be no thoughts).

On the other hand, there is the whole field of sensory perception. This perception originates in the spiritual, essential. It comes from outside but does not come to conscious awareness as something that lives; it dies down into something phantom-like, and all our sensory perceptions are taken up by the conscious mind as something connected with an object. We therefore do not live in spiritual reality inwardly—our thinking lacks the essence of the spirit; and outwardly, we do not perceive the spiritual essence of the world that presents itself through the senses. We are divided between the phantoms of sensory perception and the shadows of thought. Darkness reigns on either side with respect to the full reality. It is glorious to know that we can reach that reality, although this does need effort—we do not "get it for nothing."

^{*}Original title: Das Erwachen des Bewusstseins im Ætherischen. Record of a lecture published in Jörgen Smit, *Der werdende Mensch. Zur meditativen Vertiefung des Erziehens. 2.* Aufl. Stuttgart: Freies Geistesleben 1990. Reprinted in *Der Merkurstab* 1996; 49: 453-62. English by A.R. Meuss, FIL, MTA.

We can leave the realm of shadows and phantoms behind only in the search for insight. To our ordinary thinking this does appear shadowy and phantom-like to begin with. In its depths, however, lies something that goes unnoticed although full of life and activity. We must slowly strengthen our inner powers of perception by exercising them, and initially this seems to have no particular effect. This perception does, however, grow stronger until it reaches the border of shadow-land and begins to perceive itself as spiritual reality. This happens first in creative thinking where we no longer merely reflect images but come to a point where the creative process that takes us from fluctuating movement to form and figure is "done."

For example, you sit on a seat in the woods, close your eyes and try to meditate. In the course of this you completely forget that you are sitting on that seat; but when the meditation ends the outside world comes back to your awareness. You then make a discovery relating to sensory perception. There may be leaves rustling in the wind. When you come back from your meditation the rustle is like a roar—for a couple of seconds at most—then it returns to normal. For a brief moment, you lived in immediate sensory perception without phantoms or connection to objects. An experience such as this shows how greatly reduced the quality of sensory perception is in everyday life.

We thus have two aspects: on one hand, rising to active, effective and creative thinking; on the other, rising from the phantoms of sensory perceptions to their source-spring in the living, active elemental world. The two then begin to work together—like breathing. With every step forward in creative thinking comes absorption of the true qualities in the world we perceive and vice versa. The roaring sound that is part of the reality in the world of the senses, the elemental world, will vanish the next moment unless it is absorbed into creative thinking. When the two begin to work together, a new breathing process begins—not in air this time but between thinking and sensory perception, and one enhances the other.²

Within this new activity, we initially catch onto only a "snippet," as it were, of the etheric world, our own ether body. This snippet tends to vanish immediately from our conscious awareness unless there is further reinforcement. We are under an illusion if we think we can progress in this field of perception and thinking without making any changes in our personal life. The snippet is connected not just with the ether body of the head, which is the nearest, but with the whole human ether body. It is a time organism and lives in the whole of our biography. We can try and reinforce it by going back through our own life, one situation after the next, year after year, all the way to our childhood. Later, we survey the whole from a higher

point of view, not merely rehashing our personal life, as it were, but looking at with the kind of objectivity we would have in looking at another person's life, discerning what is important and what is not. This will gradually make us aware of the true powers that shape our biography. Every time we work on another piece of our life in this way has its repercussion.³

Another way to achieve reinforcement is to take hold of the "time organism." Abstract knowledge of this does not take us to the reality. We must gain direct experience of it. Start with what lies nearest: Visualize this evening lecture at this moment and hypothetically imagine that it is seven o'clock in the morning. It would be a totally different situation and a totally different lecture, even if I were to use the same words. It would be morning mood—just awakened from sleep, before breakfast—and that would be a different reality. We have now gone through the day, heard lectures, taken part in discussion groups, and are going further into the evening. Then, imagine it is one o'clock in the morning—again a different lecture, a totally different situation.

Everything that happens is the way it is not only because of its present content but also within the time organism. Where am I during the day and the night? What is coming toward me? What lies behind me? We are always within larger and smaller cycles—night and day, a whole month, a whole year. We might also imagine it to be March now, again a totally different situation for this would be a different place in the organism of the year. We may quickly think this and see that it is so and then leave it aside and go on from one moment to the next, not really feeling the reality of the time organism. We must practice a feeling for being continually within greater and smaller cycles of time and realize that the small, momentary only gains significance and value from being part of the greater whole.

We get anxious when we drop out of the time organism or when the I simply lets all the powers of soul, everything alive and active in there—thoughts, feelings, wishes, drives, desires—go their own way. If it does not intervene as required, the astral body grows flaccid and weak. The astral body holds great abundance, but when the I gives no impulses and is not active within it, it grows flaccid. As a result, the astral can no longer inspire the ether body, and this, too, grows flaccid.

What does flaccid mean? Depending on random external influences, it means allergic. Allergy represents a certain weakness in relation to external influences. The stronger we are in ourselves the less are we allergic. A weak ether body loses touch with the physical body, and this "drops out" a little, although not completely for if it did, we would die. When the physical body drops out just a little, anxieties and various diseases develop; the physical

begins to twitch. When a power calls out the "developing human being," the ether body is strengthened out of the I, and this power is taken to a higher level. The "snippet" begins to gain in strength; it widens.

Another way of achieving reinforcement is very important. Initially, everyone sees himself as something very small on earth, with an inner life that is wholly subjective and a great universe out there—a world of stars; but one does not have anything to do with it. Even if we progress here in moral terms, the whole world of stars—seen in astrophysical terms—does not relate to this. If we hold onto this idea, we will continue to feel small and weak for we have failed to discover that this "something" that comes to life in the etheric is not only here with me, it is also at the same time far out on the circumference, at the periphery. In the physical world, objects are next to one another. A physical body can be more or less defined, even if there are no sharp margins as in bodies of heat in the air, etc. This is not the case with the ether body. The world of the stars is present, though unnoticed, when we first wake up in the etheric with creative thinking and perception quickened, even if we do not know of it. The whole is present, though we do not know it. This life lived in the whole must be brought to awareness; it must be practiced. We have to feel ourselves to be within the periphery of stars, the great, arching circumference, just as we feel ourselves to be in our own ether body.

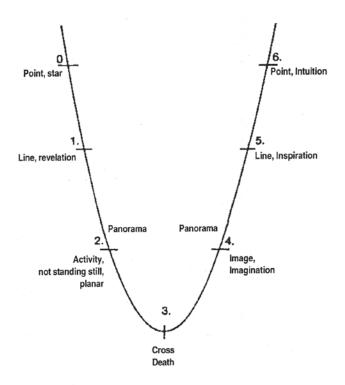
A few lines in a poem by Novalis may initially delight us by their sheer poetry, and suddenly we also see the deep truth that lies in them:

> The world of stars shall flow, be golden wine of life, and as we drink of it we shall be shining stars.

It is not merely poetic, it is true. The etheric arch of the circumference comes to conscious awareness, the small becomes a star and lives with the great. This is the reality of awakening in the etheric.

Some ways of gaining reinforcement are: working on biography, experiencing the time organism, the I working on the aspects of the human being, the repercussions of this and, finally, making the connection with the vast periphery of the cosmic circumference.

There is a fourth dimension. This can be a purely abstract matter, where we simply go on counting: fourth, fifth, sixth dimension..., and it is certainly possible to work with it in modern mathematics without attaching any spiritual value to it. We may take the abstract view and say: three dimensions in ordinary space, and then we add time as a fourth coordinate so that we



Three-Dimensional Space

now work with four axes. This is not the kind of fourth dimension I mean. Consider the esoteric significance of the fourth dimension: Something very different happens there. Where do we get three dimensions, three coordinates in space? Only in the physical earthly world, where we have the experience of space. It is the only place where this exteriorized aspect of the three dimensions and crystalline, mineral nature is possible. The third dimension is not the primary element, however, but has come down from the highest world of the spirit in three stages. When a solid form arises, it has dropped out of the context of powers of movement and become three-dimensional in space, physical and mineral.

