

When Healing Becomes Educating

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

Volume VI:

School Health and
School Doctor

When Healing Becomes Educating

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

Volume 6:

**SCHOOL HEALTH
AND
SCHOOL DOCTOR**

RESEARCH INSTITUTE FOR

Waldorf
EDUCATION

Published by:

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

When Healing Becomes Educating
Volume 6: School Health and School Doctor
ISBN # 978-1-936367-38-2

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

© 1986–1998

Reprinted with permission from the
Physicians' Association for Anthroposophic Medicine
4801 Yellowwood Avenue
Baltimore, MD 21209

Table of Contents

The Physician's Path	7
<i>Philip Incao</i>	
Eugen Kolisko and the Role of the School Physician	12
<i>Gisbert Husemann</i>	
The School Doctor's Vocation	28
<i>Eugen Kolisko</i>	
Medical Examination of School Entrants at Waldorf Schools	31
<i>Karl-Reinhard Kummer</i>	
Concerning Childhood Vaccinations Today.	39
<i>Lore Deggeller</i>	
Sport – A Surrogate Religion?	52
<i>Gisbert Husemann</i>	

The Physician's Path*

PHILIP F. INCAO, MD

“The physician’s path is one of knowledge of the human being in health and illness, and knowledge of the whole world of nature from which our remedies derive.”

The path on which the physician walks through life and through the world is a path of healing, both for himself and for the patient. We can look at healing from many aspects, but I would like to take the historical approach. That is: “When did healing—and the physician—enter the history of mankind?” “When did mankind first become ill?” The Bible tells us, and Rudolf Steiner confirms and elucidates the story, that mankind became ill when Adam and Eve ate of the apple of the tree of knowledge of good and evil in the Garden of Eden. It was the serpent who made them do it; and Rudolf Steiner tells us that the serpent was Lucifer and that the time was the epoch of Ancient Lemuria.

Before Lucifer’s temptation we humans lived on Earth but had no desire for earthly things because our new young egos were still in the lap of God. From our ego, or “I,” we saw the spiritual world, and we saw the earthly world, and we saw our own bodies and souls but as though outside us, separate from us, as a kind of double. Before the Fall we did not experience our thinking, feeling and willing as belonging to us, but rather that they went on alongside of us, and belonged to the whole world process.

“The original illnesses of mankind are egotism and materialism.”

And then Rudolf Steiner tells us, Lucifer, the serpent, approached Adam and Eve, tempting them somewhat like this: “My dear Sir and Madam, it is terrible how you are kept in this state of utter dependency! It would be far more interesting to dive down into your double, into your soul with your ego. And you needn’t fear that you will be overwhelmed, because I will give your ego some of my own power.”

*From a keynote address given to members of the Physician’s Association for Anthroposophical Medicine (PAAM), June 1989, in Spring Valley, NY, Dr. Incao has a family practice in Harlemville, NY.

And so, Lucifer beguiled Adam and Eve into eating the apple, and their egos immersed themselves in their souls, taking along Lucifer, who, Rudolf Steiner tells us, remains to this day, in our sentient soul, closely related to our feelings.

This event was the birth of egotism for mankind. Now for the first time it became possible for the human being to be selfish because his self, his ego or “I,” now strengthened through Lucifer and accompanied by Lucifer, had taken possession of his soul instead of remaining outside as God had planned.

This new excessive ego caused us two distinct problems. The first was that we began to regard our thinking, feeling, and willing as our own possessions. And the second was that we gained an interest in the earth and in matter, and began to desire material, earthly things. Thus, it was Lucifer who planted the seeds of both egotism and materialism in mankind in Lemuria. With this insight, we return to the question, “When did illness enter mankind?” And now we can reply that what we usually call illness—cancer, arthritis, pneumonia—are not the real illnesses. The real illnesses, the original illnesses of mankind, are egotism and materialism.

In order to overcome them, there have been throughout history those human beings who have sought to develop certain qualities in themselves, qualities attained on a path of inner development. There are many such paths, but the goal of all true paths is to restore the original relationship and balance of our human “I” with the spiritual world, thus freeing it from our body, and allowing our consciousness to expand into the whole universe around us where it belongs, yet without losing our grounding on earth.

However, the human beings who have walked this path of healing, of spiritual development, have been too few to offset the destructive effects of egotism and materialism in the vast majority of human souls. So God gave humankind another path of healing to prevent them from totally succumbing to their desire for earthly things and to remind them of their spiritual origin—the path of pain, suffering, and illness.

Illnesses such as arthritis and cancer are the *remedies* for the original soul sicknesses of egotism and materialism! And Rudolf Steiner tells us that the scales are held in perfect balance. There is exactly as much pain and suffering in the world as there is interest only in the material and the physical. Our egotism and our materialism would obstruct our evolution if we were not able to become sick when we need to. Thus Dr. Mees in his book, *Blessed by Illness*, defines illness as the embodiment of a spiritual deformation that would otherwise hinder our evolution. And here is what another imaginative soul, the poet T.S. Eliot says:

Our only health is the disease
If we obey the dying nurse
Whose constant care is not to please
But to remind of our, and Adam's curse,
And that, to be restored, our sickness must grow worse.

- from the poem *East Coker*

The physician's path is one of knowledge: of the human being in health and in illness; and of the whole world of nature from which our remedies derive. This knowledge alone is the task of several lifetimes. As physicians we barely scratch the surface. Yet we must not be so absorbed in pursuing knowledge that we neglect another even more important aspect of the healer's path: the experience of the futility of our knowledge. Despite all our training and our learning, we often feel inadequate, even powerless.

Rudolf Steiner acknowledges this feeling of powerlessness as healthy, "for it is nothing but the sensation of disease. For when we have a disease and we do not feel it, we are just that much more ill."

And so when we physicians acknowledge our inadequacy, we become healthier through discovering that we are, indeed, wounded healers. We need this wound, and it must remain incurable, so that the likewise incurable luciferic pride and self-love that infect us so deeply can be somewhat offset.

In Thornton Wilder's play *The Angel That Troubled the Waters*, the angel refuses to allow the physician to be healed, saying, "without your wound, where would your power be? The very angels themselves cannot persuade the wretched and blundering children on Earth as can one human being broken on the wheels of living."

If we are broken, it is the personal (*persona* = mask, lat.) ego that must break because it is corrupted by Lucifer; and the more it is broken, the more can the Christ forces work through us, bringing healing. As St. Paul says in his letter to the Corinthians, "Most gladly will I therefore glory in my infirmities that the power of Christ may rest upon me ... For when I am weak then am I strong." As weak and broken physicians we limp along our path feeling the futility of our knowledge, having confronted with bitter pain our recalcitrant pride and self-love. But we still have one thing, I hope, and that is the *will to heal*. This is indispensable. Without it we can make no progress at all.

So where do we go now? I would say that we have now prepared ourselves for the goal of surrender, total surrender. We can find the concept of surrender being discussed today in the field of healing and therapy outside the anthroposophical movement. Midwives whom I've been fortunate to work with have told me from their experience that the goal of their work

is to help the woman in labor achieve a state of surrender. And those who work with cancer patients and with the terminally ill, Elizabeth Kubler-Ross, Steven Levine, also say that their goal is to help the patient achieve a state of surrender.

Rudolf Steiner, in the lecture cycle, *The World of the Senses and the World of the Spirit*, said that by directing our thinking to the world around us we do not and cannot arrive at the truth. We can only arrive at the truth through surrender.

“The correction of one small bad habit advances us more spiritually than reading a hundred lectures.”

And yet we *need* pure and discriminating thinking. Anthroposophy is based on such thinking. Yet if it doesn't lead us to truth in the world then what is it for? Rudolf Steiner tells us that our thinking is primarily a tool to be directed back to ourselves in order to correct our mistakes and grow wiser. That must be the primary focus of our thinking: self-correction, self-education. The correction of one small bad habit advances us more spiritually than reading a hundred lectures, he said.

In order to learn about the world, it is very difficult to avoid thinking, although I've known people who do seem to manage this, and now I must change my opinion about them! But Rudolf Steiner tells us that we must learn to regard the results of all thinking about the world as merely provisional and never to expect any real understanding of the world through thinking alone. To truly understand our world we must begin, as the ancient Greeks knew, with *wonder*, then progress to *reverence*, then to feeling oneself to be *in harmony with the laws of the world*, and then advancing to the final stage, *surrender* to the wisdom-filled course of the world. Rudolf Steiner describes surrender as “the very highest condition of soul to which the human being has to attain if he would arrive at truth.” This surrender, for the physician too, must be the culmination of his path.

How does the call to surrender meet the physician in his or her everyday practice? Every therapist and physician working out of anthroposophy knows, (and many outside of anthroposophy as well), that healing and self-overcoming go hand in hand. And yet, this knowledge, that healing requires self-transformation, carries a hidden danger because it may prompt the healer to demand from the patient what cannot be demanded—that the patient change himself.

If a physician sees that the patient is resisting the healing out of fear of the painful change that healing entails, then he is tempted to say, “I cannot heal this one: He will have to learn from life. Life will teach him; I cannot.”

And so usually such a patient stops coming. For us it is a failure, but if we acknowledge it as *our* failure and not the patient's failure, then we may confront a bitterly painful thought, that maybe our will to heal wasn't strong enough, that our heart's forces of love weren't strong enough, and that we were unable ourselves to take the necessary steps from thinking about the patient to surrendering to what the patient brought us.

I know a non-anthroposophical physician who, out of his long experience in the emergency room caring for patients of other doctors, discovered a law. He said that every patient gets the doctor he deserves. And the other half of this truth is surely that every doctor gets the patient he deserves!

So, just as each illness is a lesson for the patient, so is each patient a lesson for the doctor, especially the difficult, recalcitrant patient who must find the courage to let go of everything personal, and surrender to the healing.

The physician can only help in such a case by identifying his *own* personal or judgmental thoughts and feelings called forth by the patient, and by letting go of them, because they make a wall between patient and doctor, obstructing the healing that flows from the heart. Even positive reactions engendered by a patient must be surrendered, as they obscure an objective insight into what the patient needs.

If we as physicians can learn to surrender to the lessons which the patient brings us, then through the pain and self-knowledge of that lesson we can strengthen our will to heal and can further unfold our organ of healing: the courageous and loving heart.

Eugen Kolisko and the Role of the School Physician*

GISBERT HUSEMANN

The heart is the key to the world and to life.

– Novalis

On 16 January 1921, when the Waldorf School in Stuttgart had been in existence for almost two-and-a-half years, Rudolf Steiner had the following to say at a teachers' meeting about the role of the school doctor: "As I see it, there ought to be a school doctor who knows and keeps an eye on every single pupil. It is not his job to teach any particular subject but he ought to have opportunities to work with the children in each class in whatever way can be managed. He ought to be aware of the health of all the children."¹

For a doctor to be aware of the health of five to nine hundred children and to follow their progress for many years is the exact equivalent of the task faced by a teacher who gets to know the pupils of a number of classes and follows their progress. The doctor's job is a full-time one, but if he is prepared to do any teaching the most obvious subject is the study of the human being in the widest sense. More important, though, would be for him or her to give courses on this subject for the teachers who are members of the college of teachers. By working on the mysteries of the human being, teachers gain educational insights and ideas with regard to children in general, the pupils in the school, and above all the children in their own class if they are class teachers.²

To illustrate this, an example is given below which clearly shows how important it is for teachers to develop an idea of the function of the human heart that is based on anthroposophy. The image given to students in the upper classes may be said to be equally important. In our technological age both the scientific and the popular image of the heart is that it is a pump. The logical conclusion must be that organs can be repaired or exchanged

*Original title "Eugen Kolisko und die Aufgabe des Schularztes," in *Persephone* Vol. 2, 1992, Philosoph-Anthroposoph. Verlag, Dornach, Switzerland. Revised version of a lecture given in Stuttgart on 28 October 1989. English by Johanna Collis, MIL, and Anna R. Meuss, FIL, MTA.

like spare parts. This attitude is the beginning of people going seriously astray and becoming ever more detached from themselves and also from their fellow human beings.

The heart

In the first address Rudolf Steiner gave at the founding of the Stuttgart Waldorf School on Sept. 9, 1919, he said that the education to be practiced at this school would not be based on a view of the human being in which the heart was regarded as a pump.³ The first and most profound task of the school doctor, who is a product of modern scientific training, is therefore to gain a different view of cardiac physiology. Eugen Kolisko's book on the search for new truths⁴ contains two essays (in German) entitled "St Thomas Aquinas on the movements of the heart" and "It is not the heart which drives the blood, but the blood which drives the heart," in which the author discusses the movement of the blood and cardiac function. These two essays provided a starting point for the approach to cardiac function presented below.

