

# When Healing Becomes Educating

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

Volume V:

Organs and Systems,  
Pathologies and Syndromes



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**Volume 5:**

**ORGANS AND SYSTEMS,  
PATHOLOGIES  
AND SYNDROMES**



Published by:

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

*When Healing Becomes Educating*

*Volume 5: Organs and Systems, Pathologies and Syndromes*

ISBN # 978-1-936367-37-5

Editor: Douglas Gerwin

Layout: Ann Erwin

Articles originally published in the

*Journal for Anthroposophical Medicine*

c/o Anthroposophical Society in America

1923 Geddes Avenue

Ann Arbor, MI 48104

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Physicians' Association for Anthroposophic Medicine

4801 Yellowwood Avenue

Baltimore, MD 21209

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## William Harvey and the Human Heart\*

ALICE BARTON WULSIN

Rudolf Steiner begins his second lecture in *Spiritual Science and Medicine* by reminding us of the attempt to observe polarities that govern the human organism: the forces of gravity vs. levity in the skeleton, and the analogous chemical reactions that are either alkaline or acid occurring in human muscle metabolism. As we look into these polarities we have to attempt the journey to an extraterrestrial realm, passing through the point where pressure holds sway and entering through our thinking activity into the ether-realms where suction prevails. Attempts to follow vector analysis or the intricate dance of extraterrestrial chemistry allow this etheric realm of light, life, and ordering activity to become active within us as we turn our thinking virtually inside out.

Steiner next turns to the human heart in a further step along the path exploring the polarities in the human being and the awakening of an inner activity appropriate to taking such a step. In but a few sentences he presents two polar pictures of the heart: “It is regarded as a kind of pump, to send the blood into the various organs,” and then, “The most important fact about the heart is that its activity is not a cause but an effect.” In the course of a few sentences we are asked to hold in our minds these two pictures of the heart: first as a cause, as a pump whose effect is to move the blood by pressure to the organs; and second, as an effect, as something that receives or absorbs the blood whose movement is caused elsewhere by suction at the periphery.

In moving between these two pictures, the same kind of inner activity is demanded of us as was required to try to perceive the forces of levity in the human skeleton and the extraterrestrial dispersing forces in a muscle’s acidity during movement. To make the inward journey so quickly from the heart as pump to the heart as an inner sense organ, from pressure to suction, creates within us a kind of image-vortex such as is created when we stir fluid

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\*Based on a talk given at the May 1985 meeting of the Anthroposophical Therapy and Hygiene Association (ANTHA) in Spring Valley, NY.

very rapidly, then suddenly change direction. When this is done, we see the form of the heart created by this gesture in the water.

What we will attempt here, then, is to stir the sluggish water first in one direction, then in the other, then yet again in another, and hope to create in this way an image of the heart's activity and not just confusion! We will investigate what William Harvey had to say about the heart, for he was among the first physicians to present the picture of the heart as the source of movement within a circular pathway of the blood, and as such he really established a threshold in the history of physiology. Most books on Harvey either take their starting-point from his brilliant discovery or finish with his world-shaking treatise on the circulation of the blood, *Exercitatio anatomica de motu cordis et sanguinis in animalibus*, published in 1628. In our age, however, we are so imbued with Harvey's picture that it is difficult to un-think his view and to try to live into whatever picture there may have been before Harvey revolutionized physiology. It is quite easy for us to see instantly a certain logic in what Harvey conceived for the first time, but how can we stir the water for a moment in the other direction to un-think the heart as a pumping mechanism?

The predominant view of the heart and blood circulation that endured from ancient times until Harvey can be grasped through the image synthesized by Galen, the so-called Prince of Physicians, for his view was held essentially unmodified from 200 AD until Harvey's discoveries in the seventeenth century. It is unfortunately nearly impossible to gain a clear picture of this view from the materialistically oriented histories of science available today, as the images are given thoroughly physical translations and interpretations that most likely distort their original meaning. A suggestion of this is the fact that the word *pneuma*—which can mean air, breath, or spirit—is often indifferently translated as air, possibly giving a false physical impression. In any case, let us try to recreate this pre-Harvey view of the heart and blood circulation, so that we can see what Harvey tried to cut through with his razor-sharp intellect.

The main picture of the heart in Galen's writings is that it serves as the human hearth, the source of innate warmth that then acts to vitalize the whole body. Breathing provides the *pneuma*—air, spirit—that provides the nourishment for this warmth, also serving to cool and refresh the heart by relieving it of burnt and sooty particles. The heart is not regarded as a muscle, since it does not beat voluntarily, and Galen saw the heart's pulsating power as having its origin within the heart itself in the heart's attraction to the air or *pneuma* it requires for nourishment. The activity of the heart would thus take place in this way: The heart feels an inner yearning for air or spirit, and

through this powerful force of attraction it draws the blood fluid or *pneuma* toward it and dilates, receiving the fluid that is then driven by the blood vessels into the heart. Galen conceived that the heart's exertion came not in expelling the blood by contracting but in attracting and dilating.

The two sides of the heart, however, serve totally different functions according to Galen and his followers, in fact belonging to two entirely different systems of circulation, the venous and the arterial. The venous system was said to arise like a tree with its roots in the abdominal organs, particularly the liver, having its trunk in the vena cava leading to the heart, and then branching throughout the body, including to the right heart and from there the lungs. The purpose of the venous system was to draw nourishment from the intestines, distribute it to the liver, where it was imbued with the *spiritus* inherent in all natural substance—natural spirit—then distributing this natural spirit or vital activity as well as nourishment to the rest of the body, passing through the right side of the heart and lungs to nourish them. Venous blood was thought to be formed out of the chyle from the digestive tract.

The arterial system had its roots in the left heart and its trunk in the aorta, branching from there to the rest of the body. Some of the venous blood from the right heart was thought to seep through the interventricular septum, separating the right and left halves of the heart, passing through minute channels or pores and entering the left ventricle drop by drop. There it encountered the vital spirit or *pneuma* brought to the left ventricle by the pulmonary vein. The blood was thus permeated with a higher form of spirit through the respiration connected with the outside world, and this rarefied, enspirited blood was distributed to the body by the arteries. In the arteries leading to the brain, the blood was further charged with a higher form of spirit or *pneuma*, the animal spirit, distributed by the nerves.

The arterial system, then, had its origin in the heart and distributed air or *pneuma* to the body derived from respiration in the lungs and through the skin. The venous system had its origin in the liver and distributed nourishment and lower, natural *spiritus* derived from the chyle. The veins were thus believed to contain a totally different kind of blood from the enspirited blood of the arteries, and there was no concept of a continual circulation of arterial to venous and venous to arterial blood. The two kinds of blood vessels were explained by the different blood they carried. The veins carried mostly blood, thick, dense, and sluggish, so that the thinner veins allowed it to move more freely. The arteries, carrying more air than blood—air being light and thin and quick—were thick in order to keep the air confined, preventing it from dissipating in the body.

Right up to the time of Vesalius, this picture of the heart and circulation essentially persisted, with the heart viewed as a kind of mixing chamber where spirit was created to animate the human being in a kindling of warmth. The lesser circulation to the lungs was discovered in the Middle Ages but viewed merely as a way to rid the blood of impurities and to nourish the lungs themselves. Many incoherent fragments of fluid movement were thus pictured, but there was no unified view that could adequately explain the source and ultimate destination of the blood.

So it was understood until the work of William Harvey, who was born in Kent in 1578, a contemporary of Shakespeare and Lord Francis Bacon. He attended grammar school in Canterbury and then went on to Cambridge University, studying at Gonville College, which had been reorganized by a student of Vesalius in Padua, John Caius. From there Harvey went to the famous medical university in Padua, the university of Vesalius and Fabricius, two of the greatest anatomists. Fabricius (1537–1619) was most famous for his intricate work elaborating the valves in blood veins, and one of his most diligent students in Padua was the young Englishman, Harvey. Harvey always received very high honors, and when he returned to England to practice medicine shortly after the turn of the century, he moved quickly up the professional ladder, eventually being appointed *Physician Extraordinaire* to King James I in 1618 and later *Physician Ordinaire* to his son, King Charles I. Among his patients was also Lord Bacon; Bacon's genius did not particularly impress Harvey, who said of him, "He writes philosophy like a Lord Chancellor."

From his careful experimental work and observation Harvey developed his view of the heart and circulation as early as 1616, the year of Shakespeare's death, but he did not actually dare to put it in writing for the public until 1628, whereupon his professional prestige suffered considerably. Nevertheless he continued to work steadily, despite many setbacks personally and professionally. The Civil War raged in England from 1639–49, and as Harvey was obviously a Royalist, his fate suffered after Charles I was beheaded. He lost all his scientific notes and papers, and after Oxford fell to the revolutionaries in 1646, when Harvey was sixty-eight, he gradually retired to a quiet practice of medicine and his exacting work in dissection. He suffered considerably from attacks of gout, dying finally in 1657 of a cerebral hemorrhage.

Harvey's work had a revolutionary effect on his contemporaries, having considerable impact on the social conscience of his age. Whereas for centuries the blood and heart had been surrounded by mystery and regarded as the seat of the human soul, Harvey's view now seemed to dispel that very

mystery and to reduce what had been believed to be a spiritual substance to a series of tissues with a central, rhythmically contracting muscular organ.

We all begin with this image of the heart as a mechanical pump ingrained in us. We have tried here to stir the water in the other direction to recreate the more ancient picture of the heart as a gathering and mixing chamber for the spirit, split between two entirely separate circulations, the lower venous and the more enspirited arterial circulation. Now let us quickly stop and try to stir the water again in the other direction. Harvey had many reasons for his discomfort with the materialized remnants of Galen's pictures, filled as they were with inconsistencies, gaps, and obvious errors, like that of the blood seeping across from the right to the left side of the heart. While Harvey avoided the more unapproachable questions of the origin of spirit, he tried through meticulous observation to arrive at a consistent and coherent picture of the blood's movement through the body. In doing so he also totally reversed the picture of the heart, moving from an image of reception and suction to one of expulsion and pressure. Having observed that the heart grows pale and small like a muscle in contraction, he concluded that the heart is indeed a muscle that acts by squeezing the blood out of its chambers during contraction, rather than actively receiving blood during dilation. As he wrote,

So the opposite of the commonly received opinion seems to be true. Instead of the heart opening its ventricles and filling with blood at the moment it strikes the chest and its beat is felt on the outside, the contrary takes place so that the heart while contracting empties. Therefore the motion commonly thought the diastole of the heart is really the systole, and the significant movement of the heart is not the diastole but the systole. The heart does not act in diastole but in systole, for only when it contracts is it active.

The blood would thus fill the arteries not by their dilation, attracting the blood toward the periphery, but by the pressure from the heart's systole: "The arteries dilate because they are filled like bladders or leathern bottles; they are not filled because they expand like bellows." Harvey felt this was proven by the spurts of blood coming from a wounded artery, corresponding rhythmically to the beat of the heart.

In addition, Harvey calculated that the amount of blood expelled by the left ventricle into the aorta in one hour would be 8640 fluid ounces, or three times the weight of a heavy man in blood (2 ounces of blood per contraction x 72 contractions per minute x 60 minutes). Where, he queried,

could all this blood come from? Surely not from a little blood seeping across the septum through channels no one could discover. Surely not enough new blood could be manufactured hourly from the chyle. He concluded, then, that the massive amount of blood flowing through the arteries must come from the venous system, that there must be a continuous circulation of blood in one direction, guided by the action of valves in heart and veins. The blood, he realized, must be in continuous motion, as motion is necessary to generate and preserve heat and spirit in the organism. The blood in the extremities loses its warmth and spirit, growing thick and cold, and must return to the source, the heart, to take on new heat or spirit.

The blood is thus more disposed to move from the circumference to the center than in the opposite direction, were there even no valves to oppose its motion; whence that it may leave its source and enter more confined and colder channels, and flow against the direction to which it spontaneously inclines, the blood requires both force and impelling power. Now such is the heart and the heart alone...

Harvey thus conceived the first coherent view of the blood's circulation from arterial to venous blood and back into the arteries, finally comprehending the role of the lesser circulation to the lungs in the process. He saw that the venous blood enters the heart through the right atrium, passes down into the right ventricle, and from there can exit only via the pulmonary artery to the lungs. It was a totally new picture that the entire mass of blood in the human body might be able to pass through the lungs and then back into the heart via the pulmonary vein, entering the left atrium, moving down into the left ventricle, and from there up into the aorta and to the periphery of the body.

Without having the possibility of microscopic investigation, Harvey could only surmise the transition from arterial to venous blood taking place at the capillary level. He presumed that the initial force of the heart's pumping action was also sufficient to impel the arterial blood into the venous system and then back against the flow of gravity to the heart. He thus described the circulation in the following way:

This motion may be called circular in the way that Aristotle says air and rain follow the circular motion of the stars. The moist earth warmed by the sun gives off vapors, which, rising, are condensed to fall, again moisturizing the earth. By this means things grow. So also tempests and meteors originate by a circular approach and recession of the sun.

Thus it happens in the body by the movement of the blood, all parts are fed and warmed by the more perfect, more spiritous, hotter, and I might say, more nutritive blood. But in these parts this blood is cooled, thickened, and loses its power, so that it returns to its source, the heart, the inner temple of the body, to recover its virtue.

Here again it regains its natural heat and fluidity, its power and vitality, and filled with spirits, is distributed again. All this depends on the motion and beat of the heart. So the heart is the center of life, the sun of the microcosm, as the sun itself might be called the heart of the world.

It should be clear from this that although Harvey became convinced that the heart moved the blood to the body's periphery through pressure, he nevertheless maintained a more cosmic view of the heart as a source attracting the blood than is now held by his legion of followers.

We can imagine, I think, the awe and relief that must have dawned slowly as people gradually took in the simple coherence of this circular picture of the blood circulation. We take such a picture absolutely for granted, yet try again to think it away, and you see how difficult it is to return to a notion that has the gaps and physical inconsistencies of Galen's.

Yet once again, as Rudolf Steiner challenges us to do, let us stir the water vigorously in another direction. Is it necessary, if we accept the coherent circulation of the blood discovered by Harvey, also to arrive at the conclusion that the heart's pressure is the only dynamic means by which this circulation is active? How can we see the circulation as Harvey does, moving coherently in a circle, yet not regard the heart's beat as its impelling force? And how can we regain an understanding of the polarity of the digestion and the respiration and nerve-sense activity, perceived so clearly by Galen in his view of the venous and arterial systems, without resorting to conflicting, unjustifiable hypotheses about the structure and action of the human organism? How can we truly see the heart as an organ of effect, not of cause, of suction, not of pressure, of inwardly sensing, not of outwardly impelling? Steiner points the way as incisively as he does when bringing these two opposing pictures before us in a moment, creating in us a vortex of picturing activity: He points us to embryology, where we can see clearly the heart emerging out of activities already existing within the developing embryo. Here we are guided through the null-point from matter into spirit. Steiner develops this further in his lecture cycle, *Man, Hieroglyph of the Universe*:

... [T]he heart does not work like a pump driving the blood through the body, but ... the heart is moved by the circulation, which is itself a living thing, and the circulation is in its turn conditioned by the organs. The heart, as can be followed in embryology, is really nothing more than a product of the blood circulation ... Just as the movement of the heart is the product of the life force of the circulation, so the Sun is no other than the product of the whole planetary system. The Sun is the result, not the point of departure. The living cooperation of the solar system produces in the center a hollow, which reflects as a mirror ... a hollow space of suction which annihilates everything within it. A space indeed that is less than hollow ... What shines to us in the light is the reflection of what first comes in from cosmic space—just as the movement of the heart is, as it were, what is arrested there in the cooperation of the organs, in the blood movement...

By following up embryology, we find how the heart is gradually welded together or piled up, as it were, by the blood circulation, and it is not a primary form ... To illustrate the idea, let us say we have a stream of water falling over the rock. It throws up a variety of formations and then flows on. These formations are caused by the forces of equilibrium and motion at this place. Now imagine that suddenly all this were to petrify; a skin would be formed like a wall, then the rest would flow on again, and we should have an organic structure formed. We should have the current going through the structure, coming out again, and flowing on further in an altered form. You can imagine something like this in the case of the flow of blood, as it circulates through the heart.

Harvey himself was intrigued by the questions that embryology raises, devoting his quiet later years to their study. He asked, in fact, “Why does blood appear before anything else, and how does it possess the vital animal principle? How does it desire to be moved here and there, for which reason the heart seems to be provided?” His fixed thought, however, apparently prevented him from seeing that the blood, appearing before anything else in the embryo, was not simply desiring to be moved but was actually in motion already.

For us to be able to think away the material deposits of the heart and to conceive the pure inner activity that precedes it is an activity that in itself sucks us toward the etheric realm. First we look out into the world

and see our whole being scattered in fragments, a single point extended in every direction to infinity. We then push our thinking inside out, as it were, and look into our own heart, where the heavens are inverted and the infinite circle of the periphery is concentrated into a single point. To explore embryology is to make this same journey continually from point to periphery, from periphery to point, and this is the method to which Steiner points us in the exploration of the mysteries of the human heart.

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# An Anthroposophical Medical Approach to Cardiac Auscultation

KASPAR APPENZELLER

Auscultation of the heart as a means of obtaining knowledge of developmental and maturity stages, the predispositions and capacities of children, and also knowledge of processes and tendencies of disease in adults.

## 1. How this came to be

According to classical medical instruction, one hears an iambus at the base of the heart and a trochee at the apex of the heart. Today, only the symbols of these rhythms are still used, the rhythms themselves being scarcely still understood. If one wants to reawaken this knowledge, one must arouse the artist in oneself.

If the 2nd tone is louder than the 1st (at the base of the heart), the heart beat has iambic character (short-long). If the 1st tone is louder than the 2nd (the apex of the heart), the heart beat has trochaic character (long-short). Now, if one additionally takes the transition from iambus to trochee between the heart base and heart apex into account, he will discover a spondee (long-long). As far as I know, this last rhythm has never been described.

For medical science, this unique sounding of the heart is still only the expression of an occurrence within the realm of the physical, as a result of the heart beating within the thorax. However, this fine and differentiated tone to which we listen with a stethoscope is more than just the noise of a machine (which it is not at all!); I became conscious of this for the first time when heartbeats of patients presented during medical lectures were demonstrated through a loudspeaker.

Until then, auscultation had always given some information about the individual who was being examined. The process of health or disease was audible even if not consciously recognized and even if, as customary, the heart was thought of in a mechanical way. In those days, one could still think in a materialistic manner and yet at the same time feel spiritually. However,

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Translated from *Beitraege* 39th Edition, Volume 6, November/December 1986.

as these electrical transmissions of heartbeats began and recordings were produced of pathologic auscultatory findings, this was no longer possible.

A decision had to be made: either to be forced into feeling that the heart is a machine, or to witness what was being proclaimed through the loudspeaker. It was not really reproducing heart tones, but announcing that herewith medicine was being won over by an electrified technique with which one was to comply. With this, the hearing quality for auscultation—as well as for many other things—was dulled. Instead, intellect was recognized for its brilliance, but it was also seen that it lacked what it needed for the purpose of healing.

Do not misunderstand me! Never would I have wanted to discredit the development of modern medicine. However, I knew from that point on that it needs a counterweight. I was already well acquainted with anthroposophy, but only through this shocking experience did I become aware of thus standing on this crossroad. The world needs modern physicians permeated by anthroposophy. That became clear to me. I did not know then, how difficult this path is.