"Zero" is the highest world of the spirit—we might also say "point" or "star." In the lower world of the spirit—a line, revelation radiating out in this field of one dimension. Then the world of etheric life, a planar world of activity, nothing standing still. Finally there is the three-dimensional sphere, the cross. Death is only possible here in the physical, sense-perceptible world. Here we have the progressive descent of creative activity.

Then the line of developing consciousness begins to rise upwards, and we come to the fourth, fifth and sixth dimensions. These are not simply additional coordinates, however, but mark the ascent to higher levels, with one of the previously exteriorized dimensions vanishing at each level. One disappears at the first step, which becomes planar, with image nature. Then another vanishes, and we come to line, Inspiration. Again, a dimension is lost, and we reach the point, Intuition, complete inwardness.

Waking up in the etheric happens when our conscious awareness rises from the three-dimensional to the next level, where one exteriorization vanishes and "plane" is not the plane on an object but a living, active plane of images. Where do we find this? Rudolf Steiner made a very instructive, stimulating suggestion.⁴ Where do Imaginations arise? In the very place where memories also arise—within, as in a plane where one finds oneself at the center, the field or plane of Imagination. These cannot be visions. A vision comes from outside, like a picture, and we merely look at it; all kinds of errors and delusions may come in. When an Imagination arises it is our own activity; we experience ourselves in the activity of creating the image. At the same time, however, the image is also in another place—at an infinite distance, on the great periphery! That is the fourth dimension where we are small and at the same time large.

If we do not consider the world of the stars, the small inner plane of Imagination also vanishes for it can only be grasped if we experience it as the universal power at the periphery. What do we have to do? We have to get out of our small, personal bodies. It does not mean losing oneself, for if it is a free deed, we can always return to the three-dimensional world and check the connection; we have full, conscious certainty of the link. All kinds of errors may come in if we lose ourselves, and we must always have feedback, going to the point in the three-dimensional cross. This preserves our individual freedom.

Events that occur before birth and immediately after death also take place at the interface between the second and fourth dimensions. Immediately before we are born we come from the highest world of the spirit through the lower world of the spirit and the elemental world until we are just about to enter the three-dimensional physical world. Then all the spiritual intentions of the coming life unfold before us in a vast panorama of life. Immediately after death the physical body falls away, and the whole panorama of the life we have lived opens up before us. Thus, there is a panorama before life and one after life. We have the double life panorama on either side, showing our inmost spiritual intentions—and here we must not think of niggling details or believe that all is predestined, for we would be in error. The spiritual intentions and the essence of the spirit stand before us in a vast image after death.⁵

The same is the case every morning when we wake up and every evening when we have gone to sleep—a panorama of the day to come, a panorama of the day that has passed. Here, the peripheral image activity of the essence is around us on a smaller scale. If it is a true image, essence is expressed in a picture. Facial features of the spirit emerge, as it were. It is not an absurd image, cobbled together, it is the face of the essence showing us what is to come and what has been. It does not vanish during the day but lives immediately below the surface shadows and phantoms in the time organism and can be brought to conscious awareness whenever a moment comes when we begin to awaken in the etheric. Where am I now? What is the spiritual goal? A vast image shows the whole of it, and with it I am in the time organism that is moving on.

Anxiety arises when we drop out of the wholeness of the spirit. Anxiety pervades the whole of humanity today because we have dropped out of the time organism of the spirit, lost and cut up into pieces, as it were, with only single droplets in individual bodies. What will happen? Will I perish? Will the whole world be destroyed at any moment? This is anxiety arising from a deep, dark black hole. Anxiety cannot be overcome by suppressing it. Courage is gained by being active in mind and spirit, finding a new relationship within a spiritual reality, with the time organism brought to conscious awareness. You wake up in it.

Even if we make some progress in this direction, we can all too easily lose the connection again. Walking in the street and feeling ourselves to be small in relation to the universe we fall back into the image presented in newspapers and mass media of an entirely mechanical, material universe, with everything that happens on earth utterly meaningless.

The whole astrophysical image of the world is like a large, solid block in the conscious mind. It needs to be set in motion, lifted up into the time organism—not into astrophysical time which is merely a set of coordinates extending to infinity and is merely sequential, hypothetically taken forward or back, always repeating the same, but into a true time organism. Rudolf Steiner's Occult Science shows us where this comes from.⁵ We are able to work with this to gain insight into the stages of planetary evolution. Saturn, Sun, Moon, Earth—from the most profound ground and origin of spirit and essence, the highest world of the spirit, evolution gradually descended to the point at the center where three dimensions have become possible in dead, crystalline matter; evolution then continues in a great sweep into the future, where everything given as a gift and worked for and developed in the descent is taken forward in a new, transformed way in the developing human being.

The astrophysical view presents a sectional view taken at one moment—for example, in Winter with nothing remembered of the Spring, Summer and Autumn that have passed so that one thinks there is only ice, snow and Winter and knows nothing of the new growth that will come with Spring. This is a sectional view that presents a false picture. It is a half-truth for all the details given of the Winter landscape are true. We cannot undo the lie by saying that ice crystals do not exist. They do, but they must be lifted up into the great time organism, into awareness of the cosmic Spring, Summer and Autumn. We then see the present image of a dying world but also the seeds of next Spring everywhere below the surface. Anxiety is overcome, and the spiritual nature of this great time organism gives us unshakable certainty. This needs practice, however. Thorough study of Rudolf Steiner's Occult Science is a basic requirement if the mind is to awaken in the etheric.

This, then, is taken further and differentiated into periods of civilization. Here, we come to another disease of our present age. It is an age that has no history—that is, we know infinitely much, millions of details concerning the past, often absolutely right, but they are only half-truths because they are not lifted up to the level of the great steps of the seven civilizations: Indian, Persian, Egyptian, Greco-Latin. We are now in the fifth period, with a sixth and a seventh to follow. We are on a road where every detail, every moment, has its full, intrinsic value but only gains meaning in the context of the whole, the complete cycle.

From the great rhythms of time, we move on to the very small ones: our own lives. My own life from birth to death is also a whole, a time organism. At the moment, I am in a particular place. Let us say I am 18 or 70. That extreme emphasis is given to this moment, right down to the physical level. The rest of my life is also there in the background above, below, all around in the periphery, in the plane that lies within me, passing through me and is also active at the far distant periphery. The whole of life is there at any moment, but excessive emphasis is given to particular areas: the 19th year of the young person or the 71st of the old individual. What lies in the background for the young person? Everything that is still to come. It then carries particular emphasis in the rest of the time organism. What lives with particular intensity in the etheric organism of a 70-year-old? The whole of that person's youth.

There is a beautiful passage in Rudolf Steiner's first mystery play.⁶ Johannes Thomasius, the painter, is undergoing inner trials. He experiences the zero point of shadows and phantoms where he feels himself to be nothing and slowly comes to wake up in the etheric because he is a seeker in the spirit. He then sees two individuals whom he knows in the physical

world as Professor Capesius and young Dr. Strader. But the image opens out for him. He sees the professor, an old man in ordinary life, as a young man and young Dr. Strader as an old man. The complementary image arises because overemphasis on a particular point in physical life strongly evokes the opposite side in the whole time organism. The probation of the I goes through all the phases of this meaningful whole—the developing human being.

This developing human being is most powerful in us when we are very young, learning to walk, talk and think, though we do not know it. For the whole of our life, the developing human being is active beneath the surface in this etheric field of activity, out of the inmost reality of the divine spirit. When we awaken and become conscious in the etheric we therefore see many layers, many fields, and they have a special quality of reinforcing one another. It is magnificent how we then see the great and the small, finding ourselves, discovering the process of becoming, evolving within our own biography, and we find humanity, the evolution of humanity by the example of *Occult Science*. We find the heart of the matter in our own individual nature, the true essence of the developing human being. It would be a false picture, however, if we saw only this, for the truth is apparent only if it is also seen to live within the great whole.

