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Foreword

In this book Rudolf Steiner and Ita Wegman lay a foundation for a future medicine that can do justice to the human being as a being of spirit and soul and not merely as a physical object. Although modern medical science has vastly increased our understanding of the human body and given us many powerful life-saving techniques, its methods of study are essentially no different from the methods of study of other physical objects in the world. In this book, Rudolf Steiner and Ita Wegman point to a path of training and a research method, no less exacting than the scientific method, which can yield knowledge of a quite different nature about the phenomenon of life, the soul and spirit. Such knowledge can bear fruit in the practice of medicine.

Before the advent of science, the human being was known to be part of a universe experienced as spiritual, as well as physical in nature. For many centuries such teachings relied on the authority of the past, but there are also indications that in the more distant past such knowledge could be acquired directly within the confines of ancient 'mystery' centres. Here the pupil to be initiated was led, after a long preparation, to a direct experience of spiritual realities. The authors do not advocate the return to a pre-scientific consciousness or to some kind of religious belief system. Rather, theirs is the intention to build on what science has brought to humanity, and on this basis, reopen the path of initiation appropriate to the

human beings of the twentieth and subsequent centuries.

In addition to its content, the way in which this book came about holds keys for the future development of a spiritualised medicine of the future. The book is unique as it is the only written work, as opposed to lectures, that Rudolf Steiner published on a professional sphere of work. It is also the only book which he wrote together with another author. The opening chapters of the book have a certain directness and straightforwardness, others pose substantial challenges to comprehension. It is a book to live with, and come back to, rather than a book containing information which can be rapidly assimilated and put into practice.

The central theme in the anthroposophical understanding both of the human body and world of substances which surrounds us is the need to see the substances in terms of their process of formation, rather than seeing them as 'things'. It is revealing also to look at this book itself in terms of the process which created it, and in terms of the processes which it can, in turn, inspire. The chapters came about in conversations between Rudolf Steiner and Ita Wegman in which he described to her the main ideas for each particular chapter. However, they were only written down later by Ita Wegman after she had slept on these ideas. She then returned her written expression of them to Rudolf Steiner, who amended them to create the final manuscript.

This rather unusual process sounds like an echo of what Rudolf Steiner describes of the kinds of conversation that took place between the initiate and the pupil in the mysteries of Ephesus (in lectures given in August 1924 in Torquay, England). There, he describes how, while walking through the groves surrounding the

Temple, the initiate/teacher would describe the plants' 'connection' to specific influences in the cosmos. Then, at night, the pupil would experience in sleep the related life processes present both within the plant and the human organism, and relate these to the teacher in following conversations. What the pupil would bring as a response from sleep would complement and complete the wisdom that the teacher-initiate could bring. Through this process involving two individuals, a form of spiritual wisdom related both to the cosmos and its earthly reflection in physiological processes could be researched. The writing of this book appears to be a modern-day equivalent of such a process of the ancient mysteries.

In the same cycle of lectures, Rudolf Steiner indicates that to research spiritual knowledge of physiology, for example the spiritual physiology of the human organs, requires more than one individual advanced initiate, in order to anchor and express such spiritual perceptions. We have here an indication that if the medicine of the future is to be spiritually inspired, its research will be a co-operative venture of groups of individuals. The development of case conferences in anthroposophical medical centres and groups doing research into medicinal substances is perhaps a beginning of working in this spirit. When such activity takes its beginning from this book, then the conversation which brought this book into being is finding its continuation.

Dr Michael Evans
Michaelmas 1996
Stroud, Glos.

Understanding the True Nature of Man as a Basis of Medical Practice

This small book presents new approaches in medical knowledge and skills. A proper judgement of its contents will only be possible for those who are prepared to consider the points of view that were dominant when the medical views discussed in these pages evolved.

It is not a matter of being in opposition to the school of medicine that is working with the accepted scientific methods of the present time. We fully acknowledge its principles. And in our view, the approach we present should only be used by those who are fully able and entitled to practise medicine according to those principles.

We do, however, add further insights to such knowledge of the human being as is now available through accepted scientific methods. These are gained by different methods, and we therefore feel compelled to work for an extension of clinical medicine, based on these *wider* insights into the nature of the world and the human being.

Basically those who follow the established practice of medicine cannot object to what we are presenting because we do not go against that practice. The only people who can refuse to accept our attempt without further ado are those who not only demand that we accept their system of knowledge but also insist that no insights may be presented that go beyond their system.

Extended insight into the nature of the world and the human being is in our view offered in anthroposophy, an approach established by Rudolf Steiner. To our understanding of the *physical* human being, which can only be gained by the methods of natural science,* it adds understanding of the *non-physical* or *spiritual* human being. Anthroposophy does not involve progressing from insight into the physical to insight into the spiritual aspect by merely thinking about it. This would only produce more or less well thought-out hypotheses, with no one able to prove that they are in accord with reality.

Before anything is said in anthroposophy about the spiritual aspect, methods are developed that entitle one to make such statements. To get some idea of these methods, readers are asked to consider the following. All findings made in established modern science are essentially based on impressions gained through the human senses. Human beings may extend their ability to perceive what the senses can provide by means of experiments or through observations made using instruments, but this adds nothing *essentially* new to knowledge gained in that world in which human beings live through their senses.

Thinking, in so far as it is applied to investigating the physical world, also does not add anything to the evidence of our senses. In thinking we combine, analyse, etc. sensory impressions to arrive at laws (of nature); those who investigate the world of the senses must, however,

*Natural science' (or 'modern science'), which nowadays is generally referred to just as 'science', is here given its original name to avoid confusion with 'spiritual science' or 'the science of the spirit'. Translator.

say to themselves: the thinking which thus wells up in me does not add anything real to the reality of the world perceived by the senses.

This will change as soon as human beings do not limit themselves to the level of thinking that they initially develop through life, upbringing and education. We can strengthen our thinking and increase its power. We can focus the mind on simple, limited thoughts and then, excluding all other thoughts, concentrate the whole power of soul on such ideas. A muscle gains in strength if tensed repeatedly, the forces always being in the same direction. Inner powers of soul are strengthened in the sphere that normally governs thinking by doing exercises of the kind just mentioned. It has to be emphasized that the exercises must be based on simple, limited thoughts. For the soul should not be exposed to influences that are half or even fully unconscious during those exercises. (Only the principle of the exercises can be given here; for full details and directions on how to do such exercises, see Rudolf Steiner's *Knowledge of the Higher Worlds, Occult Science*, and other anthroposophical writings.)

The most obvious objection to this is that if the whole power of soul is directed to a specific thought, focusing on it completely, all kinds of autosuggestion and the like may arise, and one simply begins to imagine things. It is, however, also shown in anthroposophy how the exercises should go, so that the objection is null and void. It is shown that in doing the exercises one proceeds in full presence of mind just as one does in solving a problem in arithmetic or geometry. The mind cannot lapse into unconscious spheres when solving such problems, nor can it do so if the directions given in anthroposophy are carefully followed.

Doing the exercises strengthens the *powers of thought* to a previously undreamt-of degree. We feel powers of thought active in us like a new content in the essence of our being. And as our own being is given new content, the world, too, is perceived to have a content of which we may have had a vague idea before but which we have not known from experience. Considering our ordinary thinking in moments of self-observation, we find our thoughts to be shadow-like and pale compared to the impressions gained through the senses.

Perceptions gained through enhanced powers of thinking are far from pale and shadowy; they are full of content, utterly real images; their reality is much more intense than is found in the content of our sensory impressions. A new world opens up for human beings when they have extended their powers of perception in the indicated way.

Learning to have perceptions in this world where before they were only able to have perceptions in the world of the senses, people realize that all the laws of nature they knew before apply *only* in the physical world; and that the nature of the world they have now entered is such that its laws are different, indeed the opposite of those in the physical world. In this world, the law of the earth's force of attraction does not apply, but rather the opposite, for a force presents itself that does not act outwards from the centre of the earth but the other way round, from the periphery of the universe to the centre of the earth. And the same holds true for the other forces of the physical world.

