

Physiology
and
Therapeutics

Four Lectures by
Rudolf Steiner

Dornach, October 7-9, 1920

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About the Transcripts of Lectures

The results of my anthroposophical work are, first of all, the books available to the general public; secondly, a great number of lecture courses, originally regarded as private publications and sold only to the members of the Anthroposophical Society. The courses consist of more-or-less accurate notes taken at my lectures, which for lack of time I have not been able to correct. I would have preferred the spoken word to remain the spoken word, but the members wished to have the courses printed for private circulation. Thus they came into existence. Had I been able to correct them, the restriction – for members only – would have been unnecessary from the beginning. As it is, the restriction was dropped more than a year ago.

In my autobiography it is especially necessary to say a word about how my books for the general public on the one hand and the privately printed courses on the other belong within what I have elaborated as Anthroposophy.

Someone who wishes to trace my inner struggle and effort to present Anthroposophy in a way suitable for present-day consciousness must do so through the writings published for general distribution. In these I define my position in relation to the philosophical striving of the present. They contain what to my spiritual sight became ever more clearly defined as the edifice of Anthroposophy – certainly incomplete in many ways.

Another requirement arose, however, different from that of elaborating Anthroposophy and devoting myself solely to problems connected with imparting facts directly from the spiritual world to the general cultural life of today: the requirement of meeting fully the inner need and the spiritual longing of the members.

Especially strong were the requests to have light thrown by Anthroposophy upon the Gospels and the Bible in general. The members wished to have courses of lectures on these revelations bestowed upon humanity.

As I was meeting this need through private lecture courses, another factor arose: at these lectures only members were present. They were familiar with the basic content of Anthro-

posophy. I could address them as people advanced in anthroposophical knowledge. The approach I adopted in these lectures was not at all suitable for the written works intended primarily for the general public.

In these private circles I could formulate what I had to say in a way I should have been obliged to modify had it been planned initially for the general public.

Thus the public and the private publications are in fact two quite different things, built upon different foundations. The public writings are the direct result of my inner struggles and labors, whereas the privately printed material includes the inner struggle and labor of the members. I listened to the inner needs of the members, and my living experience of this determined the form of the lectures.

However, nothing was ever said that was not solely the result of my direct experience of the growing content of Anthroposophy. There was never any question of concessions to the prejudices or the preferences of the members. Whoever reads these privately printed lectures can take them to represent Anthroposophy in the fullest sense. Thus it was possible without hesitation – when the complaints in this direction became too persistent – to depart from the custom of circulating this material only among members. It must be borne in mind, however, that faulty passages occur in these lecture reports not revised by me.

The right to judge such private material can, of course, be conceded only to someone who has the prerequisite basis for such judgment, and regarding most of this material this would mean at least knowledge of the human being and of the cosmos in so far as these have been presented in the light of Anthroposophy, and also knowledge of what exists as ‘anthroposophical history’ in what has been imparted from the spiritual world.”

Extract from *Rudolf Steiner, an Autobiography*, Chapter 35, pp.386-388, Second Edition, 1980, Steinerbooks, New York.

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Lecture I

Dornach,
October 7, 1920

The scheduled lecturer is not here yet. I hope he will come soon, but I wouldn't like you to have to sit and simply wait, so I will make a few remarks. It is obvious that this series of lectures is particularly important in our course, for it needs to be shown in a practical realm how our anthroposophically oriented spiritual science is really able to take hold in the practice of life. The realm of practical life concerning medicine and therapy is one of the most important, as everyone can experience it in his own body. For just this reason we must not fail to carry Anthroposophy into medicine, even at the outset of our anthroposophical efforts.

In this course we have tried particularly to represent the various specialties with externally acknowledged specialists, for it is necessary, in presenting spiritual science to the world, that these various subjects be represented by professionals; otherwise they will not be accepted in the way they ought to be. Nevertheless, before the scheduled lecturer arrives, I will make the effort to say something to you about physiology and its relation to therapeutics from the viewpoint of spiritual science. Our theme today will touch on this. I will show you how spiritual science is being called upon to influence the study of medicine and also the practice of medicine, the entire art of medicine.

You know that in our higher education the actual study of medicine is ordinarily preceded by a preparatory study of natural science, following which is the actual study of medicine. After becoming acquainted more with the biological-physiological phenomena, therefore, one devotes oneself more to pathological phenomena in order to struggle through to therapy. Many of my listeners, however, are well aware of what short shrift therapy receives in this kind of study of medicine. Through its natural scientific orientation, the study of medicine is certainly led to comprehend natural processes in the human being. Then when

the budding physician enters the realm of pathology, however, he approaches it with a particular view of natural processes by which he can scarcely gain a correct relationship to pathological processes.

It seems to me that a belief has arisen with a certain urgency in recent times. We have become accustomed to gaining a definite view of natural processes, of their inner coherence and underlying causality. In the healthy human being we must obviously search for the necessary causal connections between certain natural processes in accordance with this presupposition. In the ill human being, however, or, let us say, in the diseased organism, what can we look for except natural processes also proceeding basically with causal necessity? We are constrained to say that what confronts us in illness in these totally evident, causally determined natural processes is abnormal in relation to the healthy organism, falling out of the causal connections of the healthy organism in a certain way. In short, when we penetrate into the realm of medicine, we are immediately made uncertain and skeptical in relation to the approach to nature that underlies our modern view of natural events.

This paradox led to skepticism among many physicians, especially to the skepticism that I have described here previously, a kind of nihilism in relation to therapy. I was acquainted with the famous professors who were active on the medical faculty at the university in Vienna at the time when this faculty had reached its pinnacle; they were fundamentally therapeutic nihilists. Choosing an illness in their discussion to which their view was particularly applicable, they said that one can only allow an illness, pneumonia, for example, to take its own course, guiding this course along the proper path by means of calming, supportive measures or other outer measures until the crisis comes, whereupon the whole illness subsides. They said that it is not actually possible to speak in the true sense of what for centuries, for millennia, had been called healing.

If such a view were to lead to its logical consequences, medicine would gradually develop into a mere pathology, for in relation to the investigation of diseases, especially from the viewpoint of a materialistically minded natural science, therapeutic

nihilism has been brought to an extraordinary fulfillment in our time.

At this point I would like to warn against a misunderstanding, that of believing that from here, and from the side of an anthroposophically oriented spiritual science generally, the great significance of modern natural science could go unrecognized and undervalued. This is absolutely not the case. Anyone who has looked even a little into the advances of the pathological method of investigation during the second half of the nineteenth century would have to be astonished, amazed, at its truly remarkable progress. In addition to this, however, he would have to penetrate to quite another recognition. He would have to say to himself that while materialism has certainly made its appearance, materialism alone cannot satisfy certain demands of human feeling; it is also unable to illuminate vast areas of human knowing.

This materialism nevertheless had a kind of mission, you could say. It developed in an extraordinarily precise way the capacity to conduct experimental research through observation. Something like our modern pathology, tainted as it is by its materialism, is possible exclusively due to this materialism. People are always judged harshly today when they are not one-sided, and when as editor and publisher of the *Magazin für Literatur* I wrote an article at Buechner's death that did not damn him but actually acknowledged his achievements, I was labeled a materialist. Yet this is just what is essential in experiencing and pursuing spiritual science, that one be able to transmute oneself into everything; everywhere one must be able to find the thought form, the feeling form, out of which perhaps even the most contradictory directions and worldviews are able to gather their forces; one must be able to honor the achievements that have proceeded from something like materialism, which, to be sure, must nevertheless be overcome in our time – it is simply a demand of the time.

I would like to draw your attention to something else, however. You have heard here in the course of our lectures that we are striving for a phenomenology in science. You have also heard, and with the greatest possible justification, that there must even be a striving toward a chemistry free of hypotheses. I am

quite sure that in many of the things that must be presented in relation to medicine and the practice of medicine, someone will discern one thing or another that strikes him as a hypothesis. It is necessary, however, especially if one begins to deliberate on the organic out of the inorganic, to delineate properly the concept of the hypothesis.

What is a hypothesis? Let us consider a very trivial matter from ordinary life. I have gone down a road and have seen a person along this road; I go further and no longer see him; I will not assume right away that this person has been swallowed up by the earth. This would be true in the least number of cases! Instead, I will look around me and possibly see a house. I can limit my thoughts so that I say to myself, "That person went into this house. I don't see him now, but he is inside." This would not be making an unwarranted hypothesis; rather I am assuming thoughts hypothetically that come to me when something appears in the course of sense perception that must be explained by presupposing something certainly stemming from the sequence of my mental images but not seen directly, not actually able to be observed, which therefore is not a direct phenomenon for me. I would not be making an unwarranted hypothesis if I assumed something like that; similarly, I would not be making an unwarranted hypothesis if by some process I make warmth perceptible with a thermometer and then through congealing or a similar process I see this warmth disappear and then speak of the warmth that has disappeared as latent warmth.

It is absolutely necessary, therefore, especially if one wishes to conduct fruitful research, to pursue the sequence of sense images in one direction or another. An unwarranted hypothesis is one that has been arrived at by conceptions regarding which, were they to be followed through with insightful thinking, it becomes clear that what underlies them could never be perceived. Then one must endow these conceptions – and atomism, molecularism, are such conceptions – with ingredients that could never be perceived. Otherwise they could simply be perceived. For example, one can never surrender oneself to the illusion that, even if one were able to see the smallest constituents of solids through some process, light could then be explained by means of

movement, for then light would be carried into these smallest parts.

I beg you on this occasion to make a clear distinction between justifiable sequential thinking within experience and making unwarranted hypotheses.

If we now return to our previous thoughts, we must say the following: we see before us on the one hand the so-called normal human being and on the other hand the diseased human being. By necessity we must recognize in both organizations a process occurring in accordance with nature. And yet how is one process related to the other? It is precisely the separation of physiology from pathology and therapy, which has become customary in recent times, that prevents us, in the transitions from one to the other, from arriving at the appropriate conceptions. Furthermore, the modern physician is basically unable to take the spiritual into consideration at all when he is engaged in the study of physiology, or even pathology, for this spiritual element is still an unknown in modern science's approach. It is therefore missing from all our considerations.

In contrasting clearly and plainly these two processes of nature – the physiological and the pathological – it is possible to offer for consideration certain extreme cases of the pathological, first in abstract form. Out of consideration of such extremes it will perhaps be possible to arrive at fruitful conceptions. In the beginnings of a science, you need not think of the existence, of the demand, of an absolute necessity. What one calls exactness, an inner necessity, can emerge only in the course of the consideration. Thus if a person wishes to consider a certain formation in nature, it is possible, you could say, to begin at any corner. Let us take an extreme case within the diseased human organism, one that presents modern medicine with an extraordinary number of difficulties: carcinoma-formation, cancer-formation.