We also experience the truth of this in the following. The Christ is found within us, in every human individual, yet he is also the cosmic Christ in other humans beings and in the whole of humanity. He cannot be found in one place only. His influence comes from the periphery and, at the same time, from deep down in my heart.

Summary

These are some basic indications of how this split between inner and outer reality may be overcome. Quite clearly, the source-spring for the art of education lie here for education is, after all, concerned with the developing human being. How can we help the children if we do not bring the developing human being in us to conscious awareness? Here alone lie the resources that enable us to help and encourage children and young people.

Jörgen Smit

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Chaos and the Search for the Etheric*

ANDREAS GOYERT

Chaos is a new scientific discipline that has attracted increasing interest in recent years. It has found application in many sciences: physics, chemistry, biology, mathematics and more recently also medicine. Leading scientists have suggested that this theory is liable to bring about a change of paradigm. According to Thomas S. Kuhn a paradigm is the theoretical concept determining the theoretical and methodological basis of a scientific discipline. The theory of science says that the evolution of sciences is not the simple result of a growing body of knowledge and scientific advances but is essentially due to changes in theory. A change of paradigm, replacing established theoretical and methodological principles with new ones, may cause science to advance in leaps and bounds.¹

In medical science, the only sure way of gaining scientific knowledge is still considered to be the theory that the processes in the human body follow the laws of physics and chemistry and are therefore definable, quantifiable and capable of correction. Observation and experiment lead to theories that are tested before they become part of the established body of knowledge.

The theoretical and methodological basis for this is the reductionist principle that René Descartes introduced about 350 years ago: "If a problem is too complex for you to solve, divide it into smaller ones that can be solved individually." Essentially reductionists assume that it is possible to explain complex systems such as life forms on the basis of molecular and other basic physical and chemical principles. They do not consider the possibility of such systems having laws of their own. Reductionism also tends to go hand in hand with determinism, which says that if one knows the initial conditions it should be possible, at least in principle, to predict the outcome of everything that follows.

There can be no doubt that these theories and methods provided the basis for the great scientific and technological advances of the 20th Century, for scientists have gained remarkably detailed knowledge of the

^{*}Original title: "Chaosforschung und die Suche nach dem Ätherischen," *Der Merkurstab* 1992; 45: 257-71. English by A.R. Meuss, FIL, MTA.

composition of natural objects, right down to the molecular level. Their certain knowledge has, however, been limited to the physical end products of processes. In spite of this, scientists thought this method, developed out of the "exact" sciences of physics and chemistry to gain access to the physical basis of the world, could also be used to investigate the world of life coming into being, and the complex interactions of the natural world. On the basis of determinism, an adequate definition of the initial conditions would be all that is needed to predict the processes that give rise to life, i.e., make them calculable. Once this is done, they can also be influenced to achieve specific goals.

An attempt will be made in this paper to describe the development and basic principles of the new science known as chaos theory. This will raise the question as to its significance in medicine. Finally we shall consider the developments in science that come to expression in chaos theory and whether it may serve to build bridges between modern science and anthroposophy.

As the term "chaos" suggests, the new science is concerned with seeming disorder, irregularity and the incalculable. It does not base itself on the end products of processes, i.e., matter at rest, which provide such a clearly defined system for physics and chemistry, where experiments will give the same results, independent of time, providing the initial conditions are the same, and which is the basis of all our technology; instead it considers a non-linear, complex feedback system. This is an open, evolving system, changing with time, with initial conditions that can never be clearly defined, in short, the processes that occur in time in the living world of nature.

In the words of the physicist Gert Eilenberger,

If we compare "natural" and "manufactured" objects, there can be no doubt that they are qualitatively very different. This comes as no surprise. Today, more than ever, we are aware of the contrast between "nature" and technology, with the differences sometimes irreconcilable. This should surprise us, however, for technology certainly our modern technology is, after all, applied natural science. The question is, why do its derivatives not impress us as natural? The answer is simple: The products of technology are essentially linear, natural objects are not. Euclidean geometry, the straight line, with its inherent one-dimensionality, dominates many sciences: mathematics, logic with its causal chains, the basic laws of physics, which are largely linear, the function of technological apparatus, based on the one-dimensional, causal

sequence of steps, and finally also the geometric forms used in technology. Natural objects, on the other hand, are neither linear in form (they are essentially fractal, the term will be discussed later) nor is it usually possible to define their function in terms of causal chains; instead, we have multidimensional causal complexes. K. Lorenz has coined the apt term "action complex."³

The origins of chaos theory go back to the last century, when the French mathematician Henri Poincar took a critical look at Newton's celestial mechanics and above all the work of Laplace. Pierre Simon de Laplace (1749–1824) stood for absolute determininism, postulating that someone who had full knowledge of the location and velocity of all particles of matter that existed in the universe at a particular time would be all-knowing, both historian and prophet, able to quantify past and future with equal accuracy. Poincar showed that a quantitative model, however precise the figures used, would never permit us to forecast the future, as even minor deviations may result in decisive changes at a future date. It is now generally accepted that there is no way of foreseeing the future of our planetary system, as it is impossible to quantify its masses and movements completely. Rudolf Steiner spoke of this in the astronomy course he gave in January 1921, saying the reason was that the orbital periods of the planets were incommensurable.⁴ Irrational numbers cannot be given in simple fractions, or with a limited number of figures after the decimal point, and accurate calculation is therefore impossible.

In the mid-1960s, the meteorologist Edward Lorenz, working on quite a different problem, came across the same situation. He had been working on weather forecasting, feeding all kinds of important initial data into his computer. It took the computer quite a long time to do the necessary calculations and on one occasion Lorenz had to go and do something else, which meant he had to stop the process. To save valuable time, he made a print-out of the intermediate results, so that he might continue from that point on his return. Having done so he was surprised to find that the computer prediction was completely different from those produced in earlier simulations using the same initial conditions. At first he thought the computer had developed a fault, but in the end he saw what had happened. The intermediate results had been printed out to three decimal places, yet the computer had actually been working with six. Lorenz had accepted that there would be an error of the magnitude of a few thousands when he input the intermediate results, but this had led to a complete change in developments. His discovery was called the law of sensitive dependence on initial conditions or the "butterfly effect": Even a minor element such as the beat of a butterfly's wing may ultimately influence the whole meteorological system and cause a typhoon that will affect a whole continent. Like the butterfly, irrational numbers may produce incalculable changes in a complex system.

The publication of Lorenz's paper in a meteorological journal attracted little attention at first, and its full significance was only realized later. Then scientists working in all kinds of scientific disciplines in the USA, Europe, especially France, and the Soviet Union began to take up this work. In the USA, Robert May was teaching biology and looking at the dynamic changes in animal populations. He used the one-dimensional logistic equation

$$x_{n+1} = ax_n (1 - x_n)$$

Here, $\mathbf{x}_{_{\mathrm{n}}}$ may represent this year's population, $\mathbf{x}_{_{\mathrm{n+1}}}$ next year's, and "a" a constant for the reproductive rate. We have to assume that an animal population, rabbits for example, cannot go beyond a certain number, as food resources would then be inadequate and the whole population might die out. This is accounted for by the product $1 - x_n$. The probability range for the population is between 0 and 1, and if this reaches 1 it will die out the following year. Population figures depend to a marked extent on the reproductive rate, and strangely enough, the system may develop in three different ways. Let us assume a rabbit population of $x_n = 0.1$ reproducing at a rate of 2. This would give us $x_n + 1 = 2 \times 0.1 (1.0.1) = 0.18$. The following year we'd have $x_n + 1 = 2 \times 0.1\ddot{8}$ (1 0.18) = 0.2952. The third year, $x_n + 1$ would be 0.4161139, the fourth year 0.4859262, the fifth year 0.4996038, the sixth year 0.4999996. x would thus be approximating 0.5, which would be a stable value for a rabbit population reproducing at a rate of 2. With the rate of reproduction and the available food stable, our rabbit population would automatically settle to a stable 0.5 for ever and ever.