In anthroposophy, the ability to perceive this world gained through exercises is called the power of imaginative perception. Imaginative not because one is dealing

with 'figments of the imagination' but because the contents of the conscious mind are not thought shadows but images. Sensory perception gives direct experience of being in a real world, and so does the inner activity of gaining imaginative knowledge. The world to which this perception relates is called the etheric world in anthroposophy. This is not the hypothetical ether of modern physics, but something truly perceived in the spirit. The name is used because it relates to earlier, instinctive ideas of this world. Compared to the clear perceptions now possible these ideas no longer have validity; but we have to give names to things if we wish to refer to them.

Within this ether world it is possible to perceive an etheric bodily nature that exists in addition to the physical bodily nature of the human being.

Our etheric bodily nature is something that in essence exists also in the plant world. Plants have an ether body. The laws of physics actually apply only in the world of lifeless minerals.

The plant world is possible on earth because there are substances in the earth-sphere that are not limited to the laws of physics but may leave all physical laws behind and adopt laws that go in the opposite direction. The laws of physics act as though streaming out from the earth; etheric laws act as though streaming to the earth from all sides of the world periphery. We can only understand the developing plant world if we see how in it earthly physical principles interact with etheric and cosmic principles.

And that is how it is with regard to the human etheric body. Because of it, something happens in the human being that is not a continuation of forces of the physical body acting according to their laws, but happens because

physical substances rid themselves of their physical forces as soon as they stream into the etheric.

At the beginning of a human life on earth—most clearly so during the embryonic period—the forces of the etheric body act as powers of configuration and growth. As life progresses, a part of these forces becomes emancipated from activity in configuration and growth and is transformed into powers of thought, the very powers that create the shadowy thought world we have in ordinary consciousness.

It is of the greatest importance to know that ordinary human powers of thought are refined powers of configuration and growth. A spiritual principle reveals itself in the configuration and growth of the human organism. And as life progresses this principle emerges as the spiritual power of thought.

And this power of thought is only one part of the power of human configuration and growth that is at work in the etheric. The other part remains faithful to the function it had at the beginning of human life. Human beings continue to develop when configuration and growth have reached an advanced stage, that is, to some degree a conclusion, and it is because of this that the nonphysical, spiritual etheric which is alive and actively at work in the organism is able to become power of thought in later life.

The power to change and be changed thus presents itself to imaginative perception in one aspect as being etheric and spiritual and in its other aspect as the soul content of thinking.

If we consider the substantial nature of earthly substances and follow how they are worked on by the etheric, we have to say: wherever the substances enter

into this creative process, they develop an essential nature that estranges them from physical nature. Becoming estranged, they enter into a world where the spiritual principle meets them and transforms them so that they assume its own nature.

To rise to the living, etheric nature of the human being in the way described here is something utterly different from the unscientific insistence on a 'vital force' that was commonly used in the attempt to explain living bodies up to the middle of the nineteenth century. Here it is a matter of directly perceiving—in mind and spirit—an essential principle that exists in humans and all other life forms just as the physical body does. To gain this perception we do not continue the ordinary way of thinking in some vague fashion, nor do we make up another world using our powers of fantasy. Instead, human perceptiveness is extended in a highly specific way, and this then also leads to experience of a wider world.

The exercises that lead to higher perception may be taken further. Having made an extra effort to concentrate on specific thoughts, it is also possible to make an extra effort to suppress the imaginations (images of a spiritual, etheric reality) that have been achieved. The resulting state is a completely empty conscious mind. One is merely awake, and this waking state initially has no content. (Details are given in the above-mentioned books.) This waking state without content does not continue, however. Having been emptied of all physical and all image-like etheric impressions it fills with a content that streams to it from a real world of the spirit, just as impressions gained of the physical world stream towards the physical senses.

Through imaginative perception we got to know a

second aspect of our human nature; when the empty conscious mind fills with spiritual content we get to know a third aspect. In anthroposophy, perceptive insight arrived at in this way is said to come through Inspiration. (These terms should not put the reader off; they have been taken from an instinctive way of seeing worlds of spirit that belongs to primitive times; their meaning in the present context is exactly stated.) The world to which we gain access through Inspiration is called the astral world in anthroposophy.—Speaking of an etheric world in the terms used in these pages, we refer to the influences that take effect from the world periphery in the direction of the earth. Speaking of an 'astral world', however, we progress, in accord with what the inspired conscious mind observes, from influences coming from the world periphery to specific spirit entities who are revealed in those influences, just as the physical substances of the earth reveal their nature in the forces emanating from the earth. We speak of distinct spirit entities acting from the far distances of the universe just as we speak of stars and constellations when we use the senses to look at the night sky. Hence the term 'astral world'. In this astral world human beings have the third aspect of their essential nature: the astral body.

Earthly substantiality must also stream into this astral body. In the process it becomes further estranged from its physical nature.—Human beings thus have their ether body in common with the plant world and their astral body with the animal world.

The essentially human element that raises humanity above the animal world is perceived and becomes known through a form of perceptive insight that is even higher than Inspiration. This is called 'Intuition' in anthro-

posophy. In Inspiration, a world of spiritual entities reveals itself; in Intuition, the relationship of the perceptive human being to this world becomes a closer one. Something purely spiritual is brought to full conscious awareness, and conscious experience of this immediately shows that this has nothing to do with experience gained in our bodily nature. We thus enter into a life where we are human spirit among other spiritual entities. In Inspiration, the spiritual entities of the world *reveal* themselves; through Intuition we *live* with those spirits.

We thus come to recognize the fourth aspect of essential human nature, the 'I' itself. Again we become aware that in making itself part of the essence and active working of the 'I', earthly substantiality becomes even further estranged from its physical nature. The essential nature this substantiality assumes as 'I organization' is initially the form in which earthly matter is most estranged from the physical nature it has on Earth.

The 'astral body' and 'I' we thus encounter are not tied to the physical body in the human organization the way the etheric body is. Inspiration and Intuition show that 'astral body' and 'I' separate from physical and etheric body during sleep, and that complete interpenetration of the four aspects of human nature to create an integral human entity exists only in the waking state.

In sleep, the physical and etheric human body remain in the physical and etheric world. They are not, however, in the position in which the physical and etheric body of a plant are. They hold the after-effects of the astral and I principles. And the moment they would no longer hold these after-effects the individual must wake up. A human physical body must never be left merely to physical, a

human ether body never merely to etheric influences. They would then disintegrate.

Inspiration and Intuition also show something else, however. Physical substantiality knows further development of its essential nature when it proceeds to be alive and actively working in the etheric. And *life* depends on the organic body being torn away from earthly nature and built up from the universe that lies beyond the earth. Such constructive development only results in *life*, however, and not in *conscious awareness* nor in *self awareness*. The astral body needs to build its organization within the physical and etheric organization; the I needs to do the same with regard to the I organization. Yet this *building-up process* does not lead to conscious development of an inner life of soul. For this to happen, constructive development has to be countered with *destruction*. The astral body builds its organs; it breaks them down again by letting the activity of feeling develop in the soul's inner awareness; the I evolves its organization'; it breaks it down again as will activity takes effect in self awareness.

The spirit does *not* develop on the basis of *constructive* but of *destructive* activity of matter in the essential human being. If spirit is to be active in man, matter must withdraw from this activity.

Even the development of thinking activity within the etheric body is not based on a continuation of etheric nature but on its destruction. *Conscious* thinking does *not* take place in processes of configuration and growth, but in processes of defiguration and withering, dying, which are continually integrated into the etheric process.

In conscious thinking, thoughts come free of the

physical configuration process and as soul configurations become living human experiences.

