

**B I O E N E R G E T I C  
A N A L Y S I S**

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## DEVELOPING UNDISCOVERED SOURCES OF BIOENERGETIC ANALYSIS

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When you have beautiful flowers growing in your garden, you want to keep them alive and thriving as long as possible. You provide them with the right amount of light, space, and water, to let them flourish and expand. As your flowers grow, their form and appearance will change ....

The same can be said about Bioenergetic Analysis: In order to preserve and protect the work and legacy of Alexander Lowen we need to let it develop and expand; we need to allow for change. The process of growth necessarily brings about modification: form and appearance will change, new branches and blooms will sprout.

Bioenergetic Analysis will decline and die if we put it on a throne under a glass bell or cut each new branch that wants to sprout from its stem.

Several years ago I had to occupy myself extensively with human anatomy and physiology. I noticed then that some hypotheses of BA do not agree with concepts of classical human physiology: A frozen muscle is—of course—not ice cold; there is no tubing system through which energy flows. What actually is meant when we talk about energy? There really is no description or definition of it! The exercises do not really charge the body with energy. Physical laws state that movement is work which uses up energy rather than produce it.

Thinking about all this I became more interested in the nature of the energy we work with every day. What really happens when a muscle gets frozen? Why can we reach to the depth of our soul through our voices and movement?

This inquiry has changed my understanding of body therapy and BA considerably; it has also drawn me closer to work with the body. More than ever I try to describe psychotherapeutic process as biological process. This might seem to be a very one-sided perspective; however, it helps me be clearer about what I actually do and what I want to achieve when I work bioenergetically. This perspective expands my understanding of the therapy process and never ceases to amaze and fascinate me.

Today I want to share some of my discoveries with you. I know, that some of this might sound strange and is not easily understood. At the end, you might have more questions than answers. But, according to systems

theory, all alive systems develop out of a state of stability—progress happens only at the verge of chaos. I advocate for embracing instability! Raising questions has always led to fresh insights, creative answers, and new accomplishments.

I am very glad to be able to tell you that in BA we do not have to reinvent the wheel; scientific research and theories already exist which can help us better understand and describe what we do. Some relevant material can be found in traditional physiology and anatomy, other concepts stem from newer areas such as neurobiology, neuropsychimmunology, quantum physics, systems theory, and some research about biophotons.

### **1. Psychotherapy is Bodytherapy**

BA is a form of psychotherapy that tries to resolve emotional problems by changing—amongst other factors—somatic parameters. However, often we are unaware that BA also provides a system with which to explain psychological processes in a specific and unique way, with which to explain what happens in the human organism, on a physiological and biological level, when psychotherapy happens—whatever method of psychotherapy is being used.

BA is based on the assumption that all psychological processes are expressed through the body, in the way a person stands, walks, talks, or looks. For example: to express sadness, a person has to tense certain facial muscles and relax others; the eyes will assume a distinct expression, the vocal cords will give a particular timbre to the voice. Blood pressure, heart rate, and rhythm of breathing all will change in a specific way. This example shows that we learn about a persons psychic reality only through perception of this persons body, its physiological and biological changes. We can perceive our own and other peoples psychic realities only as long as we have a body that can register changes in our own and other people's bodies. Our language, too, happens through the interplay of different biological processes.

Psychological terms therefore summarize and interpret many different physiological occurrences and give them meaning. The statement: "I am scared!" contains informations that my heart rate is accelerated, I hold my breath, my muscles freeze, etc. We understand fear to be a phenomenon of the psyche, the soul. However, soul does not describe a concrete reality such as an organ, like liver, kidney, or heart.

How then should we think of the soul?

One might argue that we lose the soul, when we look upon the psyche with such a biological perspective. However, when we postulate a psychic

reality existing separate from biological processes, we always create a dualism between body and psyche which is incompatible with a holistic perspective. Even when we follow that position that life is spirit, psyche, which occupies the body to manifest itself in this world, we create just another dualism. We fall into this trap every day when we distinguish between a physical, mental, or psychosomatic illness.