If the rate of reproduction were to rise, however, this would have a strange effect. If "a" is greater than 3, x_n suddenly moves in two different directions. At a = 3.2, it would move towards 0.7994553 and 0.5130448, which would be the size of the rabbit population in alternate years.

A further increase would cause a sudden further division at a = 3.44865..., with the period lengthening to four generations at 0.8749972, 0.3828195, 0.8269404 and 0.5008846. At a = 3.54431 we'd have 8 generations and at a = 3.56445 no less than 16. Periods would double at shorter and shorter intervals.

So far, changes in our rabbit population have shown a strange kind of order. Further increases in rate of reproduction will cause this to come to a sudden end, with chaos intervening. Year by year the generation will be different, ranging from 0 to 1, and a minor change in the initial value for x_n will result in a totally different sequence of figures after just a few stages. Chaotic behavior is seen from a = 3.56994... onwards.

If a graph is plotted we get a bifurcating tree that shows how periods double and then end in chaos (Fig. 1).

Oddly enough the chaotic range shows stable islands with bifurcations that move in rhythms of three, six and twelve. Doubling periods leading to chaos are one typical route seen with non-linear equations for evolution dynamics, and the pattern is not limited to this kind of simple logistic equation. The chaos is predetermined, which is why it is also called a "deterministic" chaos. Eilenberger felt moved to paraphrase Hamlet, saying: "Though this be chaos, yet there is method in't."

The logistic equation is the simplest kind of non-linear evolutional equation with feedback, using merely one parameter (a) and one variable (x_n) . In reality, changes in rabbit populations are infinitely more complex. Other animal populations share their food resources and the weather also plays a role. The rate of reproduction is not constant, and the mortality rate is subject to diseases and natural enemies, i.e., it is also influenced by other animal populations, e.g., foxes, and the same holds true for their evolution.

An epoch-making discovery was made by Mitchell Feigenbaum, a young physicist in the USA. He felt constrained by the thought structures of classical physics and looked for different approaches, among other things making an intense study of Goethe's theory of color. The bifurcation diagrams suggested to him that higher laws may pertain to the route to chaos. He analyzed the diagrams and found that proportional laws applied. The points of bifurcation come closer and closer together just like a line of telegraph poles do with increasing distance when seen in perspective. The factor for calculating subsequent bifurcation points is a constant: $\delta = 4.66920...$, known as the Feigenbaum number.

Surprisingly, the Feigenbaum number is an irrational number, a universal constant, rather like π .

In France, Libchaber, also looking for new approaches in physics—he had studied Goethe's scientific writings and particularly also Theodor Schwenk's work on turbulent flow—examined the behavior of fluids on the way to turbulence. This also led to bifurcations and confirmation of the Feigenbaum number.

The route to deterministic chaos could thus be defined. Once two bifurcations are known, it is possible to use the Feigenbaum number and determine all subsequent bifurcations up to the point of accumulation where chaos begins, and this does not require an equation or individual

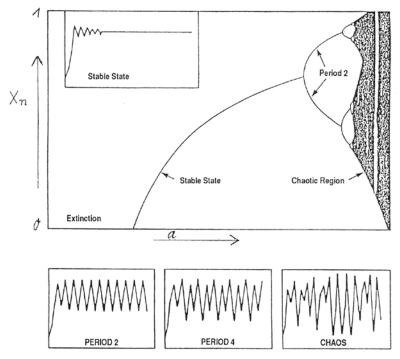


Fig. 1. Population dynamics with feedback from growing conditions in the biotope.

Abscissa: Control parameter "a" (rate of replication); ordinate: population. If the rate of replication is low, the population becomes extinct. If it is higher, a stable state develops, with the population increasing as "a" increases until a limit is reached. If "a" is borderline, bifurcation occurs, with the population periodically oscillating between two levels. A further increase results in further bifurcations with quasiperiodic oscillations of population levels. Finally the population shows chaotic oscillations (black area), though stable, ordered states (white stripes) occur at intervals. (After Cramer)

calculations. Thus there is a universal law that governs the different mathematical equations and calculations. If you take two consecutive bifurcation elements and increase the smaller of the two by a factor of δ = 4.66920 parallel to the vertical axis and δ = 2.50290 parallel to the horizontal axis, at the same time rotating the graph so that top becomes bottom, the resulting images will be identical. This potential for continually converting individual bifurcation elements into identical images indicates, furthermore, that the diagrams are self-similar.

As early as 1904, the mathematician von Koch devised an absolutely regular but self-similar curve that was considered a mathematical monstrosity by other mathematicians until chaos theory began to develop. A Koch curve is produced from an equilateral triangle, with the points in the middle of each side displaced perpendicularly until they become aligned along a

V-shaped peninsula that is another equilateral triangle with sides of length 1/3 (Fig. 2). If this step is repeated ad infinitum, the curve not only becomes infinitely long but also changes direction at every point. It therefore reaches infinitely more points than a line does, and it would be reasonable to say that a Koch curve tries to be like a plane, without ever being a plane. The dimension of the curve can be shown to be 1.2618. This is a fractal and at the same time one hundred per cent self-similar. We can take any part of the curve and any scale, the image will always be the same.

The term "fractal" was coined by Benoit Mandelbrot in 1975. He had been considering irregular and seemingly random phenomena such as fluctuations in the price of cotton, or recurrent noise problems in telephone lines used to transmit information from computer to computer, which were liable to cause major errors. Mandelbrot's brilliant work showed that all the basic patterns involved recurred on all kinds of different scales. There would be hours in the day when errors came up in bunches, compared to other hours that were problem free. Analysis of the problem hours showed phases when errors were many and others that were problem free. When smaller periods were chosen, the basic pattern of error peaks alternating with problem free phases persisted. Mandelbrot showed that no period ever had a consistent rate of error, which also meant that it was not possible to calculate mean error rates. Yet the proportions of peak error and error

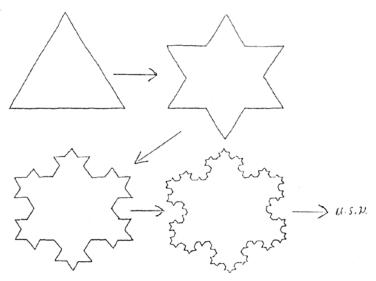


Fig. 2. Koch curve

Starting with an equilateral triangle, a new equilateral triangle is created on each side, with the process repeated ad infinitum.

free phases remained constant, irrespective of whether the time scale was in days, hours or seconds.

Discontinuity rather than continuity, irregularity rather than regularity were the principle he saw applied in reality.

Mandelbrot felt that the linearity of Euclidean geometry, which had governed scientific thinking for 2,000 years, was an abstraction and quite inadequate in terms of the real world. "Clouds are not spheres, mountains are not cones," he used to say. Natural phenomena are irregular, with spikes, bulges and clefts. He said that the essence of natural phenomena lay in their irregularity, e.g., the zigzag movement of lightning or the branching of a tree, and that this irregularity could not be taken as a deviation from a straight line or direction.

The question "How long is the coast of Britain?" has become famous. Seen from space, the south coast of Britain appears irregular, with bays and projections, and its length seems finite. More details are seen from a plane flying along the coastline. The irregular outline is still there, and the length of the coastline will still be finite, though it will prove longer than the length measured from space. If someone were to set dividers to an opening the width of a yardstick and walk them along the coastline, the length measured would be much greater, for the dividers would be walked around all kinds of lesser bays and projections. A snail moving along the coastline would have a much smaller "yardstick" and this would increase the length of the coastline even further. If the measuring tool got smaller and smaller, the coastline would ultimately prove infinitely long. The irregularity of bays and projections would persist, for self-similarity would apply, so that in principle the situation is the same as with the Koch curve.

Observation of natural phenomena always shows that irregularity is in fact the dominant element, with the same structures recurring as the scale changes. You may take pictures of sand dunes in the desert from space or look at individual grains of sand under a magnifying glass—the image is always self-similar.