We see something appear within this type of illness that reveals itself even to microscopic investigation as something organic, or at least as something that looks organic; and it appears in the ordinary organism in such a way that it gradually destroys the life of the rest of the organism. At first we can only say that we find something appearing within the bodily aspect of the

human organism; this seems to ascend from unknown depths and to insert itself into the ordinary course of nature, disturbing this course.

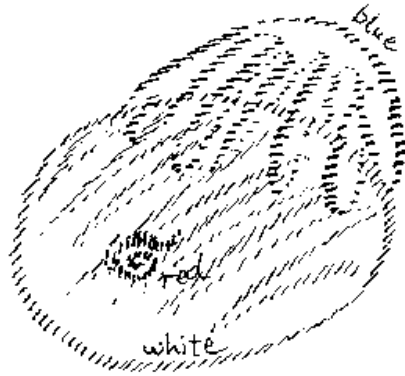
We can also go to the other extreme of the pathological organism. We can see how something can arise that takes a normal activity in the human organism and develops it excessively into something abnormal. And then we consider a human organism as abnormal. I do not want to dwell particularly on these expressions, normal and abnormal, but they ought to be adequate for a preliminary discussion. In the course of our studies it will become evident that the normal simply passes in transition into the so-called abnormal, but for a preliminary discussion these expressions, normal and abnormal, can certainly be used.

When we encounter the normal human organization, we see that in the soul realm there develops a definite kind of willing, a definite kind of feeling, and a definite kind of thinking. In social interchange we have gradually become accustomed to crystallizing a kind of normal picture, as it were, out of the mental images that we create from our association with people, a picture that guides us to consider as normal a person who, out of himself, shapes his willing, feeling, and thinking to a certain extent.

If we now make our thoughts just a bit more concrete, we necessarily reach the point of picturing an organism that functions too strongly, for example, functioning like an object in which there is latent warmth and from which we free this latent warmth, releasing far too much of this warmth into the environment. So much latent warmth is freed that we no longer have the slightest idea what to do with it. If the human organism acted in this way, so that too much was pressed out of it in this direction, certain results in the thought realm would be revealed to us. The emotional element, however, is always playing into the thought realm through feeling. Such a human organism would appear to be burdened within the thought realm by what we call the manic conditions. In such a human organism we therefore see something arising that appears to flood the organism with forces of organization that incline toward sense experience.

In carcinoma-formations, on the other hand, we have a condition in which the organizing force of nature appears within the organism, separating itself off, as it were; we have a condition in

which this force of organization inserts itself into the organism. In the pathological phenomena of manic conditions or similar phenomena, something from the organism cannot be held in, as it were, and emanates out of the organism.



If I were to sketch this for you schematically, I would draw it in this way (see drawing): if I draw a circle around the normal formation of the human organism here, I would have to suggest the appearance of a carcinoma by drawing something in a certain spot (red); these are forces of growth that now adhere inwardly to the organism so that in this spot the organism must cast off something that otherwise would pour into the entire organism. If I wished to draw what appears from the other pole, in the case of the manic conditions, I would have to draw something (this is all intended to be schematic, of course) as if it were welling forth from the organism (blue), pressing toward the soul-spiritual.

Now you can imagine weaker versions of these most extreme cases that I have sketched here. Imagine that the first extreme did not reach the point of carcinoma-formation but was stopped on the way to forming a carcinoma. If it were stopped on the way to carcinoma-formation, then an organ (for of course what happens cannot take place in nothingness, cannot take place in the intermediate spaces of the organism) would simply be taken hold of, but the organ would unite itself with the force that nor-

mally would strive inward in carcinoma-formation and there fully emancipate itself; it would unite itself with something that is a normal force in an organ, and we would then be dealing with the disease of an organ, which can be designated in the most varied ways, as is customary in medicine.

Now let us consider a tendency toward the manic condition that has been arrested halfway to its culmination. Such a person would not be brought through the abnormality of his organization to the point where the soul-spiritual was fully outside him, as in clinically established mania; he would not reach the point of getting totally out of himself, as it were, the thought element taking its own course in an emotional way. The condition would remain halfway to the extreme, as it were; then we would have to do with various forms of so-called mental illness – “so-called,” I say – which can also appear in the most varied ways, from organically determined illusions, and so on, to conditions that barely manifest organically but that nevertheless are always based in the organism, conditions like hysteria and so on.

Here we have attempted to pursue in two directions phenomena that lead us from the normal into the pathological. I would like to show you what actually lies at the basis of this, but I will show this from another angle, not yet entirely from the realm of spiritual science, whose methods I have characterized as Imagination, Inspiration, and Intuition; I will show it from a viewpoint reaching its understanding instead from a kind of instinct, but you will see that this understanding, if it does not wish to break through to the spiritual scientific path, remains stuck in the middle.

In the development of German cultural life we have an extraordinarily interesting phenomenon. Quite apart from how one evaluates Schelling as a philosopher, he is an interesting cultural-historical phenomenon. Even if everything he developed in his philosophy were false and distorted, a certain instinct lived in him for natural events, even in the realm in which ordinary natural science pursues natural events so unwillingly, where it relies more on a very crude empiricism. When the possibility presented itself to him, Schelling also sought to think medically; indeed he was extensively active even in issues concerning the healing process. In the history of modern philosophy little concern has

been shown for how Schelling actually came, completely instinctively, to depart from mere abstract, logical-philosophical considerations and to immerse himself in a real study of nature itself, even of the organic. He even put out a journal that occupied itself to an exceptional extent with medical questions. How did this come about? This can become clear if one knows and understands rightly the value of the deep instinctual knowledge out of which Schelling drew his truths and his errors.

A saying thus emerged out of Schelling that was certainly not built on clear knowledge but, you could say, was hewn out of the instinctive element of the soul life, a remarkable saying. "To know nature," he says, "means to create nature." Indeed, if what is expressed in this sentence could be directly realized in human knowing, it would be easy for us to approach medicine. If we were able to take up the forces of creation in our knowing, if the forces of creation were present in our consciousness, then we could easily penetrate into the realm of physiological and pathological phenomena, for then we would be able to observe the steps that creative nature follows. The empirical view states quite simply that we cannot do this.

One who then proceeds further can say that it is precisely in the unrealizable nature of this demand exceeding human capacity, which Schelling proposed, that we find something we are not permitted to see into, a process such as the occurrence of new formations. Because we are unable to pursue the creation of nature directly with our knowing, we are unable to see into the place where new formations appear; this means that without something further we are unable to pursue the existence of material processes such as come to expression, for example, in carcinoma-formation. By putting together what is actually denied to us there – our being unable to accomplish the instinctive demand of a highly gifted man that "to know nature means to create nature" – by putting together the unrealizable nature of this demand with what nevertheless appears to us in the carcinomatous process, it will be revealed how one must approach such processes in the body.

Of course Schelling has not spoken out of instinct from the other side. Consider just once the polar opposite to what Schelling has said. His sentence stands as: "To know nature means to

create nature,” which we are unable to accomplish; from the other side the sentence would stand as, “To know the spirit means to destroy the spirit.” This sentence has hitherto been expressed only by spiritual scientists, and even then only shrouded in a certain mysterious darkness: “To know the spirit means to destroy the spirit.” If we are unable to create nature, so we are also unable – we wish to present this first through an analogy, for then we can speak of it further – so we are also unable, out of our human capacity, to destroy the spirit. We cannot penetrate with our knowing to the point where the destruction of the spiritual begins. But you may already sense that here there arises a certain kinship to manic or similar conditions, for there too something destructive in the spirit arises. And the relationship must be sought between those normal human capacities that are unable to create nature in knowing it and those that are unable to destroy the spirit in knowing it.

Here I have simply sketched for you the path, something that must lead us directly from a normal, though instinctive, more deeply stimulated consciousness into a relationship of the human being to nature. We will see in the further course of our presentations that this path suggested here can lead us to what actually must be sought in the transition from physiology to pathology.

I hope that it will no longer be necessary for me to be the speaker tomorrow, but if that turns out to be the case I will try in the course of the next few days to continue at least sketchily the considerations begun this evening.

Lecture II

Dornach,
October 8, 1920

Today I wish to make a link with what I said yesterday at the conclusion of the lecture. I pointed then to a personality who was driven by his philosophical instincts, as it were, from knowledge of the soul-spiritual into an intimation of the connection of this soul-spiritual with the physical-bodily existence of the human being. This was Schelling. I said that out of these instincts Schelling not only occupied himself with theoretical medicine but also with all kinds of therapeutic treatments. I do not know whether this resulted in greater or lesser satisfaction for the patient than is the case with many well-trained physicians, for this question of how much improvement in a person's condition can be attributed to therapeutic measures is, in most cases, a very problematic one if it is not looked at inwardly.

This instinct arose in Schelling out of the entire disposition of his soul, and from this he acquired a principle. It would certainly be good if this became a kind of inner principle for every physician, became an inner principle so that the physician would coordinate his entire practical conception of the nature of the healthy and sick human being out of this principle. I quoted Schelling's own words, which show a kind of daring. He simply said, "To know nature means to create nature." Generally what is first noticed when a genius comes forth with such an expression is its quite obvious absurdity, for no one seriously believes himself capable, as an earthly human being in the physical body, of creating anything out of nature simply by knowing nature. Obviously in technology there is continuous creation, but there it is not a matter of really creating something in the way that Schelling meant; rather, by putting things together, by a composition of the forces of nature, nature in turn is given the opportunity to create in a particular way and through a particular arrangement, and so on. With this sentence, therefore, we have

fundamentally to do with an absurdity that a man of genius laid at the foundation of all his thinking.

Yesterday I indicated another sentence that could be contrasted with, "To know nature means to create nature," and this sentence would be, "To know the spirit means to destroy the spirit." This last sentence was probably not expressed by Schelling in such a fundamental way. In modern times, however, a person who once again approaches a spiritual science, developing his own spiritual investigation, sees that both these sentences basically point back to an ancient knowledge from inspiration. Schelling, who certainly was by no means an initiate but simply a man of genius, could arrive at the first sentence out of his instinct. When a person pursues the kind of spiritual investigation that was not being done in Schelling's time, this sentence immediately recalls a resounding from ancient wisdom. Then one is carried over to the other sentence, which resounds in a similar way from ancient wisdom. Neither sentence can be comprehended with the customary modern intellectual knowledge that we apply in our sciences. Considered either in relation to each other or by themselves, these phrases are absurd. They both point, however, to something of the greatest importance in the human organization, something as important for the healthy condition as for the diseased condition.

When we consider outer nature in relation to the finished processes of nature, we can say nothing more than that "To know nature means at most to recreate nature in thoughts." Therefore what we call our thoughts bring us no further than recreating nature since they lack the inner formative force; this is what we develop in our thinking, in the soul life permeated by thoughts, by mental images. It has been pointed out previously, however, that this soul life permeated by mental images is basically nothing but what emancipates itself from the physical-etheric organism at the time of the change of teeth, what the human being therefore has within the physical-etheric organism until the change of teeth.