Ten years later, while preparing my book entitled *Genesis in the Light of Human Embryonic Development*, I became aware that the first word in the Bible is an archetypal experience of the heartbeat. This word is called “B’reschit,” (in the beginning) in the ancient Hebrew version. The “B” is pronounced as a “B” without the following “e” so that one hears only a fleeting vowel resonance that makes one think of the “e” in the word “men.”

Thus, one reads the word in an iambic rhythm. But the spondee can also be heard in it, and even the trochee. The first stressed syllable can sound as though it were split, just as a divided first heart tone. The end-syllable, “it,” can also sound as if it were split, just as a second heart tone. However, the beginning of the word, as well as the end, sounds as a unit when spoken, exactly as both heart tones do in their healthy state. This spoken ancient tone is a true two-beat sound; it associated its sound and impetus in me with the heart beat. For years it was as though I heard the murmur of this ancient word during auscultation of the heart.

“Beth,” the first letter of the first word in Genesis means “house.” This “Beth” has a point inside it; the spirit takes up a house. And then one speaks the letters which follow “B,” “resch.” This series of letters is a word in the Hebrew which means “head.” Then “schit” resonates, which is also a word in itself, meaning “the penetration of thorns into the head.” The last letter is “Tau,” which means “cross” or “sign of the cross.” In the middle of the word, however, is “esch” which means “fire.”

In this way, the path of this word goes from Beth, the house, to the cross. It is the path from “Beth lechem,” Bethlehem (House of the Bread) to the cross on Golgotha. This is the path of the Son of mankind. We hear Him in the heartbeat. Prophetically, this ancient word announces Him, He who introduces creation. In its totality, creation is the development of the ancient word, the heartbeat is its goal.

But there is still another secret. The Hebrew script is composed only of consonants. Man must add the vowels from the breath of his soul. Through this breath lives the word, as Adam lives through “Odem” (breath). And, as the ancient word B’reschit begins to pulse through the breath, the heart beats in the organism as a result of blood pushing against respired air and being penetrated by it. Man fulfills himself in this encounter.

This is the site of interweaving of two rhythms, those of pulse and respiration, which is the innermost, and at the same time, most sublime receptacle of the spirit of mankind. Here occurs what Rudolf Steiner speaks of as the “beat of heart and lung.” And here lays the starting point for the auscultation which is being discussed here. Yes, here lays the ultimate starting point for the diagnostic process which announces the therapy at the same time.

In his first course for physicians in 1920, Rudolf Steiner emphasized that the heart is not a pump, but a fine sensory organ for perception of the body processes carried by the blood. He said that the pump theory of the heart should be revised and cited the work of Dr. Karl Schmidt. He was a physician from northern Steiermark who had compared the heart to the hydraulic ram because to him certain observations could only be explained in that way; for example, the phenomenon of the beat at the apex. Rudolf Steiner called Dr. Schmidt’s work of 1892 a beginning with much potential for a renewed investigation of the mechanical principles of heart activity.

Many years ago Dr. Gisbert Husemann had a number of hydraulic ram apparati built by a contractor according to the relations in the heart, in order to study them. After having spoken about the heartbeat and its association with the first word of Genesis at a medical conference in Stuttgart, we demonstrated the first model of this hydraulic ram, upon which I laid my stethoscope; then, a colleague said “B’reschit - B’reschit.” I had to answer him “I do not hear it.” Even though one could hear a wonderful double-beat, it was only an apparatus and not a heart.

Then I obtained one of these models myself and began to experiment. The results were amazing—tachycardias, bradycardias, extra systoles and even bigeminies and trigeminies could be produced and the pulse curve had a dicrotic descent. All of these “pulse changes” occurred by playing with the

“aorta” of the apparatus, partially through the bringing about of atypical air flows. This is interesting because the nerves of the carotid sinus, whose pathology leads to such pulse changes, originate from the aortic arch.

Thus it became more and more clear to me that the heart from a mechanical point of view could be compared with no apparatus more readily than with the hydraulic ram. Just as the ram is brought into motion through the water, so it is the blood which must activate the heart. Through experiments of this kind, through many clinical observations and extensive studies on chicken hearts (wherein I showed in a film how blood moves without activation by the heart), I came to the conclusion that, although the layout of the heart is also similar to a mechanical apparatus, it does not play a mechanical role in life.

The mechanical tendency of the heart is impeded at its origin with every systole. Through the living blood, it is continuously overcome in status nascendi. The blood flows on its own accord. However, the heart is the reference point for this movement, as hinges are for doors (Compare with Aristotle, *De Anima*, III, 10). Without the principle of rest, there is no movement; without any center there is no goal; without a middle, there is no striving towards it.

At one specific movement, I discovered Rudolf Steiner’s indication of a connection of the iambic rhythm with feeling, the trochee with thinking and the spondee with willing. In addition to my private practice, I had been filling the position of the school physician in St. Moritz for over 20 years, having to examine hundreds of children yearly, and naturally also auscultating; several things had attracted my attention. For a long time I had sought for expression of the soul in the heart rhythms. With this, everything became clear. And thus it came to an extended heart auscultation, the beginnings of which shall be briefly described.

## **2. Child development, interpreted by the auscultatory picture of the heart**

When one examines the heart of a small child, one hears only iambs at the base of the heart, at Erb’s point, and at its apex. This rhythm entirely corresponds to the child and is said to be a rising rhythm, as one feels uplifted by it. One has the impression of the ringing of bells if the child is healthy and has been allowed to grow up in a harmonious manner. However, certain children never attain a cheerful, springing iambus; their iambs are dull or scarcely clear.

A newborn child still has a non-intonated rhythm, a double-beat which is very similar to the fetal heart beat. It is really a spondee (long-long),

although the longs are very short. The fetal heartbeat becomes audible approximately in the seventh week of pregnancy to the directly applied ear or the gynecological stethoscope. It emerges out of silence. At first, it is only suspected, but then it becomes stronger and stronger, finally clearly announcing the fetus which is living and maturing.

This double-beat is characterized by its uniformity. Often, it is acoustically muffled and still makes a clear impression. If one would like to paint it, I would think it should be tinged whitish-yellow. It reminds me of the vocal cords of young children or women which are short and somewhat rounded and budding. I designate this tone as “E,” or the embryonic tone. The newborn also has this tone, only with more strength and dynamic. This is because of the respiration through the lungs. The dynamic that is the inner enlivening of the tones becomes stronger during the first year of life, until the iambus bursts through at one site, “J.” It is usually heard first over the base, but it can also be heard first in the middle or at the apex of the heart.

I have accustomed myself to auscultating primarily 11 points: aortic region, pulmonary region, at the left sternal border approximately in the center of the sternum, almost vertically under this point approximately at the level of the 5th rib, apex, 2 points to the left near the apex just slightly toward the upper/inferior region, 3 points to the right of the sternum at the level of the 5th rib and laterally superior, and at the central point (point of Erb). Of course, this has developed in the course of time. At first there were only 3 points—base, middle and apex. With time, I began to differentiate between the aortic and pulmonary region in the base; later, points below greatly supported the development of the subject.

It appeared that a developmental stage which had once been attained does not leave its mark in all regions. Thus, the embryonic tone “E,” for example, remains for an entire lifetime. It is to be found completely to the left exteriorly over the spleen and is thus to be heard over the 7th auscultation point named. A reminder remains of the embryonic form of life and, through this, of the cosmic past. There are children in whom this E-point is strong. In others, it becomes less clear or lies sometimes higher or lower. The E-point is characteristic of the manner in which a child is connected to his past through memory. If it is missing, it is the expression of unstable soul life without anchor in the soul ground. It is outshone and inaudible by iambi only in the small child.

Two points lie to the right inferiorly. They can be described as nuclei of the future and are also windows as are all regions of auscultation; these windows are, however, still closed. What they tell us arises from the body,

but has a pre-earthly cosmic aspect and, therefore, can only have value in conjunction with the other tone spaces.

The iambus of a child is weighted down at 5–6 years of age. This process usually begins in the inferior region of the heart. The first heart tone becomes stronger and a new spondee occurs, “S.” If one hears a spondee at the heart apex and at the inferior sternal point to the left, the child is ready for school. This occurs usually by the age of seven. One would naturally also look at the teeth and other characteristics, but the heart is a very strong indicator.

The spondee can also begin in the middle of the heart or it can quickly migrate upwards. This can show itself in children who are extensively burdened at an early age, for any of many reasons. The iambus is essentially the expression of a happy and unburdened childhood, expression of trust and security. Every early burdening of this cheerful rhythm is a sign of fear in the largest sense.

The entire soul-body picture really becomes obvious to the physician who is listening to the sounds of the heart. He hears the development of the child in its intimate steps and can read its unconscious needs. Just as the parents and teachers can sense the development and soul-body needs from the voice of a child, the voice of the heart is audible through auscultation; this allows us, the physicians, to understand children very exactly and quickly, even those whom we know little or not at all. For this reason, I envision that this method can primarily serve children and school physicians, especially since a diagnosis obtained in such a manner also carries in itself the starting point towards a therapy.

The next large step in the development of a child follows between the 9th and 10th year. The iambus at the heart apex, which in the 6th–7th year weighted into becoming a spondee, now turns into a trochee, “T.”

I next discovered that the more mature children have a trochee; I later associated this rhythm with the independent thinking of these children, from data given by Rudolf Steiner. A small child, I told myself, can also already think out loud, but these thoughts are, at the very most, adult thoughts mirrored by the child in his own manner, when they do not involve ancient truths which the child speaks. I had observed that individual thoughts come to germination only after this new developmental step in the child’s soul. Thus, I expected the trochee to arise for the first time then, using the knowledge of child development made possible by anthroposophy. However, this had to be proven first. As I had achieved a certain amount of practice in auscultation as a school physician, the annual obligatory examinations became a field of research. So, for the first time, I let systematic auscultation

accompany this question. Many years have gone by since then and today that which was just discovered has become evident and its examination has become routine.

Some children can thus be taken out of special classes for those who are intellectually weak and led into regular classes. When finding a trochee, for instance, one may be sure that the child has reached a certain stage of developmental maturity; that child might, however, have initial difficulties with languages (for example, a child of immigrant workers), or have other obstacles to development. If the trochee does not come about, the child is retarded in his development. One could then determine from the “number” of spondees or, better said, from the width of the spondaic field whether the child could still readily overcome the difficulty or whether there is a pathologic interference.

Dynamic-sounding and high-pitched iambi, especially in the pulmonary region or in the middle of the heart, indicate an artistic capacity and could delay the coming forth of the trochee. In such children, it is very important that the trochaic element come forth at the age of 11–12 years. Otherwise, for example, a developing musician will have no real foothold. Also, an artist must develop a strong capacity to think, even if he does not tend to have a strong ability for abstraction. Only the capacity to abstract gives him the opportunity to awaken the abstractions to life. Everything depends upon this awakening. The consequential instruction of thinking is the basis for this.

It is obvious from this that auscultation is not only a determination of whether an iambus, spondee or trochee is present, but also of how these rhythms are manifested. Dull iambi in a school-age child lead one to assume there is little ability present, and normal schooling is put into question. But if the iambi are clear and dynamic (that is, lively in themselves) at this point, one has to do with an artistic soul which does not want to bind itself so strongly with the earth; it expands the light-filled time of childhood, yet strengthens its character by looking towards the earth. Such children begin school with a larger breath and carry the powers of Heaven into the classroom in a richer manner than it is possible for other first-graders.

These children obtain a spondee at the apex later and more quickly, whereby those children who lean more toward the intellectual can have it already two years before school begins. In artistically-inclined children, everything is more intense. Here the task of the teacher is to consider how these children can later unfold the strength to germinate the trochee in the heart. These children live in pictures, but they must learn to bring pictures into deed. Later, it will involve guiding them to independence of the soul, without making them turn back or being too brusque with them.

It is the opposite with children who tend toward intellectual capacity. They must be protected against becoming independent too early, because they are otherwise meeting death without understanding it and, through this, become materialistic. These children must learn to create pictures and to experience living creativity. In this way, trochee formation which is too early can be avoided. The appearance of the trochee is, namely, a death process that every child must go through around 9-10 years of age. Because of this, the healthy progression of the child toward experiencing the trochaic principle can only occur out of the strength of love

More can be learned about this topic in my booklet *The Squaring of the Circle* (Zbinden Publishing Company, Basel 1979), in which it is shown that the child of this age actually carries out the squaring of the circle. That is to say, his body proportions become such that the areas of the square drawn around the body when it assumes the position of a cross by stretching out his arms, and the circle which is drawn around the outstretched arms and feet become equal.

The spiritual powers of life before birth and the powers of the body—in short, the powers of Heaven and Earth—interact in the child of this age in such a manner that one can say that they are wrestling with each other.

Striving for the square is an expression for this, since the circle (as an expression of Heaven) and the square (as an expression of the attained, or Earth), are incompatible. However, a child of this age completes the squaring of the circle.

The struggle between the given forces, which in the body is a struggle between respiration and circulation, is seen in the heart as a constant struggle of dominance of the iambus and the trochee. I call such a heart tone “K,” in which these rhythms struggle against each other. Usually this occurrence can be heard in the region of the heart apex.

If one is not sure whether an iambus or a trochee is present, one can first attempt to hear the tone as a trochee, then as an iambus, whereupon the domination of one rhythm or the other can be determined. If there is an equilibrium, a spondee is present. If the tones during normal respiration are iambic at inspiration and trochaic at expiration, this struggle reigns.

The iambi remain at the heart base for an entire lifetime, just as the “E”-point remains over the spleen. In puberty, the trochaic principle dominates the auditory picture of the heart, so that one easily finds the trochee in the middle of the heart and the iambus is weighted down to a spondee in the aortic region. This picture is common in the upper school grades.

However, an equilibrium develops later between the forces, just as described before: Iambi are heard at the heart base, spondees are heard in the middle of the heart and trochees are heard at the heart apex. The

pulmonary region must remain iambic; in this area, we remain children for our entire lives. Everything else can be weighed down; not, however, this region of the heart. Here, youth and health reign; therefore, this tone quality of the heart should never cease.

### **3. Processes of illness identified in cardiac auscultation of adults**

The questions to be answered by auscultation of adults are completely different from those asked concerning children. In this case, auscultation serves exclusively to understand the process of illness. In order to do so, one must consider the following: Not until one becomes an adult is the development of the heart finalized. Until then, it was more an expression of general being; at maturity, it can become the instrument of an individual being.

There are three components which work together during this development. First, there are processes of nature in general, which bring forth the human heart. They are archetypally true for the development of every heart. They are modified through specific hereditary forces which cause racial and familial characteristics. However, the heart receives its unique molding from the individuality, which forms the organ from its beginning on.

Thus, the heart whose tones we are attempting to investigate has resulted profoundly from the collaboration of these three forces of shape and form. We grasp the general principles by auscultating many hearts, and slowly obtain a generally auditory expression of the heart, just as we have acquired the name "lion" from single encounters with lions. In a similar manner, we obtain an understanding for hereditary factors. However, the individual nature of a heart must always be newly comprehended.

General tendencies show themselves in the years of youth. In the auscultation of the adult, only the individual qualities are of interest. They are announced by the heart tones, as one learns to penetrate their general nature through hearing. Auscultation of children's hearts of different ages is therefore very good preparation for the auscultation of adult hearts. The more familiar one is with the general nature of a matter, the easier it is to grasp its individual traits.

An acquired trochee can completely disappear again. Its first appearance is an indication that the capacities of the head are emancipated from the general connection of the body to nature. The head becomes an independent organ of thinking. This process begins during the process of maturing for school and intensifies up until puberty. Although the small child is still entirely "head," this head is a part of the entirety. Not until 9-10 years of age is it finally independent.

Every human being goes through this development, with greater or lesser intensity. One whose destiny requires a high intelligence will develop a strong trochee on his path to puberty. The formation of a trochee is not accomplished in the case of debility, nor is the weighing down of the iambus or the spondee. These people carry the general forces of nature unconsciously into the life of their physical maturity and preserve the pure iambic tone. In cases of severe developmental retardation of the soul, even the embryonic tone persists; it remains as a seed until it is awakened. Between the auditory picture of a strong trochee and those just described above, there are all types of differentiations.

Thus, the heart of a human being is formed during development according to the requirements of destiny. The adult encounters it when, at 3 x 7 years of age, the capacity of the "I" awakens in him. A human being lives his first seven years as a general being of nature; the individual nature developing out of the general nature in him in the second seven years; and the individual becoming strong and largely replacing the general nature in the third seven years. In the first seven years of adulthood, the individual nature harmonizes with the general nature in its search for true mankind. The trochees become calmer and spondees or iambi take the place of the trochee. The search for mankind's true rhythm begins. We encounter this search in the auscultation of adults. Illness is really the expression of this searching.

If the trochaic element still dominates in an adult after his 35th year, at the latest, one would not choose to compare him with an adolescent; rather, it could be said that there is a pathological tendency towards hardening. People who have strong trochees have a predisposition towards tumor formation.

Let us glance once more at the developmental period of puberty, specifically at the head-forming process. It is during puberty that the head is first to be completely separated from the body. From then on it leads an independent existence, but nevertheless lets itself be served by the rest of the body, in a manner very similar to a tumor.

The occiput undergoes the strongest hardening process, along with the temporal bone which is placed in front of it and harbors the hearing organ. As the entire head separates itself from the body, so the back of the head with the hearing region now becomes separated from the front, fragile principal part, in which the capacity to see becomes fully developed. This stressed development of the head in comparison to the body and that of the posterior head to the anterior head is due to trochees which have become organic

Rudolf Steiner described the ear as being the normal formation of what would be a tumor anywhere else in the body. Tumor formation is a disease only when it occurs at the wrong site and at the wrong speed. However, it always develops from a trochaic principle, exactly as the head—and, in the head, the ear—did. And if one considers one of the realities of the corresponding notion of the heart and its function, it appears less and less strange that tumor formations can be heard in the heart. One can hear what the heart, as a sensing organ, perceives. All tumor formations create a trochaic heart tone at the apex. This is the site at which the heart itself is mostly “head” or mostly “ear.” The name “ear of the heart” is appropriate for the so-called auricles, since they are for blood what the auricle of the ear is for tone. They receive the blood which is within the heart. The muscle fibers of the heart spiral together at the apex, the vortex cordis, which reminds one of the cochlea.

If a tumor is growing in the body, the trochee also overgrows the auditory field of the heart. I had a patient with an enormous lung tumor. The entire heart was overgrown with trochees, even the pulmonary point. The progression was lightening-like. For many years, I have been treating a female patient who has lung metastases following surgical removal of a mammary carcinoma. The trochee always proliferated in the heart when the tumor was active, for example, when a type of therapy lost its efficacy. However, every time dose-strengthening or changes in therapy caused the tumors to regress again or prevented them from growing further, it retreated.

Such observations on different patients led me to the relationship between tumor and trochee, and I began to auscultate my tumor patients systematically using this criterion. The result was clear—the heart was burdened with trochees in all tumor carriers. Up until now, I have never found a carcinoma patient with a purely iambic heart picture. Many adults have purely iambic pictures, but most of the “iambus” types have a spondee at the heart apex and perhaps a second one next to that. Such people have no or only a very slight tendency toward tumor formation.

All tumors act upon the heart in a trochaic manner, whether they are malignant or benign. It seems to be possible to differentiate between malignant and benign tumors by using the strength of the trochaic tone. For example, the myoma of the uterus causes a softer trochee than a carcinoma. If a trochee does not exist at the beginning of treatment, tumor formation can be excluded, in my opinion.