Mandelbrot established the concept of fractal geometry, which is based on natural phenomena and differs from Euclidean geometry which is thousands of years old and has provided the basis for our modern technology.

Using the tremendous capacities of computers, fractal geometry can be used to produce graphics that show remarkable similarity to natural forms. Lightning, trees, fern fronds, clouds and mountain ranges—the computer simulations look so real that it is practically impossible to distinguish between natural and artificial by just looking at the image. The images are so fascinating and beautiful that the term "fractal art" has been used.⁶

At the beginning of this article we quoted the physicist Gert Eilenberger who spoke of the qualitative differences between "natural" and "manufactured" objects. The latter are characteristically based on linear forms, natural objects on non-linear principles. The function of manufactured objects bases on a sequence of one-dimensional causal steps; in the natural world we have multidimensional steps with feedback creating an action complex, and this alone makes development possible.

Working with non-linear systems we come to realize that incalculability and irregularity are an essential part of nature. The linear laws of physics apply only to the small fraction of the natural world that has ceased to grow and develop and reached its end-state. Between the calculable end-state and the irregular and incalculable lies the sphere of periodization, doubling of periods and finally transition to chaos. It is the sphere where self-similarity and fractal belong.

Cramer writes: "Fractal dimensions arise wherever chaos appears." Fractals arise on the borders of chaos. In this realm of self-similarity and constant repetition we find the images of natural objects that can be reproduced with the aid of fractal geometry.

It is evident from the universal constant found by Mitchell Feigenbaum that the road to chaos is governed by a higher law that comes to expression in the constant proportion and can be expressed as an irrational number. Irrational numbers, which cannot be expressed as ordinary fractions and show no periodicity of decimal places, thus are connected with chaos. The most irrational of all irrational numbers (this can be shown mathematically⁸) is the golden section d = 1.618..., the divine proportion. Many proportions which occur in nature and are experienced as particularly well balanced are in fact based on the golden section.

Friedrich Cramer writes: "The golden section is the most irrational of all possible irrational numbers and is therefore also connected with chaos. In certain sequences and mathematical or graphic representations of complex dynamic systems chaos increases with growing non-linearity. In the end, areas of chaos are merely separated by a few curves which ultimately reduce to just one. This can be connected with the golden section, using the method given above. Is this another indication of harmony existing on the boundary between order and chaos? The most irrational sequences, i.e., sequences based on the golden section, have the greatest chance of survival if the system is upset. Their resistance to chaos is greatest."

Later he writes: "Is beauty therefore not just a matter of how we see it and of convention, but a property inherent in objects and in the world? Does the world have a fundamentally balanced, harmonious structure where it borders on chaos?"

The new science clearly has enormous significance in medicine. Present views of anatomy, physiology and pathology will have to be completely revised, and our paradigms will begin to change.

The anatomical structures of the organism are essentially based on fractals. Higher laws pertain, and individual structures can only be understood in the context of the whole. Thus the vascular system from the aorta to the finest capillaries is a coherent whole and clearly a fractal structure. The Koch curve accommodates an infinitely long line in a small area, and in the same way the vascular system presents a vast surface area within a limited space. The same applies to other structures such as the composition of the duodenal mucosa and the bronchial system. The system of uriniferous tubules in the kidney, of bile ducts in the liver and the Purkinje network in the heart have been shown to be fractal structures.

A question that is now being considered is whether fractal scaling is a universal rather than an isolated phenomenon in morphology and perhaps also the clue to the mystery of DNA coding. Simulation of goose down shows that the phenomenal air holding capacity of the natural product was due to the fractal nodes and branching that made up the structure of keratin, the basic protein of the down.¹⁰

Fractal laws are not limited to organ systems, however, but extend as far as the molecular range. Molecular surfaces such as the glycocalyx or cell coat of the cell membrane with its sugar residues have a fractal structure that enables the complex linking of cells by specific lectins known as glycoproteins, a linkage that is in more than one plane. Cell contact is assumed to be 2.2–2.5 dimensional.

Fractal geometry has already found practical application in medical research. It makes it possible to determine myocardial perfusion patterns with some inhalation anesthetics. Descriptive statistics, e.g., using mean values and standard deviations, do not permit adequate analysis of these patterns, as it is not possible to cover localization and adjacence relations for individual regions.¹¹

With regard to physiology, that is, the functions of the living organism and its parts, it has to be accepted that these are highly complex, non-linear processes with feedback, i.e., action complexes. Intermediate products may promote or inhibit the initial conditions or influence the sequence of reactions indirectly via other, equally complex reaction systems. A typical example is the tricarboxylic acid cycle which relates to a wide variety of metabolic processes in the liver cell (Fig. 3), influencing them and being governed by them. Other examples would be the coagulation and the immune systems. Everything interacts and forms a whole in itself. The thinking which still prevails today, based on a linear sequence of individual,

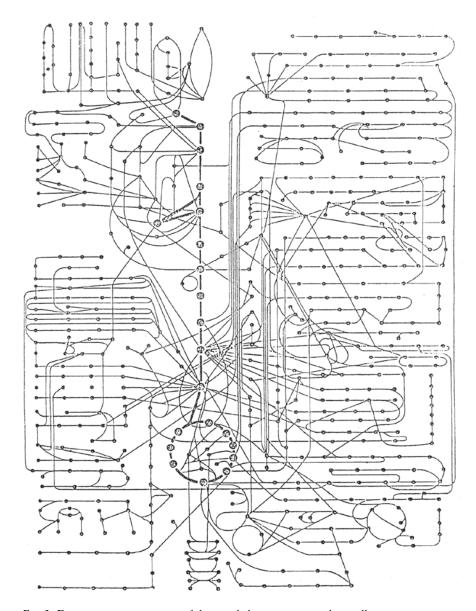


Fig. 3. Diagram representing part of the metabolic reactions in a liver cell.

Every point marks an intermediate product along a metabolic route (line). The reactions form a typical network. Degradation of glucose to tricarboxylic acid cycle has been emphasized. (After Gerok)

causal steps will not permit clarification of the immune system. The method is not appropriate to the complex laws that pertain to life.

Despite their complexity and incalculability, these biochemical processes always create a harmonious, unstable equilibrium that is far removed from the thermodynamic equilibrium and exactly for this reason highly adaptable. Health may thus be seen as a middle element between chaos and order, with disease a deviation from this middle position toward either extreme. W. Gerok has shown this rather well in the case of osteoporosis. Blood levels of parathyroid hormone normally show irregular diurnal fluctuations. If osteoporosis develops the level remains rigidly the same, indicating a swing to excessive order. It is now also known that irregularity is the norm for the human heart beat and that excessive regularity as well as irregularity signal functional disorders that have to be taken seriously. There are many other examples, but space does not permit them to be discussed here.

In fractal geometry, the balanced state in natural morphology is seen to lie on the boundary to chaos, which also means that chaos is essential to it. Healthy physiological processes may also be seen to be in balance between chaos and order, with the equilibrium constantly re-established on a narrow ridge between two unequal weights.

Chaos theory offers equally startling new insights in other sciences; this will lead to changes in paradigm, and rightly so.

The brief outline given above indicates that the level to which chaos theory is addressed is the level of the etheric. As already stated, the golden

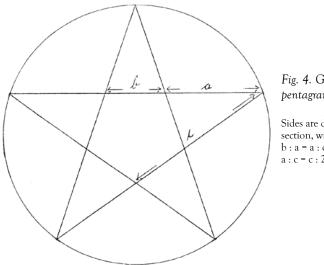


Fig. 4. Golden section in pentagram.