Of course BA has a holistic perspective. And because BA is based on the unity of body, mind, and soul, it has developed physical techniques to change the psyche. But just by saying this I have again created a dualism, have divided body and psyche. This happens all the time in our bioenergetic concepts.

Systems theory offers support in solving this dilemma. Over the last 20 years systems theory has developed some very interesting hypothesis about the structures of life and the development of organisations. I mainly refer to the research of Prigogine, Varela, and Maturana.

Systems theory defines psyche as the dynamic coordination, the interplay between bodily organs and regulation systems in a single network.

A car, for example is not a reality in itself apart from the reality of the engine, the transmission, the tires, the stirring wheel etc. We can only call it a car when all these components function within an organizational network. The soul of the car is the connection between individual parts which function in harmonized interplay.

An awareness of one's soul or psyche means to sense the network of biological, physiological, and physical processes and stay conscious of it. Even if spirit, if soul might exist as separate entities independent of the body—with our human perception we depend on perceiving the psyche as the sum and the network of biological and physiological processes.

The bioenergetic view that a person's psychological truth is written in the body implicates a holistic understanding, one that does not have room for the idea of a separation of body, mind, and soul. Psyche is the network between biological structures and their processes.

## **2. BA lives on a somatic level as well as on a symbolic level**

When bodyoriented psychotherapists describe their work, they encounter the same problem as a person who tries to explain how a sailboat operates. A sailboat operates like a boat and it operates like a plain: all parts under water follow the laws of swimming objects, the sail obeys the laws of aviation. The two parts of the boat move in different elements, and therefore different theories and concepts have to apply. In much the same way

BA works on two levels: the biological (somatic) and the psychological level.

Psychotherapy aims towards influencing the complex and multifunctional network of the human organism. In this process, specific clusters of biological operations are collected into symbols. Emotions, moods, desires, needs, phantasies, this is to say, we don't deal with the physiological processes themselves, but with the conglomerates of symbols and phantasies.

The situation might be compared with working on a computer. We write a manuscript, paint pictures, we compose music on the computer—but in reality the computer cannot write, paint, or compose...all it can do is follow certain calculations and a group of specific calculation clusters appears on the computer screen as text or pictures.

Those of you who do not relate well to computers, might want to think of a memorable visit to the theater: you might have felt deeply moved, delighted or excited by the events unfolding in the lives of the characters on stage; perhaps for a long time after the performance you did still chat with friends about the play, about how the characters had dealt with their anguish, talk about their attitudes. In reality you did not witness scenes out of these characters' lives; in reality certain actors took on the roles of specific characters, went on stage, surrounded by lots of technical equipment, they rehearsed for many, many times in order to demonstrate for us, how these specific characters might have mastered their fate. This difference however will only be important for those professionally involved with producing the play—for the person in the audience it is the symbol that counts, the scenes we watch and how they move us and what meaning they take on for us.

The same is true for psychotherapy: it interacts only with the symbols, and through images and phantasies produced by the human organism. How these symbols are produced, is ultimately not important. This seems quite all right and experience shows, that as humans we fare quite well with this kind of communication.

This perspective, however provides a big dilemma for BA. BA aims towards influencing peoples' behavior not only through interacting with the symbols, but to directly intervene into the biological processes—it wants to change the stage, the reactions of the actors; it does not only deal with the effects and impressions of the play itself, but with the whole setting, the whole production.

BA describes psychotherapy on the symbolic/psychological level, and on the level of physiological processes.

However, terms used on these two levels do not always have the same

meaning, one and the same term might describe processes that are not always identical.

For example: a psychotherapist listening to a person talk about a hard and cold heart, will explore this person's life story, will explore the grief and suffering, a person might have gone through, and think about how to help this person heal, so that the heart might soften and become alive again. A physician however who hears about a hard and cold heart will sign a death certificate.

The same story being told to two different professionals; both respond in their own way—both are right, but yet their responses are completely different; because the framework from which they think and react is different.

Within the framework of BA, we use a symbolic and imaginary level when we talk about feeling more energy, seeing more charge in a person's eyes, helping the energy come through, certain muscles being blocked.... We do not describe what happens on the biological level.