However, not every trochee is the expression of a tumor. This is illustrated by the following small episode. From the foregoing observations, it can be concluded that iambs are the expression of a burdening of the

archetypal spondaic “E” tone in infants. A 2-month-old infant was lain on an examination table and peacefully allowed itself to be examined. Infants of this age still have an “E” over the entire heart. However, there was an iambus in the center of this small patient’s heart. I did not believe my ears, but it was true. When I examined further, this child let out a good, hearty “fountain” as often occurs when this examiner’s hands are somewhat cool. With that, the iambus disappeared, and a calm spondee in the “E” sense sounded out of the middle of the heart again. Full urinary bladders are also “tumors.”

I experienced in a woman that a trochee gave way to an iambus at the apex after micturition. A man had a spondaic apex tone which became more iambic after micturition, but it remained spondaic. Usually, micturition does not give way to changes by an entire step, so that the auditory picture of life is still valid; that is, without specific preparation. Pregnancy burdens the mother-to-be in a trochaic manner; when the child is born, the iambi return.

However, if one finds a trochee at the heart apex in a small child and it persists over a period of time, a tumor is to be suspected. I have a small patient for whom I have cared since his birth. He is very intelligent and, thus, I found it rather unusual, but not completely impossible, to discover a trochee in him at 7 years of age. The relationship between trochee and tumor was not yet known to me. Upon clarification of the situation, a stomach tumor was discovered which, histologically, was a leiomyoma. After the operation, the trochee disappeared.

People can be burdened with trochees for years, without developing a tumor. They have a tendency toward the formation of tumors, but they can divert this through other processes. Occurrences such as habitual obstipation or similar compacting processes, hypochondria and developing deafness can divert tumor formation tendencies—this was stated by Rudolf Steiner in 1920 in the 14th lecture of his first course for physicians. This statement becomes especially clear in this report and, in addition, it is proven in a new way.

Trochaically burdened patients often include those who are obstipated, people who are hypochondriacs, and especially people with above average hearing capacities. For decades, I have observed that carcinoma patients almost always have excellent hearing. This fact mirrors itself in the trochee. This excellent hearing is the “long” compared to seeing. The loss of hearing compensates the tendency toward carcinoma formation; it can “use it up,” so to speak.

The case of hypochondriacs and chronically obstipated patients is similar. One can say that older people who are not ill with a tumor but

who have trochaic hearts are, upon closer examination, burdened in one of these three directions. The question is then only whether a treatment of these occurrences always makes sense. An older lady who developed massive metastases after obtaining a hearing aid had been operated on earlier for mammary carcinoma and diverse local residual tumors. Her difficulty with hearing had developed after the first operation. The goal will always be to attain “de-trochaization.” Whether symptomatic therapy is correct can, of course, only be decided from life occurrences. To increase knowledge in this direction is, however, not unimportant

Sometimes, however, one must also seek the process in which the tendency toward tumor formation exhausts itself. After I had laid out the above-described thesis for myself, I discovered a trochaic auditory picture in a woman undergoing menopause which caught my attention. I thought I could exclude a malignant tumor, hypochondria did not exist, similarly there was no obstipation, and hearing was good. After a few days of pondering I told myself that a myoma must be present. And there was one, an enormous one. I did not have it operated on, as I saw a correlation with obstipation, being a benign safety valve for the tendency toward tumor formation. However, I provided her with Iscador. Logically, one should give Iscador in cases of chronic obstipation in older people, especially when they can not get by without laxatives.

Children have a trochee in situations in which they feel fear. This can be easily observed when, for example, only fear of the physician exists. One can hear then, how the tones become high-pitched as the anxiety disappears, how the clear sound of childlike iambi returns after the trochaic thundering. The heart is a wonderful mirror of the soul in this age. In adults, the heart’s signature of fear and relaxation becomes the expression of organic processes in the sense of contraction and expansion in adults. The tumor is basically nothing else but fear at an organic level. Soul nature in children is still very strongly bound to the physical body; therefore, soul nature is directly audible in the heart. In adults, the soul separates itself from the body and, therefore, the heart tone announces more bodily occurrences.

The tendency toward tumor formation is opposite to the development of inflammation. In patients with the latter tendency, the iambus expands outward from the aortic region and can dominate the entire auditory picture. The appearance of the trochaic element at the apex is the sign of improvement in this case. Often, the iambus is still suppressed during fever, the most meaningful manifestation of inflammation. Then, a strong embryonic “E” tone makes itself known over the entire heart. In this way, one can hear in a highly febrile patient how he is reshaped, how the

entire body enters into an ancient condition, from which it emerges newly formed, newly built. The appearance of iambs and spondees, then, indicates recovery. Calm trochees are, especially in younger people, the expression of stable recovery.

Allergic illnesses and peripheral inflammations also cause auditory pictures of the iambic type. Also, urticaria reshapes people—it is not for nothing called “nettle fever,” even if it rarely causes a fever. Does not a real cold make us new?

However, since one is so attached to the old, one does not like to have oneself reshaped. We react in a similar manner with respect to the flu. One wants to remain as before and does not notice that hardening tendencies have already established themselves, tendencies which could be dissolved by an efficient fever.

We are living in between inflammation and tumor processes as human beings. Health is an equilibrium between these processes, an unconscious, enduring search and attainment of the middle. Illness throws us out of this middle, so that we can consciously seek it. These exceptionally fine and dynamic processes are perceived by the heart; the tones which we hear in the heart are expressions of these perceptions.

Observations show that the effects of tumors and inflammations are audible between the aortic region and the heart in auscultation. All disease processes unfold acoustically within this axis. The struggle of the powers is audible in this area. One can follow this especially well in arrhythmias. For example, one experiences this struggle literally in paroxysmal tachycardia which can occur intermittently (that is, through the formation of short, consecutive attacks) between tumor and inflammation.

Tachycardia is a correlate of inflammation. When a normal rhythm begins again after a paroxysmal tachycardia, the first beats are especially strong; they can be felt like blows of a hammer at the apex. These strong beats are always trochaic; they are an expression of the tumor nature of the organism, which becomes a healing agent here. However, tachycardic beats always have a tendency toward iambs.

Abdominal pressure after the Valsalva maneuver is an artificial tumor formation in the abdomen, which often stops an attack in this manner. Compression causes a trochaic force in the heart which counters an iambic force. With this, holding the breath during abdominal pressure and careful expiration is very effective. Expiration slows occurrences in the heart and trochaisizes them; inspiration stimulates, iambically. During inspiration in Valsalva's maneuver, the heart beats faster, until it is forced through compression and the holding of breath into slow beats. Compression is,

above all, that which forces. However, if trial expiration were not allowed to follow, the tachycardia would set in again immediately. Expiration calms the opposing iambic force. Compression causes trochaic hammer blows, but, through that, the iambic force opposingly becomes quite wild and must be tamed through subsequent expiration. A number of expirations can be necessary until the iambic force has quieted and calm ensues.

Interestingly, one hears trochees in the heart during paroxysmal tachycardia. At least, that is my experience. One could correctly ask, where the iambus could be. Tachycardia is iambic and this iambus retains the trochee in its region, incorporating it in itself, so to speak, and isolating it. Compare this with a large drop of mercury from which a small drop has separated. Mercury has, of course, the characteristic of becoming scattered upon impact with something. However, it is immediately ready to reunite the many drops, when these come together again.

The drop can be described as a trochaic element, the state of dispersion an iambic one. A larger drop, which is trochaic in itself, is thrust into the region of scattering processes in paroxysmal tachycardia and can never return. Therefore, such an attack is a condition which, once it has begun, no longer represents a struggle, but rather remains fixed, sometimes for hours or even days.

The Valsalva maneuver is an attempt to have the original drop approach the little ones having come about by dispersion. If it succeeds and they touch one another, reunion occurs instantly and the tachycardia disappears. In such a case, the beat acoustically becomes iambic again, but the totality is trochaically slow. Such an attack (which is a slipping over of the trochaic into the iambic region) is very suitable for studying the struggle of forces, because the same forces pervade. Every paroxysmal tachycardia attack is initiated by a trochaic event; for instance, by being startled, by the movement of bending down (through which the abdomen is unconsciously compressed), or an emotion. The initial beat is usually intonated, with which the trochee remains attached. Through such occurrences, the expiration is blocked and the iambic force released. Then, the iambus races, in order to rid itself of the trochaic enclosure. Quiet, calm breathing, that is, breathing in the soul equilibrium, prevents paroxysmal tachycardia from occurring.

Meteorologic influences sensitize the heart toward rhythmic disturbances. Atmospheric low pressure as a trochaic force can often induce disturbances. One is then confronted with the fact that the heart, in combination with the lungs, is the site where the processes of nature are perceived, even where their influences finally culminate. In arrhythmia, a process which continually occurs in healthy people is magnified to a

degree which becomes pathological. Analogous processes accompany this occurrence in liver and kidney metabolism, in the liver more in the sense of stress, in the kidneys more in the sense of calming, equalization effects. All sensations of weather have their origin here.

One can experience through observation that the so-called “axis of illness,” which is heard concentrated in the heart, extends over the entire human being and out through him. In situations of health, they are unconscious. Illness can bring them into appearance. In paroxysmal tachycardia, the patient feels the iambic-tachycardial element more in the base of the heart or “in the neck.”

Contrarily, however, the trochaic-bradycardial element is felt at the heart apex or “in the abdomen.” Thus, he can feel this axis in his own body. Even those who have the flu feel this. The headache has a iambic element which is a metabolic process taking place in the head—the head “explodes.” Limb pains are trochaic elements, nerve/sense processes in the area of metabolism. Thus, every illness allows what the physician hears objectively in the heart to be felt

However, there is still a second axis. And it is interesting to note that it is scarcely touched by the aforementioned struggle. It is the first of these axes to be generally known as the zone of similar tone qualities and runs from aortic point to mitral point (apex). The other axis can not be distinguished as well. It also arises out of the areas of similar tone qualities and proceeds from the pulmonary point to the auscultation point of the bicuspid valve. I call these axes the “AM” and “FT” axes in my drawings.

Their tone qualities are very different. Jagic stated that the second PT is “deep and muffled” and the second AT is “high-pitched and short” (See Nikolaus Jagic, *Percussion and Auscultation*, Urban and Schwarzenberg, 9th edition, Vienna, 1948). This characterization is very exact. If they were to be made into images, one could speak of wooden and metallic sounds. One hears the waves of respiratory air through the pulmonary point—wooden. The effect of blood is heard through the aortic point—metallic. The region of metallic ringing is the axis of illness, the region of active wooden tones is the axis of health.

The axes cross each other. Information about the prognosis comes from their interpenetration. Each of these axes can override the other. For example, if the third auscultation point described at the beginning (middle of the sternum) is iambic and related to the sound of the pulmonary tone, the axis of health is strong. The prognosis is principally favorable in illnesses which are becoming trochaic in nature; however, if the crossing point of the axes is spondaic or even trochaic, the axis of health is weak and the axis of

illness is strong, on the side of the tumor. The prognosis is not so good in the face of this discovery. As was mentioned earlier, the trochaization of the pulmonary point has the least favorable prognosis.

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*Subsequent chapters of this research will follow: 4. The auscultation points and their inner organization, 5. From the embryonic tone to the tone of mankind or the riddle of the spondee, 6. Practical comments, 7. From whence do the heart tones come?*

## Perceptive Function of “Motor” Nerves\*

WOLFGANG GARVELMANN

Rudolf Steiner saw the idea of the heart as a pump and that of motor nerves triggering muscle contractions as the two concepts in contemporary science which put the greatest obstacles in the way of a realistic understanding of the human being. Increasing insights into the peripheral circulation and the factors promoting it are gradually changing the concept of “the heart as a pump,” but since the days when Steiner gave his assessment, no convincing progress has been made in research on and interpretation of the “motor nerves.” In part this may be due to their anatomy and physiology. The circulatory system is inherently mobile and capable of adapting to any psychological or physical stimulus. The nervous system, reflecting functions leading to death as well as supporting conscious awareness, appears to be static and is therefore more comprehensible to those who take a purely materialistic view of natural processes. This view, however, sidesteps the biggest question of all: How can the nervous system be the vehicle for processes of consciousness?

Clinical and experimental data appear to confirm—very convincingly indeed—the conventional view of the motor nerves, which is that their destruction, or the destruction of the related brain centers, results in paralysis even when superficial and deep sensitivity remain: If the spinal cord is severed the sensory nerves degenerate progressively towards the CNS and the motor nerves towards the periphery. Action potentials are detectable running from the sensory nerves centrally while with the motor nerves they move towards the muscles. The rate of conduction can be exactly defined. All these facts are taught even to youngsters at school today. Yet increasing knowledge of neurotransmitters between nerve end and myofibril also does nothing to alter the basic facts of these functions.

How did Rudolf Steiner describe the function of the “so-called” motor nerves? He did so on various occasions, always in a greatly simplified and easily misunderstood fashion—perhaps in order not to spare his audience the

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\*Original title: “Leiblich-seelische Wahrnehmungen und Gedanken zum Problem der motorischen Nerven” in *Merkurstab* 1993; 46: 459-62. English by J. Collis, MIL.

effort of their own endeavors to develop higher faculties of consciousness (“... so that we may be able to disentangle ourselves from these errors and thus become independent human beings.”) As one example in place of many we shall quote from a lecture given to trainee Waldorf school teachers on 22 August 1919.<sup>1</sup> “To talk of motor nerves, as has become customary, does not correspond to the facts, because the motor nerves would really be blood vessels ... Motor nerves are spoken of because of the fact that when certain nerves are injured, e.g., those which go to the legs, a person cannot walk when he wants to do so. It is said that he cannot walk because he has injured the nerves which, as motor nerves, set the leg in motion. In reality the reason why he cannot walk is that he has no perception of his own legs.”

This tells us that the process is one of perception, and we might ask whether it would not be more profitable to approach the question from a consciousness angle rather than through physiological experiment. It seems extraordinary that current scientific thought should so thoroughly neglect consciousness in favor of physical factors, with the consequence that research into consciousness is directed to the brain and not to observation of consciousness as such. The latter would involve meditative observation of one’s own processes of consciousness. What do we achieve by applying this non-physical method to the issue?

The first thing we experience when a situation arises that demands some action is that we get an inner picture of a movement to be made, or often of a choice to be made between movements, all of which would lead to the same result. This process of planning in the mind often passes so rapidly and is so much a matter of course that we fail to be aware of it, although it invariably happens. Our idea of the movement to be made depends on the current position of the limb in question, for the movement differs depending on whether the arm is already flexed or whether it is hanging down limply. An impulse which Steiner termed the will then shoots into the idea of the movement. This will intent, now laden with the idea of the movement, escapes our powers of observation, but we immediately experience the limb moving in the desired and imagined manner. A prerequisite, of course, is that our motor system is in good order. A leg “going to sleep” provides us with an opportunity to make the most interesting sensory and motor observations with regard to the phenomena of paralysis. In such a situation “perception of our own legs” is most definitely disrupted.

What is meant by “perception of our own legs”? Do we mean that we perceive the movement as such, either active or passive? But physiology has long since succeeded in attributing this on the one hand to the tactile corpuscles that register changes in skin tone and on the other to the

lamellated corpuscles that fulfill a similar function in the articular capsules. Or do we mean the sensation of muscular contraction? But this, too, has already been attributed to the neuromuscular spindles in a very convincing manner, for the greatest accumulation of neuromuscular spindles is to be found in the areas of maximum sensitivity, namely in the finger and eye muscles. Another perception of a limb is that subtle sense of vitality which makes us aware of its position, posture and shape and even of its movement. This sense of vitality provides us with a constant feeling of buoyancy and a tenuous awareness. It remains as the sensation of a “phantom limb” even where the actual limb has been amputated. It is evidently a projection of the ether body into our consciousness, providing the CNS remains unimpaired.

So what quality of perception is left by means of which we might justify Rudolf Steiner’s indication? There is indeed one final sensation with regard to a limb and its movement which is, however, so subtle that it can be detected only by intense meditative observation, making it very difficult to describe in words. Perhaps the best way of attempting this is to say that it is like a quiet, resting sensation of power, a feeling of being in a position to carry out what one wants to carry out. This is a sensation fundamentally different from any of those we are accustomed to receiving passively through our perceptions, for there is a component of inherent activity which is the opposite of the sensation of (flaccid) paralysis that makes people feel as though a limb no longer belongs to them. It is a sensation of being filled with a vitality of soul, of knowing that one is in a position to make use of one’s powers. Not a passive experience, it can be achieved only by actively feeling one’s way into one’s muscles. It is an impulse we send out into the muscles we next intend to use in order to discover what condition they are in. To use an image from technology, which it is so easy to do with regard to the nervous system: It is like using the conscious mind to take a sounding of the limb.

Suddenly we gain insight into the anatomical, physiological and functional differences between sensory and motor nerves. A current of consciousness sent out into a muscle to obtain information obviously causes a change in direction of conductance and of neuron growth or degeneration. It is like a sense of the will exercising its function. The difficulty we invariably have in understanding and experiencing this is due to the fact that the will itself remains unconscious, as Rudolf Steiner constantly stressed; it remains below the threshold of consciousness, so that we can only experience the image of what we will, the part of our will that can be encompassed by our ability to form images. Yet Steiner never tired of describing how the activity of forming inner pictures and the activity of applying the will go hand in

hand. He even gave a very concrete example in one of the lectures to teachers already mentioned: “What brings us into contact with the external world through the senses, including the whole range of the twelve senses (with the senses of life, movement and balance, which concern us here -WG) has not the nature of cognition, but rather of will. People today have lost all perception of this. They therefore consider it childish when they read in Plato that sight actually comes about by the putting out a kind of tentacle from the eyes to the object. These tentacles cannot of course be perceived by means of the senses; but that Plato was conscious of them is proof that he had penetrated into the supersensible world.”<sup>2</sup> In the case of the so-called motor nerves, however, the “tentacles” can indeed be observed by sensory means for these nerves have themselves become a physical embodiment of the perception-current of the will. Once they have fulfilled their function of enlightening the soul with the knowledge of what it can do, the will can strike like hot lightning via the bloodstream and bring about the muscular contraction in the manner described by Rudolf Steiner. The temperature changes in the resisting muscle fiber can be physically demonstrated. The consequence of this deeply unconscious functioning of the will in the muscles can then once again become perceptible to the mind, and the picture has become reality.

Spirit and soul build the body they require. Steiner described this repeatedly, for example in the first lecture in the course he gave to teachers of children in need of special care.<sup>3</sup> He distinguished here between a supra-conscious “soul life” that descends from the spiritual world to build the physical body, and another part of the soul life which creates its own conscious, subjective life in this body. Answering questions from teachers on Jan. 5, 1921, Steiner compared the nervous system of the brain to a road on which passing vehicles leave tracks.<sup>4</sup> With regard to the issue under discussion this can only mean that the peripheral nervous system is a physical expression of currents of psychological and spiritual consciousness which, as we have seen, run in two directions, inwards and outwards, passively perceiving and actively asking.

This is made very clear indeed in the esoteric studies where the relationship of thinking and will and the metamorphosis of one into the other is discussed.<sup>5</sup> Rudolf Steiner gives a description of how a thought flows down from the head into the limbs so that the will can become active in them; the flowing will can be observed in every movement of the limbs. Prior to this, however, a thought had been characterized as something that formed the brain. The living thought meant here is surely part of that supra-conscious, organ-creating “soul life” mentioned in the curative education

course. This is the living thought to be sought in meditation which will then reveal the will element it contains.

Why did Rudolf Steiner place so much emphasis on making the will conscious in the processes of the senses, or in the realm of sensory perception and the forming of inner pictures? Surely it was because here at last we have the place where the intrinsically human element can be found; this is where the ego can comprehend itself and do justice to its universal task; it is the point of germination and crystallization that brings forth reality from ideas and images, giving the human being a very first spark of creativity. It is the ego itself which “magically” influences its own physical body and therefore also the universal plan,<sup>6</sup> thus realizing its potential for freedom.