If we consider the human being on the basis of this approach to human nature, we realize that it is only possible to get full insight into both the human being as a whole and into an individual organ if we know how the physical body, the etheric body, the astral body and the I are active in them. In some organs the I is predominantly active; in others the I shows little activity, and the physical organization predominates.

We can only fully understand the healthy human being if we know how the higher aspects of human nature take hold of earthly substance and compel it to serve them, and if we also realize that earthly substance changes when it enters into the sphere of activity of the higher aspects of human nature; in the same way we can only understand the sick human being if we realize the situation which arises for the organism as a whole, for an organ or a sequence of organs if the higher aspects' mode of action becomes irregular. And we shall only be able to think of medicines when we develop knowledge of how an earthly substance or earthly process relates to the etheric, to the astral, to the I. Only then will it be possible to introduce an earthly substance into the human organism or to treat the organism with an earthly activity to such effect that the higher aspects of the human being are able to develop unhindered, or, of course, that earthly substantiality gains the support it needs from what has been added to it, so it may go in a direction where it becomes the foundation for the work of the spirit on Earth.

Man is what he is through physical body, ether body, soul (astral body) and I (spirit). In health human beings

must be considered in terms of these aspects, in sickness perceived in terms of the balance between them being upset; for health, it is necessary to find medicines that will restore the upset balance.

An approach to medicine based on these foundations is outlined in this book.

2

Why Do People Fall Ill?

Anyone taking the modern scientific approach gets caught up in contradiction when reflecting on the fact that people may be ill, and initially has to assume this contradiction to be due to the nature of existence as such. At first sight, a disease is a natural process. Yet the process that takes its place in health is equally natural.

Natural processes are known primarily from observation of the world outside the human being, and from observation of the human being only in so far as this is done in exactly the same way as observation of nature, outside. The human being is seen as a part of nature which is such that the processes that can also be observed outside are highly complex in this part of nature yet are nevertheless of the same kind as those in outside nature.

But this is where a question arises that cannot be answered from this point of view. How do natural processes develop in the human being—leaving animals aside for the moment—that are the opposite of healthy processes?

The healthy human organism seems comprehensible as part of the natural world; the diseased organism does not seem to be such. It must therefore be comprehensible on its own terms, through something it does not have from the natural world.

The idea seems to be that the spiritual, non-physical aspect of the human being has a complex natural process as its physical basis, which is like a continuation of the

natural principles that pertain outside the human being. But simply consider—will continuation of a natural process based on a healthy human organism ever bring the mind and spirit alive? The opposite is the case. The life of mind and spirit is extinguished if the natural process continues in a straight line. This happens in sleep; it happens in a faint.

Consider on the other hand how the conscious life of mind and spirit becomes more acute when an organ is diseased. Pain develops, or at least a reluctance to do things or discomfort. The life of feeling gains a content it does not otherwise have. And the life of the will is impaired. The movement of a limb, which happens as a matter of course in health, cannot be performed because pain or reluctance inhibit it.

Observe the transition from painful movement of a limb to its paralysis. Pain on movement marks the first step towards paralysis. The active spiritual principle intervenes in the organism. In health it initially reveals itself in the life of ideas, of thought. We activate an idea; and the movement of a limb follows. We do not enter consciously with our idea into the organic processes that ultimately lead to movement of the limb. The idea goes down to the unconscious level. In health, a feeling process develops between idea and movement that is active only at soul level. It does not distinctly connect with anything physical and organic. In ill health this does happen, however. Feeling, which in health is experienced as separate from the physical organism, connects with it in the experience of illness.

The processes of healthy feeling and disease-related experience are thus seen to be related. There has to be something which in a healthy organism is not connected

as intensely with that organism as in a sick organism. This reveals itself to spiritual perception as the astral body. It is an organization beyond sensory perception that lies within the sense-perceptible organization. It either intervenes loosely in an organ, which leads to inner soul experience that exists on its own and is not felt to be connected with the body, or it intervenes intensely in an organ; this leads to the experience of illness. We have to develop the idea of one form of illness where the astral body takes hold of the organism, which makes the spiritual human being enter more deeply into his body than is the case in health.

However, thinking also has its physical basis in the organism. It is only that in health it is even more detached from the organism than feeling is. Spiritual perception finds that in addition to the astral body there is a separate I organization which lives as an independent soul quality in our thinking. If the human being enters intensely into the bodily aspect with this I organization, a condition arises in which observation of one's own organism is similar to that of the outside world.—If we observe an object or event in the outside world, the fact is that the thought in the human mind and the object or event observed are not in live interaction but independent of each other. This only happens with a human limb if it becomes paralysed. It then becomes outside world. The I organization is no longer loosely connected with the limb the way it is in health, when it can connect with the limb in a movement and immediately let go again; it enters permanently into the limb and can no longer withdraw.

Again we have the healthy movement processes of a limb in juxtaposition with paralysis and see how they

relate. Indeed, we can see quite clearly that a healthy movement is the beginning of a paralysis that is cancelled as soon as it begins.

We have to consider the nature of illness to lie in an intense connection of the astral body or I organization with the physical organism. But this connection is merely an enhancement of the looser connection that exists in a state of health. Thus even the normal interventions of astral body and I organization in the human body relate not to healthy vital processes but to pathological ones. When spirit and soul take effect, they cancel out the normal way the body is constituted; they change it into its opposite. With this, however, they put the organism on a road where illness wants to begin. In ordinary life this is regulated as soon as it arises by a self-healing process.

A certain form of illness develops if the spiritual or soul aspect advance too far towards the organism, so that self-healing will either not come about at all or only do so slowly.

The causes of illness must thus be sought in the capacity for spirit and soul. And healing must consist in releasing the soul or spirit element from the physical organization.

This is one form of illness. There is also another. The I organization and the astral body may be prevented from establishing the loose connections with the bodily aspect that in ordinary existence are the basis of independent feeling, thinking and will. Healthy processes then go beyond the level that is appropriate for the organism in the organs or processes that cannot be reached by spirit and soul. And in this case spiritual perception shows that the physical organism will then do more than merely

perform the lifeless processes of outside nature. The physical organism is penetrated by an etheric organism. On its own, the physical organism could never evoke a self-healing process. This is fanned into life in the etheric organism. With this we realize that health is a condition that has its origin in the etheric organism. Healing must thus consist in treating the etheric organism. *

* A comparison of what has been said in the first chapter with the contents of the second chapter will specifically help the reader understand the point at issue.

3

The Phenomena of Life

Understanding of the healthy and sick human organism will not be gained if we imagine that the activity of some substance taken in with the food simply continues to act in the inner organism the way it did in outside nature. It is not a matter of the activity we observe the substance to have outside the human organism continuing on, but of it being overcome.

The mistaken notion that substances from the outside world continue to act in their specific way inside the organism arises because that seems to be the case if one thinks in the way people usually do in chemistry. Having done their investigations they believe that hydrogen, for instance, is the same in the organism as in outside nature, because it is found in the food and drink we take and then again in our elimination products—air, sweat, urine, faeces—and in secretions such as bile.

People do not feel the need today to ask what happens to the substance presenting as hydrogen before it enters into the organism and once it has been eliminated.

They do not ask: what does the substance presenting as hydrogen go through in the organism?

In raising the question one immediately feels the need to direct attention to the difference between the sleeping and the waking organism. The nature of a sleeping organism in terms of matter or substance does not provide a basis on which conscious and self-aware experiences can evolve. It does, however, provide a basis for life

to evolve. In this respect a sleeping organism differs from a dead one. In the latter, the material basis no longer provides for life. We shall be unable to gain further understanding as long as we consider the difference to lie merely in a different composition of substances in a dead and a living organism.

Almost half a century ago the distinguished physiologist Emil Du Bois-Reymond² pointed out that conscious awareness will never be explained in terms of how substances act. He said people would never understand why it should not be a matter of indifference to a specific number of carbon, oxygen, nitrogen and hydrogen atoms how they are, were and will be positioned, and why with their change in position they cause a human being to feel: I see red; I smell the scent of roses. This being the case, Du Bois-Reymond said, people using the natural scientific approach would never be able to explain the waking human being who is full of feelings and sensations, but only the sleeping human being.