What is active in the human physical-etheric during the childhood years, what truly engages in a creative activity, thus remains in a weakened form, toned down in the soul life as a world of pictures or a world of thoughts or mental images, in

short, as a world force in thoughts and mental images, a force in its creative substantiality. It simply sits in our organism; what we know from age seven on simply sits within our organism in an organizing way. It creates there, but not at all in the same as we are able to see it creating in outer nature; we see it creating within our own organism. Thus if a child were already a sage and were able to express himself not about outer nature but rather about what goes on within him, if the child were able to look within to his inner nature and penetrate nature there, he would say, "To know this nature means to create this nature." The child would simply saturate himself with the creating forces, would become one with these creating forces. And in his medical instinct, in his physiological instinct, Schelling merely stated something that for the entire later life is absurd; he drew forth something from the age of childhood and extended it by saying, as it were: all this knowing in old age is nothing but a faint web of images; if one were able to know as a child, one would have to say that to know actually means to create, means to develop creative activity. We are able to see this creative activity, however, only in our own inner being.

What is it, therefore, that actually confronts us as creative activity in our own inner being, which is expressed in a genius such as Schelling as I have indicated? It is true, isn't it, that the nature of genius is generally based on the fact that the person retains a certain childlike quality in later life. Those people who age no matter what happens and who take up aging in a normal way, as it were, take it up appropriately, never become geniuses. It is people who carry into later life something of a positive, creative-childlike element who bear the quality of genius. It is this childlike element, this positive creative element, this knowing-creative element that – if I want to express myself in a simple way – does not have time to know things outwardly because it turns the forces of knowledge inward and begins to create. This is the heritage that we bring with us in entering physical existence through birth. We bring with us the forces of organization, and we can perceive them, as it were, through spiritual science. And a person like Schelling sensed them instinctively.

Anyone who acquires such perception knows that these soul-spiritual forces that permeate the organism in an organizing way

in the first period of childhood do not completely cease being active with the change of teeth. They have undergone only one stage. They become suppressed, as it were, to a lesser degree of activity so that later we definitely still retain in us the organizing forces. We have conquered in ourselves, however, the memory-forming element that entered consciousness with the change of teeth, detaching itself thereby from the organization. We have taken memory from its latent state into its liberated state; we have received as a soul-perceptive force our growth force, our force of movement, our force of balance, which were active in a correspondingly heightened degree in the first period of childhood. You can see from this, however, that in normal human development, this organizing force, this growth force, must be transformed to a degree into something soul-spiritual, let us say, into the force of memory, into the thought-forming force.

Let us assume, now, that too much of this organizing force active in the first period of childhood were held back due to some process; picture a development in which insufficient forces of organization were transformed into the memory-forming force. These forces then remain stuck below in the organism; they are not carried properly into sleep each time a person falls asleep but rather continue to course through the organism between falling asleep and awakening.

If an individual engaged in medical, physiological-phenomenological research in the direction I can only suggest in this short course of lectures, he would be led to the insight that it is possible for forces in the human organism that should actually enter the soul-spiritual at the proper turning point in life instead to remain below in the physical organization. Then what I spoke to you about yesterday occurs. If the normal degree of organization-forces is transformed with the change of teeth, then in later life we have the proper degree of forces in the organism to organize this organism in accord with its normal shape and normal structure. If we have not done this, however, if we have transformed too little, then the organizing forces that remain below appear somewhere and we encounter new formations, carcinomatous formations, about which I spoke yesterday. In this way – just as Troxler suggested in the first half of the nineteenth centu-

ry – we can study the process of becoming ill or of illness that occurs in the moments of transition in later life.

We can then compare this with childhood illnesses, for obviously childhood illnesses cannot have the same origin, because they appear in an early stage of life when absolutely nothing has yet been transformed. If one has learned the origin of illnesses in later life, however, one has also acquired a capacity to observe what underlies the origin of illnesses in childhood. One finds the same thing, in a certain way, only from another side. One finds that there is too much of the soul-spiritual force of organization in the human organism when childhood illnesses arise. To an individual who has acquired the capacity to perceive along these lines, such things appear especially significant when considering the phenomena of scarlet fever or measles in childhood. With these he can see in the child's organism how the soul-spiritual, which otherwise functions in a normal way, begins to stir; he sees how it is more active than it should be. The whole course of these illnesses becomes comprehensible the moment one really sees this restless stirring of the soul-spiritual in the organism as the basis of illness.

Now, I beg you to consider my next sentence very precisely, for I never go a step further than is justified by the deliberations preceding it, even if much may be suggested only sketchily; everywhere I merely indicate how far one can go, so I am not drawing a conclusion here. I am simply saying that now one is not far from recognizing something that is extraordinarily important to recognize for a true knowledge. First we must arrive at the point of recognizing that in an illness of the human organism during later life, one that goes in the direction of new formations, there is too much of the organizing force that results in an island of organization, so to speak. When we have reached this point we are not far from saying that, if the later period of life points in this way back to earliest childhood, this indicates ultimately that what reveals itself in childhood points back to the time before birth or, let us say, before conception; it points back to the soul-spiritual existence of the human being before he was clothed with a physical body. A person suffering from childhood illnesses is simply someone who brought along too much of the soul-

spiritual from his pre-human, pre-earthly life; this excess then lives itself out in the childhood illnesses.

In the future there will be no choice but to allow oneself to be driven beyond the fruitless, materialistic approaches in which physiological and therapeutic matters remain stuck today, to be driven on to a soul-spiritual approach. It will soon be seen that what arises in spiritual science does not occur because the spiritual investigator is too little grounded in physical research, because he is, as it were, a dilettante in physical research (though I must add parenthetically that many who call themselves spiritual investigators are, in fact, dilettantes, but this is not how it should be). It is not necessary for the spiritual investigator to be grounded too little in physical research in order to become a spiritual investigator; rather he must be even more immersed in physical research than the ordinary natural scientist. If he sees through phenomena more intensively, he will be driven by the phenomena themselves into the soul-spiritual, especially when it comes to illness.

The sentence, “To know the spirit means to destroy the spirit,” is actually an absurdity similar to the first sentence, yet this sentence also points to something that must be recognized, that must be penetrated. Just as the sentence, “To know nature means to create nature,” points us to the first age of childhood, and actually to life before birth – if we extend it in the right way – so the sentence, “To know the spirit means to destroy the spirit,” leads us to the end of a person’s life, to what kills the human being. You need only hold to this sentence in a paradoxical way – “To know the spirit means to destroy the spirit” – and you will find how one must not follow it but how it nevertheless exists in life as something continually being approached asymptotically.

For an individual who doesn’t simply grasp knowledge aggressively but develops self-perception in the right way, to know the spirit means to see continual processes of breakdown, continual processes of destruction in the human organism. When we look into the creative age of childhood in the same way, we can see continuous up-building processes, but up-building processes that have the peculiarity of actually dimming consciousness. Therefore we are dreaming, we are half-asleep in childhood; our consciousness is not fully awake. Our own earthly spirituality,

namely the conscious spirituality of pressing back the growth activity, is what actually organizes us inwardly. The moment this force enters consciousness, it ceases to permeate us with organizing forces to the same degree as before.

In looking into the age of childhood one witnesses the work of up-building forces, though forces that weaken consciousness; in the same way one witnesses the breakdown processes when surrendering oneself to perceiving the developed thinking processes, but these breakdown processes are particularly suited to making our consciousness clear and luminous.

Modern physiological science pays little attention to this, although this is perfectly obvious in physiology's revelations, as obvious as can be. If you direct your attention to the real revelations of modern physiology, you will see that everything known about the physiology of the brain makes it quite clear that with soul-spiritual processes occurring consciously we do not have to do with any kind of growth forces or forces that take up nourishment; rather we have to do with processes of elimination in the nervous system, with breakdown processes, with a continuous slow dying.

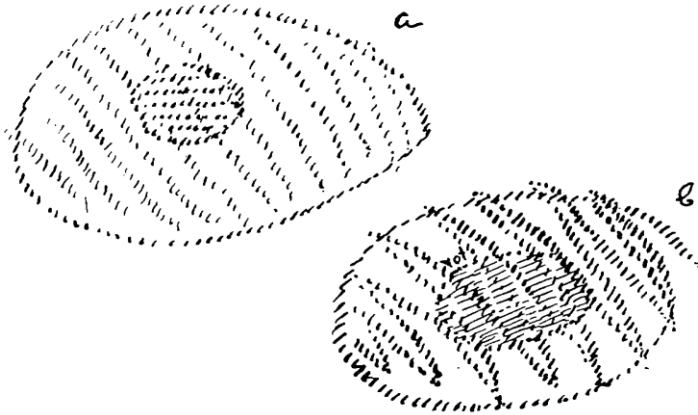
It is death that is active in us when we surrender ourselves to what is spiritually active in our consciousness. And just as we look through the unconscious creating forces to the beginnings of life, so we look through the conscious conceptual forces that reveal themselves as destructive forces; they reveal themselves as what begins to take hold of us more and more as we grow into earthly life, to break us down, and finally to lead us to confront earthly death; we see through these forces to the other end of life, to death. Birth and death – or, let us say, conception, birth, and death – can only be understood by taking the spiritual into consideration.

And what wants to be expressed in the sentence, "To know the spirit means to destroy the spirit," is this: if a person wishes only to gaze into the spirit, to take it up more or less naively, to take it up in the same way that outer nature is taken up, then that individual would have to dam up what is active in this thinking, conceptual, sensing and feeling activity; the breakdown would have to be prevented. This means that in such a moment a person would have to diminish, to weaken, the power over the spir-

it, the inner consciousness, to the point of unconsciousness, to a working of the spiritual in unconsciousness. He would have to come to the point of forming something spiritual out of himself, of pressing something spiritual out of himself, as it were. To do this, however, he could not remain conscious, because the organization cannot be carried into this breakdown process, into this spiritual process.

Thus we can say that on the one hand we have the processes of organization that consist of the fact that we have the form-skeleton of the human organism, as it were (see drawing a), into which the organizing force (drawing b, red) enters as something spiritual. (Of course this is now considered abstractly.) On the other hand, as I have described in the second case, we have the form-skeleton of the human organism, but we do not wish to allow it to be permeated by the organizing force, by the force that weakens our consciousness to a certain extent; instead we wish to drive out the organizing force, which we now want to know as spirit (see drawing c). We cannot go along with our 'I', however, because this is bound to the organism.