This theme is discussed from the psychological point of view of the teacher in a recent essay by the author.<sup>7</sup> The present paper on the anatomical and physiological aspects addresses a facet of more immediate interest to members of the medical profession.

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# The Immune System and Inner Activity\*

OTTO WOLFF

In recent years medical research has concentrated increasingly, if not exclusively, on the immune system. This development has been strongly influenced by AIDS and has produced a highly detailed knowledge of how the immune system functions. However this virtually unlimited fund of information has unfortunately yielded very little that is of practical use. For example, the set of substances produced by human and animal cells termed interferon has been discovered to have an anti-viral tendency. They also have the effect of checking the growth of malignant tumors. Therefore these substances have been investigated and isolated at tremendous expense, but their practical use has encountered great difficulties and has so far been disappointing.

So, despite all the discoveries regarding the significance and function of the various cells, the weakness of the immune system remains a global problem. In fact, even if medical science succeeded in cheaply producing an adequate supply of a substance such as interferon that would work to destroy viruses and cancer cells, it would at best only be able to give passive inoculation. It would be giving the organism a finished product instead of getting the organism to be active. The weakness, of course, would still be there, and people would become dependent on medication for the rest of their lives. Life might be saved, but the illness would not be cured. It is necessary, therefore, to arrive at a deeper understanding of the immune system and the negative and positive influences involved.

## The Basic Phenomenon

Broadly speaking, the immune system is presented as a defense of one's self against something that is not part of oneself, namely a foreign body. We speak of a system of resistance that does not react strongly enough in the case of an immune weakness and reacts too strongly in the case of an allergy. Sad to say, there is a disastrous conflict of ideas at work here because attention

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\*Translated by Pauline Wehrle.

is being focused solely on the continuous flood of new information instead of on the phenomenon as a whole.

If we look at the basic phenomena instead of starting with the endless details, it is apparent that a person has an open as well as closed systems. Through our sense organs we are open to the environment; they give us contact with our surroundings. Within us, in our circulatory system, we are shut off and largely protected from outer influences.

Impurities in the blood (blood poisoning by bacteria or viruses, etc.) can be a threat to life. The chief system protecting us from the environment is our skin, but our intestines are also an essential protective organ. The food we need must not be absorbed unchanged, and this is facilitated by our complicated digestive system. Therefore both the skin and the lymph system belonging to the intestines are important parts of the first line immune system.

In actual fact these protective walls can be pierced. For instance, if the protein content in food is not properly broken down, it enters the intestine undigested where it decays and forms poisonous products. This is in contrast to the protein that has been broken down and can easily be absorbed. If digestion is only partial, the fragments which are foreign bodies and alien substances can be reabsorbed within the organism. The organism is bound to defend itself against this foreign protein, and this appears as an allergic reaction. The organism tries to rid itself of the foreign substance through the skin, so a rash appears. The expression "rash" is a rather nondescript term for the process which is recognized as an excretion by way of the skin. It is not only a matter of excretion but also of local inflammation. The organism makes use of this in an attempt to break down the foreign substance into small enough pieces to excrete, but this does not always happen efficiently in the case of protein.

Hayfever results from the same process in that pollen not only gets onto the surface of the nasal mucus membrane but actually penetrates it. This is obviously not the fault of the pollen but of too porous a mucus membrane. A runny nose is an attempt to get rid of it and has a useful purpose. This is a case of using the organisms of inflammation to break down foreign matter. If this breakdown is only partial and the foreign matter or its fragments flood the organism, the whole organism resists, and the result is hayfever.

### **The Development of the Immune System**

Following up the idea that we understand the immune system to be a system to defend our self against something that is foreign to it, it is clear that this system has special significance for us as human beings because

the concept of self cannot be meaningfully applied to animals. Of course, this distinction can be made only if we look at a human being not as an intelligent mammal but as a unique spiritual being. The development of the immune system does indeed give rewarding insights into our human development.

If we take a look at the development of the immune system where phylogeny are concerned, we can ascertain the following facts. Lower animals possess and develop practically no immune system; therefore they cannot produce an allergy nor do we find any defense against foreign protein. When we come to the higher animals things differentiate out more and more, and the need arises to mark the separation between them and other living creatures. In a similar way human beings are born without a functioning immune system. However babies are protected from total exposure to outside influences because the mother's milk contains suitable protective substances such as special kinds of *albumen*, the immunoglobulins—provided the mother has developed these protective substances. If, for instance, the mother has not had an illness such as measles, she cannot give her child this protection, in which case the child may get the illness at an earlier age and get it more severely. It is neither protected by its mother nor does it have a defense mechanism of its own.

It is important to realize that a child's immune system does not arise in the child of itself. After maternal protection has ceased, the child has to develop the immune system himself as it comes to grips with the outside world. It is a matter of acquiring a faculty. This happens only through practice and effort which means through being active. Goethe expresses this in a monumental way in the statement, "In order really to possess what you have inherited from your ancestors you have to earn it" (*Faust I*). This applies quite generally to any kind of faculty, be it walking, playing the piano, speaking, thinking, and so on. A faculty can be acquired only through constant practice. The development of the immune system comes about through a gradual encounter with and mastery of the environment. A decisive part is played by specifically exercising and strengthening the immune system, i.e., by running a temperature in the course of a feverish illness. Long before we talked about an immune system, it was certainly known that a high temperature was a direct starting point of an immune reaction. Since the middle of the present century experiments have been undertaken that show that fever triggers both humoral and cellular defenses.

It is significant that the typical children's illnesses such as measles, scarlet fever and German measles are accompanied by a high temperature lasting three days. These illnesses are typical of childhood that is, of the time

when the human organism acquires the capacity to produce and control fever.

This is also a time in the person's biography during which the learning capacity is greatest. The concept of "learning" is also applied to the immune system or, more exactly, the lymphocytes. These enter the thymus gland and acquire immunity there. The gland is in effect the "school" for the lymphocytes. In old age it becomes more difficult and risky to run a temperature since this gland diminishes; the ability to learn is also diminished.

### **The Importance of the Immune System for a Person's Individuality**

The breakdown of the immune system opens the way not only for the infiltration of foreign matter, e.g., protein, but in conjunction with this even to influences of a psychological nature. In other words, the development and consolidation of our individual spiritual nature is dependent on our having a highly developed immune system. This means that our immune system protects us from the infiltration of foreign elements not only of a bodily nature but also of a soul nature and spirit nature. In all three of these areas we can observe both weakening and strengthening influences.

Before we go into detail let us register the fact that today, in the age of psychosomatics, it is common knowledge that soul-spiritual disturbances that are not brought under control in their realm move into the bodily realm. The typical example of this is a stomach ulcer which, to put it simply, occurs when the stomach starts digesting itself. If something is not properly "digested" on a soul level meaning that it cannot be mastered and overcome, the problem slips down to the physical level, and the digesting of this psychological problem takes place on the bodily level. Ultimately every influence works itself out in the bodily realm. Nevertheless, there are distinct differences at these different levels.

In the bodily realm, the organism can no longer recognize foreign albumen as foreign; it has to tolerate it and consequently cannot put up resistance. Therefore no temperature arises as an expression of defense. The most disastrous form of this "blindness" to the recognition and dissolution of foreign matter occurs in cancer. Because of this foreign element being in the organism the existence of carcinoma cells and their products can be proved biochemically. They are known to be undifferentiated, not having evolved at all and therefore do not suit a human individuality. So the problem is not to be sought in the cancer cells and their growth for a human being needs growing cells all his life. The cause of cancer is the lack of differentiation and defense against foreign matter.

It has been known for decades and experienced thousands of times that cancer patients react to an infection with hardly any increase in temperature or only a mild one. They have a weakened immune system. The appearance of cancer cells is not the beginning of the illness but the final act of a drama that has been in progress for years. First there is an inadequate development and later a weakening of the immune system. It is quite right that in recent years cancer research has moved from a more detailed examination of cancer cells to a study of the organism as a whole, which means a deeper study of the immune system in particular.

### **Strengthening the Immune System by Means of Inner Activity**

The necessary consequence of these observations is to recognize the significance of fever as a decisive stimulus to the immune system. The indiscriminate suppression of fever, particularly in childhood, weakens the immune system while regular warmth is protective of the immune system. The creation of warmth by means of our own activity, as in running a fever, has an especially positive influence on the immune system.

A healthy diet is a positive influence on bodily health. Human and animal life are dependent on a healthy plant realm. Particularly in the area of nutrition, deficiencies are constantly being covered up by foreign matter (dyes, preservatives, stabilizers, etc.). The immune system is further under attack from influences of a directly paralyzing nature such as well-known carcinogens, and the increasing number of synthetic foreign substances in our food, water and air, so that we can hardly hope to avoid having the same crippling effects within our organism. These foreign destructive substances must be avoided. It is a general rule of therapy that for positive influences to work negative effects must be cut out or at least minimized.

Soul-spiritual effects can likewise be positive or negative. Today's tendency to "play it cool" hinders soul development; feeling is considered to be outdated romanticism. It is obvious this tendency makes the soul passive; and if it does not develop, it atrophies. A lack of in-depth experience leads to a lack of understanding, even for nature. Every artistic activity enlivens and enriches the soul.

On the spiritual level, enthusiasm is vital; interest means literally "to be between," to make an inner connection with something. This is just what modern people shy away from; they would like to remain "objective," at a distance, uncommitted, which means "passive."

The sort of withdrawal goes hand in hand with fear. Fear is more widespread today than in previous centuries. Fear comes under discussion as an illness factor: "Paralyzing shock" is well known. Not so well known

is the paralyzing effect on the immune system of fear rising up out of the unconscious, as distinguished from the mostly justified fear of external threats. The overcoming of fear is a global problem which can be achieved solely by means of inner activity and strengthening. Whoever is really strong or at least feels strong need not have fear. This is a matter of spiritual and soul activity.

### **A New Attitude to Life: In Equilibrium with the Environment**

In the last analysis, the constantly increasing weakness of the immune system—of which AIDS is only the tip of the iceberg—is the result of a human change in attitude. In olden times social customs were preserved among all the different peoples in sacred writings that people adhered to. For instance, in Matthew 7:7, “Ask, and it shall be given you; seek, and ye shall find; knock, and it shall be opened unto you.” First of all there is a call to do something; an activity on one’s part is inserted in front of the “outcome.” The opening, the deed of grace, is the result of personal effort.

Today’s lifestyle is the exact opposite of this process: A modern person does not ask any more, he demands; he does not knock or inquire any more but takes without asking. This is indicated not only in advertisements and sales strategies that set out to break through a consumer’s defenses (without first asking whether he wishes to have the article), but also all the mechanical noise and hubbub from which one can hardly escape and the reckless exploitation of natural resources. At the end of the day, seeking for something has hardly any place in today’s wealth and super-abundance.

One can obviously make the objection that all these negative influences have existed for years and that a weakness in the immune system has occurred only very recently. We have to realize, however, that in earlier times people were in fact stronger and had a greater resistance. In addition, the descent of the soul level to the bodily level, for instance, as was mentioned in the case of a stomach ulcer, does not happen in days but takes months, even years. Spiritual influences take far longer to work their way down.

First and foremost we have to consider that the human situation has changed in modern times. Whereas people used to behave primarily as members of a nation, a people, a family, we are now more dependent on ourselves as individuals. Demands are made on us personally and not just as members of a race, religion, etc. This process of individualization and liberation from the ties of blood is essential in our time. If it meets with difficulties and backsliding into instances of nationalism, this does not affect the necessity to acquire this inner strength through our own freedom.

Last but not least this is also a matter of education. In earlier times children were, for instance, prompted to love the world and nature, “to go forth into the world” as it says in fairy tales. Nowadays children are “protected” from coming to grips with an illness, and even nature is made out to be hostile with its bacteria, viruses, poisonous plants, pollen, etc.

We need to not only discuss but also practice strengthening our defenses. This is justified as far as the overcoming of foreign bodies that have found their way into us is concerned. However if putting up a “defense” reaches beyond our own organism to the environment, defense can become aggression. This is a psychological as well as an organic process. Strength that is not kept under control can lead to the unfolding of power over everything in an egotistical sense. A person develops real inner strength by living and working together with the environment, not through fighting against it. If this development happens with wonder, reverence, admiration and sympathy, then the increase in strength leads to an opening of the soul, and the body is freed of anxiety and fear.

However, the primary prerequisite for this is a proper grasp of inner activity, both in the sense of tackling inflammatory illnesses and in the sense of an increase in soul experience and enthusiasm. The kind of inner strength this sort of activity gives rise to can overcome a state of anxious protectiveness and put in its place a loving connection to the world.

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## The Idea of Threefolding in Immunological and Inflammatory Reactions\*

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Rudolf Steiner often said that the threefolding of the body into the nerve-sense system, rhythmic system and metabolic-limb system was connected with a fundamental law of the human organism. In the following we will try to elaborate the characteristics of these systems in the special sphere of the lymphatic organization and in connection with immunological and inflammatory reactions. The anatomical, morphological structure of the lymphatic organization will be the starting point of our study.

The lymph clefts develop blindly out of the interstitial spaces. There is an intensive stream of fluids and substances in this sphere. The excess interstitial fluids are absorbed by the lymphatic system and a certain amount of lymphatic reabsorption occurs after the fluids have been filtered through the capillaries. The lymph supply is characteristically the greatest in the central metabolic regions such as in the liver and intestines, and it is hardly noticeable in the extremities until they begin to move. Aside from this function of serving the fluidic organism, one of the most important tasks of the lymphatic system is the reabsorption of proteins from the interstitial fluids. About 50% of the plasma proteins are in the small spaces in tissues, whereby at least 50% of the proteins which circulate in the blood leave the vascular system during the course of a day. The flow of proteins is greatest in metabolic organs such as the liver, where the lymph contains 5–6% protein, whereas practically no protein is found in the lymph in the extremities. The intestinal lymphatics are the ones which absorb the most materials. To sum up, the lymph clefts which begin blindly in the interstitial spaces help to maintain the organism through the property they have of absorbing certain materials from the tissues and conveying them into circulation. They are the metabolic region of the lymphatic organization. Here a stream of fluids is created out of nothing in dependence on the metabolism and the movement of the body in the metabolic-limb system. Anatomically it is continued in the lymphatic conduction vessels, where

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\*Translated by Harold Jurgens from *Beiträge*, Vol. 39, Nr. 1, Jan./Febr. 1986.

the flow is determined morphologically by semilunar valves. The conduit vessels are connected to the deeper transport vessels which have a muscular media and sympathetic nerves. Here one sees the signature of the rhythmic system most easily, for the lymph is carried to the blood in transport vessels through rhythmic contractions of 10–12 per minute. In addition to this direct and material connection of the lymph system to the blood, there is a more functional contact. This no longer resides in the humoral-fluidic region but it is largely carried by cellular elements. At the transition from the splenic artery to the spleen's venous flow region the blood vessels in the pulp are surrounded and accompanied by a lymphoid sheath and then this thickens into the malpighian bodies. The morphological movement which can be read in these lymphatic structures is continued in the others. Thus the lymphocytes are grouped into spherical colonies in the primary and secondary lymph follicles. One can see an indication of independent organ formation here, just as in the malpighian bodies. Closed-off structures which look like heads arise. The development reaches its high point in the lymph nodes, which are small, sometimes hard, conglobate organs which are closed off from the environment. The striking similarities to the nerve-sense system and to a nerve cell with dendrites is also clear in the anatomical structure of a lymph node, where one has numerous lymph vessels going in and often only one going out.

Whereas the fluid element which is dependent on the metabolism in its composition and dynamics predominates in the realm of the interstitial lymph clefts, the cellular element predominates in the lymphatic structures which are oriented towards the nerve-sense system. The stream of lymph tends to slow down there, and in the immune processes it is led towards a kind of organic cognition. This is often followed by a catabolic metabolism which confronts the lymph stream of the metabolic pole that builds up and nourishes the organism (see Fig. 1).

Now that we have looked at the morphological aspects of the lymph system we will go on to discuss its organs. In a wider sense they can be divided into cellular and humoral factors which can be observed in immune processes and in inflammation reactions. Their assignment to the cellular and humoral realms can give one an inkling that they are related to the nerve-sense system and metabolic system of the lymphatic organization. Before we go into inflammation reactions and immune processes and their various types, we will describe the organs of the lymphatic system with respect to immunology.

The cellular element includes the B- and T-lymphocytes and the macrophages. The T-cells probably originate in the bone marrow and wander over into the thymic cortex and then into the thymic medulla.

Cellular realm	lymph nodes	Nerve-Sense System
	lymph follicles	
	malpighian bodies	
	lymphoid sheaths	
	blood	Rhythmic System
Humoral realm	transport vessels	Metabolic System
	conduction vessels	
	lymph clefts	

Fig 1. *Threefolding of the lymphatic organization*

Here they develop their special characteristics and properties. As they mature they develop a differentiated surface structure. The T-cell system has regulatory and structure-giving functions which can influence and guide immune reactions at all levels. The T-cell population includes helper cells and suppressor cells. Helper cells can promote the differentiation of B cells into cells which produce antibodies, whereas suppressor cells can suppress the function of B-cells. The division of immunoglobulins in connection with immune responses also seems to be under the influence of the T-cell system. The production of so-called lymphokines can also exert an influence on macrophages. Therewith T-lymphocytes show their ability to shape and structure immune processes through a variety of phenomena. The signature of the nerve-sense system is clearly recognizable in these characteristics. These selected regulatory functions will later be compared with the lesser and predominantly catabolic metabolism of other kinds of cells. In contrast to the syntheses in the B-cell system, there is obviously no protein synthesis which leads to immunoglobulins. The cytotoxins and lymphotoxins which are connected with T-cells make it possible for them to kill off certain cells. Therewith in the realm of the T-cells which is comparable to the nerve-sense system, a differentiated structure confronts a partially catabolic metabolism which is obviously not as well-developed. There is another fact which substantiates the relationship of the T-cells to the nerve-sense system and leads us over to the B-lymphocytes. Ontogenetically the T-lymphocytes appear in the peripheral tissues several days before the B-lymphocytes, and this corresponds to the early development of the nervous system and head in the embryo. Phylogenetically cellular immunity developed earlier than humoral immunity. Thus echinoderms and other higher invertebrates can recognize and throw off foreign tissues, although no antibody formation occurs yet at this stage of evolution.

B-lymphocytes have a closer connection with the metabolic system than T-cells. Their hematological place of origin is assumed to be the bone marrow, after which they probably go into the lymph nodes and other peripheral lymphatic tissues. A dorsal outpouching of the cloaca, the bursa of Fabricius, controls antibody-mediated immunity in young birds. The differentiated structures of immunoglobulins have characteristics which are related to the nerve-sense system, and these structures are also present as continuous, membranous receptors on the surfaces of cells, which supposedly enable the latter to recognize organic things. B-lymphocytes become transformed into plasma cells which produce antibodies when they are stimulated by antigens, which shows that they are metabolically much more active than T-cells. When the rough endoplasmic reticulum is well-developed, these cells are directed entirely towards the metabolic synthesis and secretion of immunoglobulins. The macrophages represent another important system of cells. Macrophages in the lymphatic organs, Kupffer's star-shaped cells, microglia, and possibly the osteoclasts belong to it. They all originate in the bone marrow and ripen into monocytes there and then go into circulation. Then they go into the tissues where they begin to function as macrophages or histiocytes. Some of the macrophage functions show their connection with the nerve-sense system through their regulatory and structure-giving characteristics. Macrophages differentiate B-cells and activate T-cells. Macrophages present antigens to lymphocytes and thereby facilitate the execution of the specific functions of B- and T-lymphocytes. Their metabolic activity gives them their name; they are capable of phagocytizing foreign bodies and of giving them over to an aggressive, catabolic metabolism. The opsonic antibodies which are produced by B-cells facilitate the process of phagocytosis. In Fig. 2 the macrophages have a central position in the functional spectrum, with a tendency towards the nerve-sense system in their structure-giving properties and an orientation towards the metabolic system. Whether a foreign body is given over to the catabolism via phagocytosis or whether it is given over to the cellular system which belongs to the nerve-sense system in order to produce an immunological defense reaction is decided at the macrophage level.