When our bioenergetic trainers tell us about what exercises to use to charge or discharge the body, they give us directions for the biological level. These exercises therefore should have a concrete effect on the biological structures, which should parallel the energetic processes. Unfortunately, this clarity doesn't yet exist in BA; this clarity cannot exist as long as we do not have a clear definition and description of what energy is and how energetic processes run in the organism.

As bioenergetic therapists we definitely have to learn to distinguish between processes on the symbolic and the biological level. Otherwise we cannot be understood by other sciences, especially not by the natural sciences. Furthermore the communication amongst ourselves can never be clear and effective.

### **3. Self regulation and loss of Objectivity**

All attempts to describe man/woman in scientific categories are faced with the argument that man is not a machine. But what is man/woman, and what is meant when we speak of this machine that man/woman is not?

A machine is an instrument that does something when I push a button or pull a handle. A machine will always do the same thing, only perform the one and same function its inventor has planned for it to perform. If I forget to push the button, nothing will happen.

Now, one can build a machine which always gives a signal when the button isn't pushed within a certain time period to remind me of my task to

push the button. If it is too bothersome, to always have to push a button at a certain time, one can build a machine with a timer, which will initiate the push of the button. Now the machine is beginning to be self-regulating. One can add more and more functions, and program the machine to regulate these functions, control the operations, and be self-reparative should system failures occur.

Man/woman too has build-in self-regulation, operation control and reparative functions—like a machine. But even though there are infinitely more such systems in man/woman than in a machine and it is therefore much more difficult to understand all the interrelations and to influence the systems, can we really speak of a principal difference between man and machine?

Regulating systems always somehow have defined procedures to correct system failures. When we feel hot we try to cool down by staying in the shade; this usually happens automatically. But if we stay out of the sun always, then we won't tan; but we do have to tan in order to look as good as all the other men and women with whom we are in competition for finding the most desirable lovers and partners. Therefore we have to find a possibility to protect us from too much sun and at the same time be able to stay in the sun and tan. For this we have to change the self-regulation system: We did this by inventing sunscreen lotion.

This is exactly what differentiates open and closed systems or man/woman and machine: Open systems are able to change their self-regulation mechanisms to adjust to new social or environmental conditions. We humans do this by becoming aware of specific processes, confronting the changes in circumstances, and arrive at a new self-regulating mechanism. If we are not flexible enough to do this any more, we won't be able to live our lives in harmony with our own values and our social context; we need the help of a psychotherapist.

Psychotherapy—whatever specific method is being used—always aims towards removing defects from the self regulatory mechanisms of the human organism and bring them back to their optimal functioning. Understanding the process of psychotherapy as promoting self-regulation is not a fashionable trend, but answers the requirements of the system, with which we deal.

When a self-regulatory system like man/woman is able to change its feedback control in order to adapt to new situations, then his/her behavior is no longer predictable.

A thousand people might react to a specific situation in a predictable

way—but the 1001st person for some reason is able to change his feed back control and therefore will display a different response. As a principle: there is no such thing as objectivity in the area of human behavior. All therapeutic concepts which we develop can only be validated by what actually happens in the work with a real person. If the concepts cannot be validated, then the question arises, how this person has managed to create and change his self-regulation—research begins anew. Maybe we need to develop a new understanding and concept of psychotherapy just for this 1001st person!

We always take much pain to question and improve our therapeutic concepts—however, demands to objectify therapeutic concepts with methods of statistics do not do justice to the system we deal with. The structure of the human system, its complexity and its ability to change its own feed back control do not allow for this kind of objectivity. The demand for this objectivity only makes sense when it refers to less complex systems which are more clearly defined and predictable.

Questioning the whole concept of objectivity has become a central issue in modern science, including natural science theory and mathematics.

A statement like BA is not a scientific discipline because it cannot proof its effectiveness statistically can only be made if the results of modern science are ignored.

#### **4. BA does more than work on muscles**

As Bioenergetic therapists we always focus on muscular tension, on how to interpret and how to release it. There is a traumatic event which leads to a frozen state in the muscles, and in therapy different bodywork techniques lead to thawing the muscles and to aliveness. This is a very convincing model; however, it uses the structure of a very simple machine—it does not pay tribute to the complexity of the human organism.