Kolisko was essentially concerned with the functional and emotional aspects of the circulation. Going one step lower initially and considering the physical aspect, we find that in the world of physics the hydraulic ram is analogous to the human blood circulation (see Appendix). A natural brook or stream flows into a pipe; the resulting pressure closes the outlet valve and flow ceases. The pressure of water piling up causes a reversal of flow. The water then rises in a pipe with narrower bore (it is pushed up—hence the term "ram"), the valve opens under its own weight, closes again, reversing flow, and a hydrodynamic period has been set in motion. The heart is positioned in the living blood stream, with flow stopped and reversed in the apex. Myocardial organs capable of sensing pressure serve to perceive flow and pressure conditions.

The waters and rivers of the earth are part of a system which also includes the atmosphere. If a hydraulic ram is positioned in a natural system of flowing water, conditions are created where flow is stopped and falling water is made to rise. The flow, fall and rise of the earth's waters is recapitulated in condensed form in the apparatus. It should be evident from the above that it is meaningless to say that the apparatus makes the water move.

An even simpler analogy is provided by an elastic ball, the form of which is quickly restored when an indentation has been made. We do not have a valve to interrupt flow in this case, but the ball permits comparison with a mirror reflecting a ray of light. The eye is such a mirror. An image of the

environment is produced at the site where the light is reflected in the retina. The sites where interruption occurs are actually in the retinal nerves. In the ram, the site corresponding to the “image” created in the eye would be the point where the valve interrupts flow and reverses it.

These analogies taken from the field of physics immediately make us see the heart in a new way: as a sense organ for the blood stream. This does, of course, only relate to the superficial, physical aspect of its function, but it brings to mind the sensitive valvular functions of the heart and especially also the reversal of flow at the apex, both of which may be seen as organic ram functions.

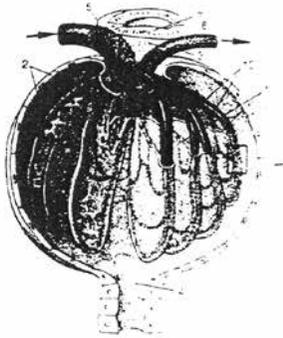
In the human blood circulation, which we can experience in heart beat and peripheral pulse, the rate of flow is approximately 5 liters a minute. A much larger volume exists in the tissues, in organs and muscles and in the nervous system. Between this tissue fluid, which also includes the lymphatic system, and the pulsating vascular system lies the capillary system. Blood passes from one leg of the capillary system into the tissue fluid and is absorbed back into the capillary system by the other leg. This is where the living (intermediary) exchange processes of metabolism, internal respiration and anabolism take place in the human organism. Recent researches have shown that the volume passing between tissue fluid and capillaries is 100 liters a minute.⁵ This makes it practically impossible to go on thinking of a pump, since a pump with 5-liter capacity cannot possibly move 100 liters in the periphery. Scientists who established earlier theories of the circulation identified the same problem, though in a different way. Their solution was to include additional, smaller “extracardial pumps” in organs and vessels between the periphery and the heart. Kolisko drew attention to the issue.

If one thinks in terms of living, moving peripheral waves of fluid, the heart, being part of the blood stream, becomes the mirroring apparatus, rather like a hydraulic ram. M. Mendelsohn, a Berlin cardiologist, was fully in accord with this when he wrote in 1928: “... [T]he heart must inevitably be a secondary organ inserted into the circulation of fluids in a living organism; it cannot be the primary, dominant organ.”⁶ Rudolf Steiner was thinking along the same lines when he said in 1921: “This human heart evolves entirely from the... [interaction between nutrition and] tissue fluid [with protein synthesis], and its function can be none other but to reflect the inner activity of the tissue fluid.”⁷ Thus the 100 liters a minute are like living, flowing waves, with the heart placed among them. The heart beat then reflects the waves, so that the periphery is mirrored at the center. When physicians feel a patient’s pulse (or listen to the heart) they are using touch to perceive a thermometer which indicates the internal conditions of life. Kolisko made reference to pathology at this point: “The heart can only

be understood in terms of the periphery, and we shall never understand the circulation if we start from the center, the heart. We know that hearts get enlarged when an organ such as the musculature demands too much blood during intense physical effort. The normal and not only the enlarged heart is created from the periphery in the same way.”⁸

A common objection is that we are simply replacing the pump with another apparatus. But this merely shows that the issue has not been thought through. Comparison with physical apparatus is not condemned on principle, but methodologically it is of the utmost importance to find the right comparisons and understand them.⁹ Many other elements based on principles found in the science of physics are to be found in the organism, like the eye for example, and the buoyancy of the brain floating in fluid.

Moreover, inorganic substances are metamorphosed into organs, with all the major metals represented by organs, having become organic metal nature. The hydraulic ram presents the basic phenomena which in the human organism embody periodicity, or the cosmic rhythm.



7: The sense organ, macula densa
(from H. Leonhardt, 1986)

Fig. 1: Renal glomerulus

With regard to the function of the heart as well as other organs it is of considerable interest that in 1911 the anatomist Jacoby Sr. compared the lumina of the afferent and efferent vessels in the renal glomerulus with those “of a hydraulic ram,” where the bore of the feed pipe is larger than that of the outlet pipe. Quoting Jacoby, Otfried Mueller showed that the same applied to the hepatic veins. He provided an illustration of an intralobular vein and the sinusoids arising from it which are like capillary vessels. “One immediately thinks of a fruit tree.”¹⁰ See Figure 1. The rhythm of fluid dammed up in organs and then released would thus be the common element, like tree trunk and branches, which has become a hydraulic ram in the physical world outside the human organism and is particularly well developed in the periodicity of the heart.

Observations like those of Jacoby Sr. and O. Mueller help us to see the functions of organs such as the kidney and liver in a new way: as modified cardiac functions. A system of vessels comparable to the pipes of a ram thus exists in numerous variations in the vascular system, and the concept of extracardial circulation appears in a new light: The wave of peripheral tissue fluid, the lumen of which may be said to be infinitely large, is brought to a halt and reversed in organ functions and in the heart beat, where the lumina of the vessels are much smaller.

The arrangement of the myocardial fibers is like a “frozen image” of falling, stopped and rising flow. Descending spirals (muscle fibers) moving in opposite directions surround the two ventricles, with the point of reversal slightly above the apex. The ascending fibres in the myocardium of the left ventricle terminate in the papillary muscles which project into the lumen. The arrangement of the muscle fibers is a physical and etheric image of the circulation from periphery to cardiac apex, reversal of flow, and the blood rising above the papillary muscles into aorta and lung. It also is an image of the hydrodynamics of the ram (Fig. 2).¹¹

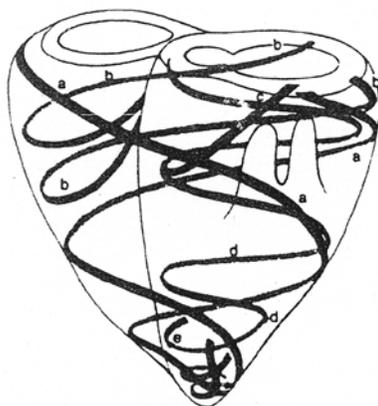


Fig. 2: Ascending and descending spirals in myocardium

Left: Schematic representation of arrangement of fibers in outer and middle muscle layers of left ventricle, a) external fibers running obliquely, b) deeper layer of oblique external fibers, c) ventral cross-over of subbasal loop fibers in middle layer, d) descending fibers in middle layer, which rise again at e), above the apex (H. Leonhardt, 1988).

Right: Schematic representation of arrangement of fibers in inner layer of ventricular myocardium, a) External spiral fibers of inner layer, branching to ventral papillary muscle, b) deep fibers of inner layer radiating to dorsal papillary muscle, d) steeply ascending interpapillary spirals of deep inner layer, e) fibers descending from left fibrous ring, with fibrous roots going to papillary muscles at the turn (from Puff, 1960) (H. Leonhardt, 1988).

We can now consider the issue in relation to the genesis of the eye. The eye evolved out of the light to perceive the light. In the same way the heart evolved out of the circulation for the circulation. In this sense, the heart of the teacher is the central organ for perceiving the periphery, i.e., the children.

This is the point where a first conclusion may be drawn, both educationally and medically, as to the relationship between teacher and pupils. Teachers quite rightly have a sense of being a spiritual and psychological center towards which the waves of expectation and hope, of sympathy and awareness of self, of hunger for learning and the satisfaction of that hunger, of a troubled mind and delight may flow. In the encounter with the teacher the pupils grow increasingly aware of themselves. Each child in the periphery becomes an individual as it meets the heartbeat of the center. Altogether a living organism has come into being and the question to be asked concerns the extent to which teachers can become properly conscious of their position and of being part of the karmic stream. The image of the pump blinds us to all the potential which the situation holds.

The rhythmic system as a whole is the bearer of the soul element for, as Kolisko said, “in addition to the purely physiological aspect described by science today, organs also have a psychological aspect.” Once the organs have developed, mental and psychological powers are released which form the soul element of the human being. While the organs are growing, the soul is tied up in the process of growth and is in a kind of prepsychological state. The psyche is released from the organs in the same way as memory becomes free. “The circulation is the link, the rhythmic balancing principle between organs of the metabolic and nervous systems and therefore also between the polar aspects of the inner life-thinking and will activity. The movements of the blood in fear, joy and all other stirrings of the ego in the human soul show that the ego experiences itself in the circulation of the blood.”¹²

So far we have described a physical, a vital and a psychological level. Blushing in shame and turning pale with fright reveal the effect of the ego and emotions on the circulation. This level also has its anatomical equivalent. In Figure 3, the upper loop is a schematic representation of the pulmonary circulation going from the heart to the lung and back to the heart. The lower loop represents the systemic circulation from the heart to the body and back to the right heart. Two distinct states of life combine to form a lemniscate with its cross-over point in the heart. When the heart first begins to develop in the embryo, the two “halves” show lateral symmetry.

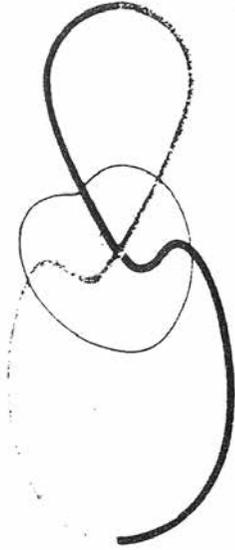


Fig. 3: Blood circulation, with outline of heart. Black line: arterial blood; grey line: venous blood (From H. Leonhardt, Taschenatlas der Anatomie, 1986)

They later combine in an asymmetric organ positioned more to the left. The left heart is filled with living, oxygenated arterial blood coming from the lung. The blood stream in the right heart holds the “of death” (Novalis), for it is charged with carbon dioxide coming from all the organs.

The cross-over phenomenon is quite common. When the eyes focus on an object, the visual axes cross at the focal point. The visual nerves cross backwards and inwards in the optic chiasma. Almost all cerebral and cerebellar tracts from the central nervous system to the extremities also cross. In this case the optic principle has become inward and therefore less conscious. When we fold our hands or put one arm across the other, gaining experience of self in the process, this is essentially what crossovers achieve—different levels of

feeling the ego, responding to the ego, and ego awareness. The seeing ego lives in the maya of sensory images, but where the blood stream crosses in the heart this is accompanied, rhythmically, by a feeling ego experience as part of physical existence. Heart and respiration make things merely learned in the head into stirrings of the soul. This comes fully to expression in the action of shaking hands, where we add something that is our own. Our words or the way we look at someone or something may come from the head or from the heart. The human heart can shine out through the eyes.

In the alveoli, which are the smallest anatomical units of the lung, the organism discharges its carbon dioxide, for otherwise it would be poisoned by the inner life. Our organism needs the cosmic environment and its atmospheric oxygen. Being oneself changes to experience of the environment, carbon dioxide is exchanged for oxygen. The chemical changes in the blood thus have parallels at the higher levels of soul and spirit. Goethe had a feeling for the moral rhythm of the self coming into existence and passing out of it again in inhalation and exhalation. The soul moves in rhythm with the archetypal principles of death and life.

Four developmental stages of cardiac function

Taking an overall view, we can discern four stages of development:

Earth – hydraulic ram	<ul style="list-style-type: none">• physical body: arrangement of myocardial fibers
Water atmosphere: clouds, rain and rivers on earth	<ul style="list-style-type: none">• ether body; peripheral waves of proteinaceous tissue fluid
Surrounding air	<ul style="list-style-type: none">• astral body; respiration – emotional ups and downs – blush of shame – pallor of fear
Warmth	<ul style="list-style-type: none">• ego orientation; blood temperature; blood stream crossing in the heart

Every stage reveals something of the character and essential nature of the heart. At the physical level we noted periodic congestion causing a simple vessel to be enlarged into the myocardium. At the next stage we became aware of the waves of tissue fluid and their reflection in the heart beat. At the psychic and astral level these elements are raised to a new plane and related to conscious and semi-conscious inner activities and the ego. Emotions such as wonder and delight are based on the rhythmic system just as much as the fact that we are born to suffer and to overcome in the process of our life destiny.