The processes which are carried by cellular elements are accompanied by humoral, soluble factors which bring the immune reactions to completion. After the foreign bodies have been recognized, these factors bring them over to the catabolism. As we said above, this activity is anticipated in the macrophages' catabolic action. Among the soluble, noncellular elements are the immunoglobulins, complement, and various factors that are called mediator substances—which all influence the development of inflammatory

reactions. We will try to classify and describe the factors on the basis of their metabolic activity and their structural characteristics. The fact that immunoglobulins come from plasma cells shows that they have a relationship to the cellular element in the lymphatic organization which is the bearer of the characteristics of the nerve-sense system. After the foreign body which is disturbing the integrity of the organism has been recognized, an immunoglobulin is created which is adapted to the structural characteristics of the invader. This shaping of immunoglobulins is accompanied by a comparatively slight amount of metabolic activity. Immunoglobulins generally only initiate metabolic action. For instance, foreign bodies which are attached to opsonins or immunoglobulins are more easily phagocytized by macrophages, and therewith catabolized. Metabolic action which is not bound to cells is often initiated indirectly through immunoglobulins, as for instance the activation of the components of complement through Igs.

The reactions of immunoglobulins are often connected with the direct activation of the complement system. The latter consists of about 20 enzymes. Unlike the immunoglobulins, they mostly originate in the metabolic system and especially in the liver, whereas a few are synthesized in macrophages. The complement factors quickly shed the life of this central organ in the metabolism, for they are activated through hydrolysis. The activated components can then lead to catabolic processes. The various components of complement are easily digestible proteins. Complement's spectrum of activities only has a few structure-giving functions which are related to the nerve-sense system, such as chemotactic effects on monocytes and polymorphonuclear leukocytes, and a possible regulation of cell functions (lymphocytes). One mainly finds a direct influence upon the metabolism. Components C2 and C4 of complement have been observed to increase the permeability of the vascular walls with a resultant formation of edema. Anaphylatoxins (C3a, C5a) lead to the phenomena which are characterized by this name. The catabolic action of complement components C5b-9 comes to a climax in the direct destruction of cells. Among the functions of complement is the liberation of certain mediator substances which take hold of the metabolic region directly. One of the most important members of this group is histamine. Whereas the activation of complement by immunoglobulins still shows a connection with the cellular sphere and the "organic recognition" which is at home there, the liberation of histamine can be triggered in a completely nonspecific way. Thus the early phase in an interaction with a foreign body, as in an infection, is characterized by the activation of nonspecific but metabolically active mediator substances such as histamine and this is followed by the immunological response. Histamine

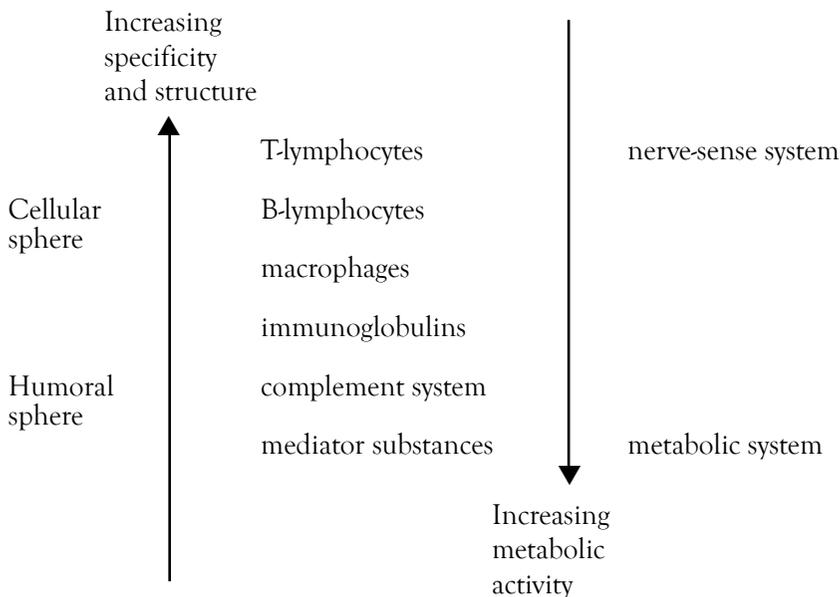


Fig. 2. "Tools" of immunological and inflammatory reactions

is mainly found in the basophilic, metachromatic granules of most cells and in basophil leukocytes, in the stomachs of all vertebrates, and in the lungs. It is also present in the pituitary gland and in other parts of the brain. Histamine has a broad spectrum of activities in the metabolic region and to a lesser extent in the nerve-sense system.

We will now proceed to describe immunological and inflammatory processes in more detail. Here we will go into their occurrence, course and types. The home base for immunological reactions is mainly in the cellular sphere. For instance, an antigen can get into the lymphatic system and wind up in a lymph node, where it can run into a macrophage. After the latter presents the foreign body to some lymphocytes, an immune response which is mediated by a T-cell or B-cell, and which is dependent on the nature of the antigen, may follow. Once the production of immunoglobulins begins, the complement system and nonspecific mediator substances and other subordinate humoral factors can become activated and can lead to metabolic processes. Thus, depending on the type of immune reaction, the latter's origin is to be sought in the cellular sphere which is related to the nerve-sense system. During the course of the immunological reaction the nerve-sense sphere is increasingly left behind, and the humoral sphere which is related to the metabolic system begins to become more important. The

well-known four main types of hypersensitivity reactions can be arranged along the path of the immunological reactions from the cellular region to the metabolic system predominates in delayed immune reactions which are mediated by T-cells. The characteristic symptomatology only develops after a latency period of one to two days. The tuberculin reaction in man is a typical cellular hypersensitivity reaction. It is characterized by a perivascular, cellular infiltrate which consists of mononuclear cells, macrophages and natural lymphocytes. The immune complex reactions with a duration of about eight hours are already more closely connected with the metabolic system. Arthus' syndrome and serum disease belong in this category. Cytotoxic immune reactions which are mediated by humors constitute a third large group; they generally only last a few minutes. Cellular elements are of less importance in the last two kinds of hypersensitivity reactions. These reactions are mainly borne by immunoglobulins which are closer to the humoral sphere which is related to the metabolism. The activation of the complement system and the bringing of the reaction into the metabolic sphere is brought about by Igs and immune complexes. In instantaneous anaphylactic reactions one has a cell-free edema which arises through vascular exudation, rather than the characteristic infiltrates in delayed immune reactions where the cellular element predominates. Histamine is the most important mediator substance for this fourth group of hypersensitivity reactions. One has the clearest connection with the metabolic sphere in anaphylactic reactions (Fig. 3) The opposite conditions exist in inflammation reactions. Whereas the physiological home of immune reactions is in the cells of the lymph nodes with their connection to the nerve-sense system, inflammation reactions occur in the metabolic sphere. The fluids which are filtered in the capillaries normally flow out of the interstices, through the lymph clefts and then through the subordinate flow region of the conduit and transport vessels and finally into the blood. These extracellular spaces between the capillary meshes and the lymph clefts is the place where inflammations occur. The processes which are at home here are enormously intensified in the first stages of an inflammation. After an inflammation stimulus in the vascular phase, one gets an active hyperemia with a tenfold increase in blood circulation; previously emptied capillaries become filled and extended and the venules also expand. The vascular phase is followed by an exudation which is influenced by histamine, serotonin, vasoactive peptides, complement and other mediators. The resulting edema contains many proteins. After this dynamic beginning the blood in the capillaries almost comes to a standstill. The exudation conditions the hemoconcentration, and here the cellular element is beginning to become more important. The



coagulated fibrin. The cellular element already begins to predominate in purulent inflammations. There is an increasing condensation and hardening in chronically proliferating inflammations. In contrast to the acute exudative inflammations one finds an increase in lymphocytes, plasma cells, monocytes and fibroblasts here. An especially large number of lymphocytes is observed in perivascular infiltrates. As in lymph nodes, the characteristics of the nerve-sense system are most clearly visible in granulomatous inflammations. This type of inflammation got its name from the observed formation of granulation tissue and from encapsulation processes such as the lymphocytic capsules of TB granuloma. The cellular element predominates in it so that one gets epithelioid cells, giant cells and lymphocytes. As in immune reactions, the development of an inflammation gets slower the nearer one gets to the nerve-sense system. Thus in the case of immune reactions one can distinguish between instantaneous and protracted reactions, and in the case of inflammation types one goes from acute to chronic inflammations (Fig. 3) To sum up, the nerve-sense system has a predominant influence in immune reactions. The catabolism which is characteristic for this organization is borne into the metabolic sphere by humoral factors. Whereas inflammation reactions are determined by metabolic processes to begin with, which are followed by other reactions which increasingly take on the characteristics of the nerve-sense system.

*German references available by request.*

## Acne Vulgaris\*

LUEDER JACHENS

On one hand, the skin delimits the organism from its environment; on the other, it is permeable to both ponderable and imponderable principles, e.g., in the sphere of the senses. The skin is a complete barrier for form-giving, structuring forces that arise from the nerves inside the organism and reach the skin as sunlight from outside, for instance. Sense organs that are partly created out of those qualities exist in areas of the body surface where sensory qualities are able to overcome this barrier. These are the only sites where imponderables such as light, sound, odors enter into the organism.

The blood is the main vehicle for the flow of substance reaching the periphery from the microcosm of the internal organs. In the skin, the flow generally changes direction. Having come from the inside it is turned back to move inward again. This happens mainly in the capillary loops of the papillae, the rhythmic up and down of which, in the gearing of dermis and epidermis, reminds of wave forms left in the sand when the sea has receded from a beach. Part of the flow of matter continues in the original (centrifugal) direction, however, passing through the barrier as sebum, sweat or material desquamating from the highly-differentiated cornified layer. Rudolf Steiner suggested that the basis for human self-experience lies in the flow of matter coming up against resistance and changing direction in secretory organs.<sup>1</sup> Astral body activity lives in excretions in quite general terms. Secretion to the inside, e.g., of hormones, must be distinguished from eliminations to the outside. The astral body is the energy system that maintains a healthy balance between the two.<sup>2</sup>

These basic features of the skin help us to understand the pathogenesis of acne. Increased sebum production, with the sebum composition changed, reflects an increase and change in the flow of matter to the periphery. It is not fully "cooked," with sebaceous follicles densely populated with micro-organisms as a result. The I organization which is active in warmth processes has not entirely taken hold of the substance so that foreign bacterial life is

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\*Original title: Akne vulgaris. *Der Merkurstab* 1996; 49: 19-23. English by A.R. Meuss, FIL, MTA.

able to thrive on it. The centrifugal process pushing outwards from inside combines with a cornification disorder at the sebaceous ducts, which are blocked with plugs of keratinous material. Hardening tendencies of the form principles originating in the nerves are clearly coming into play. Blackheads and follicles filled to bursting develop, with bacterial lipases breaking down the sebum into fatty acids that cause irritation and inflammation—a digestive process in the wrong site. Rudolf Steiner refers to this pathological continuation of digestive principles “in the direction of the head”—evident to us in the inflammatory process involving papule and pustule—as one-sided activity of the lower ethers (chemical and life ether). This causes “softening of the brain,” in this case dissolution of the sebaceous follicle in the skin, an organ that is part of the upper human being.<sup>3</sup>

A characteristic feature of acne vulgaris is that it is located mainly in the face. A shift of digestive activity “in the direction of the head” is apparent in two ways: 1) because the skin, an organ belonging essentially to the human being of nerves and senses, is involved and 2) because the skin of the head is affected. This part of the body surface is most important for social contact, hence the often considerable suffering of young persons. We can understand this if we consider acne vulgaris in the light of the study of man: Looking into the mirror, the young person, whose inner life is still maturing, is shown that the metabolic aspect of the process is temporarily not functioning properly.

Looking at the process in relation to the whole human being, it is important to realize that acne generally occurs during puberty. (A third of all young people suffers from some form of acne.) Organic brain development reaches its conclusion towards the end of the first 7-year period. The milk teeth are lost, and powers that previously served the organism become free for thinking as a conscious activity. The child is ready to go to school.

A second level of maturity is reached by the end of the second 7-year period. Organically the young person becomes sexually mature, and in the inner life he or she is now mature for the earth, with a new self-perception. On one hand, the astral body is given new tasks in the organic sphere, e.g., to organize the subtle interplay between developing and breaking down of the uterine mucosa. On the other hand, the whole environment is seen with new eyes; new interest in the world awakens. The process is in stages and will obviously get into “ferment” at times.

Signs of inadequate intervention of astral body and I organization in the metabolism may be menstrual irregularities in young women, constipation, acrocyanosis, and offensive sweats. If one decides to meet the situation with metal therapy, *Ferrum* offers general assistance with incarnation and

helps the organism to be “breathed through.” *Mercury* may help to stimulate metabolism and especially glandular function. External applications of *Cuprum* may serve to increase mobility, e.g., letting the blood, the vehicle for warmth, flow right down into the feet.

Rudolf Steiner and Ita Wegman referred to the way skin inflammations may engage the upper aspects of the human being too much so that they are no longer sufficiently able to perform their functions in the organs of the microcosm.<sup>4,5</sup> They gave the example of effects on the liver and digestion. Silica makes internal organs sensitive to one another. Medicinal use of it releases the higher aspects of the human being from their involvement in the skin so that they may be more active in the inner organism. The organ involved in the disorder also needs to be treated, in the present case the liver. Gallbladder, pancreas, spleen and kidneys are other organs where sluggishness may develop so that activity has to be encouraged.

If skin inflammations go hand in hand with daytime tiredness and increased dreams at night, this may be because the higher aspects are not properly “settled” in the physical body. *Phosphorus* treatment may help in this case.<sup>6</sup> Phosphorus also encourages I organization activity to counteract “excessive etheric and astral activity.”<sup>7</sup>

*Sulfur* is helpful for disorders of protein metabolism; it makes protein, a physical substance, more inclined to accept intervention from the ether body.<sup>8</sup> Great care is, however, indicated in giving *Sulfur* to fair-haired people. Fair hair indicates a powerful sulfur process, black hair a powerful iron process.<sup>8</sup> Aggravation from *Sulfur* is more likely in fair-haired women; blond men tolerate it better, e.g., as *Sulfur selenosum*.

Dietary advice in acne cases bases on the role sugar plays as vehicle for the I organization in the blood. If I-activity in the metabolism is weakened, refined sugars and fine flour make this weakness evident by causing an aggravation of the skin condition.<sup>9</sup> Proteins are most open to ether forces. Their degradation and synthesis are ultimately determined by the I organization, and we relieve the latter by reducing the intake of meat, cold meats and cheese.<sup>10</sup> Whole milk is best avoided, with soured milk products taken instead. Lactic acid-forming bacteria predigest cow’s milk, as it were, and this relieves the strain on weakened digestive powers. Fat is mainly the vehicle for heat; excessive fat intake causes “parasitic heat foci” in the organism and a tendency to inflammation.<sup>11</sup> A low-fat diet is therefore recommended for acne.

Raw food may also prove therapeutic, especially when beginning medical treatment of severe acne. It supports the structuring activity of silica at the periphery, healing the deformation caused by inflammation.<sup>12</sup>

An interesting observation that has been frequently made is that young people of asthenic habit tend to develop acne on the chest and back. This may be due to the enhanced nerve impulse of asthenic subjects not being exhausted in pathologic skin changes in the facial region but extending to the upper trunk. Aggravation from stress also points to a one-sided nerve process. The forehead is often affected in grammar school pupils who have to do much intellectual work, whereas perioral efflorescences may suggest that the causes are predominantly metabolic.

If acne persists beyond the early twenties, this may be a sign of constitutional weaknesses persisting from puberty. This shows the potential offered by acne treatment taking account of the whole constitution and providing genuine prevention of more serious conditions. Oral contraceptives, often taken even in puberty, impose foreign functional principles on the pelvic processes in young women. The astral body cannot come fully into its own in establishing an individual menstrual cycle. Acne will, of course, often improve because the peripheral hormonal situation in the sebaceous gland changes, with sebum production reduced. The acne will, however, return when the hormones are discontinued. Several years of oral contraception may cause a type of acne to develop which is partly due to hormonal effects on liver metabolism.

Acne patients have different constitutions, with a marked polarity that points to different requirements:

hysteria	neurasthenia
estrogen type	gestagen type
Rubens type	Cranach type
adiposity, pyknic habit	asthenic habit
tendency to migraine	tendency to atopy <sup>13</sup>

With an hysterical constitution and the rounded forms we know from Rubens paintings, one sees juicy pustules and superficial papules. With neurasthenics, tending to be undernourished, young women with the figure of a young boy (see Cranach paintings) and asthenic young men, deep-reaching nodules, often persisting for weeks, are common. In all cases, whatever the constitution and shape and form of efflorescences, the Wala Acne Series may be used as a basic treatment. The main active principle is *Nasturtium*.<sup>14</sup>

In conclusion, let me stress that in spite of the many different background situations seen in individual cases is a true pyoderma, i.e., an inflammatory, “warm” disease. Croatian dermatologists have established that older people who have had acne in their youth are less likely to develop

basaliomas and spinaliomas, epidermal skin cancers that count among the “cold” diseases.

A beginning has been made with relating details of a dermatological syndrome to the images of the human organism Rudolf Steiner was able to present out of the science of the spirit. The intention has been to encourage colleagues to find a way to individual treatment. Rudolf Steiner made it clear that a syndrome has to be carefully studied when he said: “Never do imaginations arise more easily than if one studies pathological states in the human being.”<sup>3</sup>

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## The Hyperkinetic Syndrome\*

OTTO WOLFF

Every class teacher and school doctor is familiar with the restless, fidgety child that cannot concentrate and is not responsive to the usual pedagogical measures. As shown by the “fidgety Philipp” in *Struwwelpeter*,<sup>1</sup> such children also existed in earlier times, but in recent times these behaviorally disturbed children have become much more frequent. It is commendable therefore that this theme is being taken up from the pedagogical side.<sup>2</sup>

In severe cases of this behavioral disturbance, however, it is evidently less a problem of pedagogy and more a problem of medicine, especially in extreme cases with children who ultimately are unresponsive to parents and teachers and therefore wind up in special educational settings.

The hyperkinetic syndrome—as the phenomenon is called by the World Health Organization—is by no means uniform, but rather multifaceted; the hyperactivity is only the most prominent symptom. For this reason many different names exist. Among these is the name MBD (Minimal Brain Damage). This name is not at all justified, however, since real organic brain damage has never been demonstrated in these children, but only inferred. Such an expression is naturally shocking for parents, since they must assume that such “brain damage” will remain with the child for the rest of life. Experience has shown, however, that this is not the case, and indeed the intelligence of these children is usually average or above average. In keeping with modern modes of thought, the cause of a psychic disturbance is ascribed to the brain; this is justified here only insofar as one could speak of a functional disturbance, but not of an organic disturbance.

Since this symptom complex is repeatedly described in the cited publications and also in the media, and since one sees it daily in one’s practice, a description of the clinical picture will not be given here.