Sides are divided in golden section, with b: a = a: c or a + b; a: c = c: 2a + b (whole side).

section has a special connection to chaos. Rudolf Steiner considered the significance of the pentagram in a lecture he gave in Stuttgart on 13 September 1907. The pentagram is based on the principle of the golden section (Fig. 4). According to Steiner,

The ether body is characteristically made up of currents going in various directions. It is the architect of the human body. Just as ice forms out of water, so the physical body arises out of the ether body; currents move in all directions through it, as in an ocean. The direction of the five main currents, which are hidden in every human being, can be clearly established. They form a pentagram, move in the directions indicated by the arrows and are the skeleton of the ether body, as it were. These currents move continuously within the ether body, even when the individual is moving. Whatever posture the person assumes, one current goes from the center of the forehead, the point between the eyebrows, down to the right foot, from there to the left hand, then the right hand, the left foot and finally back to the forehead. The "pentagram," as it is known, is just as mobile inwardly within the ether body as the human physical body is mobile. When occultists refer to the pentagram as the human figure, this is not some brainy invention; they speak of it the same way an anatomist speaks of the skeleton. This figure is truly present in the ether body: it is a fact.¹³

If the new science addresses itself to the level of the etheric, the question we have to ask is whether this is an indication that modern science has now entered into the necessary process of development. We must also consider the potential problems and danger of this and of the fascination which chaos theory holds for people.

As already stated, the roots of chaos theory go back 100 years. The Koch curve has been known from 1904, and the algorithm Mandelbrot used to produce his famous tree image, the Julia set, was developed during the First World War. At that time, computing capacity was limited, so that the full potential for mathematics did not emerge. Work based on chaos is therefore inseparably bound up with present-day computer technology.

Characteristically, computer technology evolved from solid-state physics, that is, research into crystalline structures. In the second half of this century it grew with tremendous rapidity to become a power that encompasses and rules the world. It bases on the silicon crystal, which is also why the present age is called the "silicon" or "crystalline age." The crystals used in modern

computers are synthetically produced, with their atomic structure showing an unbelievable degree of order. Hans Queiser put it like this:

If an industrial product can ever be said to be near perfect, it is the silicon crystal, with every atom in its proper place, symmetrically filling space. The highest chemical purity, far beyond anything demanded or achieved with any other product, is the norm for the material used to produce circuits and transistors. The degree of chemical purity seen in these synthetic crystals, produced under sterile laboratory conditions, is quite unthinkable in nature. ... Large silicon crystals for use in microelectronics are routinely produced, with at most one or two foreign atoms among a billion silicon atoms.¹⁴

The study of irregular systems that are continually changing and developing has only become possible since scientists have been able to analyze the regular end-state, representing a high degree of order, and apply these principles in synthesis.

In other words, science had to evolve as a study of the end-state, or physical matter, and the laws pertaining to this had to be fully understood before it was possible to advance to the higher order that pertains in the sphere of life. It will no doubt be years before the fundamental significance of chaos theory is fully recognized. Science, as we know it today, based on a reductionist approach involving the linear principle, is not invalidated by this, but it will become apparent that it has its rightful place only in some areas, that is, with reference to physical matter which represents an end-state.

However, attempts are already being made to develop the next generation of computers which go beyond the crystalline level, with molecular structures used for data storage. 1,000 times the storage capacity of today's high-capacity chips is now considered feasible.¹⁵

Reading the papers and books on chaos theory one notes that behind the surface of general enthusiasm are diametrically opposed approaches. On the one hand there are scientists who stay firmly within the realm of matter. In their view, matter, energy and information are the basic principles in living organisms, and the observable capacity for matter to organize itself and the possibility of defining evolution mathematically using Eigen's catalytic hypercycle offer an adequate basis for the scientific study of phenomena of life and evolution.¹⁶

On the other hand there are scientists who see a connection with the ideas of the natural philosophers of ancient Greece. To them, selforganization indicates that, to use Cramer's words, every form of matter is pregnant with ideas.

The idea of human consciousness and every form this may take is potentially present. From this point of view, spirit and matter are not in opposition. In any case, spirit cannot have evolved from matter as a superstructure, but rather the opposite: There is no idea-less matter without an idea of its self-organization, just as there is no matter that is not subject to gravity. Ideas (in the Platonic sense) can exist without matter; all they need to manifest (which is different from latent existence) is for matter to be present.¹⁷

These statements made by Friedrich Cramer might lead us to assume that chaos theory will indeed be able to bridge the gap between natural and spiritual science, and that it might be a sign that in the sciences humanity is finding its way through the physical world and back to the world of the spirit, i.e., able to develop a science of life. If we take a closer look, however, it will be evident that this approach, too, will not enable us to gain insight into the realm of life.

Spiritual science with its new concepts must create the bridge between natural and spiritual science. If this fails to happen, the danger is that instead of scientists rising to the next level, the sphere of life, the laws of that sphere will be dragged down into the physical realm, cutting off access to the realm of the spirit. Chaos theory will make it possible to create a synthetic world that is similar to the natural world. Molecular computers with learning capacity and homoid robots will be developed, and it will become increasingly more difficult to distinguish between semblance and reality, particularly as semblance holds enormous fascination.

The diametrically opposed approaches of scientists working with chaos theory reflect a key aspect of the present age. They also indicate the need for a completely new approach.

Chaos theory also shows that science is reaching boundaries. Scientists are knocking on the door to the sphere of life. They are, however, unable to enter this sphere with their thoughts. Those who see self-organization of matter as the creative principle are ultimately tied to the modern way of thinking that takes its orientation from the realm of matter. They base themselves on a concept of matter that has no connection with the realm of the spirit. Those who relate to the ideas of the ancient Greek nature philosophers instinctively know and feel that a powerful creative principle is active on the boundaries of modern science and that the modern scientific

approach gives no access to this. The feeling that a spiritual principle is active in this realm and that its activity cannot be understood by the intellect is so powerful that these individuals are prepared to acknowledge the existence of the spiritual realm. As present-day thinking appears to have no access to this, these individuals go back to the past. Greek philosophy, above all Plato's *Timaios*, presents ideas to which they can relate. This Greek philosophy is based on ideas and does not yet have a clearly defined concept of matter. The situation where renowned modern scientists rediscover religious faith would appear to be similar.

In a lecture given on 16 May 1920, Rudolf Steiner put it like this:

On the one hand you have the defender of one faith or another who'll say that knowledge is limited to the world we perceive with the senses, and everything else must be a matter of faith; on the other hand you have the materialist who says knowledge is limited to the world we perceive with the senses, and as to faith, I've given it up.¹⁸

Only the new way of thinking that belongs to the future will be able to bridge the gulf between natural and spiritual science. It rests on the concept of matter in which the spirit is present. Training in, and development of, modern scientific thinking has been based on the inorganic world from which the laws of physics and biochemistry are derived. The thinking of the future is trained by working with the organic metamorphoses immanent in life. Repeated exercises consist in recreating in the mind the metamorphoses seen in life forms, e.g., the growth and transformation of a plant form in its vegetative cycle. This shows the essence to be not an individual, ephemeral form, but images of the laws that are behind every individual phenomenon, laws that are of a higher order, acting as a whole and continuing through time. This image in the mind is found by penetrating the metamorphosing material world with our thoughts. When the imagination appears, however, every physical, sense-perceptible element has gone. It is a supersensible image.

We gain access to the sphere of life by visualizing metamorphosis. This makes our thinking, which has been dead, come alive, and able to gain intuition of the life of the spirit.¹⁹

The aim of this paper has been to show that chaos theory is beginning to change the paradigm of modern science. The goal of chaos theory is the sphere of life. As anthroposophists we have to take it seriously, for potentially if the concepts of spiritual science are brought to bear it can bridge the gulf between natural and spiritual science. On the other hand chaos theory

threatens to detach humanity and the world of nature completely from the realm of the spirit and take them towards the ahrimanic goal of total calculability.

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Why Me? - Elements in Considering the Meaning of Illness and of Handicap*

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In pediatric practice, one frequently hears the question: Why does my child have to suffer like this, why has this happened to my child? But people who develop a disease in adulthood—and it often comes like a bolt from the blue—ask themselves why it has to happen to them, and why at that particular moment. The same question is rarely asked by parents who have a particularly gifted child or by people who have special gifts themselves. Unusual ability tends to be taken as a matter of course or a "natural gift."