He was under an illusion in taking this view. He believed that the actions of substances gave rise to the phenomena not of consciousness but of life. In reality, however, we have to say the same for the phenomena of life as Du Bois-Reymond did for those of conscious awareness. Why should it occur to a number of carbon, oxygen, hydrogen and nitrogen atoms to produce the phenomena of life through the way they were, are or will be positioned?

Observation has shown that the phenomena of life have a completely different orientation from those that occur in the lifeless sphere. For the latter we may say: they show themselves to be governed by forces that radiate from the essential nature of the substance, from

the—relative—centre to the periphery. The phenomena of life show matter to be governed by forces that act from outside in, towards the—relative--centre. In the transition to life, matter must withdraw from the outward radiating forces and make itself part of those that radiate in.

Every substance and also every process on earth has its forces that radiate out from the earth and holds them in common with the earth. It is the kind of substance chemists see merely as a constituent part of the earth's body. Entering into the sphere of life, it has to cease being merely part of the earth. It goes beyond having things in common with the earth. It is included in a sphere of forces that radiate towards the earth from the world beyond the earth that is all around. Seeing a substance or process evolve as life, we have to think of it as withdrawing from the forces that act on it as though from the centre of the earth and entering into the sphere of other forces that do not have a centre but a periphery.

They act from all directions, those forces, as though aiming for the centre of the earth. They would have to dissolve all that is matter on earth into utter formlessness, tearing it apart, if the influences of the heavenly bodies from beyond the earth's sphere did not enter into the space in which these forces are active and modify the dissolution. We can observe this if we study plants. In plants, earth substances are lifted out of the sphere of earth activities. They go in the direction of formlessness. This transition to formlessness is modified by the actions of the sun and similar effects from the cosmos. If these are not taking effect, or acting in a different way, e.g. during the night, the forces that substances have in common with the earth come alive in them again. Plant

nature develops in the interaction of earthly and cosmic forces. If we call the whole sphere of forces that are under the earth's influence the 'physical', we shall need another name for the very different nature of the forces that do not radiate from the earth but radiate in towards it. Here an aspect of the human organization which we discussed in the previous chapter shows itself in a different light. In accord with an earlier usage that has been thrown into confusion under the influence of more recent physics-oriented thinking, we called this part of the human organism the etheric. We shall have to say that the etheric is active in plant nature, that is, in the sphere that presents as life.

In so far as the human being is a living entity, this etheric is also active in him. Yet even with regard to mere phenomena of life, there is a significant difference compared to plant nature. The plant allows the physical to be active in it when the etheric from cosmic space no longer takes effect, as is the case when the sun ether ceases to take effect during the night. Man only allows the physical to be active in his body in death. During sleep, the phenomena of conscious awareness and self awareness vanish; the phenomena of life continue, however, even when the sun ether is not actively at work in cosmic space. The plant is throughout its life taking in the ether forces radiating down on to the earth. Man has them inside himself in an individualized form even in his embryonic period. Thus man takes *out of himself* what the plant receives from the world, because he received it for his further development when still in his mother's womb. A power that is truly cosmic in origin, designed to act by radiating down on to the earth, is acting out of lung or liver. It has metamorphosed its direction.

We therefore have to say that human beings have the etheric in them and that it is individualized. The physical has been individualized in the form of the physical body and of its organs, and so has the etheric. Human beings have a distinct ether body and a distinct physical body. During sleep this ether body remains connected with the physical body, giving it life; it only separates from it in death.

On the Nature of the Sentient Organism

The form and organization of a plant results from two spheres of forces only: those that radiate from the earth and those that radiate towards it; the animal and human form and organizations do not result only from these. A plant leaf is exclusively under the influence of those two spheres of forces; the animal lung is also under their influence, but not exclusively so. For the leaf, all configuring forces lie *in* those spheres; for the lung, forces also exist that exist beyond these. This applies both to the configuring forces that create outer form and to those which regulate the inner movement of matter, giving it a specific direction and either combining or separating it.

We may say that for substances taken into the plant it is not a matter of indifference whether they live or do not live, for they enter into the sphere of forces radiating towards the earth. They are lifeless in the plant if the forces of the periphery do not act on them; they enter into life when they come under the influence of these forces.

Even alive, however, plant substance is indifferent to how its elements have been, are or will be positioned with reference to their own activity. They give themselves up to the activity of outward and inward radiating external forces. Animal substance comes under influences that are independent of these forces. It moves within the organism, or as a whole organism, in such a way that these movements do not follow from the outward and inward

radiating forces only. Because of this, animal configuration is independent of the spheres of forces radiating from or towards the earth.

In the plant, the interplay of those forces results in alternation between being subject to the forces radiating in from the periphery and not being subject to them. This divides plant nature into two aspects. One is oriented towards life, it is wholly in the sphere of the periphery; these are the sprouting organs that sustain growth and flower. The other is oriented toward the lifeless, it remains in the sphere of outward radiating forces, it includes everything that hardens growth, providing a firm supporting structure for life, etc. Between these two aspects life ignites and dies away; and the dying of a plant is merely the dominance of outward radiating over inward radiating forces.

In the animal, part of the substantial element is completely withdrawn from the influence of the two spheres of forces. The resulting differentiation differs from that of plants. Organs develop that remain within the influence of both spheres of forces, and also organs that lie outside them. Interactions arise between the two types of organ development. And it is due to *these* interactions that animal substance can be the vehicle for feeling and sensation. One consequence is the difference in the appearance, the consistency of animal compared to plant substance.

In the animal organism we have one sphere of forces that is independent of those radiating from the earth and radiating towards it. The astral sphere of forces is present in addition to the physical and etheric; we have already referred to this from another point of view. No need to be put off by the term 'astral'. The outward radiating forces

are those of the earth, the inward radiating forces those of the earth's cosmic periphery; in the 'astral' forces lies something of a higher order than those two. It is this alone which makes the earth a cosmic body, a 'star' (*astrum*). Through the physical forces it separates itself from the cosmos, through the etheric forces it lets the cosmos influence it; through the 'astral' forces it becomes an independent individual entity in the cosmos.

Like the etheric and the physical body, the 'astral' in the animal organism is an independent, self-contained aspect. We may therefore speak of this aspect as the 'astral body'.

We can only understand the animal organization if we consider the interrelationships between physical, etheric and astral body. All three are independent aspects of the animal organization; and all three are also different from what exists in the lifeless (mineral) bodies and the living plant organisms outside them.

The animal physical organism may be said to be lifeless; it differs, however, from lifeless mineral elements. It is first estranged from the mineral sphere by the etheric and astral organism, and then, through withdrawal of the etheric and astral forces, given back to the lifeless sphere. It is a structure in which the forces that are active in the mineral sphere, in the earth realm as such, can only be destructive. It can only serve the animal organism as a whole for as long as the etheric and astral forces prevail over the destructive intervention of the mineral sphere.

The animal etheric organism lives like the plant organism, but not in the same way. Life is taken to a state that is foreign to itself by the astral forces; it has been torn away from the forces radiating inward to the earth and then placed in their sphere again. The etheric

organism is a structure in which merely plant-type forces are at a level of existence that is too dull or dim for the animal organization. It can only serve the animal organism as a whole in so far as the astral forces raise its mode of action to a brighter level; if it gains the upper hand in its activities, sleep ensues; if the astral organism gains the upper hand, waking prevails.

Both sleeping and waking must not go beyond certain levels of activity. If this were to happen in the case of sleep, the plant principle in the organism as a whole would tend towards the mineral; the plant principle would hypertrophy, which would be a pathological condition. If it happened in the case of waking, the plant principle would have to become completely estranged from the mineral; this would assume forms in the organism that are not its own but belong to the lifeless sphere which lies outside the organic. A pathological condition would develop due to hypertrophy of the mineral principle.