The research that has so far been carried out on this problem has been contradictory and actually shows up the dilemma of present research

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\*Original title: Das hyperkinetische Syndrom, from *Der Merkurstab*, 1993, 46(1): 1-8; translated by Malcolm Gardner.

methods. The first person to make fundamental investigations here was probably the California allergist Feingold.<sup>3</sup> In 1965 he observed that an allergically-reacting patient showed spontaneous improvement in her symptoms when synthetic food additives were completely excluded. In the following ten years Feingold observed similar improvements, especially among the frequently seen hyperactive boys. Initially these patients were categorized by him as being allergic. Today one can say that although this was certainly not wrong, it was also not completely right. However, since “allergy” is a very hazy concept in medicine, and since hyperactivity in his experience was never triggered by substances other than synthetic additives, Feingold later came to believe that this was not a “true” allergy, but rather a case of “no natural defense against synthetic additives.” He thus rejected the allergic etiology. Curiously enough, however, the cited definition of “no natural defense” is precisely a description of an allergic reaction, albeit not in the usual sense. The hyperergic reaction that is today designated as allergy, is itself a consequence of an insufficient defense against an allergen.<sup>4</sup> One could say that a “special allergy” toward synthetic products is present. In this case there is without doubt a constitutional hypersensitivity toward certain substances, which would more correctly have to be designated as idiosyncrasy—not as allergy—since idiosyncrasy is constitutional whereas allergy is acquired. In any case, with both there is a hypersensitivity, and there are also transitions.

A number of astonishing improvements in severely hyperactive children are described by Feingold due to a “diet” consisting “only” in the elimination of all synthetic additives, of which there are about 2700 permitted in the USA. In particular, after recovery or freedom from symptoms was achieved, the severe symptoms could be again triggered within a short time (minutes to hours) by the discriminated substances.

These cases involve the phenomenon of omission, well-known in allergy testing, whereby an allergen is determined by the complete(!) elimination of different food components.

After it was first published (in 1974) many parents with hyperactive children found the behavior of their children improved with the recommended diet, i.e., with the elimination of all synthetic products. From the official side, however, this publication was either ignored or rejected, despite the fact that Feingold is a professor of immunology and pediatrics.

At almost the same time, the pharmacist Hertha Hafer observed that the condition of her (adopted) severely behaviorally-disturbed child was significantly worsened by sedatives, but helped by stimulants. (This observation had also been made earlier.) She eventually discovered that

the clinical picture was triggered by one food additive in particular—the phosphates.<sup>5</sup> She published her exact observations and experiences with the same result as Feingold, namely, that although parents could reproduce her experience, it was rejected by the establishment. Hafer came to believe that the diet recommended by Feingold rested only on the elimination of the phosphates. Like Feingold, she concluded that with hyperactive children it was not a matter of allergy, though she admitted that there was a “very high allergic disposition.” The commonly encountered tendency to eczema and nasal congestion is also part of this picture. The latter is a symptom which is often incorrectly diagnosed as “sinusitis,” and correspondingly ineffectively treated. Success comes only with the “anti-allergic” diet described below.

The situation at present is that in many places the more or less desperate parents have come together in self-help groups. By following the corresponding diet, they could in fact see an improvement in their children within days(!)—after having received no help from doctors, teachers, psychologists, or psychiatrists.

When lay-persons turn to self-help because they cannot get any help from the specialists, this should be a serious warning to the latter to work to understand the situation, because practice is not corresponding to theory. A typical example of this was the founding of the La Leche League when mothers were intensively promoting breast-feeding while doctors were still advocating bottle-feeding. The changes that have occurred since then were caused by lay-persons, contrary to the theory and conviction of the doctors.

How is this syndrome to be understood? As mentioned, the hyperkinetic syndrome does not involve an organic brain disturbance, but rather a functional disturbance of the metabolism, though one that can express itself in the brain. The fact that all metabolism occurs under the guidance of phosphorus (ATP) can be found described in every textbook on biochemistry. There the immediate point of contact for phosphorus is sugar, which must be phosphorylated in order to enter into the metabolism. More precisely: Phosphorus governs the carbohydrate metabolism, just as sulfur does the protein metabolism. Phosphorus and sulfur are very closely related, but are in themselves polar, which is already evident from these metabolic relationships. It is true that in terms of its functional and organic roles sugar—or more exactly, glucose—is the typical supplier of energy (via ATP) for the whole metabolism, but phosphorus and sugar still have a special relationship to the nerve cells, whereas in the metabolism, and above all in the musculature of the limbs, it is protein and sulfur that are the decisive substances. This can be easily demonstrated biochemically. These fundamental relationships were already pointed out earlier by Rudolf

Steiner, who described how carbohydrates end up in the nerve-sense-system, fats in the rhythmic system, and proteins in the metabolic-limb system.<sup>6</sup>

These relationships also relate to the constitution, inasmuch as the male constitution is more connected with the nervous system, whereas the female is more connected with the metabolic system. This is the background for understanding why significantly more boys than girls are “phosphate sensitive” (ratios of 5:1 and 9:1 are given in the literature). These affinities can be schematically shown as follows:

<u>Male Constitution</u>	<u>Female Constitution</u>
Nerve-sense System	Metabolic-limb System
Sugar	Protein
Phosphorus	Sulfur

The fact that one finds hyperactive children, or also adults, almost exclusively with constitutions that are asthenic or leptosomal (Kretschmer) is also related to this.

The relationship of the female constitution to sulfur has been fully investigated; it has been designated as the “thiophily of the female organism.”<sup>7</sup> Correspondingly one can postulate a “phosphophily” of the male organism, which without doubt will eventually be demonstrated analytically.

In order to understand these relationships it is important to understand the essence of these substances. Phosphorus is a carrier of the ego, whereas sugar is the carrier of the ego-organization. Equally important is the difference between how and where a substance works. Phosphorus works formatively from the nervous system (phospholipids) into the organism, whereas via ATP it works in the whole metabolism right into every cell and in this highly active form—i.e., within the metabolic system—it is the carrier of the will. “Insofar as we have phosphorus, we have will. And if we have too much phosphorus, then this will begins to fidget.”<sup>8</sup>

The formative effect emanating from the nervous system is predominant in early childhood. Only later does the nervous system serve consciousness. This change occurs around the ninth year, when the ego, in Rudolf Steiner’s words, is “coupled into” the metabolic system—one can also say especially into the blood.<sup>9</sup>

If this necessary “coupling” is prematurely stimulated by phosphates, then in particularly sensitive people the ego and astral body are forced directly into the metabolic-limb system. In children, however, this system is neither sufficiently developed to receive these, nor is the ego ready to guide a movement impulse (astral body) to become a shaped movement (ego). The result of this shift in the ego-activity and astral body is both

the deficient wakefulness of the nerve system as well as the overactivity of the limbs, that is, their insufficient guidance by the ego. With the use of stimulating amines the astral body is guided into the nervous system<sup>10</sup> and the ego and astral body are thereby largely freed from the limbs. Thereby a symptomatic improvement occurs, whereas every kind of “sedation” or dampening of wakening consciousness worsens the fundamental situation. The same symptom-improving effect also occurs with fever: Although the ego is increasingly led into the metabolic system, it still guides the astral body there in catabolic activity, so that it no longer manifests itself in unrestrained movements of the limbs.

A key to understanding this clinical picture from the constitutional side is also the above-mentioned fact that—contrary to expectation—sedatives worsen the clinical picture, while stimulants improve it. Already the fact that the hyperactivity in question occurs exclusively in the movement element and is in no way the result of spiritual activity such as attentiveness, shows that these children are only seemingly awake, since wakefulness is bound to the nervous system. It is just in this area that the children are not responsive; their activity in their limbs is uncontrolled but not uncoordinated, in contrast to the situation with chorea minor or organic damage. The movements are unshaped, which indicates a deficient ego-function. The entire soul-spiritual activity is more or less shifted into the metabolic-limb system, into the realm of the will. According to spiritual scientific descriptions, the will is based on the metabolic system, just as thinking is based on the nervous system. This will, however, is completely unguided, since the mental picture of the movement shape—the intention—emanates from the nerve-sense system, which is precisely what these children cannot enter into with their spirit and soul. (The movement-will-impulse does not emanate from the nervous system, but rather enters directly into the metabolic system.)<sup>11</sup> This is the reason that these children are unresponsive and unreachable via their sense organs. For them, practically the only possibility of contact with their environment is in the realm of movement, i.e., via the metabolism. They thus become class clowns.

These relationships of the higher members of the human being make the metabolic findings intelligible: There is an alkalosis present, which is easily detected in the pH of the saliva. Alkaline reactions in general are the expression of the anabolic activity of the etheric body.

During puberty these relationships change physiologically: On the one hand the astral body becomes free and on the other hand it is increasingly active as an organizing principle within the etheric body.<sup>12</sup> For this reason hyperactivity improves significantly with girls during puberty, but not

necessarily with boys, which has to do with the constitutional basis described above.

Already before puberty one can work on the alkalosis diagnostically and therapeutically with lactic acid and acetic acid, or with appropriate foods (but not with citric acid, which takes another metabolic path).

During puberty the metabolism changes too: Instead of alkalosis, vagal stimulation, and acetylcholine, there tends to be more acidosis, sympathetic stimulation, and adrenaline production. Associated with this is a greater wakefulness and an increased catabolism. This can manifest itself, for instance, in the well-known burst of dental caries during puberty. The paradoxical reactions to sedatives or stimulating amines are also relevant here.

Based on these metabolic conditions and experiences, treatment of the clinical picture with catecholamines, i.e., with adrenergics, began already in 1935 in the USA. Among the catecholamines are substances known as neurotransmitters, such as dopamine, noradrenaline, serotonin, etc. One thus attempts to “explain” the effects as well as the clinical picture as a disturbance of, for instance, the tyrosine metabolism. Neurochemical changes such as reduced dopamine turnover have been demonstrated. It is conceded, however, that these explanations are unsatisfying.<sup>13</sup> As with the other biogenic amines, the catecholamines have particular basic structures, which all have a catabolic, awakening character.<sup>10</sup>

For this reason, a psychoanaleptic, methylphenidate (trade name Ritalin) has long been used in the USA to treat hyperactive children, since it is estimated there that 5–10% of the children suffer from this disturbance and therefore need this treatment. Also in Germany and Europe it is the commonly used “remedy of choice” that has been “accepted worldwide” especially for the first school years.<sup>14</sup>

In the relevant literature it is always mentioned that even after years of medication no negative effects have been observed. (Ritalin comes under the law on sedatives!)<sup>15</sup> Only Frau Hafer indicates that after medication with methylphenidate a pronounced case of dental caries quickly arose, which other authors, i.e., the clinicians, who only see the children briefly, have apparently not noticed. This connection was already pointed to before with the example of the burst of dental caries during puberty. This effect can also be “explained,” of course, by saying that the parathyroid activity is disturbed and hence also the metabolism of phosphorus, magnesium, and calcium that depends on it.

Because of the biochemical relationships, the absorption of phosphates can also be influenced by aluminum hydroxide. This forms insoluble

aluminum phosphate in the small intestine and is therefore used for patients with kidney insufficiency in order to lower the elevated blood phosphate level. Thus, by giving appropriate preparations such as Aludrox or antiphosphate, one can determine *ex juvantibus* whether phosphates are part of the hyperactivity symptom complex. Magnesium salts act similarly. Since here it is a matter of chemically binding the phosphate, no healing is to be expected; the effect is limited to a substantial blocking of the phosphate, which is also why especially when used as a test, only substantial doses of aluminum or magnesium come in question, as H. Hafer rightly points out.

In addition, giving these children phosphorus D 30(!) leads as a matter of experience immediately to a decided worsening. This is because a mineral, for example, in potentized form acts precisely to stimulate its own metabolism. The operative mode of thought in this case would have been isopathy, which is based on administering “the same,” whereas homeopathy uses “similars.” The desired therapeutic reversal effect with potentized medications does not always occur, for instance, with *Plumbum*.<sup>16</sup>

The above-mentioned rejection of Frau Hafer’s undoubtedly significant discovery [of the role of phosphates] is primarily due to the fact that it is hardly possible to verify the influence statistically. In present-day science the situation is that in all cases statistics are the preferred means of research. This leads to a leveling, however, which excludes the specific factors. The phosphate *hypersensitivity*, which is present as an idiosyncrasy in some of the hyperactive children, is only one of these factors. As already mentioned, the picture is complex, since beneath the hyperactivity there may also be, for instance, hypoglycemic conditions, among others. It hardly needs mentioning that continual nervous irritations like hour-long television watching, continuous background pop music, and other such influences can also lead to a similar clinical picture. Nevertheless, there are undoubtedly phosphorus-sensitive children for whom what has been said is valid and who will immediately react to a corresponding therapy.

This individual *sensitivity* corresponds to the concept of *susceptibility* with infectious diseases<sup>17</sup>; just as with these the bacteria are not the cause of the illness, but rather the susceptibility which first prepares the ground for the bacteria to multiply, so too is there a constitutional hypersensitivity with certain children that lends a “pathogenic” character to the phosphate. Without this sensitivity or susceptibility the exogenous factors, bacteria, phosphates, allergens, etc., remain harmless as long as they do not occur in unphysiological amounts.

With constitution and idiosyncrasy, as with allergy, there are transitions; that is to say, a sensitivity can be more or less strongly developed. The

stronger the sensitivity, the stronger the reaction. From allergy research it is known that even tiny doses of an allergen can trigger severe, even fatal reactions.

The usual skin tests uncover only relatively extreme allergies and usually fail with idiosyncrasies. Thus an “allergy” to mercury, for instance, cannot be demonstrated in this way, since this is not an allergy but an idiosyncrasy. The latter can be demonstrated only with significantly more sensitive methods, e.g., electroacupuncture (EAP) or potentized amalgam (Mercur comp. Pascoe), or an exact knowledge of the finer symptoms of mercury poisoning. The inadequate differentiation between allergy and idiosyncrasy has led to fruitless discussions about the harm from amalgams. With phosphorus the situation is similar. A hypersensitivity cannot be demonstrated by classical allergy tests, but only through elimination experiments or through administering neutralizing preparations such as aluminum or magnesium or also acids as mentioned above.

For this reason, the first thing to do diagnostically and therapeutically is to find the “allergen” by means of elimination, which means here the phosphate or other food additive. Based on experience with allergies and the immune system one can say that it is most effective diagnostically and also therapeutically to begin by completely eliminating the allergen. The burden on the metabolism and the organism is thereby relieved. During this time one must attempt to strengthen the organism so that it loses or overcomes the sensitivity. Thereafter the allergen can be offered to the organism in careful doses until it has learned to deal with it. Although this applies in principle to allergies, it can also be applied here to the underlying idiosyncrasy. In practice, this means a so-called omission-experiment will show within a few days, whether or not one is dealing with a “phosphate child.” For this it is necessary to eliminate 100%(!) of the phosphate additives in the food. This is not fanaticism, just as little as a severe diabetic is not a fanatic when he completely avoids sugar. (This is not to deny that the field of nutrition is a playground for fanatics.) If the child does not respond to this, then one is not dealing with a “phosphate child”; nevertheless, there may be an idiosyncrasy toward other synthetics as Feingold has described, or a soul-spiritual problem as has been mentioned.

If the exogenous factors are not excluded at least for a time, then the organism does not acquire the force to heal itself, to develop its defensive forces. This would be exactly as if with a diabetic one were simply to recommend a “balanced diet,” which nowadays contains about 140 grams of sugar per day.

Correspondingly, most patients who are truly allergic can be quickly helped if one prescribes for them a protein-free diet for about 2-4 weeks,

since most allergies exist toward protein. By removing this protein the organism is unburdened and can devote itself to the special protein problem of the allergy. The same thing applies to rheumatic illnesses and meat, especially pork. If these relations are not taken into account at least at the beginning of the therapy, even a proper therapeutic direction will not, or will only slowly, lead to success. This is nothing other than the fundamental rule of therapy, that the therapy cannot begin to work if a specific harmful influence continues to exist (e.g., alcohol consumption with liver diseases).

With the idiosyncrasy toward phosphorus in question here, the relationship to sugar also comes into play. The connection between sugar and phosphorus was mentioned before. Thus, where there is an hypersensitivity to phosphorus, sugar works in practically the same way as phosphorus itself; that is to say, the complete(!) omission of sugar for several days (2–4 weeks) also allows an *exjuvantibus* diagnosis, and in addition also acts at least to improve often unrecognized allergic reactions such as the nasal congestion mentioned before.

These measures are the task of a sensible, non-burdening diet, the point of which is the avoidance or preference of a certain food, whereby healing can begin. Compared to this, a “balanced diet” is a diet for a healthy person.

In contrast to the above examples of the idiosyncrasy toward mercury and the hypersensitivity toward synthetic food additives, with phosphorus one is dealing with a physiological substance that is “indispensable” for the organism. This is factually correct, of course, and is one of the fundamental objections that can be raised against the significance of phosphate as a pathogenic factor in the hyperkinetic syndrome. But here the same applies to phosphorus as to sugar. This too is a physiological substance. It becomes something pathological through being continually eaten in excess. That pathological conditions can also be arrived at in this manner is recognized from various sides,<sup>18</sup> but officially is still largely rejected.

Phosphate additives are found particularly in sausages (the water retention of the meat is thereby increased); it is also in practically all soft drinks. Since these latter usually also contain much sugar, a considerable mutual reinforcement comes about. Especially ingenious—but catastrophic—is the combination of phosphates, sugar, and caffeine in cola drinks, which cannot be discussed further here. The extraordinary solubility of quick drinks like instant coffee is due to the phosphorylated carbohydrates. The phosphate-containing “spreading salt” that gives processed cheese its smoothness also deserves mention.

Regarding practical implementation, the reader is referred to the by now voluminous literature and to specialty clinics.<sup>5,19</sup>

## Conclusion

The hyperkinetic syndrome has manifold causes. There is often an idiosyncrasy, i.e., a constitutional hypersensitivity toward food additives, especially phosphates and sugar. Due to this there occurs a one-sided shift of the ego-activity (phosphorus) into the limbs, and consequentially a continual urge to move. The patients feel themselves driven to activity. The ineffectiveness of exhortations and the general unresponsiveness is due to the fact that these patients are practically not incarnated in the nerve-sense system. For this reason there is an inability to perceive and a sense-deficit, though the sense organs and the brain are not diseased; they cannot be utilized. These patients are not awake in the nerve-sense system, only in the limbs. For this reason the symptom-complex is worsened by sedatives and improved by stimulating substances. By completely eliminating the incompatible substances an impressive improvement usually occurs, so that these children then become amenable to pedagogical measures.

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\*After this work was completed, an article by K.-R. Kummer appeared in *Erziehungskunst*, 9/1992: "Hyperaktives Verhalten im Kindesalter."

## Chronic Fatigue Syndrome in the Light of Anthroposophy

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We live in an age of revelation where personal insights and new levels of self awareness are becoming commonplace, accepted, and encouraged. As human beings, we travel our own path of personal growth and evolution. Over time our physical body changes and so, too, does our perspective of ourselves and the world around us. If these changes keep pace with each other, then one will grow old graciously and with wisdom, but if the processes are not in synch, then a state of imbalance, disease, occurs.