An answer to the question as to the origin and meaning of illness and special gifts begins to emerge if we look at life to see what we have been able to do thanks to such a gift or what has developed in our life or for people around us because of the illness. It is a particular aspect of human nature that we learn from pain, suffering and sickness, and this helps us to develop. The essential and fruitful question to ask in dealing with such destiny events is: How was or am I able to learn; what will be the effect on my further development?

Even harmless infections such as the common cold may be seen to have meaning for they help to activate and exercise the immune system, and it will have grown stronger when the infection has been overcome. There is good reason, therefore, why children have numerous acute febrile infections in their early years, when the immune system is still developing and the body has to learn to resist pathogens. The meaning is also fairly obvious in the case of relatively harmless psychosomatic conditions in youth and early adulthood. Sleep disorders, loss of appetite, gastric pain and headaches are functional symptoms which serve to show that the individual has not yet learned to deal with problems and worries inwardly in such a way that they do not affect the functions of the ether body and consequently of the physical body. Insight into these relationships, combined with suitable

^{*}Original title: Warum ich? – Motive zur Sinnfrage von Krankheit und Behinderung. Der Merkurstab 1997; 50: 213-17. English by A.R. Meuss, FIL, MTA. Reprinted, with kind permission, from Begabung und Behinderung, published in Stuttgart in 1997.

exercises to practice inner calm or letting go of fears will soon relieve those symptoms.

Finally, it is not difficult to answer the question as to the meaning of illness in the case of chronic diseases in later life, diseases which are not so serious as to set real limits to work and everyday life. Anyone with an illness which he knows will be with him to the end of his life—which is always the case with chronic diseases—will have to ask himself why he is having to face up to the mortality of the body at this early stage. He will have to be aware of the limit set to human life and the transitory nature of the body much more strongly and in a much more existential way than someone who enjoys good health well into old age. With chronic disease in old age, people are faced with the question of whether and how life and existence in the spirit continue after death.

The three kinds of illnesses we have been considering—harmless acute infections, the milder kind of psychosomatic illness, and tolerable chronic disease in old age—show only too clearly that they offer people an opportunity to learn something to further their development in body, soul and spirit and that this is helpful and important for their progress in life.

A question that is much harder to answer concerns the meaning of severe congenital handicaps, incurable or extremely painful conditions, and also serious accidents that maim and have consequences for the rest of one's life. In dealing with such strokes of destiny, which are meaningless at first sight and cause bitterness and despair, it really matters if one has actually learned to address one's questions in a direction from where helpful answers may be expected to come. Looking for such a direction where questions serve a purpose and answers may come, it can be a major help to consider the case histories given in the gospels. Let us go into this a little.

Reading the case records in the gospels of Matthew, Mark, Luke and John, we can distinguish three basic types, presenting in pure or combined form. The type of record does, however, have nothing to do with the actual disease in each case. It relates solely and entirely to the nature of the treatment or the way in which healing occurs. The approach to treatment is always determined by the destiny situation in the given case.

The first type of record involves highly personal destiny situations. An example is the encounter with the blind man in Jericho.

And they came to Jericho. And when he went forth from Jericho, followed by his disciples and a large crowd, Bartimaeus, son of Timaeus, a blind beggar, was sitting by the wayside. Hearing that it was Jesus of Nazareth he called out in a loud voice: "Son of David, Jesus, have pity on me." Many of the people threatened him and

told him to be silent. Yet he called all the louder: "Son of David, have pity on me." Jesus stood still and said, "Call him." And they called the blind man and said to him: "Take heart; stand up; he is calling you. "At that he threw off his coat, leapt to his feet and hastened to Jesus. And Jesus said to him: "What am I to do for you?" The blind man said: "Master, grant that I may regain my eyesight." And Jesus said: "Go; your faith has healed you." And at once he was able to see again and followed him on the road.¹

Here, the name of the person is given, and there is an individual encounter, a "dialogue between physician and patient." We also hear what the patient is asked to do and what he does afterward: "followed him on the road." This type of case record comes closest to the kind we are mainly concerned with here—individual medical advice. And the meaning of the healing process is also at the individual level. As always in the gospels, it goes hand in hand with an inner awakening or conversion.

Case records that are given less consideration today are those where it is not the patient who is at the center but the people around him. It is they who matter, going through inner change in the course of the event. The centurion of Capernaum may serve as an example.

When he had finished speaking, and the people had also listened to him, he went to Capernaum. There the servant of a centurion lay sick and was close to death; and he was someone the centurion trusted. When the centurion heard of Jesus he sent the Jewish elders to him asking him to come and save the life of his servant. They came to Jesus and pleaded greatly, saying: "He is worthy of your help, for he loves our people and has built our synagogue for us." And Jesus went with them. And when they were quite close to the centurion's house he sent his friends to meet them and say to Jesus: "Lord, do not trouble yourself, 1 am not worthy to have you under my roof; this is also why I did not presume to approach you myself. Say but one word and my servant will recover from his sickness. 1, too, am subject to higher authority, and myself have soldiers under me, and when I say to one of them 'Go,' he will go, and to another 'Come,' he will come, and when I say to my servant 'Do this,' he will do it." And when Jesus heard these words he was amazed, turned to the crowd that was following him and said: "I tell you, nowhere, even in Israel, have I found such great faith." And when the messengers returned to the house they found the servant in good health.²

Here, the personal destiny of the sick individual does not emerge. The story is more about the people whose destiny has brought them into association with him and who go through great changes. The sudden illness of the slave helps the Jewish elders, the centurion and his friends to find their way to the Christ. Asking about the meaning in this case, we have to realize that "success," the meaning of the illness, is seen not in the sick man himself but in the people whose destiny had made them be around him.

It may seem strange at first that someone goes through a serious illness and the significance of this is not primarily for himself but lies in the things gone through by those who cared for him and took an interest in his life and development. A look at daily practice dealing with sick people does, however, show this to be frequently the case. There are patients where the meaning-issue clearly relates to the individual concerned, with those around him endeavoring to help him in this learning process, though the event does not bring any major changes in their own attitude to or understanding of life. One also sees exactly the opposite. The sick individual is accepting his God-given destiny and is content in spite of the severity of the condition; but those around him go through despair and the depths of concern, fear and uncertainty. The illness is shaking them awake. Just as children see their parents in a very different light and vice versa, and each goes through very different experiences with the other, so people relate to this situation in different ways.

Destiny links between people show an extraordinary degree of differentiation. What matters is the wholly individual nature of the developmental situation of the individual and his relationship to the people around him. With destiny links we enter a realm where everything is incomparable, special and unique. No destiny is like any other for people's inner lives are utterly different, even if their biographies seem superficially similar. This becomes apparent if we succeed in gaining people's confidence and real insight into the things they have actually lived through, suffered and achieved in life.

Apart from the personal and social levels of destiny involvement there is also a third, human level. Individuals have their destiny, and so have groups of people, religious communities, nations, large and small social groupings such as families or groups that work together. Beyond this, however, there is also the general human destiny context. Humanity as a whole has evolved through the millennia; it has a past, present and future—it has its own destiny in the world as a whole. Here, too, sickness brings awakening, for it can make individuals aware of being part of the whole of humanity. The meaning of an illness is then not limited to the personal or destiny-determined social

level but lies mainly in the sphere where individuals become aware of being part of the whole of humanity. An example of this kind of case is the first one given in the gospel of Luke.

Coming down to Capernaum, a town in Galilee, he taught the people there, too, on the Sabbath. And they grew ecstatic at his teaching, for his word had the power of the spirit. There was a man in the synagogue who was possessed by an unclean demon spirit. He shouted loudly: "What is it, Jesus of Nazareth, that connects us with you? Have you come to destroy us? I know who you are: You are the holy one of God." Jesus raised his arm against him and said: "Be silent and come out of him!" And the demon flung the man to the ground in the middle of the room and went from him without doing him any harm. Amazement fell on them all and they said to one another: "What power of the word! He speaks to the unclean spirits with an authority as if all the power of the creator and the world were in him, and they must yield to him." And the news spread through all the surrounding land.³

Compared to the other two cases we have mentioned, we hear little about the individual concerned in the Capernaum synagogue. There is no personal dialogue. The Christ spoke only with the spirit of his sickness, the demon, commanding him to leave the sick man. The other people present are also not mentioned. They talk to one another in their astonishment that such a cure was possible.