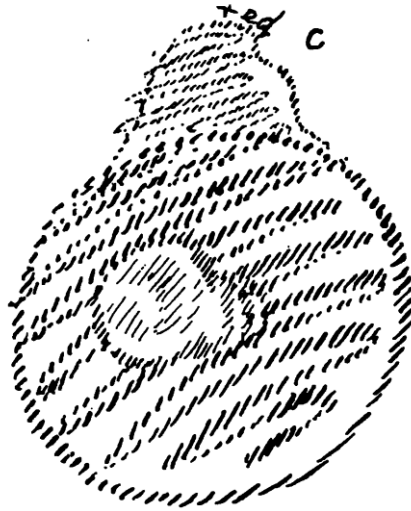
We have the other side as well; the side in which man clearly begins to develop the spiritual, that is, to develop will activity in the spiritual. This permeation with will activity remains uncon-



scious, sleeping, as it were, dreaming; based in this permeation with will activity is a soul-spiritual element that we actually bring forth from our organization without consciousness. Here we have the other side, the manic side, the frenzied side, in

which the human being goes mad; we have the varying forms of the so-called mental illnesses. Whereas with physical illnesses we have a soul-spiritual element that does not belong in the physical organism (drawing b), with the so-called mental illnesses we have something in the psychological realm that drives out of the physical-etheric something that should remain within it (drawing c). Something is driven out of the organism.

Today we will see what we arrived at yesterday illuminated from the other side. This viewpoint can lead us still further. We will see tomorrow the fruitful therapeutic consequences that can be arrived at particularly from this viewpoint, consequences that can then be confirmed absolutely in life, proving themselves in the most outward practice of medicine, in practical therapeutic measures.



If we are looking for the cause of physical illness, we must ultimately seek it in the spirit going astray in the organism. This should certainly not be pursued abstractly. Anyone who does not

understand the relationship between the soul-spiritual and the physical organism should really stay quiet about these matters. Only with knowledge of the soul-spiritual element can one come to know the specific aspects of this, where in one organ or another there is too strong a force of organization, a hypertrophied force of organization, as it were; these details can be arrived at only if one knows the soul-spiritual concretely. The soul-spiritual element is made concrete in the same way as the physical-bodily element in the liver, stomach, and so on, and one must know this soul-spiritual element (of which psychology has no intimation) with its constituents, its members, just as well as we know the physical-sensible. And if the relationships between the two are known, then one can often indicate – even out of the soul-spiritual findings encountered with the human being – where there is some kind of excessive organization in a particular organ. In every case that is not the result of an external injury, such an origin can be indicated.

On the other hand, if we are considering the so-called mental illnesses, we remain purely in abstractions if we believe that anything can be gained from a half-baked phenomenology, if we believe that simply by describing soul-spiritual abnormalities one can arrive at anything (though to describe them is, of course, most useful). With such descriptions one can naturally create a sensation among laymen, because it is always interesting to learn how a person who has gone mad deviates from life's normal standard. Anything unusual is interesting, and in our time it is still rare to deviate in this way from normal life. But to remain stuck in simple description should not be the important thing. It is particularly important not to press on from that point to the dilettantish judgment that in such cases the soul and spirit are ill and that the soul and spirit can be cured somehow by soul-spiritual measures, as is commonly dreamed up by those who remain stuck in abstractions.

Indeed not. Particularly with the so-called mental illnesses it is absolutely clear that in every case one can indicate where the diminished organization of some organ resides. An individual who truly wishes to know the nature of melancholia or hypochondria driven to the point of mental illness must not wade around in the soul element; he should rather attempt to deter-

mine, from the condition of the abdominal organs of the person in question, how the diminished organization is influencing the person's abdominal organization. He should attempt to determine how a force of organization that works less strongly than normal allows something to precipitate out, so to speak – just as in chemistry one precipitates something out of a solution so that a sediment occurs – how a diminished force of organization in the physical-bodily element, which would otherwise be permeated by the force of organization, precipitates something out and how this precipitate is then present in the organism as something physical-bodily, how it is deposited in what takes place in the liver, gall, stomach, heart, and lungs. These processes are not so accessible to investigation as one would like nowadays, when people prefer to stick to the crude aspects – for histology also remains at the crude level. Psychology is necessary to such an investigation, but in every case it is necessary to lead the study of so-called mental illnesses back to the bodily condition.

Of course such illnesses may seem less interesting as a result, but this is nevertheless the case. It naturally seems more interesting if a hypochondriac can say that his soul life is active in such-and-such a way in the soul-spiritual cosmos than to say that there is a diminished force of organization in his liver. It is more interesting to look for the causes of hysteria, let us say, in the soul-spiritual; it is more interesting than if one simply points to the metabolic processes of the sexual organs when speaking of hysterical phenomena or if one speaks of irregularities in the metabolism that spread throughout the organism. Little will be learned about these things, however, if the investigation is not pursued in this way.

Spiritual science is not always simply seeking the spirit. This can be left quietly to the spiritualists and other interesting people – interesting because they are rare, though unfortunately they are not rare enough! Spiritual science does not incessantly speak about spirit, spirit, spirit; rather it attempts really to lay hold of the spirit, and it tries to pursue its effects and succeeds by means of this in reaching the correct place for a comprehension of the material. It is certainly not so arrogant as to try to explain mental illnesses abstractly by mental means; instead it leads, particular-

ly in the case of mental illness, to a material grasp of mental illness.

One may thus say that it points in a clarifying way to some interesting phenomena. One need not look back very far – perhaps still with Griesinger and others, or in the pre-Griesinger era in psychiatry – to discover that not so long ago psychiatrists also at least incorporated the bodily condition in their diagnoses. But what has become more and more common today? It has become commonplace for psychiatrists to flood us with descriptions of illness in their literature that merely describe the soul-spiritual abnormalities, so that here materialism has actually led us into an abstract soul-spiritual domain. This is its tragedy. Here materialism itself has led away from materialism. This is what is so remarkable about materialism, that in certain regards it leads to a misunderstanding, to a lack of comprehension of the material world itself. One who pursues the spirit as a real fact, however, also pursues it where it works its way into the material and where it then withdraws so that the material is deposited, as in the so-called mental illnesses.

I had to present these things as a foundation in order to offer guidelines in relation to the therapeutic aspect tomorrow. What we discover when the physiological-therapeutic domain is fructified with spiritual science also has a social aspect. Life is remarkable in that everywhere we are driven into the social element if we are not seeking the scientific in an abstract withdrawal, in an academic existence estranged from life, but rather in the life-filled comprehension of human existence, of human community, if we are seeking with a truly living science. As an example, we have an extraordinarily interesting social phenomenon in recent evolution: through the split of humanity upward into a bourgeois aristocracy and downward into the proletariat, we can see how the one-sided aristocratic nature is taken hold of by a false seeking after the spirit, by materialism in the spiritual realm, while the proletarian nature is taken hold of by a certain spiritualism in the material realm.

What does that mean – spiritualism in the material realm? It means remaining stuck when seeking the origins of existence. The proletariat has thus developed scientific materialism as a view of life at the same time as the aristocratic element has de-

veloped the teachings of the spirit materialistically. While the proletariat has become materialistic, the aristocracy has become spiritualistic. If you find spiritualists among the proletariat, they did not grow out of their own proletarian soil; rather it is a mimicry, it is simply imitative, merely something that penetrated the proletariat by an infection – I will speak about infection tomorrow – with the aristocratic-bourgeois element.

And if you see among the aristocracy the development of materialism, coming to behold spirits materially as one looks at flames, so that materialism is carried into the most spiritual, wanting to see the spiritual materially, then we see this growing out of the original, decadent one-sidedness that emerged from the universally human, from the totality inclining to the aristocratic, to the bourgeois element, infected by the aristocratic element.

If what applies to the spirit is compelled to remain in matter, because it has not been drawn out by an appropriate education or the like, if in its spiritual seeking the proletariat is compelled to remain in matter, then materialism develops as a view of life. Materialism was developed by the proletariat as a view of life in the materialistic understanding of history, for example. Materialism was developed by more aristocratic people as spiritualism, for spiritualism is materialism, masked materialism, which does not even remain honest enough to acknowledge it; instead it lies and maintains that those who profess things materialistically are actually spiritual. After this divergence, we will continue tomorrow with our studies.

Lecture III

Dornach,
October 9, 1920, a.m.

In the short time available to us for this therapeutic portion of our meeting, it will naturally only be possible to speak in a general way about specific therapeutic measures. On the other hand, it is always questionable whether one should speak in detail about specifics, especially in medicine, if one is not speaking to a purely professional audience, as was the case when I gave a series of lectures in the spring*. For the future development of humanity, it will indeed be necessary that the widest circles are familiar with the guiding principles of healing in order that a trusting relationship, well-grounded in facts, may develop between physician and patient. Though it will be necessary for such an understanding of the guidelines for medicine and social hygiene to be sought in the widest circles, it will nevertheless remain undesirable for an excessively dilettantish and lay judgment to intervene in medical matters; due to the state of medicine in modern times, this happens far too frequently today.

It must be firmly stressed that I have absolutely no intention of encouraging any kind of quackery. Within our anthroposophically oriented spiritual science we must instead strive to bring spiritual scientific knowledge into a true medical art based on a methodical study of medical science. We therefore will not align ourselves with those who, out of an unlimited ignorance concerning what they are actually speaking about, attack nearly everything they call academic medicine and the like. We should certainly not align ourselves with these people.

Something else must also be considered in discussing matters like those that will be raised today. Though in a certain sense this has been the case for a long time, something has permeated medicine particularly in modern times; this aspect has asserted itself in our time with all the vehemence with which matters tend

* Rudolf Steiner, *Spiritual Science and Medicine*, twenty lectures given to physicians in Dornach. 1920. Rudolf Steiner Press, London, 1975.

to assert themselves in our chaotic social order: this is the formation of partisan groups even within the medical field. And these parties struggling among themselves are no better than political parties. In general it is quite clear that this cannot support the development of medicine. The battle between the allopaths and the homoeopaths, between the so-called academic physicians and those using natural remedies and so on, has generated a great deal of confusion in the understanding of medicine that is required in the wider circles of humanity. I needed to make these introductory remarks today so that what I have to say will not be placed on false ground.

I have already directed your attention to how, on the one hand, the soul-spiritual stands within the human process of organization; this then proliferates, as it were, in the physical processes of illness so that the soul-spiritual cannot work separately from the physical organ, as it should, thus wreaking havoc in it. When this happens we are faced with all those illnesses that tend toward new formations in the organism.

By contrast, we are also concerned with illnesses in which the soul-spiritual develops in such a way that it does not take sufficient hold of the physical organism, whereupon certain parts of the physical organism are abandoned, not to processes taken hold of by the human organization but to subordinate processes of natural existence. In this way organs “physicalize” – if I may use such a word – to an excessive degree rather than permeating themselves soul-spiritually. The soul-spiritual then flows out without being encompassed in the right way by the ‘I’-consciousness, and as a result all the forms of illness arise that we designate inaccurately as mental illnesses.*

This view must be modified, however, the moment one proceeds from a sound physiology to a sound pathology and therapy; it must be modified by being developed still more precisely. It must incorporate the view of the nature of the human being that has been presented here repeatedly, though in very different

* In German, the illnesses are called *Geisteskrankheiten*, diseases of the spirit as opposed to those of the body. As Steiner is speaking here of the role of the spirit in bodily phenomena, it may be helpful to keep in mind the thought of spiritual illnesses, though in the translation we have chosen the more commonly used English equivalent, mental illnesses.

connections from those we require today: this is the view of the threefold nature of the human organism.