For many, the awakening of their own consciousness, in the absence of a spiritual framework to hold and understand it, allows new awarenesses to unfold in places where they do not belong, which are then interpreted as discomforts. If this awakening of consciousness is perceived only through a materialistic understanding of man, one might conclude, as Norman Cousins did, that we have become “a nation of hypochondriacs.” On the other hand, when the unexpected appearance of consciousness and consequent perception of a physical symptom/chronic disease are viewed from a spiritual perspective they provide an opportunity for personal growth and development, a realigning of one’s own personal process of evolution. The mind/body continuum cannot be arbitrarily separated and studied. Much is known about the physical manifestations of disease. More is becoming known about the nature of the mind and its effects upon the body. In this paper, I will endeavor to describe a framework for understanding both and how to foster a realignment of them in the context of helping the sufferers with Chronic Fatigue Syndrome to find their own creative path in life, and thus to heal.

Chronic Fatigue Syndrome occurs in people who are suffering from overwhelming levels of stress for a prolonged period of time. By stress, what is meant is simply that the body is expending energy faster than it can be regenerated. This can occur for any one of a thousand different reasons. On a cellular level, it doesn’t matter what the stressor is. The result is that there is a net deficiency of “energy,” a depletion of the etheric forces which

causes physiological dysfunction. As the etheric forces ebb they become less and less able to support the forces and activity of the upper pole so that soon the interpenetration and integration of the upper and lower poles is damaged. When the Ego forces are no longer able to fully express and imprint themselves onto the lower pole, then there is a progressive weakening of the immune system and with the weakened immune system comes the opportunity of a chronic viral infection to become established or to reactivate from a state of latency.

In the broadest context of the disease of the Chronic Fatigue Syndrome, we may say that it is a disease of the will. More specifically, it is a disease wherein the forces of the ego are unable to fully penetrate the etheric and express themselves through the will. There are many scenarios that can account for this sort of imbalance. Suffice it to say that the symptoms of the Chronic Fatigue Syndrome are those of a “burnt-out” (now more sclerotic) chronic inflammatory disease and the symptoms are in fact an attempt by the person’s being to heal itself of this very fundamental imbalance.

When one is in a state of inflammation, it is a very powerful but consuming move towards health because the actual healing reaction to the process of inflammation (an upward displacement of the physical and etheric bodies into an area where it is perceived as foreign) can only occur as a result of an integration of the four members of man. Conceptually, the remedies, counseling and eurythmy are used to disengage and replace the ego from the generation of the process of inflammation and thus free it to continue along its path of growth and development, free of the pull and attachments to the instincts and impulses of the lower pole. The ego is of the upper pole of man (the nerve sense system) and it is often to this pole that viruses are drawn to help the ego accomplish its mission of the interpenetration and integration of the four members of man.

One of the expressions of the ego in our physical being is the manifestation of the immune system. The primary goal of the immune system is to distinguish self from non-self and then to respond accordingly. With the weakening of the penetration of the ego, we see the weakening of the forces of the immune system. More specifically, in Chronic Fatigue Syndrome since we can observe a difficulty of the ego forces in penetrating the forces of the will, it is the B-cells (which are the metabolic, antibody factories of our immune system) where we most often see the reflection of this lack of penetration and integration in the form of damage and dysfunction. Most of the viruses that are associated with the Chronic Fatigue Syndrome are B-cell viruses, or secondarily, will adversely affect the B-cells of the immune system. Thus, on a physiological basis, when we do a diagnostic evaluation,

we can see abnormalities in the lymphocyte enumeration panel and B-cell subsets and more specifically, elevations of alpha-interferon, which as a lymphokine is crucial to the normal communication and functioning of the B-cells. In more advanced cases, we can see problems with the T-cells if the virus remains unchecked and thus abnormalities in interleukin-1 and 2. As the smoldering inflammation burns out, due to a lack of the etheric forces in supporting the balanced penetration of the upper pole, it evolves into the process of sclerosis. This is a particularly dangerous time, since an unchecked sclerotic process invites the risk of cancer as most of the viruses associated with the Chronic Fatigue Syndrome are also known to be oncogenic.

If there is resistance to the penetration of the ego into the forces of the will, as can occur from various states of toxicity (which poison the etheric), a sense of melancholia will ensue, which, too, is common for sufferers of the Chronic Fatigue Syndrome. An important manifestation of the will in the being of man is in the organ and function of the liver. Almost all of the patients who are suffering from the Chronic Fatigue Syndrome will manifest quantitative and/or qualitative dysfunctions of their liver. In addition to the usual sorts of liver-function tests (AST, ALT, LDH etc., etc.), one can also do a urine test for D-glucaric acid (which reflects liver toxicity), as well as assessing the quality of the state of being of the liver by way of the sensitive blood crystallization test, a test that I find to be most useful in my practice.

Analysis of liver functions are the first place where I begin in my evaluation of the patient, since without a strong physical body, animated by the etheric forces, interpenetration by the form-giving upper pole is impossible. Therefore, strategies to support the liver, including nutritional and dietary strategies, are crucial in the beginning phases of treating somebody with Chronic Fatigue Syndrome. It is most important to evaluate any underlying clinical toxicity, as this can greatly impede progress in healing if it is not dealt with. Often we find the state of the etheric forces to be fragmented and somewhat chaotic in their functioning so that there are fragments of them displaced into places where they do not belong which results in the manifestation of allergic symptoms and/or anxiety-panic attacks, which, too, are fairly common among sufferers of the Chronic Fatigue Syndrome.

Having assessed the quality of liver function, the next important area to assess is the ability of the person to become grounded, centered, and focussed. Anything that might interfere with this process must be eliminated. Counter-ego forces would certainly include the use of “recreational” drugs and alcohol and arrhythmic, disharmonious sleep/wake cycle. A regulated sleep/wake cycle is crucial in preparing the groundwork for the rhythmic

incarnation/excarnation of the ego organization into the being of man. Other counter-ego forces are those that pull the person “outside” of themselves; this is another form of stress. Whether it be sitting in front of a computer or TV screen all day long, marital strife or friction in the work place, these kinds of activities tend to bring one’s focus of consciousness outside of themselves to the detriment of their immune system. Clearly, these are factors that need to be sought in history taking and dealt with appropriately through methods of psychotherapy or protective devices in their environment.

I have noticed that approximately 20% of the sufferers of Chronic Fatigue Syndrome are in fact quite “healthy” in mind and body. Yet these patients feel quite ill and fatigued because they have a great reservoir of creative energy and potential that they are not mobilizing and developing. This is often due to fear or insecurity from past experience of ridicule by those they deem to be an authority. These people, on close examination, have a very functional and intact immune system, very functional and intact liver, and in fact complain of little other than severe fatigue and generalized weakness. I have often found that such a person is often working as a secretary, assembly line worker or a gas station attendant, when in fact they have the soul of an artist. It is this immobilization of these creative forces that is preventing them from manifesting their true potential with regard to the expression of their ego through their will and in their health.

One of the most difficult tasks of working with someone who has a Chronic Fatigue Syndrome is to help instill within them a spiritual understanding of themselves and the world around them so that they can have a framework to hold their blossoming consciousness. I believe that Rudolf Steiner said it best when he stated:

“If we do not develop within ourselves this deeply rooted feeling that there is something higher than ourselves, we shall never find the strength to evolve to something higher. The initiate has only to acquire the strength to lift his head to the heights of knowledge by guiding his heart to the depths of veneration and devotion.” (*Knowledge of Higher Worlds and its Attainment*)

Indications for one needing work and support on this level will be manifest by feelings of a purposeless existence, lack of fulfillment and struggles with such existential questions of “Who am I; why am I here?” These sorts of issues can be worked through with the help of a pastoral counselor.

Thus, to work with someone with Chronic Fatigue Syndrome is to work with a being in need, a being in crisis. The crisis can extend over many levels: physical, etheric, astral, ego, and higher. To truly help someone onto

their healing path requires a comprehensive integrated, multidimensional treatment strategy that can hold all of the nuances of these imbalances. Furthermore, we must help them to create the spiritual framework for themselves and for their ego to penetrate through their will so that it may blossom and manifest itself in the principles of love and freedom.

# Addiction\*

JOOP VAN DAM

Drugs have existed throughout human culture, they aren't really new. In former times, specific drugs had their useful functions within individual societies. Every part of the world had its own unique drugs. Cocaine is one of the native drugs of South America. For a small group of indigenous people, it had a useful function to help them survive the difficult life of the high Andes. In Central America, through Mexico, hallucinogens such as psilocybin, mescaline and others were native to the area. In western Asia hashish was the native drug. At one point, it was needed to live in a dream-like world. In Europe, a major drug was alcohol, which once had a very important function. Noah was the first person reported to have enjoyed alcohol. Because of its use he was able to cut his bonds with the spiritual world and be on his own.

Problems arise when the drugs native to one part of the world are brought to another part. When a European drug, alcohol, is brought to the North American Indians, you see what havoc is created. In the 19th Century, when hashish and opium were brought to China, where they did not originate, a social disaster was created. In the last century these changing drug patterns have affected the world in a very negative way. Since the middle of this century throughout the world, drug addiction has become an increasing problem.

Though we often speak of addiction to drugs, we rarely speak about the other addictions. In Holland 20,000 young people are addicted to various drugs, but 800,000 adults are addicted to alcohol, with hardly a comment. Addiction is a problem which is growing in leaps and bounds. If it continues like this, by the beginning of the new century more than half of mankind will be suffering from some form of addiction. There is not only addiction to what we commonly term drugs—heroin, hashish, LSD, etc.—but also tobacco addiction, alcohol addiction, addiction to computer games

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\*Transcribed from a lecture given at the annual PAAM conference in Wilton, NH, in June, 1988.

and T.V., addiction to eating and sex, etc. There are many, many addictions in which people seek a means of flying away from their problems.

The question arises: Why has there been such a phenomenal rise in addiction since the middle of this century? What has happened since 1950? Since this time many new illnesses with special common characteristics have also appeared. During the Second World War two psychiatrists, independently of each other, discovered a new illness which had not been previously described. Many children born at that time, and since, had autism. Autism is an illness where, one could say, the ego of the individual has not entered into the sheaths of the body and therefore cannot easily enter into the world, and therefore withdraws. The child has difficulty learning to speak, his body is alien to him, he doesn't feel pain, and can't bear change in the world because he is unable to properly enter into it.

Another group of new illnesses is found to be "auto-immune" in origin: collagen vascular diseases, diabetes, etc. A careful history, often reveals that some major shock has occurred, the ego has been shocked away, so to speak, and this disturbance then comes into being. One of the principal therapeutic directions here is to help the patient create an awareness, an opening into the warmth and safety of the body for the ego-organization to engage more fully. But that can be very, very difficult.

Then there is the horrible disease of AIDS which is also a problem of immunity. In anthroposophic terms, immunity comes into being when the ego-organization teaches something to the body, particularly to the ether body. Immunity is physiological memory; the ego-organization connects to it. In the illness of AIDS this possibility of teaching the immune system is drastically diminished. The ego-organization is hindered from making use of its instruments, and the physical body deteriorates; in the etheric body, immunity fails progressively and the soul comes to a standstill. The great task for those who have to go through this illness is to learn to work with their ego without the body. They must learn to use their will without the help of the physical body.

What is will? A patient of one of my colleagues said, "I now know why I have this illness. It is so I can learn to know what love is." Love is will. Love is working from the ego. AIDS is an attack on the ego-organization and on the ego itself.

In addition to drug addiction, there is the growing illness of anorexia nervosa. These two illnesses have many similarities. They both frequently come into being in puberty and adolescence. If you look into the biographies of these two categories of people, you find that in the course of their biographies there were often problems by the third year and sometimes even earlier. Incest is frequent in both. Often in their ninth or tenth years, the

surroundings necessary to feel trust in the world were lacking. Then coming into puberty an even greater loneliness is experienced. By the age of 18 and very often at the time of the first moon node, serious drug addiction has started. Anorexia nervosa frequently begins during this time. In this first triad of seven-year epochs, two-thirds have passed. Now the last third occurs where the will is called upon, but the will fails.

Attacks on the ego are not necessarily negative. They can be challenges where the ego overcomes difficult problems. In our current time, people increasingly perceive the new situation of crossing the threshold of the spiritual world. This is especially true of young people. They become a bit clairvoyant and find that their thinking, feeling, and willing begin to go their own separate ways. When thinking goes its own way, it becomes cold and intellectual, losing its connection with feeling and willing; it becomes immoral. (In current scientific thinking, it is the norm that thinking can exist without feeling and willing). When feeling goes its own way, it becomes sentimental or fundamental. All fundamentalism is an expression of feeling life which has separated itself from the whole. Lastly, when willing goes its own way, it degenerates into terrorism or lust. The result is a flight from the world.

At one time in this century the hope arose that, "Things are going to be new and different!" Many of you experienced these new possibilities. It started in the '60s in Berkeley, California where people surrounded Maslow and heard of the "peak experience" from him for the first time. That's what had been longed and hoped for, and Maslow knew a bit about it. At that time this wave of people, who had incarnated eighteen or twenty years earlier and had a plan to do something special in the world, found each other and found this new possibility. The climate was right for such a change. However the adversary powers soon took over and brought in occultism and drugs. People fled the world through flower power and went to India. They felt the world was not worth living in. You can leave the world in many ways. You can leave it by going to India or losing yourself in nature. You can also leave the world by not eating, in anorexia, and by taking drugs.

One of the early modern abused drugs was LSD. In the '60s LSD was one of the most important drugs. It's quite a poisonous substance. In taking too much of a poison, you can die; but if you take just a bit, you just begin to die. Taking LSD is like dying a little bit. Hoffman, the man who discovered it by accident and did his first "trip," described his whole life passing before him; he had a panorama experience. Everyone who dies has that experience, seeing his whole life. To put it in other terms, his ether body separates from his physical body, "I saw myself lying there." He sees his own body. This is an out-of-body experience which is described in near-death cases. If it

goes wrong, then you have the so-called “bad trip,” and the world is not a pleasant place at all. Look at the Isenheim altar, the last picture panel. This is an LSD picture. Ergo, closely related to LSD, was the poison with which the people were afflicted who had the “St. Anthony’s Fire” as it was called in the Middle Ages. They died: Their extremities fell off. They had a very bad “trip.” But it’s not always a bad trip. You can have a very interesting, pleasant trip. If you cut off your etheric body from your physical body, the etheric forces come into consciousness with great force. They come into your senses and give the impression that you see something which isn’t physically there, a hallucination. If the etheric forces start to work more intensely in the eye or ear, then the special hallucinations associated with LSD occur, since the etheric forces of the kidney become free. Then you’re gone; you lose your connection with time and space. This is because consciousness of time and space is mediated through the connection of etheric and physical bodies. That’s the only way to know what space and time are. If that is disconnected, you are in another world, and your little yard becomes the palace garden. You are out of time. That is the effect of LSD.

With amphetamines it is similar. You die a little: Etheric forces become free, especially those in the metabolic-limb system. They give you much energy; you can do many things quickly, hence the name “speed.” Speed is used to remain active and is used by athletes and truck drivers who want to remain on the move.

In using cocaine the etheric forces become freed, but they don’t go to the limbs. Cocaine goes to the brain. You can think very quickly, you think you are very clever, very intelligent, that you can cope with every situation. Yet what is in the middle gets a little fuzzy. Your feeling life is not really there. Everything becomes so very serious and no-nonsense.

With hashish you also die a bit, but with hashish you come into a new consciousness. You remain very awake with speed and cocaine; but with hashish you enter into a dream state. Not only is there a split between the etheric body and the physical body, but now the astral body is doing what it does in sleep—it leaves the etheric body. There is a second split, so to speak. As long as you take the hashish, it continues; hashish has a long half-life. If you use hashish, it will affect you for a week. Then, when it’s over, you see that you are empty, that your feeling life has become gray. Those who use hash for a long time find that they get exarnated just as they do when they go to sleep. You leave your metabolic-limb system; it becomes hardened, and metabolism deteriorates. You are only living in the “upper floor” of the body.

Heroin is next. Heroin is a chemical product, a morphine salt. Heroin is the last step. Here the ego is completely sent away, morality is no longer

there, the possibility to feel is gone, and at last there is dead quiet. There are no problems any more. There is just cool and quiet. Life stops. When taking heroin you are still an intellectual being living with an astral body which is still very awake, looking for the next shot. It is very clever about getting the dope, but there is only a head there without an inner being. You could say that heroin is a sort of “ego phantom”: It takes over the function of the ego, and the astral body remains in the background and tries to find a way to go on with its addiction.

Alcohol is also a drug where the ego is let go. If you have a patient who is an alcohol addict, you will recognize their apparent ego. They can be so self-assured, but you see there really is nobody there. It's just facade, a way of behaving when there is no personality at home.

ARTA is a Dutch institution with which I have been working for several years. ARTA has been working out of anthroposophy for the past sixteen years, addressing the needs of those seeking to overcome various drug addictions. To enter into the ARTA program, one has to write a biography and application letter. An intake talk follows, and to participate one has to be clean. To stay clean is very difficult, so the first phase takes place in a farm setting. At the farm a new start is made. That means beginning life anew. For the first six to eight weeks the participants stay active. They work from early in the morning until late in the evening. They live in a small community, with their co-workers day and night. It's not necessary that they have consciousness at this point, they just have to do things, dig in the earth, eat, wash the dishes, make their beds, eventually listen to a concert or watch a puppet show. It's like kindergarten; it's like the first seven years: no problems, no confrontations, you just have to do what the other says. They go through their deprivation, their withdrawal, and they come into a new rhythm by getting back into their old rhythms of sleeping, waking, eating, etc. They are surrounded in warmth. They have the enveloping of their companions like a kindergarten or a small family. After approximately seven or eight weeks, they have accomplished four things: First, they have remained clean and are a bit over that problem; second, they are now living a new life of rhythms; third, they accept that they have to obey certain rules; and fourth, they now know that they want to do some things on their own.

They then go to the second stage, to a bigger community but not a very big one. We have found that if there are more than sixteen or eighteen people who are ex-patients living in the community, it becomes difficult. It stays a small class, so to speak. Now they come into the second seven-year phase of development. They work mornings, and have a program in the afternoons. In the afternoons they are nourished with culture. They listen to fairy tales and legends, and other artistic work. For the first time they can

have their feelings back again. Their inner life starts to come back. Still the co-workers have absolute authority. There is no television, radio or smoking. They eat what is served and so on. They have a program which is structured from morning until late in the evening.

In the morning at 7:00 o'clock the bell rings, everybody rises. From 7:30 to 8:00 there is breakfast. From 8:00 to 8:30 there is time for nature observation. Then they look at something in the garden or at a painting for three mornings and the other two mornings are involved in sports. Work is from 9:00 until 10:15. That can be in the garden, kitchen, woodworking, etc., but everybody works until 10:15. After a fifteen-minute break, work resumes until 12:30. After lunch, a one and a half hour break follows and everybody goes to their rooms. Two days a week liver compresses are applied and then at 2:30 work resumes again. Every Monday and Friday from 4:15 until 5:30 there is a group meeting, and it is wonderful to see what happens there. Every person knows exactly how far the other is and reckons with that. The first month I was there, just before a group session, one of the co-workers said to somebody who was in the third phase, "Are you still here? I thought you would be gone. What are you doing here?" The other man got angry, and after a half an hour left. That night we were told that he was in an alcoholic coma. After three days he was back again, totally new. He was very thankful to the co-worker who had confronted him, because he had a new start. That is working on the razor's edge. If that isn't done, in some weeks they will just go and remain away; but if you are on time with the appropriate confrontation, you help each other to change during the program.

After about three months they enter the third phase where they have more responsibility: They write their own biographies; they get a personal guide, somebody who accompanies them the rest of their stay; and they are responsible for part of the work. One heads the kitchen, or the garden, etc. The active therapies start now. Previously, the participants have had massages or baths; now curative eurythmy or curative painting, speech or music is introduced. The third seven-year phase of development is now entered and with it the possibility to rediscover their own souls, and that they now want to do something with it.