Of course, the observation, that traumatic events lead to muscular tension, is correct; but why do we focus only on the muscles and—even more specific—the skeletal musculature?

What about the muscular system of the vessels, the intestines, what about the organs, the cells, the tissue, the metabolism or even the molecular or atomic structures of the organism? If there is any reason for neglecting all these systems and solely focus on the skeletal musculature, then we should be able to name and justify this reason, but we cannot do that.

Whenever we apply pressure to a tight muscle to release tension, we cannot avoid to also touch the skin with its different sensors and with that give specific inputs to the nervous system which all results in specific reac-



tions.

At the same time we touch of course the vessels, the lymphatic system, the tissue, the bones. For this reason it seems totally impossible to describe any effect as the result of just one separate system—like the skeletal muscles, f.ex.

All systems in the human organism can be altered through traumatic experiences and can also be corrected and modified through proper intervention—as long as the systems themselves are still alive. To keep all these systems in mind and develop intervention techniques to address all of these levels could enrich our Bioenergetic work immensely. I am thinking in this connection of other techniques such as craniosacral work, therapeutic touch, chakra work, or yoga, to name a few.

At this point I want to reiterate that no one system in the human organism works independently. The muscular system is interconnected with the nervous system and the metabolism—without breathing and circulation no cell can function. All are interrelated within a single network and only through this interrelatedness does life and human behavior exist. Pulling on a small thread in a single corner of this fabric will move the whole fabric. If we really take serious the complexity of the human organism, we will have to expand our concept of the muscular armor. Traumatic experiences impact all systems of the organism. They do not just change muscle tone, but also vessels, tissue, metabolism, the immune system, cellular structure, and subatomic structure.

### **5. The importance of emotions in body-psychotherapy**

A central focus in our work is helping people become aware of and express their emotions. We have to help people move from their heads into their bellies—all bodyoriented forms of psychotherapy will agree with his statement. It is therefore of extreme interest to study some of the neurobiological hypotheses about the meaning and the role of emotions for the functioning and regulation of the human organism. These hypotheses, especially the ones by Antonio Damasio, confirm our perspective that emotions always find their expression in somatic processes. Damasio shows that it is totally impossible to imagine an emotion without it being connected to a somatic response.

When a person encounters a threatening situation, s/he'll feel pain in the heart hold his/her breath, the heart rate accelerates—these somatic responses will be represented in the brain as fear. Emotions are the representations of somatic responses in the brain; they enable the brain to provide

for safety and protection. This means that our physical sensations and their representations as emotions provide much needed information to the brain—without this information the brain cannot do its job.

A person who is cut off from his/her emotions lives just as dangerously as a person who lost the ability to sense when s/he is hungry, tired, or cold, or is in some type of danger. Without sufficient emotional input the brain will not be able to adapt its life processes to changing life circumstances in the best possible way. Without emotions the brain can't think

According to Neurobiology our emotions are in the head, not in the belly, as concepts of alternative Psychology suggest. On the other hand, according to human experience, emotions seem to be located in the belly. Since the stomach area with its solar plexus is equipped with an extremely dense neuronal structure, one can easily imagine, how this would lead to the impression of emotions being located in the belly. On the other hand, researchers have discovered a kind of tissue located between different layers of the intestinal wall, which closely resembles the neuronal structure of the brain, but seems to function fairly independently of the brain. Maybe we have to entertain the idea that our organism with all its live processes is not really monitored by this one central organ, our brain—maybe we are not really as centrally organized as we like to imagine. In any case: Neurobiology shows that our work, to help people reconnect with their emotions, is not a luxury, but seems significant for survival. To have easy access to one's emotions is of vital importance.

## **6. The concept of energy in BA**

Already the name Bio-energetic Analysis is indicative of our dealing with energetic processes in people. We charge the organism with energy and discharge it; we try to increase the flow of energy. We diagnose based on energetic blocks in the body, on energetic expression, and on whether a person feels weak or strong energetically. But we forget that these are descriptions on the psychological level; they do not say anything about what really happens energetically on a somatic level and how this somatic level can be influenced energetically. To be able to make statements on this level, we have to define 'energy' in the human organism and we have to describe the nature of energetic processes.