Physical substance enters from outside into all three organisms—physical, etheric and astral. All three must overcome the inherent nature of the physical in their own way. This results in a threefold differentiation of organs. The physical organization creates organs that have gone through the etheric and astral organization but are on the way back to its sphere. They cannot have arrived in its sphere completely; for that would result in death of the organism.

The etheric organism creates organs that have gone through the astral organization but continually seek to withdraw from it; they have the power to enter into the dimness of sleep; they tend to evolve purely vegetative life.

The astral organism creates organs that alienate themselves from vegetative life. They can only continue to exist if this vegetative life is continually taking hold of them again. Having no relationship with the forces that radiate from and towards the earth, they would have to drop out completely from the earthly sphere if this did not continually take hold of them again. There has to be rhythmic interaction between animal and plant principles in these organs. This determines the alternating states of sleeping and waking. In sleep, the organs of the astral forces are also in the dimness of vegetable life. There they have no influence on the etheric and physical spheres. These are then entirely left to the spheres of forces that radiate from and towards the earth.

5

Plant, Animal, Man

In the astral body, animal configuration arises as a whole form on the outside and inwardly as the configuration of the organs. And sentient animal substance is one result of this configuring astral body. If this configuration is taken to its conclusion, the animal principle is created.

In man it is not taken to its conclusion. It is brought to a halt, inhibited, at a certain point along the road.

In the plant, we have substance which is transformed by the forces that radiate inwards on to the earth. This is living substance. It is in interaction with lifeless substance. We have to see that in plant nature this living substance is continually separated out from lifeless substance. In it, the plant form appears as the outcome of the forces that radiate towards the earth. This results in a stream of substance. Lifeless principles are transformed into live; live principles become lifeless. Within this stream plant organs arise.

In the animal sentient substance arises from live substance, just as in the plant live substance arises from the lifeless. A twofold substance stream exists. Life is not taken to fully configured life within the etheric. It remains in a state of flux; and the configuring process enters into this flowing life through the astral organization.

In man, *this* process, too, is kept in a state of flux. Sentient substance is drawn into the sphere of yet another organization. We may call this the I organiza-

tion. Sentient substance changes once again. A threefold substance stream results. In this arises the inner and outer human form. This makes it the vehicle of a self-aware life in mind and spirit. In his configuration man is the outcome of this I organization down to the smallest particles of his substance.

It is possible to study the substance aspect of this configuration. When substance is transformed from one level to the next, it presents as the higher level separated off from the lower, with the configuration created from the substance that has been separated off. In the plant, living substance is separated off from lifeless substance. In this secreted substance the etheric forces that radiate in towards the Earth are at work as configuring forces. Initially there is no actual separating off but complete transformation of the physical substance by the etheric forces. This, however, is only the case in seed development. Here the transformation can be complete because the seed is protected from the influences of physical forces by the enveloping maternal organization. When seed development frees itself from the maternal organization, the activity of forces in the plant is differentiated into one where substance creation goes in the direction of the etheric sphere and one where it goes in the direction of physical development. Parts of plant nature develop which are on the path of life, and others that go in the direction of death. These present as excreted parts of the plant organism. The excretion process can be seen in bark production in trees, which is a highly characteristic example.

In the animal, twofold separation is in progress and also twofold excretion. Plant secretion is not taken to its conclusion but kept in a state of flux, and added to this is

the transformation of living into sentient substance. This separates off from merely living substance. We have substance that goes in the direction of sentient nature and substance that goes away from this and in the direction of mere life.

There is, however, interaction of all parts in the organism. Because of this, excretion in the direction of the lifeless sphere, which in the plant approaches to the external, mineral lifeless sphere, is still far removed from this mineral sphere. In bark production, substance is created in plants that is on the way to being mineral and separates off the more mineral it becomes. In the animal world, this principle appears as the excretion products of digestion. It is further removed from the mineral sphere than the plant secretion.

In man, the substance separated off from sentient substance becomes the vehicle for the self-aware mind and spirit. But there is also continuous secretion, with a substance produced that goes in the direction of pure capacity for sentience. The animal principle exists as continuous excretion within the human organism.

In the waking state of the animal organism, separating off and configuration of material that has been separated off as well as secretion of sentient substance are under the influence of astral activity. In man, the activity of the I organization is added to this. During sleep; astral and I organization take no direct action. But the substance has been taken hold of by this activity and continues it as though seeking to maintain inertia. Once a substance has been inwardly configured the way it is by astral and I organization, it will continue to act in terms of these organizations in the sleeping state, reflecting a capacity for inertia.

In a human being who is asleep we thus cannot speak of purely vegetative function in the organism. The astral and the I organization continue to be active in the substance they have configured even in this state. The difference between sleeping and waking is not one of alternation between human-animalic and vegetative-physical function. The situation is entirely different. Sentient substance and substance capable of supporting the self-aware mind and spirit are lifted out of the total organism on waking and put at the service of the astral body and I organization. The physical and the etheric organism must then function in such a way that only the forces radiating out from the earth and radiating in towards it are active in them. In this mode of action they are only taken hold of from the outside by the astral body and I organization. During sleep, however, they are inwardly taken hold of by the substances that develop under the influence of the astral body and the I organization. While only the forces radiating out from the earth and radiating in towards it act from the universe on a sleeping person, the substance-forces created by the astral body and the I organization are working on that person from within.

If we call sentient substance the *residue* of the astral body and the substance developed under the influence of the I organization the *residue of that organization*, we are able to say: in the waking human organism, the astral body and the I organization themselves are active, in the sleeping organism their substantial residues are active.

Waking, human beings live in an activity that connects them with the outside world through their astral body and their I organization; sleeping, their physical and their etheric organism live on what the residues of these two

organizations have become in terms of substance. The actions of a substance like oxygen, which is taken in through respiration both in the sleeping and in the waking state, therefore have to be seen as having different effects in these two states. The nature of oxygen taken in from outside is such that it has a hypnotic, not a stimulating effect. Increased oxygen intake makes us abnormally sleepy. In the waking state the astral body is continually fighting the hypnotic action of oxygen intake. If the astral body ceases to act on the physical body, oxygen develops its inherent quality: it makes us go to sleep.

6

Blood and Nerve

The functions of individual human organisms with reference to the total organism are particularly well demonstrated in blood and nerve development. Blood production consists in further configuration of the foods that have been taken in, with the whole process under the influence of the I organization. The I organization influences functions ranging from those that accompany conscious sensation—in the tongue, in the palate—to those occurring at an unconscious or subconscious level—the actions of pepsin, pancreas, bile, etc. The activity of the I organization then lessens, and the astral body is predominantly active in further transforming food substance into blood substance. This continues until the blood encounters the air—the oxygen—in the respiratory process. This is where the ether body plays its main role. Carbon dioxide that is in the process of exhalation is essentially live substance—not sentient and not dead—before it leaves the body. (Everything that has ether body activity in it is live.) The main part of this live carbon dioxide leaves the organism; a small part continues to be active in the organism, influencing processes that have their focus in the head organization. This part shows a marked tendency to become lifeless, inorganic, though it does not become completely lifeless.

The opposite is the case in the nervous system. The etheric body is predominantly active in the sympathetic nervous system, which is present throughout the diges-

tive organs. The nerve organs concerned are essentially organs that are live by nature. The astral and the I organization do not organize them from inside but from outside. This means that the influence of the I and astral organization active in these nerve organs is powerful. Affects and passions have a continuous, significant effect on the sympathetic system. Worry and cares will gradually destroy it.

The astral organization is predominantly active in the nervous system in the spinal marrow with all its branches. This makes it the vehicle for the soul aspect of the human being, of reflex processes, but not for anything that happens in the I, in the self-aware mind and spirit.