This is a case where the illness is seen to be at a purely spiritual level. The question as to meaning here indicates that humanity needs to come to grips with evil and with disease in order to develop. All creation stories speak of this, as do all archetypal tales of light and darkness, and it is also everyday experience for 20th-Century people. Surely there is not a day when we do not meet with evil or at least things in us or around us, including newspapers and television, that want to hold us back. The question of the meaning of evil is one of the most important but also unbearable ones we are faced with in life. It would be so good if we could develop without having to come to grips with this nightmare of all that is human, with something that is plain evil, going against nature, and of which we have seen so much in this century through wars, genocide and domestic brutality. Yet we only have to consider daily life at its simplest level to see that unless we as individuals deal with error and with evil one thing will be lost in human evolution, and that is freedom. Freedom as a central aspect of human dignity is inevitably bound up with the potential for error. This means that the constitution of a world in which freedom is to develop must also leave room for evil, which is the opposite element.

The story of Job⁴ also reflects this third type of illness which is so difficult to understand. It has a .prologue "in heaven" where the Lord God speaks to the devil, praising his servant Job who is above all reproach. The devil listens to this and then opens the Lord God's eyes by pointing out that it was not difficult for Job to lead a godly life, since life was easy for him. He had everything a man needed in life—a good wife, children, wealth, friends and also health. "But," the devil added, "put out your hand and touch everything he has and he will curse you to your face." The Lord God accepted the challenge and gave the devil the power to harm Job in any way he could think of, except that he must not kill him. Thus Job was in dire trouble though "blameless," and finally they all doubted and suspected him of having secretly committed a serious sin, seeing that God did not punish the innocent. The further course of events proved them wrong, however. Job, not conscious of having done wrong, and the people whom destiny placed around him who also could not see any meaning in Job's illness and suffering, were being prepared so that they might understand something much deeper—that you can fall into sin by thinking that error and evil are to be found only in others, and that you are pure and beyond reproach yourself. Though this was true in the case of Job, individuals must ask themselves: Where have I been able to gain the quality of being beyond reproach? How has it been possible for me to learn to be a good person? It is then easy to see that one owes this to the people with whom one has been living-and to the fact that human evolution as a whole exists. For if one's own destiny environment has not confronted one with a particular problem, from which one might have learned something, one is told about it in the history of the human race, in experiences others have had. Therefore, much can be gained by learning to understand and work with the experiences of others and with major historical events. We owe the way we are not only to our personal destiny field, but also to the great process of human evolution; and when Job began to see something of this, he was deemed worthy to behold God. He perceived the meaning of humanity and found the nearness of God that exists within humanity.

This also broadens the meaning of "fault." There are individual faults which individual persons best clarify themselves by admitting them to themselves. Then there are faults committed in relation to others, faults one is often not aware of. We live in the illusion of having done the right thing, having no idea of the pain or even collapse our own actions may sometimes have caused in others. Such harm done to others without being aware of

it needs to be balanced out in some way in a later life on earth. There is also wrongdoing that is on the humanity level and connects us with God himself. Because evil was permitted to be part of our evolution from the very beginning, it is also God's "fault" to have made that original decision. It is because of this that we read those direct dialogues between God and the devil in the Old Testament and between Christ and the spirit of sickness in the New Testament.

This shows the significance which this third way of falling ill can hold for the individual and for those who share in the experience. This form of illness really touches on the ultimate questions and therefore on the very core of our individual nature, the spiritual entity in us we refer to as the "I". This I is bound up with the destiny event in three ways. It is the cause of our personal destiny and therefore the source spring of our individual development. For destiny and development are shaped according to the deeds of this I during lives on earth. At the same time the I is part of common destiny. Looking back on one's life one will find that one owes everything one has so far learned to the people who have shared this life. Our development is thus the outcome of all the human encounters we have had; and new people are continually coming into our lives who help us to become aware of shortcomings and make up for them, at least in part. Seen like this, we are in the debt of the people who have enabled us to gain all the abilities we now call our own. In a third dimension, the human being and his destiny are also part of the whole destiny of the age, part of the evolution of humanity as a whole, and once again we are indebted. It is this last aspect which makes the concept of illness a Christian one.

The question is not: What do I or those around me gain from the illness? It is: What can I do for humanity by sharing in its suffering with my illness and its overcoming? The Christ went through suffering on behalf of others, for there was no fault in him. This third category of illness is often seen in cancer and AIDS patients. These are people who have a definite feeling that they are not—or at least not only—suffering for their own sake; they are aware that they are balancing something out for humanity as a whole by taking on suffering for the sake of others. They serve humanity by taking this path. "Blamelessly" they share in carrying the burden of sin humanity had to take on itself because evil, with all its temptations and challenges, is part of human history.

If one suffers an illness or impediment or is close to someone who does and is asked for help, one might ask the three questions I have outlined above. Put briefly, they are as follows: What gain may there be for the individual concerned, or what may he learn from this? What may the people around the sick person gain from sharing in the experience of such a destiny element? Finally, what signs are there that the affected individual belongs to humanity as a whole and is aware of his illness connecting him to humanity and something it needs for its salvation at the present stage of evolution? Questions such as these, put openly and honestly, lead to answers that can help take us further. They may take the form of good ideas; they may come as something one is suddenly able to observe; or they may make us understand words we read or hear in a new way. We can see how far the answer is the right one from the extent to which it helps to heal and to bring inner peace. I have found again and again that deep down patients know very well that their illness or handicap has something to do with themselves and their destiny. This deep-down knowledge can be brought to the patients's full awareness by questions such as these and the answers that may come. Both the patient and those around him may gain great comfort from this.

Ultimately the "Why me?" question can only be answered by the individual concerned, for the cause and consequence of destiny have their foundation in the I. Here past, present and future come together. How do I know if the wholly unexpected and seemingly groundless suffering I undergo is necessary so that in a later life I may be able to cope with a major challenge presented to me? Illness and handicap serve not only to balance out things we have failed to do in earlier lives, or the significance of which we failed to grasp; their meaning also may relate solely to the near or more distant future. One of the most deeply moving discoveries Rudolf Steiner made during researches in this field was that there is hardly any great benefactor of the human race who has not had an earlier incarnation as someone handicapped in body and/or soul. If we learn to think and feel in terms of the future in this respect, we find ourselves able to meet the minor weaknesses and impediments of everyday life with humor. This humor is fed if we know that every weakness we overcome becomes a strength. Every problem we are unable to solve at the moment will one day, when it has been solved, enable us to speak words that give help and relief. If we thus create inner images of how someone else will be at a future time, quite different powers can be set free if we put our trust in them so that presentday problems can be overcome. Instead of taking things rather personally and getting extremely annoyed about them, we'll be able to look at things more objectively and find it easier to cope with obstacles and problems that arise.

The question of the "fault," thus, goes through a helpful metamorphosis. For it is no longer a matter of whose fault it may ultimately have been but solely and entirely of what this "fault" may help us to see and to realize, what

we can learn by it and from it, and what potential for positive development opens up through it. Taking this view, it is also easier to face with greater composure the many sins we commit towards human beings and the world of nature that are part of modern life. The "collective guilt," as it is called, of nations such as Germany and others also poses existential questions for the individual. Here it is helpful to ask oneself: What can this guilt—whatever its source—teach us, teach me today? How can I resolve guilt so that it becomes an active sharing of responsibility?

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Goethe dramatized this "case record" in his *Faust*, the modern book of Job. This gives this type of sickness special significance in our present time. For the Faust figure represents the drama of modern human development, when man must become aware of the pact made with the devil, that is, his connection with evil.



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