BA is of course right to describe psychological processes as energetic, because, according to basic hypotheses in modern physics, our whole universe exists of nothing but energy and energetic processes. Each stone, each table, each muscle, all is energy—even though in different manifestations.

Therefore all forms of psychotherapy deal with energetic phenomena, and the statement BA deals with energetic processes in the human system is nothing unique that would set BA apart from other forms of psychotherapy.

We have already shown that the human organism is kept alive through innumerable self regulating mechanisms and that psychotherapy works by influencing these mechanisms.

Do these self regulation mechanisms possibly coincide with our concepts of energetic processes? The different regulation systems in our organism are linked, however, they can be differentiated according to the methods with which they work:

1. Brain and nervous system transmit their information electronically. We actually deal here with a digital system, where information is divided into small units, called bits, to be transmitted with incredibly high speed.

2. At transition points from nerve endings into tissue and organs, this information is transformed into chemical processes and continues its path as chemical reactions. This is very advantageous in that it allows the information to be toned down so as to not overstress the organism. (F.ex. only through muffling with CA-ions can a permanent tetany in the musculature be avoided).

3. Processes which do not require speed as much as continuity are regulated by hormones. The hormones are produced and dosed in specific regions in the brain, then distributed into the blood stream, and from there transported to the areas in the body where regulatory processes are needed.

4. The immune system with its incredibly sensitive mechanisms and its close affinity to the nervous system not only regulates the defenses against toxic organisms but also adaptation to stressful psychological circumstances. Neuropsychimmunology, a relatively new science, shows, that all psychological stressors: fear, relationship problems, shame etc. are recognized by the immune system and responded to with altered leucocyte-counts. This just about proves our hypothesis of psycho-somatic connections and their responsiveness to methods of psychotherapy.

The human organism needs all these regulatory systems to function smoothly; but we cannot call them energetic processes in the Bioenergetic sense. Not even in the electronic system of the nervous apparatus can we speak of concepts like more or less energy; instead we deal with transmission of information. It seems very questionable that we will ever find phenomena like energy flow and energy blocks in this neuronal structure.

This, however, has consequences for our formation of concepts and our theory. It means that we can no longer limit ourselves to the descrip-

tion of our interventions within a framework of energetic processes, whatever the nature of this energy might be. All processes, whether they are neuronal, chemical, hormonal, or immunal, are equally significant. They can explain in a very specific way how our work impacts the human organism. With the help of all these different processes we might be able to develop techniques that will influence the organism in a much more differentiated way ; but we should not call it energy work.

Out of this follows that—as we further develop the concept of BA—we have to take into consideration that different information systems regulate the organism and can be influenced by our techniques.

In spite of this, our established ideas about energy, energetic flow, about more or less energy, will not be invalid or worthless:

1. It is obvious that we humans cannot work or think well when we experience a lack of energy. Therefore we have to eat regularly; all food supplies us with energy; through metabolism food is transformed into a form of energy that can be utilized by the organism. Our body cannot really utilize fish or potatoes, but only the so called ATP, the universal form of energy in our body. ATP is a chemical product of metabolism In this connection I want to point out that body cells, f.ex. the cells of a muscle, do not absorb all ATP; but take only a few electrons out of this compound into their system. Electrons, however, describe electric energetic structures and are part of the subatomic world. This means that our life energy is electric by nature. It is the same energy as we get out of our electrical outlets with which we cook our meals or play our CDs.

Until now we have not included dietary considerations into the concepts of BA, we have not thought about what kinds of food will best provide our organism with energy. We seem to concern ourselves much more with breath as the source for new energy. But air, and especially oxygen, is considered a catalyst; it is necessary for the chemical process which produces energy out of food. A wood fire, of course, requires oxygen to burn well; but energy is derived from the wood, not from the oxygen! In much the same way every human being requires oxygen as a catalyst for producing energy; but the energy is derived from food, not from oxygen.