The actual cerebral nerves are the ones that are subject to the I organization. In them the activities of the etheric and astral organization are less marked.

We see that this results in three regions within the sphere of the total organism. We have a lower region where the nerves, which are inwardly predominantly organized by the etheric organism, act together with the blood substance, which is essentially subject to the activity of the I organization. In the embryonic and post-embryonic stages of development this region is where the development begins of all organs connected with inner quickening of the human organism. As the embryo develops, this region, which is still weak at the time, is supplied with quickening and creative influences from the maternal organism that surrounds it. Then there is a middle region where nerve organs influenced by the astral organization act together with blood processes, which are also dependent on this astral organization and in their upper part on the etheric organization. During

the human development period this is where the genesis of organs begins that mediate external and internal mobility, e.g. for all muscle development and also all organs that whilst not actual muscles nevertheless bring about mobility. - An upper region exists where the nerves subject to inner organization by the I act together with the blood processes that have a powerful tendency to become lifeless, mineral. During the human development period this is where the development of bone and everything else begins that serves the human body by way of structural supportive organs.

We shall only be able to understand the human brain if we see in it a bone-developing tendency that is interrupted in its earliest incipient stage. And we shall only be able to understand bone development if we perceive in it a brain-impulse activity that has completely come to an end and is penetrated from outside by the impulses of the middle organism where astrally determined nerve organs are active together with etherically determined blood substance. In bone ash, which retains its own inherent configuration when bones are put through a combustion process, we have the products of the uppermost region in the human organization. In the cartilaginous substance which remains when bones are treated with dilute hydrochloric acid we have the product of the impulses from the middle region.

The skeleton is the physical image of the I organization. Human organic substance that seeks to become lifeless and mineral is completely subject to the I organization in bone development. In the brain, the I is active as a spiritual entity. There, however, its form-generating power, which influences the physical, is completely overcome by etheric organizing processes, and indeed by

the inherent forces of the physical. The organizing power of the I is minimal in the brain; it is swamped by life processes and by physical processes following their inherent laws. This is the true reason why the brain is the vehicle for mental and spiritual I activity, that in it, organic, physical activity is not subject to the I organization, which is therefore able to act in complete freedom. The bony skeleton on the other hand is the complete physical image of the I organization; this, however, exhausts itself in its physical organizing activities, so that nothing remains of it by way of mental or spiritual activity. The processes in our bones are therefore the most unconscious.

The carbon dioxide which is pushed out in the respiratory process is still live substance when within the organism; it is taken hold of by the astral activity which is anchored in the middle nervous system and eliminated to the outside. The part of the carbon dioxide that goes with the metabolism to the head is there combined with calcium and thus given the inclination to enter into the activities of the I organization. In this way, calcium carbonate is pushed in the direction of bone development under the influence of head nerves given their inner impulses by the I organization.

Two substances produced from our food—myosin and myogen—have a tendency to become deposited in the blood; they are initially astrally determined and in interaction with the sympathetic nervous system, which is inwardly organized by the etheric body. These two proteins are, however, also partly taken hold of by the activity of the middle nervous system, which is under the influence of the astral body. Because of this they enter into relationship with protein decomposition products,

with fats, with sugars and sugar-like substances. This enables them to go in the direction of muscle development under the influence of the middle nervous system.

7

The Nature of Medicinal Actions

The total human organization is not a self-contained system of interactive processes. If it were, it could not be the vehicle for the element of soul and spirit. This can only have the human organism as its base because the organism is continually decomposing or going in the direction of lifeless, mineral activity in its nerve and bone substance and in the processes of which those substances are a part.

Protein substance decomposes in nerve tissue. It is not recreated, however, by entering into the sphere of the forces that radiate in towards the earth, as in the ovum or other structures, but simply decomposes. As a result ether activities radiating in from objects and events in the outer environment through the senses, and ether activities created when the organs of movement are used, are able to utilize the nerves as organs along which they are conducted through the whole body.

There are two kinds of processes in nerves: the decomposition of proteins and the flow of ether substance through the decomposing substance, a flow fanned to life by acids, salts, phosphorous and sulphurous principles. The balance between the two processes is mediated by fats and water.

By nature these processes are pathological processes continually present throughout the organism. They have to be balanced out by equally continuous healing processes.

Balance is achieved because the blood contains not only processes of growth and metabolism but also a continual *healing* activity that counterbalances the pathological processes in the nerves.

In the plasma substance and fibrous material of the blood lie the forces that serve growth and metabolism in the narrower sense. In the iron content which is found when we examine red blood cells lie the origins of the blood's *healing* activity. Because of this, iron is also found in gastric juice and as iron oxide in chyle. These sources are created everywhere for processes that have a balancing effect on the processes in the nerves.

If we examine the blood, iron is found to be the only metal which has the tendency to be crystallizable within the human organism. The forces it thus brings to bear are external, physical and mineral forces of nature. Within the human organism these represent a system of forces oriented in terms of outer physical nature. This, however, is continually overcome by the I organization.

We are dealing with two systems of forces. One has its origin in the processes that occur in nerves; the other in blood production. The processes in the nerves give rise to pathological processes which go so far that they can be continually healed by the blood processes that act in the opposite direction. The processes in the nerves are such as are brought about by the astral body in nerve substance and hence in the whole organism. The blood processes are such that in them the I organization inside the human organism confronts physical outside nature, which continues on into the organism but is forced into the configuration imposed by the I organization.

This interrelationship provides direct insight into the processes of disease and healing. If processes the normal

level of which is determined by what is excited by the nerve-type process are enhanced, it is a case of disease. If we are able to oppose these processes with others that represent an enhancement of external natural activities in the organism, healing can be achieved if these external natural activities are under the control of the I organism and serve to balance out the processes that have the opposite orientation.

Milk contains only small amounts of iron. It is the substance which as such is the least likely to cause pathological changes; the blood must constantly submit to everything potentially pathological; it therefore needs iron that has been organized, i.e. made part of the I organization—haem—as a continual medicine.

When a medicine is to influence a pathological condition developing in the inner organization, even if this is due to external causes though it develops in the inner organism, it is first of all important to see in how far the astral organization is acting to the effect that protein decomposition occurs somewhere in the organism in such a way that it is initiated in the normal way by the nerve organization. Let us assume we are dealing with stasis in the lower abdomen. The pain which develops may be noted to be excessive activity of the astral body. We are thus dealing with the characterized situation in the intestinal organism.

The next important question is: how can the increased astral activity be balanced out? This may be done by introducing substances into the blood that may be taken hold of by the part of the I organization that is active in the intestinal organization. These are potassium and sodium. If these are introduced into the organism in the form of a preparation, or in a plant organization such as

Anagallis arvensis, the astral body is relieved of its excessive nerve activity, with the excess astral activity transferred to the activity of the above-mentioned substances which have been taken hold of from the I, an activity that arises out of the blood.

If we use the mineral substance, care will have to be taken to add other substances or, even better, combine the potassium or sodium with sulphur in the preparation, so that these metals are introduced into the bloodstream in a way that stops protein metamorphosis before decomposition sets in. Sulphur has the property of serving to stop protein decomposition; it may be said to hold the organizing forces together in the protein substance. If it enters into the bloodstream in potassium or sodium compounds its action will be directed to areas where potassium or sodium are specially attracted to specific organs. This is the case with the intestinal organs.

8

Activities in the Human Organism

Diabetes mellitus

The human organism evolves activities through all its constituent parts that can only have their impulses within the organism as such. Anything taken in from outside must either merely be something that enables it to develop its own activity; or it has to act in such a way in the body that the foreign activity does not differ from one of the body's own inner activities once it has entered into the body.