On the one hand we have to do with a threefold nature of the soul being: in forming mental images, in feeling, and in will impulses. This threefold nature of the soul being, however, corresponds very precisely with a threefolding of the physical-bodily being: a kind of head system or nerve-sense system, a rhythmic system, and a metabolic-limb system. I must stress particularly that this constitution of the human organism must not be understood merely intellectually but through inner perception. A person would be unable to comprehend how matters actually stood if he remained with an external picture, if he understood the head system as something that simply ends at the neck, the circulatory or rhythmic system as being encompassed by the trunk, while the digestive system encompasses the limb system, the sexual system.

What is important here is that while the nerve-sense system is located primarily in the head, it nevertheless extends over the entire remaining organism as such. We may thus say that when we speak here with an anthroposophical purpose about the nerve-sense system, it is the system of functions in the human organism (for we are concerned here not with spatial limitations but functional limitations) that is located essentially in the head; nevertheless the head activity extends over the entire human being so that in a certain sense the whole human being is head. The same is true for the other systems. It was thus mere foolishness when a superficial professor of medicine, who did not intend really to study these matters but only wished to discredit them to the world, spoke about the “belly-system” in order to ridicule what is actually referred to by the metabolic system. He has merely shown his total lack of understanding for how the threefold constitution of the human being is functional and not defined by spatial limitations.

When an individual really understands this constitution of the human being – about which many lectures could be given to describe it in full detail – he reaches the point of being able to perceive clearly the distinctions between the head system, and therefore the nerve-sense system, on the one hand, the metabolic-limb system on the other hand, and the mediating system, the

rhythmic system, whose essential role is to bring about the balance between the two other systems.

If we thus wish to encompass the entire nature of the human being, we must consider the following. The actual conceptual and perceptual activity of the human being has as its basis – one cannot even say as its tool, but as its physical basis – everything that takes place physically in the nerve-sense system. It is not the case, as is suggested by modern psychology and physiology, that those processes connected primarily with the feeling and willing systems also take place in the nerve-sense system. Such an opinion does not hold up before a more precise study of the issue. You will find such a precise study, at least suggested in its outlines, in my book, *Riddles of the Soul*.*

Much detailed work must still be done in this regard, however. Then what spiritual science has to say with certainty from its side will be elaborated from the other side, from the physical-empirical side. It will become clear that man's feeling is not connected in a primary way with the nerve-sense system but with the rhythmic system, that just as the nerve-sense system corresponds to mentally active perception, so the rhythmic system corresponds to feeling. Only through the interaction of the rhythmic system with the nerve-sense system, by the roundabout route of the rhythm in the cerebral fluid, pulsating against the nerve-sense system, is the nerve-sense system engaged as the carrier of the conceptual life. Then, if we raise our feelings to mental images, the dull, dreamlike life of feelings is perceived and pictured by us in an inner way. Just as the life of feeling is directly connected with the rhythmic system and is indirectly mediated by it, so the life of will is connected directly with the metabolic system. This connection in turn acts in a secondary way, since metabolism takes place also in the brain, of course, so that the metabolic system in its functions presses against the nerve-sense system. In this way we are able to bring forth the mental images of our will impulses, which otherwise would unfold in a dull sleep life within our organism.

* Rudolf Steiner, *Von Seelenraetseln*, 1917. English translation published by the Mercury Press.

Thus you can see that in the human organism we have three different systems that carry the soul life in different ways. These systems do not simply differ from one another; they actually oppose each other (as I said, I can only sketch these matters today) so that on one side we have the nerve-sense system and on the other side all that constitutes the functions of the metabolic system, the metabolic-limb system (see drawing). Regarding the connection of the metabolism with the limbs, you can arrive at appropriate images if you simply consider the influence of the moving limbs on the metabolism. This influence is much greater than is ordinarily assumed in outer consciousness.



These two systems, however, the nerve-sense system and the metabolic-limb system, are in opposition, are polar opposites in a certain way. This polar opposition must be studied carefully in order to arrive at a sound pathology and therapy, particularly a pathology that could lead organically over into therapy; it must be studied carefully in all its countless individual details. If one enters into the detailed effects, it becomes evident that what I suggested yesterday is truly the case.

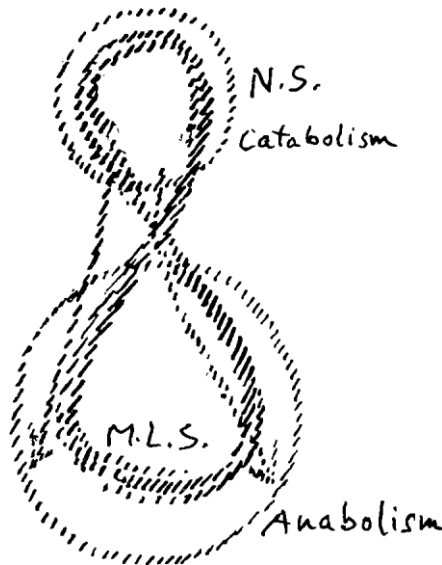
Within everything connected with the head system or nerve-sense system, we have breakdown processes, so that while our conceptual activity takes place in the waking state, when we perceive and form mental images, this activity is not bound up with growth and up-building processes but with breakdown pro-

cesses, processes of elimination. This can be grasped if one looks in a sound way at what empirical-physiological science has already presented concerning this. There is already empirical evidence – or to express it better, empirical corroboration – for what spiritual science provides through its perception. You need only pursue what certain inspired physiologists are able to present about the physical processes in the nervous system, which unfold as parallel phenomena to perceiving and forming mental images. You will see then that this assertion is certainly well supported, the assertion that when we think, when we think and perceive wakefully, we have to do with processes of elimination and breakdown, not with up-building processes. By contrast, where the will processes are mediated for the human being in the metabolic-limb system we are concerned with up-building processes.

All individual functions in the human being definitely interact with one another, however. If we look at the matter correctly, we must say that the up-building processes from below work up into the breakdown processes, and that the breakdown processes from above work down into the up-building processes. Then if you pursue this logically you have the rhythmic processes as a balancing system, as functions introducing the balance between the up-building processes and the breakdown processes, rhythmic processes that press breakdown into build-up and build-up into breakdown.

If we do not study the matter purely outwardly, we see that in the so-called blood circulation of the heart, in the aeration of the human body, we have everywhere special processes, as it were, that are somehow interrupted. I can-not go further now into this interruption, which has its purpose, but everywhere we have a specialization of this rhythmic curve that I have sketched here (see drawing). The course of breathing is a special aspect of this curve, the process that you draw if you follow the course of the blood from the heart upward toward the head or respectively toward the lungs and down to the rest of the body. Thus you have a specialization of these processes. In short, if you enliven what is suggested here, you penetrate into the functional tissue of the human organism, not in the dead way that is customary but in a living way. To do so you must enliven your own mental

images. A mobile image of the human organism can thus be pictured. The human organism cannot be encompassed with static, abstract mental images, as modern physiology and pathology would like to encompass it today; it must instead be grasped with mental images in movement, with mental images that can really penetrate into the working of something that has inner movement, that is in no way merely a mechanical interaction of organs situated at rest in relation to one another.



We thus can see that within the human organism there is basically a continuous interaction between the breakdown processes, the deadening processes, and the up-building processes, the growth or proliferative processes. The human organization cannot be grasped without this activity.

What is actually present there, however? Let's look at the matter more precisely. If the breakdown process of the nerve-sense organization works into the metabolic-limb system through rhythm, something is present there that works against the metabolic-limb system, something that is a poison for this metabolic-limb system. The reverse is also the case, that what is present in the up-building system, working into the head system

in rhythm, is a poison for the head system. And since, as I have indicated, the systems are spread out over the entire organism, a poisoning and unpoisoning are continuously taking place everywhere in the human organism, and this is brought into balance by the rhythmic processes.

We are therefore unable to regard such a natural process as taking its course one-sidedly, in the way that one normally pictures things, so that healthy processes are simply designated as normal. Rather we look into two processes working against one another, where one is a process that is thoroughly illness-engendering for the other. We simply cannot live in the physical organism at all without continuously exposing our metabolic-limb system to the causes of illness from the head system and exposing the head system to the causes of illness from the metabolic system. A scale that is not balanced properly is thrown out of balance by entirely natural laws so that the beam does not rest on the horizontal; similarly life, because it is in constant movement within itself, does not simply exist in a state of balanced rest but rather exists in a state of balance that can deviate in both directions toward irregularities.

Healing, then, means simply that if the head system, for example, is working in a way too strongly poisonous on the metabolic system, its poisoning effect is relieved, its poisonous effect is taken away. If, on the other hand, the metabolic-limb system is working in a way too strongly poisonous on the head system, which means working over-abundantly, then its poisonous effect must also be removed.

It is possible to arrive at a comprehensive view of this realm, however, only if one now extends what can be observed in the human being to the observation of all nature, if one is able to grasp all nature in a spiritual scientific sense. If you look at the plant-forming process, for example, you can see clearly and macroscopically the upward striving of plant-forming processes, a striving away from the center of the earth. You may make a stimulating study of this metamorphosing formative striving of the plants, at least in a rudimentary way, on the basis of the guidelines offered in Goethe's *Metamorphosis of the Plants*. In Goethe's *Metamorphosis of the Plants* there is a sketchy rendering of the first composition, the first elements that are to be stud-

ied about the nature of the plant in this direction, but the direction of such a study must be developed further. The initial guidelines must be pursued, for then we may obtain a living view of everything involved in plant growth: when rooting in the soil the plant's upward-striving develops in a negative direction in the root; the plant begins to grow, then grows upward, overcoming the force of attraction of the earth prevailing in the root; then it wrestles through other forces in order to come ultimately to blossom, fruit, and seed formation. A great deal takes place upon this path.

On this path, for example, an opposing force once again intervenes. The opposing force that intervenes can be well observed if you study, simply to take an example, the common birch, *Betula alba*. Pursue very precisely the process that takes place from the root formation through the trunk formation, particularly the bark formation. Consider how, on the basis of everything that works together in the trunk and bark formation, there develops what later comes into manifestation in the leaf formation. This can be studied particularly well in a spiritual scientific way if the still-brownish young birch leaves are studied in the spring.

If this is studied vividly, one also receives a view of forces self-metamorphosing, forces that are active there within the plant. One receives a view of how, on the one hand, there is a formative force active in the process of plant formation that works from below upward. On the other hand it is also possible to behold the force that retards, which in the root still works strongly as the force of gravity but which, as the plant wrestles itself free from the earthly substance out into the air, is able to work together in another way with the upward-striving force. We then reach an interesting stage, a stage very helpful in understanding how in plant formation during this upward-striving process certain salts, potassium salts, are deposited in the birch bark; this is simply the result of the interaction of the forces working downward with the forces working upward, tending toward protein formation, you could say, toward what I would like to designate as the albuminizing force formation.