Deepening breathing has great therapeutic effects, but the hypothesis, that bioenergetic exercises charge the body energetically, does not concur with laws of physics. From a physical perspective, doing exercises is work—and work uses up energy, the organism tires rather than getting charged. Only in the resting period following the work does the organism start to restore its energetic reserves, to charge.

Besides we have to be aware that 2/3 of all the oxygen in the body is used by the brain, and only 1/3 is used by the remainder of the body. This means that our brain has the biggest demand for oxygen and that, may be, our bioenergetic exercises charge our brain more than our muscles.

It might make sense to speak about energetic work in BA when we alter the perspective towards: How can we improve the conditions for energy production through diet and deepening of breathing? How does electrical charge get into the body from outside, how much charge gets into the body and what kind of electrons get there?

Once in a while I have to fill my car's tank with gas; that's just necessary. But this only makes sense because my car's engine is structured to utilize gas. If our organism constantly needs electrons or electrical charge to stay alive, then it must have specific structures to utilize these electrons. Amidst all the bones and vessels and intestines there should be something like an energetic structure.

When we study set-up and physiology of cells we realize that a living cell is a highly complex entity, a miniature universe with a wide range of manufacturing plants, transportation systems and information highways. On the other hand, each cell can only live as long as it has an electrical current of about 90 millivolt. This voltage is kept constant through concentration of Na-ions inside and Ka-ions outside the cell membrane. Regulation happens by constant exchange of ions through the cell membrane. Information input from outside the cell can temporarily change the electrical potential and thus stimulate the cell. The organism can steer the excitability according to need or mood. That means at times a cell has to produce higher quantities of substance or information or produce at a faster speed and at times a cell can slow down.

An electrical structure which changes its potential constantly, is called 'oscillator'; and such oscillators produce an electromagnetic vibration with a specific frequency. While each cell in our body only has a minuscule radiating power; given the nearly infinite number of cells in our body this amounts to a remarkable radiating electromagnetic energy field. Quality and quantity of the cell's excitation, and therefore the intensity of the radiation, depends—amongst others—on the organism's biological and social needs. This means that this radiation or the energy can be manipulated and altered. Bioenergetic work then could mean to find techniques to modify intensity and patterns of vibration of this level of organization.

Each electromagnetic radiation can leave its source; how far it can radiate depends on the intensity of the vibration and on the quality of the

environment in which it spreads. In any case, this radiation can leave the body and spread in space and time; it can also be perceived by other organisms; they only have to be tuned into the right frequency; much like I have to tune my radio to a specific frequency to receive my favourite program; both have to be in resonance.

Such concepts help us understand why in each form of therapy, including BA, the therapeutic relationship is of utmost importance. This gives us a somatic, a bodily way of explaining the concepts of transference and counter-transference. The therapist tunes himself, his receiver as closely as possible in to the sender's, the client's, frequency—the therapist develops empathy. This is how the therapist can understand and reach the client on a very deep level. The client feels understood and moved deeply. With this the client's energetic system gets stimulated to vibrate; the vibrations get intensified and modified.

## 7. Orgonenergy and light

My attempt to describe bioenergetic work as electrical processes is based on the assumption, that the cell structure of a living organism is built in such a way that electromagnetic radiation becomes possible. As far as I know, precise measurements on this level of live organisation do not yet exist.

But maybe we have not forgotten about Wilhelm Reich, the grandfather of BA. In his very relevant and precise scientific research to find the energy which renders life possible and sustains it, he arrived at an energy which he called 'orgon energy.' He described it as a cosmic energy, because it can be found throughout the whole universe. Under certain circumstances this energy is visible. In living cells it can be observed as refraction of light. Some cell structures show a glowing aura around their membranes.

BA has not paid further attention to this area of Reich's work. Given Reich's fate following the publishing of these findings, this is understandable. However, this prevented us from having a deeper understanding of what therapeutic work with bio-energy can be. Even though: our very name bio-energetic analysis states that we do want to concern ourselves with this life energy.