The food human beings need contains carbohydrates, for instance. These are partly starchlike. As such they are substances that develop their activity in the plant. They enter into the human body in the state they are able to achieve in the plant. In this state, starch is a foreign body. The human organism does not evolve any activity that goes in the direction of what starch is able to evolve as an activity when it enters into the body. Thus the starchlike material developed in the human liver (glycogen) is different from vegetable starch. Glucose on the other hand is a substance that stimulates activities which are of the same kind as activities of the human organism. Starch therefore must not continue as starch in the human organism. If it is to evolve an activity that plays a role in the body, it must first be transformed. Mixed with ptyalin in the oral cavity it is converted to sugar.

Protein and fat are not changed by ptyalin. They are

initially foreign matter as they enter the stomach. Here the protein is transformed by the pepsin secreted in the stomach, producing cleavage products that go as far as the peptones. These are substances the activity impulses of which coincide with those of the body. Fat, however, remains unchanged even in the stomach. It is finally transformed by the product separated off by the pancreas and substances are obtained that result from the dead organism as glycerine and fatty acids.

The conversion of starch into sugars occurs throughout the digestive process. Starch that has not been converted by ptyalin will also be converted by the gastric juice.

If starch is converted by ptyalin, the process is on the borderline for anything that occurs in the sphere of the I organization, as we called it in chapter 2. The first conversion of what has been taken in from outside takes place in its sphere. Glucose is a substance able to be active in the sphere of the I organization. It relates to the taste of sweetness, which has its being in the I organization.

If starch flour is converted to sugar by the gastric juice, this signifies that the I organization penetrates into the sphere of the digestive system. The taste of sweetness does not become conscious in that case; instead the process, which happens in the conscious mind—in the sphere of the I organization—when 'sweet' is experienced, enters into the unconscious regions of the human body and the I organization becomes active there.

In the terms established in chapter 2, it is first of all the astral body which is active in the unconscious regions. It is active where starch is converted to sugars in the stomach.

We can only have conscious awareness through a process in our I organization which is such that the organization is not drowned out or disturbed by anything else and is able to come fully into its own. This is the case in the sphere where ptyalin activities occur. In the sphere of pepsin activities the astral body drowns out the I organization. I activity becomes immersed in astral activity. It is thus possible to trace the I organization in the material sphere by the presence of sugar. Where you have sugar, you have I organization; where sugar is produced, the I organization comes on the scene and gives subhuman (vegetative, animalic) bodily nature an orientation towards humanity.

Sugar occurs as an elimination product in diabetes mellitus. This is a case of the I organization coming on the scene in the human organism in such a form that its actions are destructive. If we consider any other region of I organization activity we find that it becomes immersed in the astral organization. Consumed as it is, sugar is in the I organization. It causes the sweet taste to develop. Starch which is ingested and converted to sugar by ptyalin or the gastric juice indicates that the astral body is working together with the I organization in the oral cavity or stomach and drowning it out.

Sugar is also found in the blood. Because the blood contains sugar as it circulates throughout the whole body it carries the I organization to all parts of it. Yet wherever it goes this I organization is kept in balance by the activity of the human organism. We have seen in chapter 2 that in addition to the I organization and the astral body the essential human being also contains the etheric and the physical body. These, too, take the I organization into themselves and hold it there. For as long as this

is the case, the urine does not separate off sugar. The sugar-related processes in the organism show us how the I organization, as the vehicle for sugar, is able to live.

In a healthy individual sugar will only appear in the urine if too much has been taken, or if too much alcohol has been taken, for this enters directly into our bodily processes, not going through intermediary product stages first. In either case the sugar process is independent of other processes in the human being.

With diabetes mellitus the situation is that the I organization is weakened to such a degree as it enters into the astral and etheric sphere that it is no longer able to apply its activity to the sugar substance. What should have happened to the sugar through the I organization then happens to it through the astral and etheric regions.

Anything which tears the I organization away from its activities that intervene in bodily functions will encourage diabetes: upsets that are not single but repeated events; intellectual overexertion; a hereditary trait that prevents normal incorporation of the I organization in the total organism. All this is also connected with the fact that processes take place in the head organization that should really run parallel to activity in soul and spirit; but because this activity is too fast or too slow the processes cease to be parallel. The nervous system is, as it were, thinking independently alongside the thinking human being. This, however, is an activity the nervous system should perform only in sleep. In diabetics, a kind of sleep deep down in the organism runs parallel to the waking state. As a result, degeneration of nerve substance occurs with diabetes. It is the consequence of inadequate intervention from the I organization.

Another symptom diabetics have is that they develop

boils. Boils develop through excess in the region of etheric activity. The I organization fails to act where it should. Astral activity cannot evolve because in such a site in particular it can only take effect in harmony with the I organization. The consequence is the excess of etheric activity that comes to expression in boils.

It is evident from all this that a healing process can only be initiated in diabetes if we are able to strengthen the I organization of the diabetic.

9

The Role of Protein in the Human Body and Proteinuria

Protein is the substance in the living body that can be transformed in the greatest variety of ways by its creative etheric forces, so that the forms of organs and of the organism as a whole are the outcome of protein transformation. To be used in such a way, protein must have the ability to lose any form resulting from the nature of its material parts the moment it is called upon to serve a form that is demanded of it in the organism.

It is evident from this that the forces deriving from the nature of the hydrogen, oxygen, nitrogen and carbon and their interrelations collapse within protein. Inorganic bonds cease to exist, and forces creating organic forms begin to be active in protein decomposition.

These creative forces are bound to the etheric body. Protein is always on the point of either being taken up into the activity of the etheric body or of dropping out of it. Protein taken out of the organism to which it belonged assumes the tendency to become a composite subject to the inorganic forces of hydrogen, oxygen, nitrogen and carbon. Protein that remains part of the living organism suppresses this tendency and submits to the creative powers of the etheric body.

We take in protein with our food. Gastric pepsin converts protein taken in from outside into peptones, initially soluble proteins. Conversion then continues with the aid of pancreatic juice.

Initially the protein taken in as food is a foreign body in the human organism. It contains the after-effects of the ether processes of the life form from which it has been taken. These must be completely removed. The protein has to be taken into the ether activities of the human organism.

We thus have two kinds of protein within the human digestive process. At the beginning of the process the protein is something foreign to the human organism. At the end it is something the organism has made its own. In between lies a state where the food protein has not yet entirely let go of those earlier ether activities and has not yet entirely taken in the new ones. It has become almost inorganic in this state. It is the point where it is solely under the influence of the human physical body. This, which in its form is a product of the human I organization, has in it the powers to act inorganically. It thus acts to kill anything that lives. Everything that comes within the sphere of the I organization dies off. The I organization thus incorporates purely inorganic substances into itself in the physical body. These do not act in the human physical organism the way they do in lifeless nature outside the human being; but their action is inorganic, i.e. they kill. This death-inducing action is applied to protein at the point in the digestive region where trypsin is active, a constituent of pancreatic juice.—

The trypsin mode of action also involves inorganic principles, as can be seen from the fact that this substance develops its activity with the aid of alkaline principles.

Food protein lives in a foreign manner until it encounters the trypsin of the pancreas; it lives in the mode of the organism from which it has been taken. On encountering trypsin, the protein becomes lifeless. One

might say that it only becomes lifeless for a moment in the human organism. There it is taken up into the physical body in accord with the principles of the I organization. This must have the power to transfer the converted protein into the sphere of the human ether body. Food protein thus becomes material for the creation of the human organism. The foreign etheric activities formerly attached to it leave the human being.

To digest protein in a healthy way, human beings need an I organization which is so strong that all the protein needed for the human organism can be transferred to the sphere of the human ether body. If this is not the case, this ether body develops excessive activity. It does not receive enough protein prepared by the I organization for its activity. The consequence is that the activity oriented towards enlivening protein taken in by the I organization takes hold of protein that still contains foreign ether activities. The human being receives a number of activities in the ether body that do not belong there. These have to be eliminated in an irregular way. The result is pathological elimination.