In this way it is possible to penetrate into the plant-forming process. I can only indicate this here. By looking at how the po-

tassium salts are deposited in the birch bark, how something wrestles itself free from this force drawing downward (a process somewhat comparable to what happens when a salt precipitates out of a solution), coming to the process that takes place when the solution rids itself of the salt, we come to see, to grasp in a living way, the process of protein formation, the process I would designate as the albuminizing process. We thus have a path to study what outwardly surrounds the human being, to study it vividly.

Then when we look back at the human being, we can see how, fundamentally speaking, the human being has the same form of forces in him – if we consider the breakdown process working from above downward – that work from below upward in the plant. We can see that in what is active in the forces working downward from the head system toward the metabolic-limb system there is something like an inverted plant element active within us. We can see that in fact those forces that we see sent upward in plant growth work in a downward direction in the human being. If the human being inappropriately holds back this process of plant formation active within him, so that he doesn't permeate the bodily life in the right way with what is active in the head – the astral, the 'I'-being – and if this then penetrates the bodily nature, this penetration expressing itself within the body, then something is held up there, something that should proceed into the human organism. We thus have to do with a pathological phenomenon like that which confronts us, for example, in cases of rheumatism or gouty conditions. If we study what is brought about in the human organism when this breakdown process is dammed up in a certain way, we discover its effects in the process of rheumatism, in the process of gout formation, and so on.

Let us now shift our gaze again from within the organism to a process of plant formation like the one we have in the *Betula alba*. From this we can arrive at the following. We look on the one hand into what takes place in salt formation and on the other hand into protein formation. We find, if we understand this process of protein formation in the right way, that the opposite process is within it and is held up there. We find held up in the organism that process which should take place in a way similar to

the correct process of albuminizing in the leaves of the birch. We are thus able to come to the relationship between those processes that take place in the birch leaves, for example, and the processes within the organism if we process what is in the birch leaves into remedies. We can then give these remedies to the human being, by means of which we can bring about a healing, because the remedy correctly opposes this damming-up process that occurs in rheumatism and gout. In this way we look both at what is taking place outside in nature and at what takes place within the organism, and then we arrive at an idea of how we should guide the healing forces.

On the other hand we can see instances when the break-down processes proceed in such a way that the organism cannot restrain them so that they pour themselves downward, and the rhythmic system does not press them back in the right way; they thus reach the periphery of the body, pressing outward, as it were, toward the skin. Then we get inflammatory conditions on the outer portion of the human being, we get skin eruptions and the like. If we now look back again to our plant, to the *Betula alba*, we find the opposing process in the disposition of the potassium salts in the birch bark; we thus become able to see how we can fight against the process of skin eruption, which is an excessive function of exudation within the human being, by preparing a remedy from the birch bark.

We are therefore able to study how plant processes, how mineral processes, are active, and we grasp the connections between what is outside in nature and what is active within the human being. In other words, medical empiricism, therapeutic empiricism, ascends to what Goethe calls in his sense – not now in the intellectual sense but in his sense – the rational stage of science. We arrive at a science as therapy, which is able really to penetrate into the connections.

These things are not so simple, for one must study things in detail, at least in accordance with certain types, at first in accordance with secret types of the human personality and in accordance with secrets of natural existence. It should not be assumed that if the process has been studied in an example such as the *Betula alba*, an overview has already been reached of what needs to be considered. In each different plant-forming process –

for example in the horse chestnut or whatever – these formative processes will manifest themselves in an essentially different way. What has been indicated here should not in any way lead to a generalized twaddle but to a very serious and extensive study.

Now I wish to direct my words particularly to the students here. If this study is undertaken in a rational way, it need not drive you into a panic regarding the extent of study necessary, for if everything now present as examination-ballast falls away – to speak in Paracelsus' terms – and is replaced by something active, leading in this way to a rational view of a therapeutic pathology and a pathological therapy, students will have to study not more but less. And because this study will permeate you with life, it will bring forth a much greater enthusiasm than what leads you to the human being today, yielding only the ability to see organs. Such organs are by no means at rest and can be understood only if they are grasped in their living function and in their interaction with other organs, can be understood only if this organization is studied and if one strives to enter completely into the functional element. We need an outer natural science that is also striving to reach the functional element.

It is absolutely necessary to study in parallel the inner process in the human being, that peculiar process taking place as poisoning and poisoning effects that have fallen out of balance, and those processes that take place in the natural order. And because the outer relates itself in a polar way to the inner, the outer processes must be used in a certain way polarically. By this means we can be guided into pathology, or, said better, into a therapeutic pathology and a pathological therapy

I have only been able to suggest here what is necessary to direct the steps needed to heal medical study, and was only able to suggest how spiritual science wishes to work into this medical study. This evening I will give you a few more examples, to show you how intuitively looking together at the outer workings of nature and the workings of the inner organism can lead to therapy and to knowledge of pathology. At that time I would like to go into particular substances

During the brief time available to me here, I have only been able to indicate the principle, as it were, concerning the example of *Betula alba*, and this evening I will give some further indica-

tions, but in every instance I will try to hold myself to indicating only what can add to a general understanding of the human being. Proceeding from this, the physician must move into further specialization. He must enter into the specifics. To deal with specifics always requires an individual evaluation, and here it is only necessary, out of the laymen's understanding of medical directions, of medical principles, for an understanding to grow of what the physician has to undertake within the outer world.

If you consider rightly the course that an anthroposophically oriented spiritual science wishes to pursue in medicine – and I will speak more about this tonight – you will really be able to say that this anthroposophically oriented spiritual science does not wish to encourage quackery and dilettantism; rather it wishes above all to work toward a healing of science, toward a true, serious science that will itself engender social effects.

Lecture IV

Dornach,
October 9, 1920, p.m.

Tonight I would like to add a few things to the lectures I have been giving to you in these past few days as a substitute for the scheduled lecturer. I would like to point aphoristically, as it were, to something that may still be able to clarify a principle for the fructification of medical-therapeutic study through spiritual science. Obviously for the reasons already mentioned this morning, I cannot speak too much detail here; that is due not so much to the shortness of time – that too, naturally – but more to the fact that detailed knowledge must be held for a really professional gathering of physicians, again for the reasons I presented this morning.

Nevertheless, I would still like to contribute something in this direction, something that can lead to a general understanding of the nature of medicine so that a kind of social influence can emanate from a spiritual scientific study of medicine, bringing about a certain trust between the public and physicians. The better our understanding of the nature of medicine, the more effectively will medicine be able to work.

This morning I directed your attention to the fact that the life of the human organism consists of the nerve-sense system – the head system – working oppositely to the metabolic-limb system; these two are then balanced by the rhythmic system. All breakdown processes, the completely necessary breakdown processes of the nerve-sense system, are continuously brought into harmony and exchange with the up-building processes of the metabolic-limb system. You can imagine (and this can be verified in detail) that because the two systems of the human organism work in a thoroughly opposite way, they also work upon one another. Thus what goes on in the details of the metabolic-limb system, for example, should not be influenced too strongly from the head system, bypassing the rhythmic system; when this hap-

pens an activity suitable only to the head system works its way into the metabolic-limb system.

If we adequately penetrate what we are concerned with here, we will come to understand how such intrusions of one system upon the other can take place. It will be understood, in other words, how the head system, the nerve-sense system (in which there must also be metabolic processes, as I have explained to you), can occasionally be overcome by metabolic processes that make the head system resemble the metabolic-limb system inwardly and functionally. The reverse can also take place, because the same functional system that is normally active in the head is also active in the metabolic-limb system, though in a subordinate way. Occasionally this activity can get the upper hand, can become too intense in the metabolic-limb system, where it should only reach a certain level, having its actual significance in the head.

This is possible, in other words, because the nerve-sense activity that is also present in the metabolic-limb system strongly impregnates the metabolic-limb system with head activity, which thus becomes predominant in the abdomen, for example. Said in a better way, it becomes an activity whose intensity is too great. Then what should normally take place as breakdown processes only in the nerve-sense system will take place in the abdominal organs. Of course it will take on another form in the abdominal system, but it will nevertheless cause mischief there. In fact, by looking in this way into the organization of human nature, we can see in the phenomenon I have just described the development of a serious human illness, namely, *typhus abdominalis*. The manifestations of typhus may certainly be studied empirically, but they can be understood and placed within the entire human organization only if one is able to penetrate the human being in this way from the standpoint of a rational medicine, if I may use this Goethean designation.

I have also shown you this morning how it is possible to make the transition from the physiological-pathological to the therapeutic by attempting not only to penetrate what goes on in human nature but at the same time to penetrate what goes on in outer nature. Processes take place in outer nature which, if penetrated in the right way, can be introduced into the human organ-

ism by administering the appropriate substances. Because outer nature – the plant nature, for example – works in a certain way by virtue of its striving upward, working in an opposite sense to what strives downward in the human being, substances from plants can restrain certain processes that are unfolding improperly among the three systems of the human organism.

It is interesting to explore how what I presented to you this morning about the plant world and its connection with the human being can be penetrated in a similar way in relation to the mineral world. In order to penetrate this matter in relation to the mineral world, however, we must first gain certain anthroposophical understandings of the human being.

The soul-spiritual, the etheric, and the physical are all active in the human being. As we will have been able to discern through the considerations in these lectures, this soul-spiritual element works in such a way that it can be penetrated by full 'I'-consciousness. If this is the case, the human being is organized in the normal way, as it were. On the other hand, the 'I'-consciousness may be weakened, may step back in some way. If the soul-spiritual element kicks up some kind of fuss, going its own way without being penetrated in the right way by the 'I', then various types of the so-called mental illnesses arise.

Everything that is soul-spiritual in the human being, however, as well as what in anthroposophical terminology is called the astral – that is, the more subconscious, dreamlike, or entirely unconscious soul life – and also what is understood as 'I'-activity, as the fully conscious soul life, has its physical carrier by means of which it works in a certain way in physical life. We may therefore say that if we study the human being we must direct our gaze not merely to what expresses itself as 'I'-activity, which is a purely spiritual activity; we must rather direct our gaze to the actual carrier of this 'I'-activity in the organism. We find that the actual carrier of this 'I'-activity is essentially anchored in the blood.

I could certainly demonstrate to you in detail how, especially through the particular activity of the blood, through the working together of the metabolic activity in the blood with the rhythmic activity in the blood, the 'I' works with the rest of the soul element, but to go into this now would lead too far. What should

interest us more right now, however, is the bridge from physiology and pathology to therapy. There we find something exceptionally important. We can influence the physical scaffolding, as it were – the physical carrier – of a soul-spiritual element, of the fully conscious ‘I,’ let us say, through certain processes that we bring about in it. The physical carrier then withdraws from the ‘I’-activity, as it were, yet continues to perform a function similar to what otherwise takes place only under the influence of the ‘I’-activity.