The insights gained in this field can become a key element in our approach to the natural elements earth, water, air (which unites with the human psyche in respiration) and heat (in the blood temperature an expression of the ego organization). Out of warmth, the heart and the blood have been created to give expression to the ego organization. The positive and negative pressures created by warmth allow the ego's activity in this element to shine through in the pulsating movement of the blood.¹³ Thus looking at the world of nature in the mirror of our image of the human being we can see why the heart may be called the key to the world, seeing it holds the whole world in itself.

Warmth of heart in education and for teaching methods

On September 7, 1919, Rudolf Steiner spoke of seeing the heart in a living way in the new approach to education. Four weeks after the opening of the Stuttgart Waldorf School, on October 4, 1919, he discussed the warmth needed in teaching and the consequences this would have for the children in later life. It goes without saying that the usual subjects have

to be taught and learnt, but over and above this there are other aspects that vibrate in the relationship between the souls of pupils and teacher. "The warm enthusiasm of the teacher is transmitted to the child and the child absorbs what is taught because the teacher gets it across by means of enthusiastic teaching."¹⁴ From the anthroposophic point of view, this means that teaching from the head is not sufficient; in a way, the teacher's heartbeat must be echoed by the heartbeat of the child. The social implications of this are profound. Knowledge transmitted via the head disappears from memory as life goes on. "...[W]hat matters for subsequent development is what is absorbed purely out of the warmth of the teacher. It is this which comes alive again in the mind and gives strength for life."¹⁵

Just as doctors know what medicines to prescribe for their patients, so do teachers know what educational measures to use for the whole class or for an individual pupil. There are many ways of thus giving a therapeutic aspect to teaching. Vitality, which normally decreases as the middle of life approaches receives a boost for later life with this kind of teaching. It is no exaggeration to speak of education as preventive treatment.

If we know how to read in a way that bears fruit, we discover that the statements made by Steiner on September 7 and October 4, 1919, belong together. They complement each other and enable us to look more closely at the heart as an organ for medical and educational work.

Warmth is created in the heart. Teachers can sense this if they leave everyday life behind on entering the classroom, as a snake sheds its skin. They can achieve this if they manage to reject the idea of the heart as a hydrodynamic apparatus and rediscover its true nature. To let the heart come truly into its own in education could provide a key to solving the growing problems of today's younger generation.

The different approaches to understanding the heart may be summarized by saying that for teachers, the heart must be seen as a symbol that can give support in the "renewal of the art of education and teaching."¹⁶ This is not a question of maxims and dogmas. Someone who is aware of being part of the destiny of a group of children brings a true teacher to birth within him or herself—a teacher whose heart comes alive. You become a teacher when you understand "that the heart is not a pump to move the blood around the body. Human beings are inwardly alive in such a way that the movements of the body fluids and of the heart are the outcome of being thus alive."¹⁷ If the inner eye is aware of this, the teacher develops an eye for the development of the child. "With our eyes thus opened, significant insights may be gained with regard to one particular child in a large class which one has only known for a few months. Training mind and spirit in

this way, which makes contact powerful, it is possible to have an almost clairvoyant view of the child's individual nature." It is not merely a matter of intellectual understanding, for those who learn to train mind and spirit out of a heart with living inner vision, "will come alive in a new way to the development of one child or even a whole group of children. This will also enable us to evolve the curriculum out of the very nature of the developing child."¹⁸ It is now also possible to see what Steiner meant in that address on September 7, 1919: The curriculum for the new education was developed not from the head but from the heart; it arose from a heart that spans the world, the hearts of teachers and children.

Rudolf Steiner wanted to know if the children's hearts went out to their teachers. This is why he would always ask the children about their feelings towards their teachers at the monthly school festivals. Their replies created a living threefold chord combining his own heart with the hearts of the teachers and those of all the children present in the great hall of the Waldorf School on these occasions. Gaining insight and understanding of anthroposophy feeds the living capabilities of teachers. The heart occupies a central, indeed the central position in the training of teachers. In the following quotation from Novalis, the ideal of education and medicine is seen as the same as the ideal of the human being:

"The heart is the key to the world and to life. We are in this helpless state in order to love and be beholden to others. Being imperfect we are open to others, and it is openness to the influence of others which is the purpose. In sickness, help can, and indeed should, only come from others. Seen from this angle it is Christ who is the key to the world."¹⁹

Novalis was able to sense that human beings express themselves with their destiny in their heart. Having perceived the role of the imperfect, ego-bearing creature he considered the extreme case when sickness makes human beings dependent on others. Novalis saw love as a goal of humanity; out of the powers of the heart a vessel can be created in which human ego and universal ego unite.²⁰

Medical aspects of teaching

Functionally heart and lung are one organ—the rhythmic system which extends through the whole organism in the pulsating vessels. Respiration becomes going to sleep and waking up at another level. The hydraulic ram could be the subject of technology or physics lessons, and above of lessons on the nature of the human being.

Many medical problems were discussed with Eugen Kolisko the school doctor. Here we can only refer to one example, which is how to help school-

age children develop regular sleeping habits. No other field shows so clearly the profound insight into children and their health which a school doctor must seek to gain. Regular sleeping habits were discussed at a teachers' meeting on May 25, 1923.²¹ Too much sleep during the growing period leads to weakness in the power to envisage forms, for example in geometry; the state of sleep continues on into the daytime ability to shape ideas. It is not too difficult for us to understand this. Too little sleep leads to weakness in the capacity for profound feeling in connection with music and history. The intellectual understanding of children who are awake for too long influences the respiratory system, so that their breathing becomes too shallow. As a result the movements of the soul in the breathing rhythm become superficial and cannot enter into full experience. History easily remains mere factual knowledge if the soul cannot fully enter into its heights and depths. Notes are heard in the head, but when we have a feeling for the music we hear this enters into the rhythm of our breathing and is carried by it. You often see concert-goers taking a deep breath. From the medical point of view educating a child into good sleeping habits is a matter of taking serious responsibility for the growth metamorphosis in later life. More deeply experienced vibrant sounds enter into the breathing movements of the diaphragm which penetrate into the sphere of metabolism and growth, loosening it up from inside so that growth can become entirely spiritual as memory. Residual growth principles that have not been released to become powers of memory and remain active at the cellular level create the preconditions for neoplastic tumor development, and this happens at a time of life when the warmth of enthusiasm for the lessons taught should renew the powers of life. This is how the pathological processes underlying tumors and inflammation at the physical level relate to the metamorphosis achieved by education. Learning with brain and heart thus becomes preventive treatment if the teacher is truly skilled in the art of education.

Summary

The physical equivalent of heart and blood circulation is the hydraulic ram. The flowing blood moves the heart, just as the ram is set in motion by running water. In embryonic development blood flow is uninterrupted until the heart begins to beat. Vascular muscle becomes enlarged to form the myocardium because the flow is stopped, just as flow is periodically stopped by the valve in the ram. Flow is then reversed in both the ram and the heart. The eye is positioned in the skull and the lens in the eye. In the eye, incoming light is reflected to become image.

Images have been considered of organs which are part of the human organism. In respiration, inspiration is reversed to become expiration, showing the process of reflection we also see in the blood stream when it reaches the heart. The sense organ comes to realization in the blood stream.

Dreams as phenomena of the inner life and the rhythmic system as the bearer of the soul being part of the class 10 curriculum, let us conclude with an example of how great truths can be revealed in dreams.

K.F. Burdach (1776–1847), an anatomist at Dorpat and Königsberg universities, was amazed when he had the following dream:

“In 1811, for instance, I took the generally accepted view of the circulation, having never been exposed to any views to the contrary. Anyway, I had quite other matters on my mind when I dreamt that the blood flowed by its own power and set the heart in motion. If one considered the heart to be the driving force in the circulation, this would be tantamount to saying that water driving a mill was actually being driven by the mill.”²²

Burdach was unable to believe the truth he had seen in his dream. It is our task to bring the truth which dreams in us out into the bright light of the wide-awake mind. Paraphrasing Novalis we might say: ‘The heart is the key to the art of education.’

Appendix

Less well-known statements by Rudolf Steiner on the heart:

“Twenty-five years ago at most, the criminal anthropologist Moritz Benedikt, an eminent scientist in this field, with the necessary training in mathematics, first drew attention to the extremely important fact, frequently ignored again nowadays, that the pulses of the radial arteries on the left and right sides of the body are not identical. This is most important for insight into the relationship between different aspects of the human being. Another significant fact was discovered by someone who was not the least bit famous in this field, but a very ordinary person, Dr. Karl Schmidt. He published his findings in the medical journal *Wiener Medizinische Wochenschrift* in 1882 in a paper entitled (in translation): Heart beat and sphygmograms. He made some very important observations. These things are still in their beginnings, but with more detailed study a start will have been made in discovering the connection between a self-conscious ego and the blood circulation on the one hand and between the animal spirit active in animals and the blood circulation of animals on the other.” (*Antworten der Geisteswissenschaft auf die grossen Fragen des Daseins* [GA 60], Lecture given in Berlin on 17 November 1910.)

Elsewhere the spiritual consequences of the physical pump theory are discussed in detail. Rudolf Steiner also referred to Dr. K. Schmidt and to Moritz Benedikt's mention of Schmidt's work when speaking to the teachers, though no direct mention is made of the apparatus:

"... But none of this goes far enough; it is quite elementary. Only a few people have noticed that the movements of the heart result from the movement of the blood, and that it is the movement of the blood which is the elemental living principle... the movement of the heart, the whole activity of this organ, is really merely the consequence of the blood circulation; the heart merely positions itself in the living blood circulation..." (See Note 17, below; lecture given in Basel on 22 April 1920).

In the last of the above sentences, the hydraulic ram is clearly there in the background to the phrase: "merely positions itself." (See also *ibid.*, lecture given in Basel on 23 April 1920). As the lecture proceeds, a description is given of the functions of the heart in the life of the psyche and what it means when teachers are able to gain a spiritual view of the heart:

"The way of thinking we are concerned with here is intended to enable teachers to manage even very large classes, where social conditions make this necessary. Understanding the human being in living motion leads to the realization "that the heart is not a pump to move the blood around the body. Human beings are inwardly alive in such a way that the movements of the body fluids and of the heart are the outcome of being thus alive. If a configuration of mind and spirit is created that enables a teacher to think like this, certain powers in the teacher become visionary with regard to the child's development. With our eyes thus opened, significant insights may be gained with regard to one particular child in a large class which one has only known for a few months. Training mind and spirit in this way, which makes contact powerful, it is possible to have an almost clairvoyant view of the child's individual nature." This is the crucial element. It is not so much a matter of knowing that the heart is not the cause of the blood circulation but its result. The point is that those who develop the ability to visualize this, in contrast to today's materialistic way of looking at things, those who learn to train mind and spirit out of a heart with living inner vision, "will come alive in a new way to the development of one child or even a whole group of children. This will also enable us to evolve the curriculum out of the very nature of the developing child." (See Note 18, below).

All this goes to show that our civilization, especially as regards education, is a civilization of the heavy heart. A pumping heart has taken the place of a living, spiritual center of life. This is yet another tangible consequence of the Council of 869. Heart research must thus be taken up equally by the

medical and the teaching professions. Twelve Model III apparatuses have been offered and bought for use in Waldorf schools (biology and physics teachers). The hydraulic ram has become the object of scientific research in both medicine and education.

Gisbert Husemann, MD
Friedrich-List-Str. 27
D-W-7302 Ostfildern-Nellingen
Germany

BIBLIOGRAPHY AND NOTES

GA = *Collected works of Rudolf Steiner, German edition, Dornach.*

To the best of our knowledge, titles given in German are not available in English.

1. Steiner R. *Conferences with Waldorf Teachers Part 1* (GA 300a). Tr. P. Wehrle. Michael Hall, Forest Row 1986.
2. Developing the collaboration between the medical and teaching professions so that it will be a source of educational impulses is one of the central functions of the teachers' colleges at Waldorf schools.
3. Steiner R. *Rudolf Steiner in der Waldorfschule* (GA 298). Kolisko E. *Auf der Suche nach neuen Wahrheiten*. Dornach 1989.
4. Kolisko E. *Auf der Suche nach neuen Wahrheiten*. Dornach 1989.
5. Lauboeck K.H. Beziehungen zwischen Blutkreislauf und Herzbewegung. *Mercurstab* Nr. 3, 1989.
6. Mendelsohn M. Das Herz-ein sekundaeres Organ. *Zschr Kreislauf* 1928; 20: 19. The author does not refer to the hydraulic ram as such, but what matters is the idea of 'insertion.' The vital fluids have inherent mobility. I assume Mendelsohn was thinking of the ram but did not explicitly refer to it. It is evident from his discussion of the subject that the pump concept had become suspect in his eyes.
7. Steiner R. *The Spiritual-Scientific Aspect of Therapy* (GA 313). Lecture on 16 April 1921. Tr. Rick Mansell. Long Beach, California: Rudolf Steiner Research Foundation 1990.
8. See Note 5.
9. Goethe J.W. *Naturwissenschaftliche Schriften*, with introduction, footnotes and commentary by Rudolf Steiner (GA 1e). p.363.
10. Mueller O. *Die feinsten Blutgefasse des Menschen*. Band 1. Enke 1937.
11. In Figure 1, 7 indicates the macula densa, an organ with closely packed epithelial cells. This is a chemical sense organ located in the angle between the two vessels with their different lumina. It has developed from the median layer in the wall of the afferent vessel. Every kidney contains 1 to 1.6 million of these sense organs. Depending on the sodium chloride concentration of the urine, they control blood pressure and blood volume in a process which

also includes the efferent vessel. Thus a sense organ is found at the point where blood flow is reversed. The functions of a sodium peptide hormone found in the atria of the heart, its synthesis triggered by atrial dilatation, include control of blood volume, elimination of sodium and urinary excretion (cardiac hormone). Kidney and heart are part of the sensitive silicic acid organism, which permits them to perceive each other. See also Steiner R., Wegman I. *Fundamentals of Therapy* (GA 27) Ch. 14. Tr. E.A. Frommer, J.M. Josephson. London: Rudolf Steiner Press 1983. Husemann F. Das Herz als endokrines Organ. *Merkurstab* Nr. 4, 1991.