This pathological elimination takes the form of *proteinuria*. Protein is eliminated that should be taken up into the sphere of the ether body. It is protein which because of weakness in the I organization has not been able to assume the transitional state of being almost lifeless.

The forces that effect elimination in the human being are bound to the sphere of the astral body. With proteinuria the astral body is forced to perform a function for which it is not prepared, and this causes its function to diminish in the areas where it should develop in the human organism. This is in the renal epithelium.

Damage to the renal epithelium is a symptom indicating that the astral activity designed for it has been deflected.

It is evident from the above where healing has to begin in the case of proteinuria. The power of the I organization needs to be strengthened in the pancreas where it is too weak.

The Role of Fat in the Human Organism and Deceptive Local Symptom Complexes

Fat proves least of a foreign substance when taken into the organism. Fat will most easily change from the nature it has when taken in as food to the nature of the human organism. The 80 per cent of fat contained in butter, for instance, goes unchanged through the ptyalin and pepsin regions and is only changed by pancreatic juice, converting to glycerine and fatty acids.

Fat is able to behave like this because it takes as little as possible of a foreign organism's nature (its etheric forces, etc.) into the human organism. The human organism can easily make it part of its own sphere of activity.

The reason is that fat plays a special role in producing inner warmth. This warmth is the element in which the I organization predominantly lives, i.e. as a physical organism. With *every* substance in the human body, relevance to the I organization is limited to as much of it as develops heat in its activity. In the whole way it behaves, fat proves to be a substance that merely fills the body, being merely carried by it, being of relevance to the active organization only because of the processes in which heat evolves. Fat taken for food from an animal organism, for instance, will take nothing but its ability to evolve heat into the human organism.

The evolution of heat is, however, one of the processes that come last in metabolism. Fat taken in as food

therefore stays as it is in the early and the middle metabolic processes, and is only taken up into the sphere of inner bodily activity at the earliest by pancreatic juice.

The presence of fat in human milk points to a highly remarkable activity in the organism. The body does not inwardly consume this fat; it lets it become a product that is separated off. This means, however, that the I organization also becomes part of *this* fat. The power to be open to creative impulses that is found in mother's milk depends on this. The mother transfers her own I organization's powers of being open to creative impulses to the child, thus adding something further to the powers of configuration transmitted by heredity.

A healthy route is given if the human form-generating powers consume the fat available in the body in the process of generating heat. An unhealthy route is given if the fat is not used up in heat generation by the I organization but taken unused into the organism. Such fat creates excess potential for the generation of heat in one place or another in the organism. This heat intervenes here and there in the organism and causes confusion for the other vital processes, not being encompassed by the I organization. Parasitic heat foci develop, as it were. These have a tendency to produce inflammatory conditions. The genesis of such foci must be seen to be due to the body developing the tendency to produce more fat than the I organization needs for its life in inner warmth.

In a healthy organism, animalic (astral) forces produce or take in as much fat as can be converted to heat processes by the I organization, and in addition the amount needed to keep muscle and bone mechanics in good order. In this case, the warmth needed for the body will be produced. If the animalic forces provide too little fat

for the I organization, the I organization develops a hunger for warmth. It has to draw the warmth it needs from the activities of organs. This causes them to become friable and stiff in themselves, as it were. The processes they need become sluggish. One then sees pathological processes developing here and there, and we have to discern if they are due to a general fat deficiency.

If the opposite is the case, and there is excess fat content, as already mentioned, so that parasitic heat foci develop, organs are taken hold of in such a way that they become excessively active. This creates tendencies to excessive food intake, overloading the body. It is not at all necessary for this development to take the form of the individual concerned becoming an over-eater. It may be, for instance, that too much substance is taken to a head organ as part of metabolic activity in the organism, being therefore withdrawn from the abdominal organs and separating off processes. As a result, the activity of those badly supplied organs is reduced. Material separated off by the glands may be deficient. The fluid constituents of the organism fall into unhealthy relative proportions. Thus separated-off bile may be excessive relative to material separated off by the pancreas. Again it will be a question of discerning how a local symptom complex should be judged concerning its origin in unhealthy fat activity.

The Configuration of the Human Body and Gout

Protein uptake is a process connected with *one* aspect of the inner activities in the human organism. It is the aspect that arises on the basis of assimilation of matter. Any activity of this kind results in the development of form, in growth, new development of substantial content. Everything connected with the unconscious functions of the organism belongs to this.

These processes are in contrast to processes involving elimination. Eliminations may go outside the body; but there are also processes where the elimination product is processed further inside in giving the body form or substance. These processes are the material basis for conscious experiences. Processes of the first kind reduce the power of consciousness if they go beyond the level that can be held in balance by the processes of the second kind.

A particularly remarkable elimination process is that of uric acid. The astral body is active in this elimination. The process has to happen throughout the whole organism. It happens to a particular degree via the urine. In a subtly dispersed form in the brain, for instance. The astral body is mainly involved when uric acid is eliminated via the urine; the I organization plays a lesser role. When uric acid is separated off in the brain, the I organization is the main determiner, the astral body taking a less active role.

In the organism, the astral body mediates I organization activity for the etheric and physical body. The I organization has to transport the lifeless substances and forces to the organs. It is only by thus impregnating the organs with inorganic principles that human beings can be the conscious life form they are. Organic substance and organic energy would reduce human consciousness to the animal level.

The astral body is active in a way that makes the organs inclined to accept the inorganic deposits of the I organization. It prepares the way for this, as it were.

We see that astral body activity has the upper hand in the lower parts of the human organism. There, the uric acid substances must not be taken up by the organism. They must be abundantly eliminated. There, impregnation with inorganic principles must be prevented under the influence of this elimination process. The more uric acid is eliminated the more lively is the function of the astral body, the less is I organization activity and hence impregnation with inorganic principles.

In the brain, astral body activity is minimal. Little uric acid is eliminated, but all the more inorganic principles are deposited in accord with the nature of the I organization.

The I organization cannot deal with large amounts of uric acid; they must be left to the activity of the astral body; small amounts of uric acid become part of the I organization to provide the basis for shaping the inorganic in accord with the nature of this organization.

Uric acid distribution in the different regions of the healthy organism has to be managed in exactly the right way. The amount of uric acid provided for everything connected with the organization of nerves and senses

should be no more than can be used in I activity; this activity has to be suppressed for the organization of metabolism and limbs; astral activity must be able to develop in abundant uric acid elimination.

Since the astral body prepares the way for I activity in the organs, the proper distribution of uric acid deposits must be considered to be a highly important aspect of human health. It is an expression indicating if the right relationship exists between I organization and astral body in any organ or organ system.

Let us assume astral activity is gaining the upper hand in an organ where the I organization should predominate over it. This can only be an organ designed in such a way that uric acid elimination cannot go beyond a certain limit. Now the organ is overloaded with uric acid that has not been dealt with by the I organization. The astral body then starts to bring about elimination after all. And as efferent organs are not available at the relevant points, the uric acid does not go outside but is deposited in the organism itself. If it reaches sites in the organism where the I organization is not able to intervene sufficiently, something inorganic will be there, i.e. principles that belong to the I organization only but are left to astral activity by that organization. Foci arise where subhuman (animal) processes are introduced into the human organism.

That is the situation we have with *gout*. When people say it frequently develops on the basis of heredity, this is because the astral, animal principle becomes particularly active if hereditary forces are dominant, and the I organization is pushed into the background.

We shall get a clearer picture, however, if we look for the true cause in the fact that substances are taken into

the human organism with the food which cannot lose their foreign nature within the organism, through its activities. They are not transferred to the ether body if the I organization is weak, and remain in the region of astral activity. An articular cartilage or connective tissue structure can only be overloaded with uric acid, which causes an excess of inorganic principles in them, if I activity lags behind astral activity in those parts of the body. As the whole form of the human organism is a product of the I organization, the irregularity which has been described must cause deformation of the organs. The human organism seeks to abandon its form.