Let me refer to a specific case in this connection. Imagine, please – I will sketch this for you – that what is active as ‘I’-activity builds up, through the human blood system, something like a scaffolding, a scaffolding of forces. I will designate the ‘I’-activity itself by these colored lines next to the line of this force-scaffolding, the line that designates the soul-spiritual element of the ‘I’-activity (see drawing, red). If one can now influence the force-organization lying at the basis of the ‘I’-activity in a certain way, it could be possible for this force-organization to become independent, as it were, to tear itself away and as physical activity, as scaffolding of physical force-activity, to separate itself from the soul-spiritual and yet remain like an image of the soul-spiritual activity, though



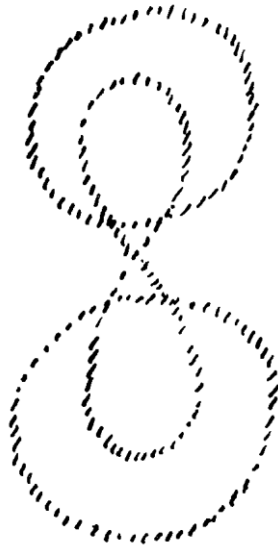
working merely physically. In a certain way we thus incorporate into ourselves a kind of double that works deeply in the subconscious but that works similarly – though only in space, which means only physically – to the way it normally works when surrendering itself as an unencumbered instrument for the ‘I’-activity.

This can be brought about by introducing too much phosphorus into the human being, by administering to someone a powerful dose of phosphorus. (This does not actually need to be done; in elementary cases one can already see this. It is always possible to find the point designated by Goethe as the one behind which nature reveals its manifest secret, if one follows the appropriate path.) It is possible to separate out the bodily carrier of this ‘I’-activity from the ‘I’-activity itself. Then this ‘I’-activity is carried out in the body as in an image. What would be the result of this? The result would be that, particularly under the influence of the phosphorus forces, the blood activity would proliferate beyond its normal extent, particularly in the bony system. In the bony system a kind of hyperemia would arise. In this way, through this hyperemia, an excessive blood activity in the region of the bone cartilage would run rampant, and the calcification process of the bones would be opposed.

I have described to you what could result from treating someone with too much phosphorus, where the function that phosphorus is normally able to fulfill in the human organism is excessively enhanced. Those forces that are outside in the world, however, anchored in the different minerals, are present in the human being in another form, as it were, in a supersensible form, and they can be active within the human being. Man is a microcosm in a certain respect. If these forces that are normally anchored in phosphorus outside in nature are active within the human being, as can occur particularly in early childhood, then the illness rickets occurs. By penetrating the connection of the human being with the surrounding world, we have been able to ascertain that the manifestation of rickets in the human organism is a process similar to the one that takes place outside in nature in the manifestation of phosphorus. I am speaking to you aphoristically and obviously in a way in which not all the parts of a sequence of proof are connected; by means of a specific case,

which is actually only indicating the direction, we can see how to search in a spiritual scientific way for this connection between the human being and the rest of the world.

Now, however, it is possible to proceed further. I have shown you earlier today how, with the metabolic-limb system on one side and the nerve-sense system on the other side, the balancing rhythmic system in between, these two systems work together in a way (see drawing). You see, in fact, that what serves as an irregularity in the metabolic-limb system, bringing about illness, is just what induces health in the head system. Thus in the human head system there are always certain functions that stem from phosphorus, though from a very slight quantity of phosphorus that is found in the human brain. We have already become acquainted with this phosphorus-activity from the other side, in the way I have described to you, as something that brings the proper breakdown in the calcification processes in the metabolic-limb organism. These phosphorus processes in the brain, however, must be present wherever there is to be breakdown and where, above all, this breakdown is to be continually active. In other words, because the phosphorus process is present in the brain, we continuously have a kind of manifestation of rickets in the brain in, you could say, a *status nascendi*.



This is precisely the basis of our brain-activity, that bone continuously wants to be formed, but this bone formation is continuously inhibited once the skull has developed to surround the human brain in the right way. In the human brain – and this reveals itself to human perception – we have a continuous striving toward bone formation, but this bone formation reaches its conclusion at a certain age, at which time this activity of bone formation ceases. We thus have here something that is really conducive to illness but that is balanced from the other side, from the other pole of the organism; we have here a continuous striving toward rickets.

It is interesting that a rhythm such as this one that can be observed in the human being is also present outside in the rest of nature, though appearing in a certain respect as the opposite. If we look at the remarkable significance of phosphorus for the human brain, we have to say to ourselves that as phosphorus is taken in it is worked through up to the head. It undergoes a transformation within the human organism itself. It follows the same direction as the growth in the human being. It incorporates itself into this direction of growth in the human being, thus reducing its own activity to a minimum, as it were, diluting it. By means of this dilution the restrained rickets of the head can become the carrier of just those soul-spiritual processes that must be undertaken by means of the human head's mediation.

It is interesting that if very small doses of phosphorus are administered to the human being in the right way, rather than the somewhat larger, ordinarily perceptible doses of phosphorus, something different is achieved even in the function of phosphorus. If these small doses are administered to the human organism, they work in the same way as phosphorus works in the human brain. They now work in the rest of the organism as small doses able to restrain the rickets process if it has begun in children. Phosphorus in small quantities, in the smallest doses, can therefore serve as a remedy against rickets. In a more comprehensive sense, phosphorus can generally be used as a remedy against everything in which this 'I'-scaffolding, the physical 'I'-scaffolding (see drawing, p.49, white), which I have sketched under the red, is freed within the organism, as a result of illness,

from the actual soul activity; in other words, phosphorus brings back the soul activity, returning the condition to normal.

I would have to present a very complicated exposition about human nature for you to be able to see what actually lies at the basis of the dispute between allopathy and homoeopathy. In certain areas, however, you could say that what homoeopathy reveals becomes perfectly evident, as in these cases I have indicated to you. With certain small doses of phosphorus, or also sulphur (in short, something combustible – I will return to this) rickets as well as other inflammatory conditions can be healed, illnesses that stem from a blood-activity that has been freed from the ‘I’-being.

You see, then, that when we begin to study the human being as suggested by spiritual science, as in this case, the connection of the human being with outer, inorganic nature becomes transparent. What I have just touched on here today can definitely be extended to other inorganic substances. One need only pursue this in detail. It is precisely this attempt to bring about a union of pathology, physiology, and therapy that requires a devoted study of the world within and the world outside of the human being. We may call phosphorus and sulphur combustible substances. If this study is really extended further, combustible substances reveal themselves as working in a way thoroughly akin to what has been described of phosphorus. They work so as to reinsert the emancipated ‘I’-scaffolding into the ‘I’-activity.

Certain salts work in the opposite way, substances now that are not combustible but that dissolve in water and then precipitate out again when the water is cooled. These salts, carbonates and other salts, work in such a way that they call forth a too-intense union of the soul-spiritual, particularly the ‘I’-activity, with the scaffolding; they do not loosen it from the scaffolding but rather impress the soul-spiritual too strongly into it. They can therefore be used as remedies if this connection is for some reason too loose.

We can therefore say that if we understand the actual results of introducing a substance into the organism, how it influences the entire organization, then we can see how to work against a process that is proceeding abnormally and must be countered.

For certain processes, for example the process lying at the basis of pulmonary tuberculosis, it is precisely such salt-like substances (therefore soluble substances) that are particularly effective. What pulmonary tuberculosis is demanding is something to work against a process which, in the human organism, is the opposite of what takes place when a salt dissolves into a solution. What is important here is that broadening one's knowledge about all of human nature leads into the human being's connection with all his outer, worldly environment.

In these thoroughly aphoristic considerations I can only offer examples. What I have just been speaking about could be illustrated by still other examples. We can find such examples everywhere, but let us take an example from a realm that can at the same time lead us into the whole connection of the soul-spiritual with the physical. What is transmitted through the nerve-sense system in human life constitutes the conscious life of the human being from waking to falling asleep. We are thus able to say, more or less, that the head system is the expression for the conscious life of the human being. The metabolic-limb system is not the expression for the conscious life of the human being in the same way. We go through the world with conscious head but with unconscious limbs. These limbs become conscious only when they are touched in some way, when they endure an insult of some sort. We may therefore say that the normal condition for the head system, for the nerve-sense system, is waking consciousness, whereas for the opposite system in the human being it is unconsciousness. It is possible, however, to produce artificially in the human being a kind of consciousness for this other system, for the metabolic-limb system. This happens through massage, for example, which consists of making conscious through outer measures what otherwise remains unconscious. What is important here is that through massage an improvement can be brought about of an inadequate connection between the soul-spiritual and the physical. Take the case of a person who has a tendency to illness because his soul-spiritual element is insufficiently inclined to penetrate his metabolic-limb system. Then the physical aspect of this metabolic-limb system can be supported by massaging it, by lifting it, to a certain degree, from the condition of the spiritual into the condition of consciousness;

the effectiveness of the system is thus supported, thereby calling forth a stronger permeation of this system by the soul-spiritual.

If it is understood how this metabolic-limb system works, if it is known, for example, that what pulses in the arms and hands, what pulses there as the soul-spiritual element, continues inwardly and rules the inner metabolism of the human being, then it will also be known what it means to bring about a partial consciousness in the arms and hands through massage. It means that the soul-spiritual element in the metabolic system is enhanced – the metabolic system that works within the human being in a constructive way, bringing about digestion, the taking up of substance.

If one finds, therefore, that a person is suffering inwardly and organically from metabolic disturbances, metabolic disturbances that are responsible for the inability of his nourishment to integrate itself properly in the body or for the results of this nourishment to proceed further into the up-building processes, if one finds, therefore, that the metabolism that proceeds inward is not working properly, then it is possible in certain cases to be of some help with arm and hand massage (of course detailed knowledge is necessary to carry this out in the right way). Such assistance consists of supporting the soul-spiritual element in its activity through the degree of consciousness brought about by means of the massage.

If the legs and feet are massaged, something else occurs. The soul-spiritual element that permeates the legs and feet is connected organically with processes of elimination, with breakdown processes. One will be able to offer assistance with a massage of the legs and feet, therefore, if the digestion in the direction of the process of elimination is not being accomplished in the right way.

You can see that if the nature of medicine is illuminated in this way by spiritual science, such insights can be arrived at not simply by chance in an empirical way, should they happen to present themselves empirically; rather it becomes possible to work fully consciously to cultivate the connections among physiology, pathology, and therapy in the most varied domains. I am saying these things to you, as I have mentioned previously, only to illuminate the directions one must pursue here. I know very

well how astonishing such things appear because it is not possible, of course, to bring together all the details here.