12. See Note 5, above.
13. Steiner R. *Heat. Second Scientific Lecture Course* (GA 321). Tr. Rick Mansell. Long Beach, California: Rudolf Steiner Research Foundation 1984.
14. Steiner R. *Soziales Verstaendnis aus geisteswissenschaftlicher Erkenntnis* (GA 191). Lecture of 4 October 1919.
15. Ibid.
16. Steiner R. *The Renewal of Education through the Science of the Spirit* (GA 301). Tr. R. Everett. Kolisko Archive Publ., 1981.
17. Ibid. Lecture given in Basel on 26 April 1920.
18. Ibid.
19. Novalis. *Fragmente*. Dresden 1929.
20. See also Steiner R. *Knowledge of the Higher Worlds* (GA 10). Ch. Stages of Initiation, Preparation. Tr. D.S. Osmond, C. Davy. London: Rudolf Steiner Press 1969. Steiner R. *Wahrspuchworte* (GA 40). Die geistige Grundsteinlegung.
21. Steiner R. *Conferences with Waldorf Teachers Part 2*, sections A and B (GA 300b). Tr. P. Wehrle. Michael Hall, Forest Row 1987 and 1988.
22. Jezower (ed). *Buck der Traume*. Reinbek 1927.

Additional literature on medical and educational heart research (1892–1992)

See literature quoted in Notes 6 and 7 above, and in the Appendix.

- Schmidt K. Ueber Herzstoss und Pulskurven. *Wiener Med Wschr* 1892; 15 ff.
Reprinted in *Beitr Erw Heilk* 1973; Nr. 3.
- Benedikt M. *Das biomechanische Denken in der Medizin*. Jena 1903. Only brief, affirmative reference to above. See *Beitr Erw Heilk* 1982; Nr. 1.
- Steiner R. *Spiritual Science and Medicine* (GA 312), lecture of 22 March 1920. Tr. unknown. London: Rudolf Steiner Press 1975.
- Havlicek H. Arbeitet das Herz wie eine Druckpumpe oder wie ein Stossheber. Eine neue Herztheorie. *Arch Kreislauff* 1937; 1: 188. A compromise between pump and hydraulic ram.
- Husemann G, Husemann F. Der hydraulische Widder und die Herzbewegung. *Beit Erw Heilk* 1974; Nr. 4.
- Manteuffel-Szoege L. On the movement of the blood. *Br Hom J* 1969; 58: 196-211, 218-223, and 1970; 59: 35-41.

- Basfeld M. *Experimentelle Untersuchungen an einem Modell eines hydraulischen Widders*.
Dissertation at the Max-Planck-Institut, Goettingen, 1980.
- Basfeld M. Der hydraulische Widder als reales Symbol der menschlichen
Herztaetigkeit. *Beitr Erw Heilk* 1982; Nr. 1.
- Husemann G. Demonstrations given for Upper Schools, teachers and physicians
in German-speaking countries; 1946-1949 with the first model (W. Wolf),
1964-1965 with the second model (Gebr. Braun), 1970-1973 with the third
model (Gebr. Braun).
- Basfeld M. Demonstrations 1982 (internal teachers conference in Germany)
physics and biology teachers.
- Husemann A.J. Demonstrations for Upper Schools from 1988.

The School Doctor's Vocation*

EUGEN KOLISKO

Firmly anchored in the educational method that was Rudolf Steiner's gift to the Waldorf Schools is the idea that the physician must relate more closely with the teacher. It is not possible for the physician merely to treat the body and the teacher educate the soul for the two are closely connected.

Today, the psychological element and aspects considered in anatomy and physiology are put side by side. This essentially does nothing but pose questions as to the relationship between soul and body. In children, however, it is impossible to consider soul and spirit separately from the body for the younger the child, the more he or she is still a single whole. The responsibility of teachers grows enormously when it is realized that everything they do influences the child's bodily organization for the rest of the child's life.

The principles of Waldorf education are such that no real medical work could be done unless it was in relation to the work done by all the child's teachers. Most ideas arise when the physician talks to the child's teachers, observes the child during lessons, and seeks to gain a clear picture of how the child paints, draws, does gymnastics, eurythmy, etc. The essential human character shows itself in everything a child does.

It is also important to consider the human organism not only in outer, material terms but also in such a way that the threefold nature of the human organism—on which Steiner based his approach to education—becomes second nature. Consider how much depends, for instance, on the tremendous contrast between nerve organization and metabolic organization and the mediation effected by the rhythmic system.

The three most important inner human faculties are thinking, feeling and will; in outer terms, we have this differentiation of the body into three. We do not get anywhere, especially in considering the human being in spirit, unless we do so in terms of his threefold nature. On one hand,

*Original title: Der Beruf des Schularztes. *Medizinisch-pädagogische Konferenz*; 1: 24; 1997. English by A.R. Meuss, HL, MTA. (Originally published in *Die Freie Waldorfschule* Nr. 1, 1926.)

anthroposophy guides us to medicinal agents in the natural world; on the other, it helps us to gain genuine insight into the nature of illness.

We do not really understand illness today. It is necessary to see disease as a living process. Human beings are always in danger of falling ill. It is the disposition to illness that is so difficult to observe today; people do not learn to observe the developments that lead to illness. If we compare the knowledge we have today with that of 200 years ago, we see that magnificent work has been done in observing the fully developed illness and its consequences—as seen in the dead body. Teacher and physician must work together to observe disease in its *early* evolution.

The fact that the human being has a threefold nature holds the potential for all kinds of diseases; for example, the head organization will make a person ill if it extends its powers to the whole human being. Someone whose metabolic system is too dominant will be prone to diseases because of this.

Human beings maintain health only insofar as they keep opposites in balance. Let us consider a case of pneumonia, for instance. At a certain stage, the lung is filled with fluid, with blood and mucus, so that it has the same consistency as the liver. It is filled with fluid in a process called hepatization. With pneumonia, something that is good in the liver appears in the lung; the blood-filled principle is streaming into the lung. The respiratory organization cannot cope with something that is normal to the liver. The liver promotes the chemical processes of digestion. It is a focal point in the circulation of juices. The lung, on the other hand, needs to breathe air. Invasion by the fluid principle causes pneumonia with a process normal to the liver penetrating into respiration. A process normal to the liver is, therefore, pathological in the lung.

Pathology arises as soon as metabolism penetrates into the rhythmic organization. When someone develops hardening of the arteries, a principle that is good in the head (we can only have conscious awareness if life is subdued, and the head is one-third dead) penetrates into the blood circulation, and diseases of old age develop. Even in a young child, the nervous system, with its many powers of death, is still alive; As time goes on, it gets progressively more dead and extends its powers to more and more of the organism. The head principle is almost dead. It extends to the rest of the human organization, ultimately leading to the death of the whole. Hardening phenomena merely show that the upper aspect is spreading to the lower organization of the human being, to the arteries, etc.

The human being is continually involved in fighting disease. Health is bought by fighting disease. This is the area where physician and educator meet. Physicians are brilliant in observing the *consequences* that arise from ill

health. What teachers do with children at a soul level will lead to ill-health or health. We have a medicine concerned with the consequences of illness and an education system where people are not always aware that they are working with the origins of ill-health. Today's educators are unfortunately involved in some of the *causes* of many diseases.

However, this is where the right kind of education and the right kind of medicine must work together. Medicine not only must develop knowledge of physical changes caused by diseases, but be able to study even the first beginnings of disease, to study how spirit and soul relate to the physical body.

There has to be a living relationship between physician and teacher, with the teacher aware that he is always touching on the medical sphere and the physician aware that he must always talk to the teacher so that he may find the right approach to the child.

Thus, it may be hoped that when the relationship between the element of soul and spirit and the physical body is truly understood, we shall bridge the gap between a medicine that concerns itself only with the physical body and a method of education that clings to abstract principles. The right relationship between the two will arise from an anthropology that takes account of the whole human being.

Eugen Kolisko, MD
(1893–1939)

Medical Examination of School Entrants at Waldorf Schools*

KARL-REINHARD KUMMER

The examination of entrants is one of the most important functions of the school doctor. The way it is done differs from school to school, and there is also a difference between the functions of the teacher and the doctor. The examination above all has to determine if a child is ready to start school in body, mind and spirit, and to diagnose any existing physical defects. The central issue is usually if the right level of development has been achieved, for a child's progress at school and the whole of his or her development in the second and third seven-year period will be affected by determining the right time for starting school. Excessive demands are made on children who start too early, whilst children who are too old for their class are not sufficiently challenged and tend to get bored.

Some people joke about "kindergarten leaving exams," but it is true to say that children must have certain abilities if they are to go to school. The issue cannot, however, be decided on test results. Nickel¹ has gone into considerable detail in his critical assessment of school entrants' examinations. For school doctors at Waldorf schools, the key criterion is the overall impression of the child's etheric development. Individual parameters merely help the doctor to arrive at an assessment. This means of course that the examination may take a completely different form from the example given in this paper.

One particular method

The moment when one first meets the child is particularly important. Bockemuhl summed this up in two questions: "Where do you come from?" and "Where are you going?"² Other questions are: "How does the child cope with a new situation?"

"What degree of independence has developed?" It is sometimes possible to know at first sight what the constitutional type is, and the same

*Original German title: *Die ärztliche Einschulungsuntersuchung in der Waldorfschule*, from *Der Merkurstab* 6/91, pages 442-448. English by Anna K. Meuss, FIL, MTA.

often applies to the level of physical development. The significance of that first moment in the threshold situation of coming of school age cannot be underestimated.

The child may be asked to undress whilst the history is taken. This provides an opportunity for quiet observation of finger dexterity in undoing buttons, balance and perseverance.

The physical examination which follows provides basic orientation as regards height and weight. Particular importance attaches to dental development, level of physical development and failure to achieve development targets for the first seven-year period, e.g., undescended testes. Dominance is another important aspect, e.g., laterality of eye and ear, hand and foot, and visual and hearing function. To determine visual dominance, children are asked to look through a kaleidoscope. The dominant ear is the one to which they will take a ticking clock to hear it ticking. Red/green color chart test and stereo test demonstrate perception of more complex forms.

Motor function is assessed by letting children hop, balance, be a jumping jack and use a skipping rope. A ball is thrown a number of times, with particular attention paid to the way the child prepares to catch or throw the ball.

Preparatory emotional movements of the face and other movements indicate the extent to which the child is inwardly in control of the process. With children who are over six years of age, the attempt may be made to bounce the ball on the floor. If the child is cooperative, this will quickly give basic orientation on motor function, so that one has key information on his or her readiness to start school. Laterality of hand and foot is assessed at the same time. The child is then asked to get dressed. The school doctor writes notes in the meantime and observes the child's behavior whilst dressing.

After this, drawing and finger dexterity can be studied in more detail. At the Waldorf school of Karlsruhe in Germany, this is the teachers' job. The school doctor can however gain important information from observing children as they draw zigzag lines, wavy lines or meanders, for this is where the first signs of later perceptive disorders may show themselves. Ideally children should be allowed to draw a complete picture during the examination, but time does not always permit this.

Metamorphosis of etheric forces

The physician determines if the inherited body of the first seven-year period is undergoing metamorphosis, thus providing the necessary preconditions for an awakening of powers of thought and of memory. Steiner frequently referred to the metamorphosis of powers of growth^{3,4}:

“It is of the greatest possible importance to know that the ordinary powers of thought in human beings are in fact the refined powers of growth and form.”³

Marti⁵ differentiates etheric forces into powers that generate form and figure, powers that generate life and powers that generate substance. Below, an attempt is made to relate the phenomena seen when children are ready to start school to their thinking, feeling and volition.

The changes in proportion that come with physical development can be seen as belonging to the powers that generate form and figure. The developing feeling for time and space and for rhythm and beat, and the developing powers of thought relate to the powers that generate life. It appears that the powers that generate substance no longer play any appreciable role when the changing of the teeth takes place.