This can sometimes present problems. We had a man who came in great despair at this point because he realized, for the first time, the terrible things he had done. While using cocaine he had robbed, killed and done other things that he wouldn't speak of. Now his conscience had returned to him. The person who guided him had a very practical solution. He was to go to a priest and make confession. That helped greatly, but he still couldn't sleep. He was given Aurum as a remedy which helped.

After another three months the last phase begins, where they still live in the house, but there is more freedom. They can leave the house evenings or weekends. Until then, they are always together with someone on a bicycle trip, walking or going to a concert. In the third phase, they have their own money again, their personal responsibilities; the first contacts with family are laid again; they come into the phase of adulthood. The ego stands on its own once again.

Then comes the farewell. This always happens on a Friday with their therapy group. It is customary to create a picture of the individual who is leaving, which we do together with the person himself. They come into the circle and everybody can contribute something. It's a wonderful end.

The fifth phase is one in which they live in a special wing of the house on their own and work in various ARTA enterprises. There is a restaurant; there is candle making; there is a wood factory, all sorts of enterprises through which they enter anew into society. These enterprises create a new social way of living together because they have been full of deception toward society, and now they are about to be released back into exactly the same society, so there is one more step. They know how they can be different; and when they have seen how that can be, then they gradually can enter into society itself.

Some people are not benefited by letting them go gradually from Phase I to Phase IV. Recently we had a woman who was about 40. She was addicted to alcohol and had many problems for which she always depended on the people who ran the program. After two weeks, we took her from the second phase directly into the fourth one and asked her, "Please, tell us what we have to do." She became very angry, but this helped her immensely. Alcohol addiction goes more quickly than the other addictions. After six months, she was told, "In two weeks you are having your farewell party," and it was wonderful. She was a very shy person, always depending on others. This time she came to us and said, "I want to say something. I don't want to be sent away!" She remained two more months. What was exceptional was that she took her own initiative, and that is what we wanted her to do. After five months, she still had her own house, and we said she must give it up, "You must burn all your past, otherwise you won't see the future." It is important for people who are addicted to leave their whole past behind them so that the future is totally open.

With other people it is a very long program. The so-called "long-stay" people often go to a sheltered surrounding for two or three years in the Camphill community before they find their way; and sometimes they never find their way back into normal society again.

Why do certain people take specific drugs? Is there a tendency from the constitution to go to a certain addiction? Why does somebody take cocaine and another amphetamines? Observing people you can see that each has a unique constitution. In a cocaine addict, it is not difficult to see a heart constitution, while in an alcohol addict, a liver constitution stands out. Is this *propter hoc*? Does the condition exist beforehand? I have come to the conclusion that it is *propter hoc*, that prior to taking drugs the tendency toward special organ constitution already exists.

The heart constitution is related to cocaine; the kidney constitution to hallucinogens and amphetamines; the liver to alcohol as is known, but also to barbiturates; and the lung constitution to heroin. There are therefore individual therapies, with which you can treat the different constitutions. Cocaine addicts respond to primula or gold ointment over their heart region. The LSD user has experiences which are very near to the psychosis of schizophrenia. In that situation you can give ginger or mustard compresses as an outer application over the kidneys and Stibium or Melissa cupro culta.

What does this problem of addiction ask of mankind? Which big stride, what extra effort can we undertake so that the ego forces bring together the three soul forces which have grown apart from each other and must now be brought back into balance? Autism, AIDS, anorexia nervosa and drug addiction can only be helped through community. The wonderful thing is that these communities already exist. There are curative homes, the hospice movement, etc. Drug addiction also demands a new society, a society where there are new communities—not the old paternalistic communities where one stands on top as a father or like the Guilds of the Middle Ages or the religious orders controlled by a priest—but communities where everybody has his own responsibility, communities where you help each other to develop, to come to self knowledge, communities where you ask the question you find in the story of Parsifal. In the ninth chapter Sigune asks, “Is it you, Parsifal? How fares it with your search for the grail?” That’s a most urgent question we should all ask each other. “How is it with your search for the grail? What are you looking for?” That can be the question on which the new communities are based. You can look at the problem of drug addiction in this very positive way, that it helps us to come through such communities which are the first isles in the ocean of our society. People can step on solid ground for a while, can grow, and then go on with their voyage again.

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# Abuse Pathology in Anthroposophical General Practice

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This article grew out of experiences gathered over ten years in general anthroposophical and homeopathic medical practice in a large Midwestern city in the United States. My practice by no means specializes in abuse-related disorders or psychiatry. Nonetheless, it is impossible in our time to avoid encountering such pathologies on a relatively frequent basis. Injuries range from temporary, passing disturbances to severe disruptions permanently disabling the victims for the remainder of their lives just as offenses range from relatively simple improprieties, whose effects are quickly overcome, to the most heinous and destructive acts humans are capable of such as those connected with ritual abuse. The astonishingly great frequency with which such acts are now recognized to be taking place in western societies is evidence of the threshold situation that mankind faces at the end of the 20th Century.

Responsibility for dealing with these situations lies with all of us as anthroposophical physicians and should not be relegated merely to some group of “specialists.” I would go so far as to say that it is impossible in the 1990s to follow the path of the anthroposophical healer without, from time to time, looking abuse pathology squarely in the face.

## **Rudolf Steiner’s conceptualizations of evil**

For the purpose of this discussion, a basic familiarity with anthroposophy and its basic terms is assumed.

### *The Luciferic*

The realm of amorous and erotic ventures has traditionally been thought of as a field over which Lucifer exerts his influence. To an extent, this is rightfully so since, by creating tension between the female and male genders, Lucifer has helped lay the foundation for individual human freedom and subsequent spiritual inner development. On the other hand, the “Seven Deadly Sins” of lust, greed, wrath, pride, sloth, envy and gluttony have come about as the shadow side of this freedom but can be overcome

through individual human development. How these tinge human relations, particularly where love and sexuality figure prominently, is part of our daily experience and observation. Some aberrations of human sexual life, and most neurotic disorders with their unfulfilled wishes, bear clearly the stamp of the luciferic influence.

#### *The Ahrimanic*

When one human being begins to exploit and systematically use another for gain of sexual pleasure, he leaves the realm of mere luciferic influence and enters into Ahriman's dominion. This is particularly the case when a person in a position of dependence, such as a child or employee, is being victimized. In this sense, all systematic abuse of one human being by another bears the strong stamp of ahrimanic influence.

#### *The Asuric*

Rudolf Steiner speaks relatively little about a third order of evil beings known as the Asuras. The most complete description of their working is found in an early lecture given in Berlin on 22 March 1908, with only scant references to the topic after that time. Several characteristics are described about the asuric beings who, "in the time that is about to come will insinuate themselves into the consciousness soul and therefore into that which is called the human Ego." "The Asuras will develop evil with a much greater force than even the satanic powers during the Atlantean or the luciferic powers during the Lemurian time.... These asuric spirits will bring about that, that which has been grasped by them, which is man's innermost core, the consciousness soul with the Ego, will unite itself with the sensuality of the earth. Piece after piece will be torn out of the Ego, and, to the degree to which the asuric spirits become entrenched in the consciousness soul, man must leave behind on earth pieces of his being. What has fallen to the asuric powers is unredeemably lost." Whereas Lucifer can be redeemed through suffering, illness and death, and Ahriman through karma with Christ as Lord of Karma, there is no such "easy" redemption of the asuric influence during earth evolution.

Steiner goes on to describe how the asuric powers "seduce man to a kind of theoretical materialism." In its wake come "coarse passions of sensuality which descend more and more upon the earth," particularly if humans "become serious about the idea that man, in his whole being, is descended from the animal and then live accordingly. ... This world view will not fail to come, and those who follow it will live like animals and descend into mere animal drives and passions. In much of what we can see—it does not need

to be characterized further here—in large cities as vile orgies of purposeless sensuality, we already see the grotesque, hellish gleaming of those spirits which we call the asuric.”

In summary, the luciferic influence relates to the development of the sentient soul, the ahrimanic to that of the intellectual soul and the asuric to that of the consciousness soul. Three main characteristics of the workings of the asuric beings are brought out: firstly, the complete exclusion of, not merely opposition to, any spiritual perspective; secondly, a life completely given over to sensuality; and thirdly, the permanent and irredeemable loss to the human Ego and Consciousness Soul. The New Testament refers to this as the “sin that cannot be forgiven—the sin against the Holy Spirit.”

### **Western culture at the end of the millennium**

Steiner’s main contributions on the work of the asuric beings are found in his early work between 1905 and 1911. After that time, he chooses to focus mostly on characterizing the works of Ahriman, particularly in the last year of his life following the Christmas Foundation Meeting where Michael’s struggle with the dragon, i.e., Ahriman, at the end of this century becomes the central theme.

However, it is my belief that abuse pathology cannot be understood solely in terms of the luciferic and ahrimanic. To see the working of the asuric in our society, it is important to not limit one’s view to crack houses, urban blight and remorseless serial killers. To what extent the silky-smooth sensuality and spirit-denying “survival of the fittest” ideology of contemporary “yuppie” culture show elements of what Steiner describes as characteristic of the influence of the asuric beings is an important question with many subtleties and nuances. However, there can be no doubt that these characteristics have increased considerably in the 1980s and 1990s. Negative counter-images of consciousness soul development can be seen throughout society from the devastation of inner cities to the spiritless pseudo-refinement of much of what is mainstream cultural life today.

### **Specific disease entities**

#### *Post-traumatic Stress Disorder*

This disorder is commonly encountered in individuals who have suffered significant abuse trauma. It is also increasingly recognized to occur after other kinds of emotional and physical injuries such as traffic accidents or wartime events. It represents, in a sense, the mildest, least profound disturbance encountered as a result of abuse experience. Its acute form, with symptoms lasting for a total of three months or less, may be viewed

as the struggle of a basically healthy soul with the aftermath of a serious traumatic experience in which it ultimately succeeds. Here, one can say that the disturbance resides primarily in the astral body and is overcome in a matter of time through the strength of the Ego.

A more serious situation exists in the chronic form of the illness. Here, again, the disturbance has its seat in the astral body. However, the Ego fails in its integrative function, and order is not restored. This may be due to the excessive severity of the traumatic experience or the Ego may lack the strength to overcome the difficulty and effectively resigns itself to the subsequent defective state that ensues. Unremitting nightmares, states of panic and anxiety, impoverished emotional life and avoidance behavior (of situations similar to that in which the original trauma occurred) become chronically distressing and often disabling.

Yet the Ego, even though unable to assert itself properly under the prevailing circumstances, remains intact in its sense of itself and its relationship to external reality. A special case of this occurs in Post-traumatic Stress Disorder of delayed onset where months, even years and decades, may elapse between the traumatic event and the onset of the symptoms. Here, for a time, a “veil of forgetfulness” appears to have been laid over the traumatic event, often for the ultimate good of the patient who is spared confrontation with the illness until a later and, one would hope, more mature stage of her or his life.

### *Borderline Personality Disorder*

Borderline Personality Disorder, although not strictly an abuse-related disorder, thrives in a milieu of uncaring and inconsistent parenting, substance abuse and chronic emotional trauma. The background is often characterized by exposure to sexual innuendoes and leering as well as lack of respect for personal boundaries. The victim, more often a woman than a man, grows up with a weakened sense of identity and an inner emptiness.

The symptomatology is dominated by extremes on both sides of the emotional spectrum, which is to say, the dynamic of the astral body. A lover, therapist or doctor is alternately “loved” and idolized or completely hated and loathed. These phases often follow in rapid succession, thus consistently undermining the formation of durable and meaningful relationships, whether these be personal relationships or relationships with doctors or therapists. In anthroposophical terminology, there is frequently an alternation or coexistence in the same individual of both an hysterical and neurasthenic tendency without apparent middle ground.

To the therapist, this presents a more serious situation than Post-traumatic Stress Disorder in its acute or even chronic variety. Individuals with this disturbance are recognized to frequently enter therapeutic relationships with a semblance of cooperation and trust building, only to subsequently abandon it, often with a good deal of drama and hostility. The Ego is further hampered in its integrative function. As a therapist, one often has a “split” experience where, on the one hand, the “normal” motions of forming a relationship are gone through while, on the other hand, the experience of inner warmth, which would usually attend the formation of such a relationship, is lacking. There are often undercurrents of hostility and manipulateness.

It is frequently assumed that such individuals will continue to “bounce around” from therapist to therapist while continually sabotaging the therapeutic process and, thus, preempting any durable therapeutic results. However, it is possible in some instances to engage the patient’s higher self in a therapeutic process and establish a relationship of reasonable quality with gradual advances made in the patient’s development. This requires a greater-than-usual measure of compassion, patience, skill, and, particularly, vigilance. Borderline Personality Disorder, as an entity, is very much a child of our time with its widespread lack of enthusiasm and impoverished interpersonal relationships.

#### *Multiple Personality Disorder (Dissociative Identity Disorder)*

Most severe cases of this disorder that I have encountered were in women who reported being victims of ritual abuse. This included such practices as live interment and being forced to commit acts of violence against small animals or even infants before the age of seven. Close relatives were usually collaborators, if not perpetrators. While the occult significance of such practices must remain beyond the scope of this essay, it is probably fair to say that they occur more frequently than is commonly imagined.

It is clear even from the name of the condition that the unifying, integrating activity of the Ego is seriously impaired, depending on the severity of the condition. However, it must be kept in mind, as Marko van Gerven points out, that it is only the lower aspect of the personality that is split while the higher Self (the “indivisible” individual) remains one and intact. This may be the reason why many of these patients can very well be engaged in durable, lasting, long-term therapeutic relationships. The patient then may, often under the guidance of a therapist, engage in conversations with these different “personalities,” which results in their emergence becoming

a less and less distressing event in the patient's life as time goes on. The patient's own Ego then becomes the agent that learns to deal with these "personalities" on a one-on-one basis and reduces their influence.

#### *Other personality disorders*

This would be a fascinating area which I must, for the time being, leave for future study. In summary, one often has the experience in the abused patient that the trauma, particularly when repeated or serious, creates islands or inclusions within both the astral and etheric bodies. These often exist for long periods of time without being noticed by either the patient or her surroundings, only to erupt unexpectedly into serious symptoms that can be extremely disturbing to patient and therapist alike.

#### **Abuse experiences as involuntary Initiation experiences**

Undergoing an abuse experience always poses a serious threat to the individual's conception of the world and her/his role in it. Individuals and situations, previously believed to be trustworthy and safe, are no longer so. Moral frames of reference such as "good" and "evil" become annihilated as "love" and "trust," previously believed to be at the center of goodness, now serve to open gates to the most horrifying experiences. It is precisely such shattering of an individual's conception of reality that can lead to a "lifting of the veil" as new powers of cognition are opened.

This, of course, must be said with a great deal of caution. Many patients, in this day and age, will wish to speak about spiritual experiences, particularly when an openness is perceived on the part of the doctor or therapist. Claims of clairvoyance are common and well-recognized among the symptomatology of psychotic and personality disorders. These may be "presentiments" and a simple "sensing" of another person's unspoken moods and intentions or perceptions of beings of an elemental or angelic character.

When such experiences occur immediately following abuse or, which I have seen more commonly, at some point during the recovery, they may "break into" the affected individual's consciousness in a chaotic and overwhelming manner, which represents a serious crisis in this patient's life. In this case, they will often be mixed in with copious delusional material (resulting, in anthroposophical terminology, from preexisting organ deformations), or present as a violent "roller-coaster" of unprocessed astral emotion, a state that can persist for long periods of time, particularly when the therapy is unsuitable and, overtly or covertly, encourages prolonged reveling in one's own emotions.

I have been gratified to witness on a number of occasions, that the above-mentioned experiences eventually can become harmoniously integrated into the totality of the individual's personal development where the overcoming of this serious trauma stood at the beginning of a path of higher development. However, this is only possible to the degree that the affected individual eventually learns to accept the unfortunate event as part of her/his destiny. This may be called a state of forgiveness. In practice, one sees moving examples both of forgiveness and of failure to forgive.

To what degree a positive turn is possible depends on a number of factors: maturity of pre-abuse development, severity of abuse suffered, presence or absence and quality of support system, sufficiency of treatment received, cofactors such as substance abuse or other, coexisting mental illness.

### **Therapeutic considerations – anthroposophical perspectives**

From an anthroposophical point of view, the members of the human being requiring the most attention in abuse recovery situations are the etheric body and the Ego.

Many times the etheric body comes in a very weakened and disordered state, requiring intensive attention through orderly living conditions, nutrition and remedies. Only when a certain state of stability has been attained can recovery truly progress. Potentized remedies are particularly indispensable when uncontrolled emotions, i.e., disordered astrality, have become established to such an extent that the etheric body is now affected. This is the case when a consistent or recurrent pattern of anxiety, depression and other emotional symptoms has been established.

Another means of supporting the etheric body is through rhythmical massage or other suitable forms of bodywork such as chiropractic. I have often wondered why many such patients appear to have an insatiable need for these modalities. It seems that such loving application of human hands helps restore to the Ego an experience of oneness that was lost through the shattering effect of the trauma.

It is obvious that curative eurythmy would be a valuable modality as it engages the will of the patient directly through the use of therapeutic gestures. However, I have not had it available in my current practice setting and, therefore, cannot speak from experience. Similarly, any of the other art therapies could be immensely helpful, through its own objective medium, in lifting the patient out of her absorption with her own trauma and pathology.

Unfortunately, much therapy today centers around uncovering guilt, proving guilt and then having the patient deal with the emerging feelings

by various means, including confronting the perpetrator, cognitive therapy and a variety of behavioral techniques such as a punching bag to “abreact” anger, etc. It is quite common to meet patients whose lives have come to revolve, to a large extent, around the various therapies they are engaged in, at times to the virtual exclusion of other pursuits and activities.

A perspective which is lacking in such situations is forgiveness as a goal in the therapeutic process. Sergei Prokofieff’s book, *The Occult Significance of Forgiveness* contains many deep insights into this pressing and delicate topic which can be valuable to the therapist. However, this should not lead one into discounting the seriousness of the patho-biographical event or disbelieving the patient. Yet, there comes a point where the patient must be led past the fixation on the wrong that has been committed. In a certain sense, one could say that attainment of forgiveness represents a culmination point in the recovery process as far as the Ego is concerned.

### **Attitude of the therapist**

It is a truism that thoughts and feelings are as real in the spiritual world as chairs and tables in the physical. This is likewise true in therapeutic relationships where attitudes of patient and therapist toward one another profoundly affect the process. It is, however, nowhere more true than in dealing with the abused patient where hidden sympathies or antipathies can quickly prove destructive. It is a field where the qualities that we are called to develop on the anthroposophical path are called forth with heightened intensity; in fact, I would go so far as to say that we frequently receive either corroboration or correction from the patient as to where we are on the spiritual path. Our own will to heal and courage to heal must attain ever greater strength and objectivity if we are to continue to be helpful to our patients against all obstacles and seeming impossibilities.

### **Overcoming evil as a therapeutic task**

All healing has a moral dimension, and in the process of healing we are called upon to become better human beings. This is actually as true for us as therapists as it is for our patients. In abuse pathology, this question of morality has added significance as we are dealing with the results of an evil done to our patient. In the therapeutic process, our aim must be to turn this evil into good, to the extent that this is possible under the given circumstance. We are seeing in our patients the “symptom-bearers” of a society increasingly diseased with violence as mankind stands at the threshold of the new millennium. In the darkness and destruction that we experience all around us, however, is the hope for light and new awakenings.

To this, all anthroposophically-trained physicians have a unique and valuable contribution to make.

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