If we consider an illness like *diabetes mellitus*, for example, which presents doctors with so many concerns, we must again look to the connection of the soul-spiritual element – and particularly the conscious soul-spiritual element, that element permeated with the ‘I’ – with the physical carrier of this ‘I’-activity. Something different now takes place from what was described in the first case today. Let us assume that this ‘I’-activity becomes too great within the human organism. It extends itself beyond its proper measure. Then abnormal processes of elimination take place like those we find in the diabetic. In this case we are dealing with an excessive ‘I’-activity in the organic itself, with an excessively deep immersion of the ‘I’ into the organic, so that through this deep immersion something is driven outward in a way that manifests particularly in the diabetic.

Let us now shift our gaze again away from what goes on within the human being and direct it to what goes on in the world outside the human being. In this world outside we have plants. This morning we already became aware of how plants in a certain way develop a process from below upward, a process that develops in the human being from above downward. What takes place in diabetes as the hypertrophy of ‘I’-activity in the organism actually proceeds in the direction opposite to that of plant growth. If we are able to discern the right function in the growing plant, then under certain circumstances we can establish a relationship between what works downward in the diabetic and upward in the plant. We must conceive of the plant in such a way, however, that we say: the plant is a being; it is also physical; it grows, it reproduces, and therefore it has an etheric body. For spiritual perception it also has an etheric body, but it does not bring it to the point of inner soul movement; therefore it has no astral body, and also no ‘I’-activity. Nevertheless it grows toward the ‘I’-activity, the astral activity. The same thing that the plant unfolds from below upward the human being unfolds from above downward.

If we understand that we must observe what actually goes on in the plant, seeing how it grows in the opposite direction to which the human being develops his ‘I,’ from above downward,

then we find how something arises in the plant element that is able to have an inner relationship to this inner 'I'-activity through the fact that it also has something to do with combustibility. Earlier I drew your attention to combustible substances. Now we see a combustible, volatile substantiality, a substantiality approaching combustion that develops out of the plant in the etheric oils. If we see the etheric oils appearing in certain plants, then we can discover in a study such as the one I have been suggesting, that this formation of etheric oils is the opposite of the activity enacted by the 'I'-activity pressing itself into the human organism through which a person becomes diabetic. If what is present in the outer world as the opposite is introduced into the human being in the right way, it is then possible to work against diabetes mellitus.

In this case this must be done by adding these etheric oils to baths, for example, or adding the plants themselves from which these oils are developed, allowing the diabetic to bathe in them. In this way the forces that the plant unfolds in the etheric oils work from outside inward against the forces that bring about diabetes. We will be able to help the person afflicted with this illness particularly by means of such baths.

I am only introducing a few individual examples here out of the rich wealth of examples that could be presented; I offered a large number of them this spring in the course for physicians.* I am introducing them here only to illustrate the principles involved, but you can see from these examples how medicine can gradually become rational. These are examples through which one really comes to see the process taking place within the human being and the process in outer nature; one comes to see how these two processes either support each other or work against each other and therefore how a process in the human organism can be restrained, how one can work toward healing. If we extend this way of studying into knowledge of the physical human being and its connections with the soul-spiritual human being, we will progress further and further.

* Rudolf Steiner, *Spiritual Science and Medicine*, twenty lectures given to physicians in Dornach, 1920. Rudolf Steiner Press, London, 1975.

You know that in modern medicine, according to the natural scientific view, the problem of heredity plays a tremendous role. This problem, however, is treated in a thoroughly abstract and external way. Through outer science it is possible to make very few connections with what is actually active in human nature. Now I would like to present something to you that can only be arrived at out of a rich anthroposophical investigation. I will present it to you as a result of such an investigation: the human being is, in fact, formed out of the whole rest of the world, which belongs to him as the earthly world and also as the extraterrestrial world. He is formed out of this in various ways. We find, for example, that the female organism is formed out of nature, out of the cosmos, in such a way that there is a predominance in the female organism of those forces that are less bound to the forces of the earth, as it were. In the female organism there is something strongly extraterrestrial. In the male organism forces are primarily developed that are connected with earthly life. In ordinary life this does not come so strongly into consideration, but it must be considered in reproduction. In reproduction what matters is that the forces active in the female organism and contributing to reproduction are actually the transference of what inserts itself as the extraterrestrial element into general human nature. What draws the human being down into the earthly world, however, is inserted into the male organism.

Now let us consider what is actually present in the human being through his earthly environment. The most noticeable thing in man through his earthly environment is the 'I'-activity. This 'I'-activity gives the earthly evolution of the human being its full meaning. We must evolve ourselves from other worlds into the earthly world in order to be able to develop the 'I'-activity fully in our soul-spiritual element. I have already indicated to you how this 'I'-activity is bound to the scaffolding of forces mediated by the blood. We must therefore say that what is primarily inserted into the blood, working in accordance with the 'I'-activity, is brought about by the male personality by way of reproduction. What inserts the extraterrestrial into the human being, which must first be penetrated by the 'I'-activity, stems more from the female side.

Thus we see male and female working together in this way in reproduction, and only through having insight into this are we able to gain correct concepts of heredity. To begin with, the female seed, the female germ, is touched by the male influence, and this female germ has a certain independence in the female organism. We must say that if we have before us a mature female organism, this extraterrestrial aspect works primarily in the rest of the female organism; in the part of the female organism giving rise to the formation of the germ, it is not active, particularly not after conception. Particularly the female germ that has undergone conception has a certain independence so that what it signifies as a transmitter of the 'I'-activity is transferred independently onto the descendants in a certain way.

If these things are known, they can be applied so that phenomena confronting us in the outer world illustrate what was first gained through spiritual vision. Through spiritual vision it becomes clear that something extraterrestrial is, in fact, anchored in the female organism and that the earthly, which adheres particularly to the blood-activity, is transmitted through the male organism. It becomes evident that through this transmittal the female ovum gains a certain independence, developing separately, as it were, from the rest of the extraterrestrial female organism by means of the fertilization.

A process such as this, which one comes to know soul-spiritually, can then stand in the background when one wishes to explain a remarkable phenomenon such as hemophilia. The curious fact emerges with this illness that there are people who suffer from an inadequate coagulation of the blood, so that the least injury – often even without a verifiable injury – causes them to lose a great deal of blood, tending toward hemorrhage. This illness has a most unusual characteristic: males originating from hemophiliac families do not manifest the symptoms if they are borne by women from non-hemophiliac families; women from hemophiliac families, on the other hand, do not get hemophilia through heredity, but if they have children, the males to whom they give birth will contract hemophilia. This means that hemophilia passes through the woman. This points us to the independence of the germ, about which I have just spoken. It

points us to the outer phenomenon that can illustrate what we came to know through spiritual vision.

I have presented something to you in a narrative way that may be recounted as follows. I have shown you how on the one hand it is possible to look into the being of man through spiritual vision, into the concrete being of man, into his up-building and breakdown processes, into his processes of health and disease, which are actually in a continuous interaction and between which a balance must be sought. On the other hand, I have shown you how, through spiritual vision, it is possible to find the reciprocal relationship of the human being to his environment and thereby to build a bridge from physiology and pathology to therapy. Finally I wanted to show you with a specific example (I have selected an extreme case, hemophilia and the hereditary conditions connected with it) how, if one looks in the right way at nature in the cases where nature reveals her manifest secret, it is possible everywhere to receive an illustration of what was first known by spiritual scientific means. The objection often raised in this regard therefore has no validity; this objection is that a person who cannot yet see into the spiritual world has no way of finding any proof for what spiritual science maintains. This is not the case. What is important is on the one hand to be able to receive the results of spiritual science without dogmatism and belief in authority, and on the other hand to receive them without previously acquired, prejudiced skepticism. One simply receives them. One doesn't say, "I believe them," nor does one rashly refuse them; rather one takes them and verifies them in relation to outer reality.

When you apply what may initially appear paradoxical to you, even incredible, drawn down as it is from the spiritual world through supersensible vision in spiritual investigation, you will see that if you apply it in life, if you ask life, it will be confirmed in the points that matter. You will receive empirical confirmation everywhere for what spiritual investigation discovers. People today who refuse knowledge of the spiritual world with the excuse that they themselves are not able to see into the spiritual world are like the person who sees a shaped piece of iron (this was sketched) and says, "I will shoe my horse with that, for it is a horseshoe." If one were to say to him, "It would be a mis-

take to shoe a horse with it, because it is a magnet, it has magnetic forces,” he would reply, “I don’t see any magnetic forces – to me it is a horseshoe.” The spiritual is in everything material, and we are living in an age in which this spiritual element must be sought. A person who wishes to investigate matter, who wishes to ask questions without seeking the spirit, is like the one who uses the magnet to shoe his horse, who therefore does not really know how things in the material world are to be used.

Though what I have presented to you today had to be full of gaps and aphoristic in nature, I simply wished to indicate the direction in which medical studies must proceed in the future, for these medical studies are so intimately connected with the social question. Just as the human world can be healed socially only if spiritual knowledge is carried into social judgments, so our medicine can bring health only if spiritual vision is carried into it.

We are not dream spinners in any realm. We do not by any means want dilettantes in any realm. What is important is serious research, research that has developed the fundamental principle often applied today. If a hypothesis is dangled here or there, it is said that it is merely a comfortable tool for the grasping of phenomena. Even in mathematics the point has been reached of hatching such hypotheses or directions of thought. Spiritual science is firmly rooted in the principle that nothing should be avoided that may be necessary for the progress of human life, that nothing should be avoided in applying forces in the direction of what is required for this. From the course of human evolution it is clearly perceptible today that the signs of the time are saying to us: it is no longer possible to progress in the old tracks.

What we have here in Dornach has only been able to develop because it is no longer possible to progress in the old tracks; new guidelines are to be sought for here. We are specialized enough. What is important now is to bring together the individual specialties again. Perhaps you will see from this course that the spiritual forces that will bring together these individual specialties must flow from a center. In order to do this, however, one must depart from those comfortable paths that are so frequently sought today. The fruits will lie above all in the direction of the

progress of humanity. For this reason, I would have especially liked it if everything that has been said here out of spiritual science could have been said also by specialists. Therefore I was not so pleased at having to substitute for you in an important area; this is how things happened, however, and nothing else could have been done, so we must simply accept what happened.

Most important, however, whether a specialist or a general observer were to present what is necessary here, would be to show that even in this difficult area of medicine progress is possible only through fructification by spiritual investigation. This would have been revealed more clearly if someone could have stepped forward in this area who could speak both out of the tradition of the time, out of everything that the time itself is able to offer medicine, and out of an open sense for spiritual science. Such an individual could have shown that it is possible to stand at the pinnacle of contemporary medical science, of official medical science, and still to be such a good spiritual scientist that he can only believe, can only bear this medicine if it can be illuminated by spiritual science. Whether this became sufficiently evident to you, despite the fact that I had to replace the specialists in medicine, I do not know, but I do hope that there will be other occasions to show, in a way illuminated by outer circumstances, that medicine can work into the future only if the spirit penetrates it, as is intended or at least as is striven for here in this Goetheanum: only if the Goethean spirit is absorbed into medicine.