I. Changing of the teeth and changes in physical proportions

The phenomena are generally grouped under the headings “changing of the teeth” and “physical development.”⁶ At the examination of school entrants it is important to know if these changes have started.

1. The changes in dentition are immediately obvious. Some children have lost their front teeth as early as the sixth year or thereabouts. This essentially relates to their sensory faculties. The appearance of the aptly named “sixth-year molars” is more important. As the teeth come down, changes in the facial skull become possible. Children whose teeth develop late often are late in coming awake in the life of thought and ideas.
2. A physical middle develops as the middle sections of different parts of the body begin to grow: In the head, the nose and paranasal sinuses are enlarged. They develop in the space between the frontal and maxillary parts of the skull. In the trunk, the thorax is elongated; from the 9th year onwards its curvature increases. The diaphyses of the long bones in arms and legs grow, resulting in elongation of the limbs. Differentiation of epiphyses and diaphyses is beginning.
3. The body parts grow more distinct: Head, trunk and limbs are more clearly defined compared to the earlier general roundness of the body.
4. The last remnants of reflex motor organization should have gone, e.g., reflex spreading of the hands when walking on tiptoe. The head is achieving a balanced position. The limbs grow mobile relative to each other and the trunk. A number of simultaneous movements can be made, e.g., in aiming a ball. Mobility of the trunk begins to hold a middle position between the resting position of the head and the

mobility of the limbs. Much of this can be observed when first saying hello to the child.

5. Some school doctors use the changes in heart sounds in their assessment of physical maturity.⁷

II. Will development

One of the signs of being ready to start school are changes in the will. The morning verse for the first four classes includes the line: “that I can work well and be keen to learn.” Pleasure in learning and in new things is one of the signs that children are ready. Children may be introduced to something new during the examination. Some will learn to skip the rope, for instance, and go home very proud of the new skill they have acquired. It is however advisable to be careful when there is a likelihood of the child not being ready for school.

When children are ready to start school, their powers of will are less exclusively directed to physical development, and begin to be addressed to the outside world. Until the child is ripe for the earth, however, these powers will be essentially receptive, so that the inner life of the child follows events. It is important that the life of ideas enters increasingly into the will sphere.⁸

At the same time, powers of will are increasingly entering into the life of thoughts and ideas. This shows itself in perseverance. You only have to watch children undressing to see if they have developed perseverance or need to be reminded to keep going. Many children lack perseverance at this stage, even if clearly intelligent.

III. Emotional development

1) *Feeling for, and awareness of, space*

When children are ready to start school, sensory perception is transformed at the level of the lower senses. This is evident from a child’s relationship to space when it enters the room. Children who walk in with heads held high are probably ready. They are fully aware of the space they are entering and feel at home in it. Shy children will often need more time to get used to things, however, and the physician should therefore be cautious in coming to a conclusion.

Awareness of space is evident in movement: A jumping jack can only be produced if there is awareness of the space behind. Children who are not yet ready for school will usually move rather as if squatting, with arms and legs in front of the body. This keeps the movement within their field of vision. Children who are ready for school are beginning to develop awareness of the space behind them and are able to do the exercise standing

upright and moving in the vertical plane lateral to the body. More or less the same is seen when a skipping rope is used. The posture of children who are not ready for school is slightly squatting and tensely bent forward. They cannot yet manage the rope. Once they are ready for school they are able to visualize the movement of the rope when it is behind them, and one sees the way they manage the rope when it is behind them. Hopping also serves to indicate control of the space behind. Children ready for school are able to jump backwards whilst looking forward.

2) *Feeling for rhythm and beat*

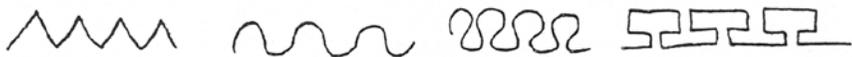
With the changing of the teeth comes a change in the way children relate to rhythm and beat. “There is a difference in the way children relate to rhythm and to beat before the changing of the teeth and afterwards. Before, rhythm and beat were things children would imitate but transform into sculpted, modelled form. Afterwards they are transformed into an inner musical element.”⁹

Rhythmic elements come whenever there is repetition. Children ready for school will happily and voluntarily go through repetitions, e.g., when doing the jumping jack. Those who have the energy will do it five or six times in succession, even though they were only asked to do it once. This may be seen as a short melody. It is possible to see that the musical faculties have been freed and come to expression in the child’s movements.

Rhythm is needed for skipping the rope, for hopping and for throwing a ball. The school doctor has to establish if motor weaknesses are due to lack of maturity or to coordination problems.

Rhythmic musical abilities are also used in some drawing exercises: zigzag line, simple waves, meanders and angular meanders. Children who merely copy the individual elements of these lose track; they then do not know how to go on or start to invent their own “patterns.”

It is possible to relate patterns that are often used at the Waldorf school in Karlsruhe to different beats: a simple zigzag to duple time, simple and meandering waves to triple time and the angular meander to quadruple time.



Rhythm can also be observed in speech. School children demonstrate this by the use of emphasis, more or less like the intermediate hop when hopping. Every emphasis or attempt at emphasis may be seen as a rhythmic element.

IV. Powers of imagination and thought

1) *Memory and imagery*

The ability to remember is a precondition for the power of thought. In preschool children, memory is associative; school children begin to have an idea of time and sequence. During the first seven-year period, children have usually remembered from habit, immediately forgetting again. Ask a preschool child, "Where did you go yesterday?" and the answer may be, "On holiday." The holiday was three months ago, and yesterday the child went to the zoo. Say, "Oh, but we went to the zoo yesterday!" and the child will remember one association follows another. School children have visual memories and would recall a walk as a sequence of images. It has to be said, however, that many preschool children have already had memory training, so that the ability to remember cannot be used to indicate readiness for school.

Children now are able to visualize things in their thinking. School children know how something looks or should look if it is right. This is evident even with a simple test type chart, and with the stereo test and color chart tests, too, children will not just see "something" but want to identify forms and figures correctly. A child who is ready for school may prefer to wait before giving an answer rather than give the wrong answer.

2) *The question "How"*

School children always ask "how?" If asked to hop, for instance, they will ask if they should hop on one or two legs. It is also possible to observe how children follow events, for instance when a ball is thrown to them. They will try to throw it back the way the adult has thrown it to them. It means that they are no longer focussed in themselves when thinking, but on the object or person under observation.

Something as simple as throwing a ball will show if children merely throw it away from themselves or towards a goal. The first of these may be called "throwing per se." Children who aim the ball are focussing on the goal and are no longer centered on themselves. The same is seen when children catch a ball. Children who are ready for school will inwardly follow the activity of the thrower and will have "caught" the ball in their mind the moment it is thrown (anticipation).

The handling of "tools" also serves to indicate how far powers of thought have come free and are ready to be involved in the world around the child. Children who shorten a skipping rope to the right length show capacity for thought.

Task-orientated skills can also be observed when children draw or paint, by noting how they use the space on a sheet of paper. The essential point is that children should have an idea of how to proceed.

3) *Correction of mistakes knowing the “right” way*

Children therefore correct their mistakes. If they are ready for school they will try and do things the “right” way and in accord with the given situation. They begin to note their errors and correct them, e.g., throwing the ball better and more accurately each time. When copying forms, they’ll go over a line again to improve it.

Children now have an idea of what the previous throw or the original drawing was like and what they should be like. Children who correct their mistakes have an inner image of the process. They are able to get to the essence of things.

This can also be seen when children make their first attempts at clapping their hands to a given rhythm or sing a tune they have heard. They begin to be able to enter into a form in their minds.

4) *New experiences*

Much can be learned from anything that is new to children. If you let the ball bounce on the floor, children who are not ready for school will be surprised. They do not expect it to bounce, not even if you have told them what you are going to do. Children who are ready for school will have an inner image of the likely flight path. It is only after the changing of the teeth that children begin to grasp the reality of things they perceive and the ideas that are connected with them.¹⁰

Before the changing of the teeth children can be seen to perceive things without being able to think them. They will follow the flight of a ball without being able to “calculate it in advance” and reach for the ball itself and not the point where it may be expected to be. If they manage to catch the ball this is due to habit and training but not to being able to follow the flight in their mind.

5) *Simultaneous events*

Children are now able to do several things at once; when skipping rope they are able to swing the rope and jump. The same holds true for things that go in the opposite direction, e.g., the combination of curves and straight lines crossing in opposite directions in a figure 8. Five-year-old preschool children can do simple crosses, but it demands a great deal more to draw the figure 8. We can also ask children to walk the figure. This will show if they have an inner idea of the form, but in many cases this is asking too much. Meanders also involve movements going in opposite directions.

6) *Themes in children's drawings*

Certain themes tend to come up almost every time in pictures drawn by children: the front-door knob, curtains in the windows, a flowerpot on the window sill and, with boys, the steering wheel in the car. Children represent the complete world they feel it ought to be.

7) *Speech*

It is only possible to refer briefly to speech becoming free at school age.¹¹ Children can now be reached through speech. When they are ready for school they will obey requests made in words only, without accompanying gestures, e.g., to put their feet side by side. Prior to this, adults had to use gestures or their hands to guide the children.

Summary

At the medical examination of school entrants, the physician establishes how far etheric forces that have been active in physical development have become free, so that there are changes in thinking, feeling and will. This can be observed in certain phenomena that are revealed in a routine medical examination. It is a matter not of putting test questions but of gaining a general view of the etheric situation.

REFERENCES

1. Nickel H. *Das Problem der Schulreife, Eine systematische Analyse und ihre praktischen Konsequenzen*. In Karch D, Michaelis R., et al. (ed). *Normale und gestörte Entwicklung*. Heidelberg, New York, Tokyo 1989.
2. Bockemühl J. Personal communication. School doctors' conference 1980.
3. Steiner R, Wegman I. *Fundamentals of Therapy*. Tr. E. Frommer and J. Josephson. London: Rudolf Steiner Press 1983.
4. Steiner R. *Spiritual Science and Medicine*. London: Rudolf Steiner Press 1975.
5. Marti E. *Das Ätherische*. S. 108 ff. Basel 1989.
6. Vereinigung der Waldorfkindergärten. Pädagog. Forschungsstelle Bund der freien Waldorfschulen. Mathiolius H. (ed). *Die Bedeutung des Zahnwechsels in der Entwicklung des Kindes*. 2. Aufl. ohne Ort (Stuttgart) (with 32 relevant texts from lectures and books).
7. Schinkel J. Personal communication.
8. Steiner R. *Study of Man*. General Education Course. Tr. H. Fox, A.C. Harwood. London: Rudolf Steiner Press 1981.
9. Steiner R. *Soul Economy and Waldorf Education*. Tr. R. Everett. New York: Anthroposophic Press 1986.
10. Steiner R. *The Philosophy of Freedom. A Philosophy of Spiritual Activity*. Tr. R. Stebbing. London: Rudolf Steiner Press 1989.
11. Steiner R. *Human Values in Education*. Tr. V. Compton-Burnett. London: Rudolf Steiner Press 1971.

Concerning Childhood Vaccinations Today*

LORE DEGGELLER, MD

It is an open secret that today's scientific wisdom often proves to be tomorrow's error. And this often brings about progress. But things seem to be different in the immunization field. Opinions sometimes change there like the weather without any noticeable progress. In contrast to East Germany—until 1983—the only compulsory vaccination in West Germany was for small pox, and this was then dropped since the disease had been stamped out worldwide.

Opinions with respect to several of the childhood inoculations which are routinely recommended fluctuate considerably, but this is not sufficiently noted by either parents or doctors. This is particularly true of the inoculations against TB (BCG vaccine Bacille Calmette Guérin) and whooping cough (pertussis vaccine). BCG vaccination was routine for a long time after World War II, and it was given in hospitals on the first or second day after birth without asking the parents' permission. It was only omitted if it had already been forbidden before birth. On the basis of serious injuries which supposedly resulted from a "suboptimal" vaccine, instructions which amounted to a prohibition were given to doctors in the '70s. They appeared in the German Medical Journal, but I know for certain that not all of the doctors read them. Hence scattered vaccinations continued. At present the German Federal Bureau of Health is encouraging doctors to inoculate BCG again, and this is again often done without the parents' approval. But since the frequent detrimental consequences are known, it indicates that deliberate injury is being perpetrated.

Something similar happened with pertussis vaccinations. After 1953 they were routinely given alone or as a triple inoculation with diphtheria and tetanus (DPT). After 1974 they were radically curbed by STIKO (Inoculation Commission at the Federal Bureau of Health), and they were only still recommended for endangered babies in unfavorable social conditions. In 1988 and 1989 they weren't propagated or recommended at

*Translated by H. Jurgens from *Der Merkurstab*, Vol 44, Nr. 6, Nov./Dec. 1991.

all, but recently they are gaining favor again. The July 20, 1991, *Hannover Gazette* says that one can expect 80 to 100,000 cases of whooping cough a year and that 8 to 10 are expected to be fatal. Whereas in the Nov. 10, 1989, issue of the *German Medical Journal* (Nr. 45) it said that inoculations for TB and whooping cough were “no longer in accordance with the presently accepted standards.”

For the seeker of information this rise and fall of opinions reflects the uncertainty of the upper echelon, which often shows up in their emotional pro and con propaganda. That this makes excessive demands on the layman was recently made clear by a full page article in the *Süddeutschen Zeitung* (June 27, 1991) with the title “Discussions About Inoculation Resistance,” which gave a relatively impartial presentation of the views of supporters and opponents of vaccination. One sees how sharply drawn the fronts are if one compares the statements of the director of a children’s hospital in Cassel—Professor Lueder—and that of the vaccination critic and inoculation lawsuit expert G. Buchwald, MD. Lueder says that the omission of vaccinations for measles and mumps is criminal and that it is equivalent to child abuse, whereas Buchwald approves of only really important inoculations and he defends the stance of parents who shy away from the risk of diseases such as encephalitis and neurological ailments resulting from vaccination, regardless of whether this is on the order of 1:1 million or 1:5000. For all they know their child might be blinded and paralyzed like the one whose story made all the *Constance* newspapers in 1989; this child had been routinely vaccinated against diphtheria, pertussis, and tetanus in 1984 by a pediatrician. The state of Baden-Württemberg is now paying his parents 4000 DM a month, and although the doctor was not personally liable he agreed to pay 40,000 DM in damages in order to speed up the legal proceeding.

The litigation literature between the proponents and opponents of vaccination shows that such cases are frequent, although they are not always resolved as easily as this one. Also worthy of note is the literary row between W. Ehrengut, director of the Institute of Vaccination and Virology, Hamburg, now retired, and the above-mentioned G. Buchwald, head physician at the Park Clinic in Bad Steben, doctor of social medicine, expert on lung diseases and other internal diseases, and medical adviser for the Association for the Protection of Inoculation Victims, now also retired. This battle has been raging for 25 years. It is not surprising that each side accuses the other of bias and wrong data, for everyone knows that manipulations are widespread. Nevertheless Buchwald obviously has accumulated the largest amount of factual material about inoculation injuries. Among his recent articles are “About Inoculation Injuries” (*Naturheilpraxis mit Naturmedizin* Nov. 1989),

“Vaccination—a Crime against Our Children?” (Erfahrungsheilkunde Feb. 1991, from which most of the following graphs are taken), and his chapter in S. Delarue’s book on vaccination—*The Unbelievable Error* (Hirthhauer-Verlag, Munich 1990). Of course, these titles will be very irritating to believers in conventional medicine. He has another article in a reprint from the German *Journal for Homeopathy* Nr. 1, 1989, which is entitled “Vaccination Is Not Protective, Vaccination Is Useless, Vaccination Is Harmful,” and it gives a detailed description of almost all kinds of inoculation and of the more or less intentionally misleading advertising, erroneous data, statistical sources of error and especially the consequences of inoculation injuries with numerous illustrated cases.

Obviously vaccination is still a very murky field which is dominated by the strongest lobby, just as in atomic energy. But the field is not quite as opaque as the atomic energy one, for the available statistical material enables even a layman to gain an overview and to make a judgment, in spite of all the inaccuracies due to the unwillingness of doctors to make reports, etc. This can be seen in the following curves which Buchwald published and which mainly come from the Federal Bureau of Statistics in Wiesbaden and from other reliable sources.

Figs. 1a & b show the mortality from TB in Germany from 1750–1950, and from 1956–1988. One can see that a steep decline had begun long before injections with BCG were begun and that, if anything, the decline was somewhat less steep during the period when they were giving the largest number of BCG vaccinations (shaded area).

Fig. 2 shows a similarly declining curve for TB cases between 1949 and 1986. Figs. 3a & b give curves for the number of whooping cough deaths in West Germany and Switzerland respectively. In the latter the greatest decline from 600 to 80 occurred before the injections were begun.

Fig. 4 shows the number of cases of diphtheria from 1920–1989, and we see that there was even a sharp rise in the number of cases after vaccinations began. The overall curve begins to decline only again after 1948. The number of cases rose again fairly sharply in 1975 and 1976 during the period when the greatest number of vaccinations were being given.

Fig. 5a shows the curve for polio cases since 1962. There seems to be a correlation between vaccinations and the decline in the curve. Whereas one gets a different picture when one looks at the curve for 1936 to 1962 in Fig. 5b. The number of cases increased after Salk vaccine was introduced in 1954. The vaccine produced 192 cases of paralysis in the U.S., and 11 of the patients died, so injections were stopped temporarily. But since there had been no serious incidents in Germany, the vaccine began to be used

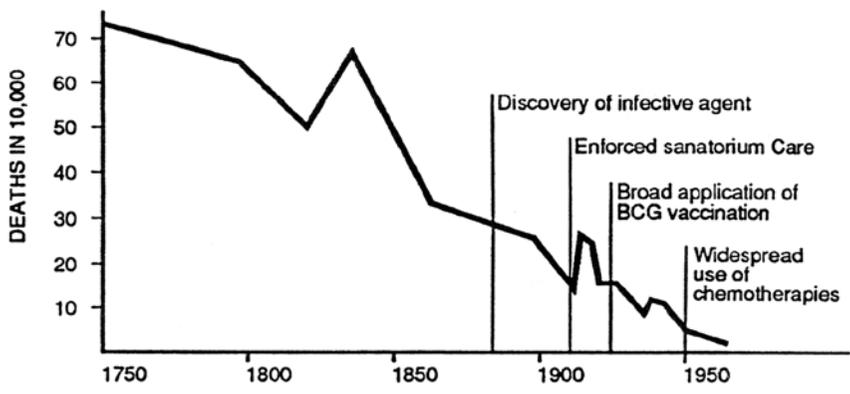


Fig. 1a. Mortality of TB in Germany 1750–1950 (cases/1000)
 Source: Weise, H.-J.: Epidemiologie der Infektionskrankheiten in der Bundesrepublik. Die gelben Hefte 1 (1984) 5.

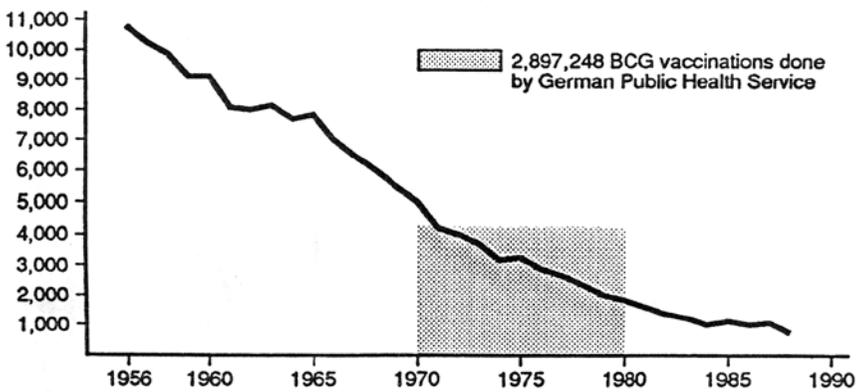


Fig. 1b. Mortality of TB in the Federal Republic of Germany 1956–1988
 Source: Statistisches Bundesamt Wiesbaden, Gruppe VII D.

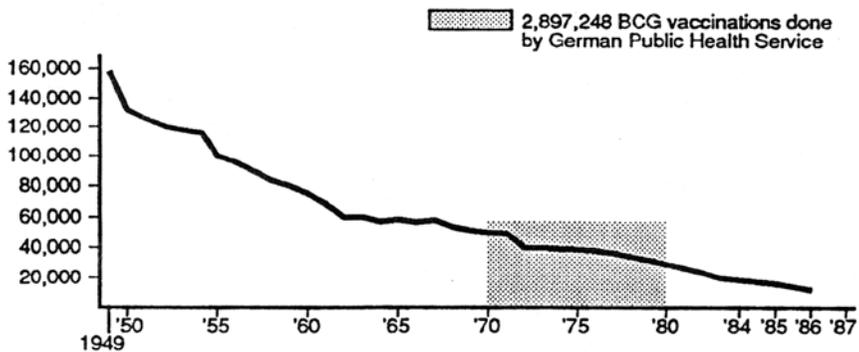


Fig. 2. Number of active TB cases in the FRG 1949–1987
 Source: Statistisches Bundesamt Wiesbaden, Gruppe VII D.

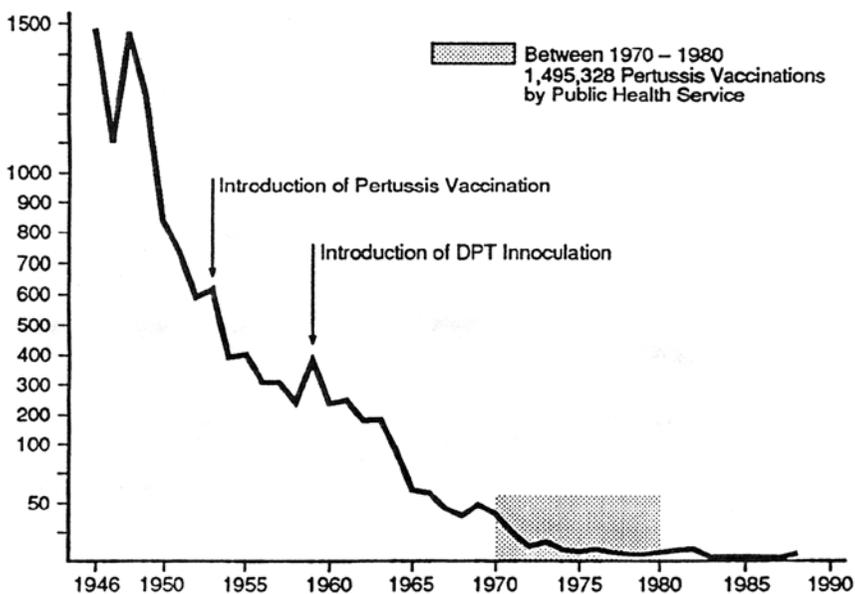


Fig. 3a. Pertussis mortality
 Source: Statistisches Bundesamt Wiesbaden, Gruppe VII D.

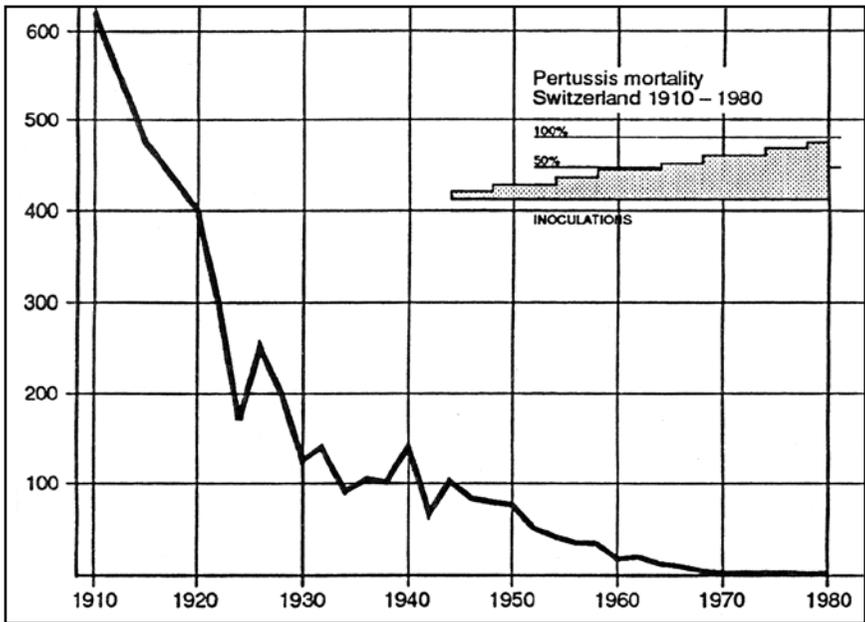


Fig. 3b. Pertussis mortality in Switzerland; more than 600 deaths at the beginning of the century, no deaths in last five years. The greatest decline occurred prior to introduction of general vaccination of infants.

Source: Tönz, O.: Keuchhustenimpfung. Therapeut. Umschau 40 (1983), S. 203.

there again in 1958, whereupon the number of cases increased sharply. The curve declines after 1962, but this probably did not result from the use of Sabin oral vaccine alone, since the incidence of poliomyelitis declined worldwide.

Fig. 6 shows tetanus mortality from 1968-1978 according to the patient's age and sex, and we will return to this later.

There is still a lot of discussion about the causes of the general decline in infectious diseases which occurred in the last 200 years. Neither the site of the infection nor the patient's individual predisposition (the "terrain," according to Pasteur) are responsible for it by themselves. Improved hygiene and social conditions were no doubt contributory factors. Experts like T. McKeow in his *Bedeutung der Medizin*, Suhrkamp edition, vol. 109, say that the decline in the number of hungry people since 1750 through the cultivation of potatoes was another cause. We think that a combination of cultural factors and the change in people's consciousness brought about this change in panorama.

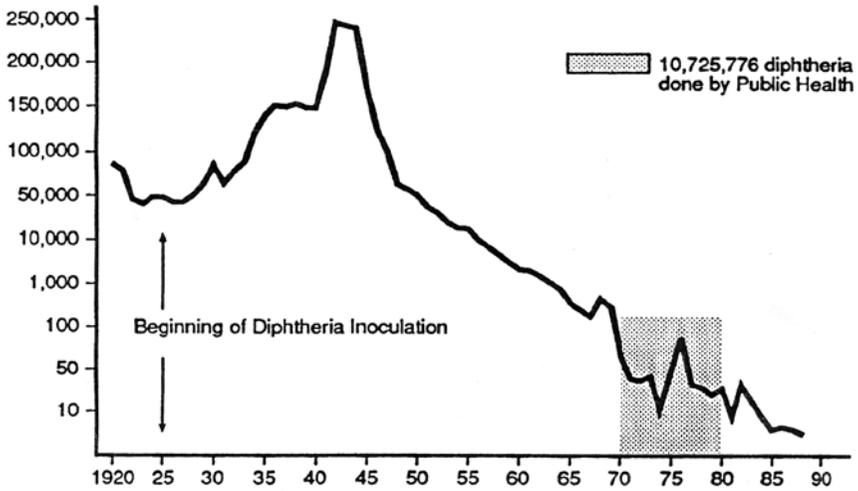


Fig. 4. Diphtheria Cases.

Source: Statistisches Bundesamt Wiesbaden.

Now, if one looks at the general program for standard vaccinations on the background of this downward trend for infectious diseases, one is really amazed. The injections are all given during the child's first year, and the majority of them during the third month. As we noted above, large numbers of BCG inoculations are still being given on the first or second day after birth—which is completely unnecessary according to the curve. DPT shots are still being given in the third month, although if anything the diphtheria curve in Fig. 4 should warn one not to do this, since the occasional side effects can be very severe (for instance, transverse lesions in the spinal cord and paraplegia); the epidemiological pertussis curve does not justify early shots either.

And with regard to tetanus, Fig. 6 shows us that the age group from 50 to 75 years is the only one which is relatively endangered. The tetanus curve from 1959 to date (not shown) shows a downward tendency just like all the others, which in this case might even be due to the widespread inoculations which are given to children. But tetanus is not an infectious disease; individuals are endangered only if their slightly bleeding wounds get street dust, horse manure, or garden soil, etc., in them. Puncture wounds by thorns, etc., with the exclusion of air can be particularly dangerous. Here one could ask why a 3-month-old child should be protected against this. For children only get such wounds when they begin to run and play under less

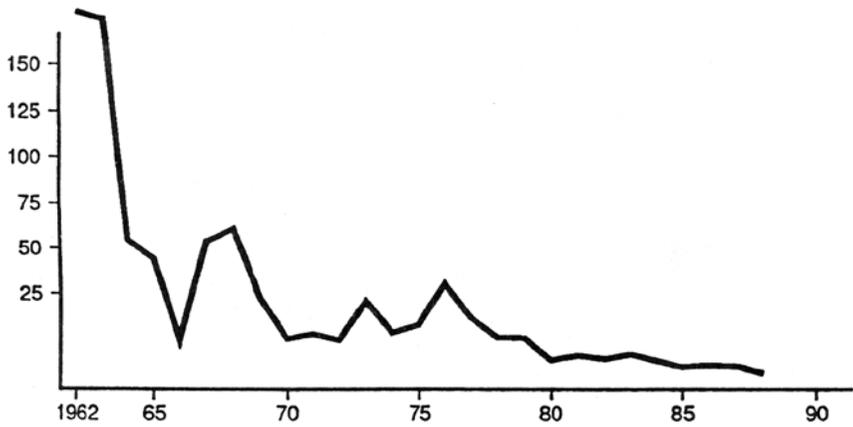


Fig. 5a. Cases of Poliomyelitis

Source: Statistisches Bundesamt Wiesbaden, Gruppe VII D.

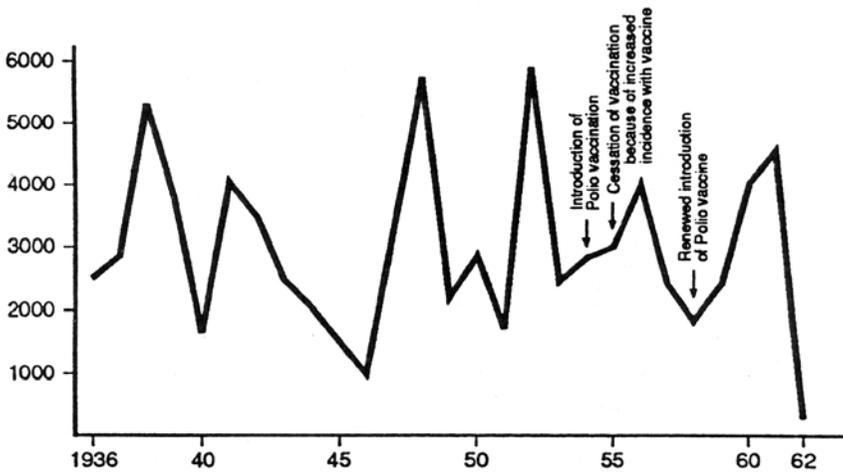


Fig. 5b. Cases of Poliomyelitis

Source: Statistisches Bundesamt Wiesbaden, Gruppe VII D.

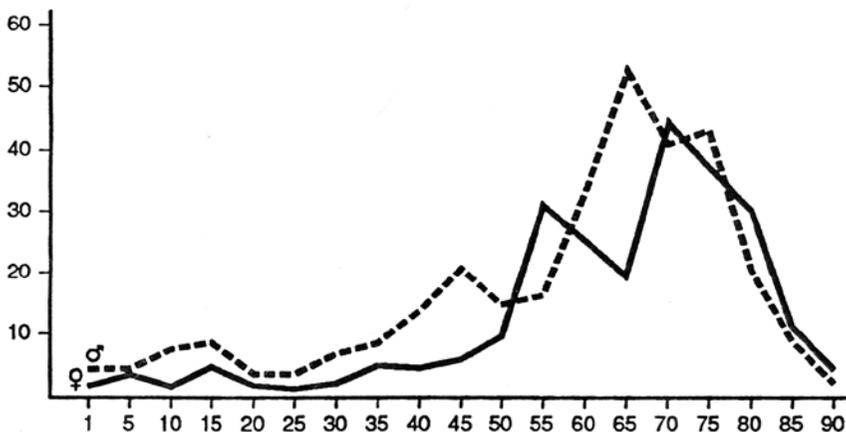


Fig. 6. Tetanus mortality according to age and sex (FRG.), 1968-1978

supervision at the end of the second or third year. One should remember that the DPT vaccine contains 122 million whooping cough bacteria, 50 JE diphtheria antitoxin and 50 times the lethal amount of detoxified tetanus toxin.

One gets a similar picture from polio vaccinations. A steep decline in this disease is noticeable from about 4500 cases in 1961 to zero today. As in tetanus, this can no doubt be regarded as the result of vaccinations, and not as a natural tendency. According to Buchwald no German child has had polio in the last 12 years—only children from other countries. The Federal Bureau of Statistics in Wiesbaden reported only one case of polio in 1988. Panics about vaccination loopholes are unfounded since one can quickly control these (Buchwald). It is disconcerting that this vaccination is also included in the program from the third month, and since this is given as an oral vaccine, one might think that the immunologically taxing aspect is reduced since the intestine's mucous membrane can act as a boundary-protector. But is this membrane sufficiently developed at this time? Isn't it more likely that the vaccine will bring about a weakening or a chaotization of the immune processes which are just beginning to function? For instance, opponents to vaccination interpret the enormous increase in neurodermatitis in children in this way.

And even the greatest vaccination adherent would have to admit that there is no danger of an infection at that time. A polio vaccination at the end of the child's second year would seem to be sufficient, and if one took the necessary precautions one could even do it in the third year without

having to develop any anxiety complexes about it, and this perhaps only when there is a specific danger, as in day nurseries, etc., so that one regards the vaccination as a sacrifice for the benefit of one's social environment, for severe inoculation damage is always possible. However, the supporters of vaccination say that strong medications must also have side effects, and that the latter are often even a sign of quality today. (Fig. 7 gives tables of damage cases which were submitted.)

In view of the largely unjustified vaccinations—according to the epidemiological courses which are shown in Figs. 1–6, one could ask whether the early vaccination dates are justified. It is true that for a long time the idea prevailed that vaccinations—and especially small pox vaccination with its particularly severe side effects—could be tolerated best during the first year after birth. But according to Buchwald this opinion will have to be revised.

Investigations in Prague and Austria revealed that encephalitis was the main deleterious effect of early vaccinations. Whereas the vaccinations past age 3 which were done in Austria sometimes resulted in encephalopathy, a slowly progressive, destructive brain process which only becomes manifest later on. But since such later consequences also arise from early vaccinations, even though the connection with the inoculation can no longer be conclusively proved, it is reasonable to assume that there are close connections with behavioral disorders and defective intelligence here (according to a TV news report on Sept. 2, 1990, the number of illiterate people in West Germany had risen to 3 million). This opinion is supported by the report that the number of retarded people has declined ever since small pox vaccination was terminated. On the other hand near- and long-term injuries are also ascribed to the standard vaccinations which were mentioned above. Thus it is now recognized by some that childhood diabetes is a result of vaccination. Opponents of vaccination are talking about the likelihood of later results of vaccination such as autism, hyperactivity and other behavioral disorders, leukemia, cardiac infarction, multiple sclerosis, and sudden unexplained deaths in childhood, and even vaccination supporters admit that some of these connections may be correct. The files on the consequences of vaccination will not be closed for a long time yet.

In connection with the harmful results of vaccination, one should not overlook an important viewpoint with respect to the scheduling of inoculations. People assume that children have basically completed their immunoregulatory and defensive system by age 3. But the instigators of vaccination are inconsistent when they say that inoculations bring about an important immune-training, whereas on the other hand they would like

Inoculation-damage cases in Baden-Wurttemberg courts from 1972 to 1986.		Inoculation-damage cases in East Germany from 1946 to 1976	
Petitions submitted	1173	Petitions submitted	2093
Number of settlements	473	Admissions	1902 (93%)
Rejections	699	Rejections	191 (7%)
451 of the inoculation-damage cases which were accepted were distributed over the following inoculation:		Of the 1902 recognized cases 1755 were distributed over the following 9 inoculations:	
		Cases	Deaths
Small pox	313	Small pox	1230
Polio	38	DPT and	
Influenza	13	Pertussis	132
TB	7	Tetanus	122
Whooping cough	20	Measles	77
Diphtheria	25	Polio	63
Tetanus	1	Rabies	59
Other	16	TB	43
		DT	29
Source: Social service ministry Baden-Wurttemberg		Source: S. Dittmann: <i>Atypical Courses after Vaccination</i> , Johann Ambrosius Barth, Leipzig, 1981	

Fig. 7.

to move below the threshold of this defense with certain inoculations as a precautionary measure. Because our immune system becomes overburdened through protein food and synthetic food additives already in infancy, an increasing number of people are blaming a chaotizing tendency in immune processes and programmed, false regulations such as allergies or anergies (AIDS) on the foreign influences of vaccines. We already mentioned the enormous increase in children's neurodermatitis.

In view of this overall situation, it seems necessary to consult a spiritual knowledge of the human being such as the one which is to be had in anthroposophy. Everyone knows from his own life that the time when he first became aware of himself as an "I" was at about age 3, although some people today can remember back further. The wonderful, heavenly innocence and purity of the newborn child which touches every human heart is a phenomenon which can be perceived and felt up to this point in time. Spiritual science describes this phenomenon as a real stream of divine, spiritual forces which hovers around the child and streams into it and enables it to do man's greatest deeds, namely, to develop the right

relation to the force of gravity as it stands upright, to develop the larynx into an organ of speech, and finally to prepare its brain and to make it into a living instrument of thinking. The child brings this wisdom-filled working of forces with it so that the seductive Luciferic and Ahrimanic influences are still held off to a large extent. Christ's saying that "unless you become like a little child ..." should be understood on the background of such spiritual knowledge. Now, what happens in this physical, spiritual situation if vaccines are brutally shot into the baby in the amounts stated? In addition to the already mentioned direct disruptions in the soul and spiritual development of the child, it is very likely that the disorders and deviations in ego-development which can be observed today can also be at least partly attributed to this procedure.

All the more so since the vaccination programs extend beyond the first year. In addition to the backup shots in the second year, one has other "attacks" after age 15 months in the form of the vehemently demanded MMR (measles, mumps, rubella) shots. Here the advantage to disadvantage relation is not correct at all anymore. Mumps is considered to be a harmless children's disease, and even WHO doesn't recommend vaccinations for it. It is only in later years that it can result in meningitis, orchitis and pancreatitis—and then only rarely. Fearful parents could always have their children vaccinated before puberty. Something similar applies to rubella, which is only dangerous during pregnancy. Here too an inoculation of girls shortly before puberty would be sufficient and much more certain than one in infancy, which in any case is supposed to be repeated at age 15; for only a good case of German measles develops enough antibodies to last one for life.

This problem of antibody formation through vaccination which doesn't last for life applies even more to measles. The protection from a successful measles shot in the 15th month might last for only a few years, so that one can get measles later in life with consequences which are much more severe than in childhood. The protection which a vaccinated mother gives to her baby lasts for about a year, but since the intensity of antibody formation is usually weaker than after a real case of measles, this protection may be inadequate. Thus infants and old people are the most vulnerable. And yet like all children's diseases a real case of measles is a very positive developmental factor. Parents and doctors always confirm that distinct bodily and psychical progress can be experienced after such a molting process—eczemas and nephrotic syndromes get better, and bedwetting and speech disorders disappear. Impairments after measles are said to occur in one out of 15,000 cases, and after measles vaccinations it is 1:1 million and

up to 1:15,000. It should not be difficult to draw a sensible conclusion from these facts.

We will refer to a few statements by Rudolf Steiner, in case parents and doctors would like to orientate themselves about the spiritual scientific position before making a decision between pro and contra. We should point out that his moderately negative remarks were mainly directed towards the small pox vaccination which was being developed at the time. Our present huge vaccination scenery can hardly be compared with this anymore, although his basic remarks can still be applied to it. Rudolf Steiner often described how and on what parts of man's organization substances which are present in the nature kingdom work. He said that mineral substances have an effect on the ego, plant substances work on man's astral body, animal substances on the etheric body, whereas human substances "only" work on the physical body. Steiner points out that "when one uses an animal vaccine, one can follow how the activity of the vaccine which the patient took, moves up into the etheric body" (Bibl. Nr. 348, Jan. 23, 1923). Since immunological processes occur in the etheric body, this statement shows that animal vaccines influence them. In *Manifestations of Karma*, Rudolf Steiner says that small pox vaccinations will not hurt anyone if he subsequently receives a spiritual education. In a lecture given to workmen at the Goetheanum on January 27, 1923 (Health and Illness, Vol. 2) he explained how they made rabies vaccine at that time and how it heals one's spinal cord if it has been injured by rabies. In Bibl. Nr. 316, lecture 7 he said that a really spiritual knowledge of small pox would enable a doctor to walk among small pox patients without fear, and with perfect love.

Freedom from anxiety and fear is also very important for parents and children, for this enables them to counteract the predisposition for disease. Conversely, fear and anxiety probably increase the danger of infection and also of deleterious vaccination effects. Hence it is no accident that the incitation of fear is the most important weapon and means of propaganda for vaccination strategists, for whom every means to attain their goals seems to be holy, even if untrue. Thus with respect to the vaccination problem, it is important to take the search for truth very seriously. Positive results with vaccinations for small pox, tetanus and polio and their recognition should not lead to a thoughtless and uncritical acceptance of recommendations and entreaties for vaccinations, which upon closer examination are, in the long run, not only unnecessary but harmful for most people.

Sport – A Surrogate Religion? A Current Medical and Educational Concern*

GISBERT HUSEMANN

What can possibly be the link between such contrasting activities as physical and religious exercises? There is none; they have nothing in common except when physical exercises are practiced in an entirely one-sided way that begins to have counter-religious implications.

The physical body has not been brought into being solely by material laws; its physical substances and laws are subject to a higher spiritual plan. The shape adopted by the physical body belongs in the sphere of thinking. This was known in antiquity when the Olympic Games were established and organized as a public festival. The physical exercises of the Greeks served to make the body as supple as possible so that it could be the servant of the spirit. The need to practice the supremacy of the spirit over the body was deduced from the fact that the body is organized in accordance with the *logos* (*kala logon, kai noun*).

In this respect, sport has developed one-sidedly so that physical exercise has now become an end in itself and even the object of commercial enterprise. This needs a body that functions as perfectly as that of an animal whose instincts are focused entirely on the body. Animals swim, fly, build in trees or underground, and so on. In return, they have had to relinquish the ability to determine their own destiny with the help of thinking; otherwise they could not have achieved the bodily capacities that now dominate them. In earlier times, people were able to speak about the body as a temple. This gave an image of its divine origin, an image that allowed for a sense of responsibility towards its healthy development for higher purposes. Now that physical exercise has become an end in itself the opposite situation obtains.

By using the limbs one-sidedly—especially the legs, as in football—we are going against the original Olympic ideal of making the body obedient to the spirit. A world-class tennis player once said after a match: “My head

*Original title: Der Sport – ein Religionsersatz? Eine medizinisch-pädagogische Zeitbetrachtung. *Der Merkurstab* 1996; 49: 222-5. English by J. Collis, MIL.

is completely empty.” Without realizing it, he was accurately describing the inevitable outcome of the one-sided use of the limbs, which draws thinking down into them and the instinctual sphere of the body. Having freed itself from that sphere in the course of evolution, thinking is once again sucked into it, there to become a bodily instinct. The empty head is quite simply the ultimate sporting phenomenon. Because of it the players can achieve the exceptional performances so admired by the crowd who get carried away on stormy waves of emotion when they witness someone “writing sporting history” with his legs.

The mass of spectators approaches the game in a wave of expectations they hope will be met. Tension rises and mesmerizes the crowd; its release can be immense and lead to violence. The other side of the coin is the desire for sensational experience in the stadium; this joins forces with virtuoso displays of instinctual movement, and the two make a whole. This has little to do with the human being’s spiritual self-determination. At the time of the ancient Games there was also a philosophy. One of its propositions was: Remove thinking from the human being, and he becomes an animal (*ektherioutai* = becomes an animal, Aristotle).

The statements that follow are from reports published in the *Zuricher Zeitung*, the *Frankfurter Zeitung*, the *Stuttgarter Zeitung* and other papers. The objection that such things need not be taken too seriously will be dealt with later.

During the 1984 Olympics, a false start meant that Edwin M. had to kneel at the starting line for a second time; and “the Coliseum was as silent as a church.” In the end, we read that he—like other competitors during those Games—“was not an ordinary mortal.” Yet while the Games were still in progress he came into conflict with the law after molesting a detective, just like any ordinary mortal.

During the Germany-Brazil World Cup Match in 1986, a score of 1:0 had been reached. When the losing side renewed their attack a “mood of holy anticipation filled the stadium.” The Queretaro stadium in Mexico was called the “cathedral of football.” When Diego Maradona played in Stuttgart in 1989 people called him simply the “football god.”

This vocabulary might be regarded as merely metaphorical, resulting from lack of imagination on the part of the journalists. Political scientist and psychologist, Iring Fetscher, thought differently, however. In 1986, he expressed the opinion that the magic emanating from a single individual during a sporting event could well have assumed pseudo-religious dimensions. Fetscher was referring to Boris Becker in particular, but his suggestion is just as valid in the case of the other examples. We shall show

that pseudo-religious terminology is no accident but should be regarded as a symptom and that it is essential for parents, teachers and sport teachers to be aware of this.

A local Swabian newspaper ran a picture of football players carrying a banner. The caption read: “Our [name of club] is our religion and [name of trainer] is our god.” This was also the text on the banner. Lothar Matthaeus [Matthew], a German national player, shot a goal from 25 meters over the heads of 15 players. Prior to this, he had been having a personal crisis. A reporter wrote: “First goal, and end of the Matthew Passion.” After several faults by his team, a trainer raised his hands in prayer calling: “Deliver us from evil.” When Juergen Klinsmann went to Tottenham, “It was Christmas in Tottenham because football is the religion of Tottenham.” His Credo is the role of the attacker, his Communion his relationship with the stadium public (H. Blickensdoerfer’s biography of J. Klinsmann). These expressions were not due to lack of imagination on the part of Blickensdoerfer, a successful sports writer; they described the mood he had experienced (*Stuttgarter Zeitung*, 12 December 1994).

That football could ever actually become a religion is, however, a false assumption since it is practiced by the instinctive language of the body. But it is important to recognize that it has become a surrogate religion. The instinctive life of the body has taken the place of the soul, where religion belongs and is practiced. So we are faced with a symptom rather than mere metaphors. Since the body is divine in origin, extreme one-sidedness in its use leads logically to a reversal of religious values. Religion and surrogate religion have in common the fact that neither of them can exist without continued practice. Training in football or any other competitive sport is ongoing. Without similar devotion religion, too, loses its meaning.

As we have noticed, terms that apply to all the main religious exercises were used. The mood of the stadium recalled the atmosphere in a cathedral. The phrases used derived from Holy Mass, Christian prayer, seasonal festivals and their music, all against the background of monotheism of the body. Borussia Dortmund won a match, so now “God is a Borussia player” (*Stuttgarter Zeitung*). F. Beckenbauer was called a “figure of light in German football.” This is a reference to a central theme in religion which we won’t go into.

A Roman newspaper, *La Republica*, spoke of the “sacred nature of these religious wars” and went on to describe the teams as having been called out on a “crusade” (*Die Zeit*, 7 June 1985).

Readers who want to understand this symptom of our time might be interested in what Rudolf Steiner had to say on the subject, although he

spoke about sport in general rather than football in particular. In England, he was asked about hockey, cricket and so on.¹ His reply took account of the fact that sport played a considerable role in England and that in order not to estrange the children from the world there was nothing wrong with introducing them to the “popular fashion” of the time. “It is wrong to imagine that sport is tremendously valuable for development. It is not all that important for development... But it is not a good idea to resist something that is, perhaps, rather commonplace in itself by adopting equally commonplace means of resistance.”

During the lead-up to the opening of the first Waldorf School a good deal was said about physical exercise—also in its relation to physiology and the rhythm of sleeping and waking.² Physical movement should be meaningful: “When does the human being move in a meaningless way? The human being moves in a meaningless way when he does so in a manner dictated solely by the body.”

Gymnastics gives the body its placing within the external laws of nature, while eurythmy permits it to move in accordance with the shaping power of words. Healthy physical movement comes about when we allow for an alternation between movements of the limbs directed to the outside world and movements directed inwards. One-sided physical movement is not compatible with the purpose of the human body. It is contrary to its purpose and meaning. “Exaggerated sporting activity is practical Darwinism.” Its aim is to conquer, suppress, eliminate those who are weaker. This is another way of expressing the ancient philosopher’s statement that the human being becomes an animal when deprived of meaningful thinking.

On 25 December 1921, Steiner spoke about sport to teachers in Basel.³ He said that religion was no longer strong enough today to reach right down into the physical body in education. The power of religion had been reduced by the various religious beliefs: “It is no longer a strong power ... It no longer works right down into the physical body... Instinctive feelings in this regard have led to modern humanity being brought into something else, something instinctively sought after, something that has entered into modern civilization in a way that is actually not really understood. I am referring to everything connected with sport.” People seek to achieve in an external way what religion has lost in strength. “But in the future it [sport] will come to take up a different position in human beings, whereas today it is a substitute for religion. Such things appear paradoxical when expressed in words. Truth itself appears paradoxical today because we have entered unawares into so much that now belongs to modern civilization.”

As a rule, a meaningful diagnosis can point to treatment. So if we are correct in the assumption that sport has become a substitute for religion, what advice should we give? The whole system of physical education needs changing, with every teacher having a part to play. In particular—and this is no longer paradoxical—religion teachers and sport teachers are faced with the task of having to reverse the trend of sport away from its sub-human direction. This would involve bringing about a spiritual development for the body, a deepening of feelings for the soul, and a thoughtful awakening for the spirit.

We have already mentioned the need to alternate between gym and eurythmy. Just as the will exists between inner and outer life, so is gym part of external laws while eurythmy has to take account of the inner forms of words. The gymnastics developed by Count Bothmer with the children of the first Waldorf School stands between these two. As the rhythmic system establishes balance between the upper and the lower human being, so Bothmer gymnastics brings a healing balance into one-sided bodily movement. Rudolf Steiner acknowledged the value of Bothmer gymnastics.⁴ The degeneration of physical exercise that is now happening in sport has, over decades, led to today's absurdity. To imagine that this trend can be reversed in the short term is an illusion. The first thing to establish is at least a full awareness of the problem. Thereafter a new, younger generation can be called upon to bring meaning back into sport.

Gisbert Husemann, MD
Friedrich-Liszt-Str. 27
D-73760 Ostfildern
Germany

REFERENCES

1. Steiner R. *The Kingdom of Childhood* (GA 311). Tr. H. Fox. London: Rudolf Steiner Press 1982.
2. Steiner R. *Study of Man* (GA 293). Tr. D. Harwood & H. Fox, rev. A.C. Harwood. London: Rudolf Steiner Press 1975.
3. Steiner R. *Soul Economy and Waldorf Education* (GA 303). Tr. R. Everett. New York & London: Anthroposophic Press & Rudolf Steiner Press 1986.
4. Count F. von Bothmer *Bothmer Gymnastic Exercises*. Tr. O. Whicher. London: Rudolf Steiner Press 1994.

RESEARCH INSTITUTE FOR



EDUCATION

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