While in BA we have used kicking and screaming as techniques to achieve energetic charge, other sciences have begun to explore this life energy and can now help us to underpin and to differentiate our concepts and ideas. About 20 years ago a new branch of physics developed called Biophoton research. Physicists, mainly Fritz Albert Popp, tried to explore

and measure life energy. The formation of Biophoton research happened totally independent of Reich's work—which makes the many parallels in their results even more impressive.

Popp states, that each living cell creates and radiates a weak light, and this light can be measured. It doesn't glow like a light bulb, it more resembles a laser beam. Laser beams are characterized by the fact that all particles in this light vibrate simultaneously, they are coherent; because of this a laser beam is of high intensity. It is extremely well fit to precisely transmit data with the speed of light. Calculations have shown, that the laser beams of living cells are the most intense lasers ever found. Popp was also able to proof that cells with this kind of light communicate with each other. An experiment showed, f.ex., that phagocytes—these little fighters of our immunsystem—glowed, as soon as they started attacking foreign proteins; these light signals called other phagocytes to help with the defense work.

Popp considers this communication through light very important: Within each second, about one trillion of biochemical processes happen in the human body. Of course, these processes have to be coordinated extremely precisely. Our nervous system is not sufficiently equipped to do such a job, but an information system that works in light speed is. Popp also shows that these Biophotons can leave the organism and contact other organism. These concepts closely coincide with the above described ideas about cellular radiation being able to leave its source and spread in space and time and being received by other organisms.

Being a scientist Popp, of course, tried to proof his hypotheses in the laboratory. He was successful in that he could film and measure the transmission of energy from a well-known healer to another person. Whenever the healer mentions that she is now transmitting energy, the measuring apparatus, which was set up in another room, reacted. And while people in a control group reached electrostatic charge of up to 4 volt, the maximum values of trained healers reached between 60 and 180 volt.

Biophoton research shows, that there is a coordinating regulation system in the living body that we have not yet paid attention to. It is a system which works through laser beams, which means that this is an energy system with incredibly high intensity and with nearly unlimited capacity for data transmission.

Optimal functioning of this system, the supply of the living organism with energy from outside is of utmost importance. Our energy work, which we consider the base of our therapeutic work, might well be addressing exactly this system.

It would be important to find out whether our bodywork techniques are sufficient and adequate for this task. However, besides using bodywork techniques we always work in the therapeutic relationship and above mentioned hypotheses show, that relationship is a system to transmit energy and information without words. The therapeutic relationship changes a client's energetic reality. How well the therapist has actualized his/her energetic potential, his ability to transmit energy to the client, determines the effectivity of our work.

## 8. Summary

As a bodyoriented psychotherapist I try to look at psychotherapy from a somatic and biological perspective. I am interested in exploring all the questions and insights that stem from such a strictly one-sided perspective. How does it impact theory and practice of BA?

1) This perspective looks upon a person as a highly complex system which keeps itself alive and growing through self regulation processes. These processes require sufficient input of new energy. Such complex systems always arise out of a state of instability.

2) Regulation systems require an extensive network amongst their individual parts; these networks or sub-systems determine their character, their 'soul.' Thus the human soul or psyche can be seen as the network which connects and coordinates somatic processes. Psyche is not a thing or a process that exists parallel to somatic systems. Psyche is the process of relating these elements with each other. Therefore a division into body, mind and soul, is impossible. Psychological phenomena are always the expression of self regulation processes in the organism.

3) The condition of all the different information systems in the body is extremely important. It can be modified and improved through psychotherapy. BA should not exclusively concentrate on energetic processes, but has to consider—in theory and in practice—all the information systems.

4) The bio-energy we work with is to be defined as electromagnetic energy with physical attributes. This energy keeps cell structure and all its processes alive, it also is the coordinating system for all processes in the living organism. It is an energy with the same quality as laser. This also means it radiates.

5) Relationship, a necessary ingredient in the therapeutic process, is seen as non-verbal exchange of information. In physical terms we can say that this exchange becomes possible as sender and receiver tune into the same frequency. Because this system of communication has evolved with



the evolution of mankind, it is sometimes superior to our bodywork techniques which have a very short history.

6) Because all systems in the human organism are interrelated, we cannot relate our interventions and their effects to just one system, like the muscular system. We have to take into consideration that we impact all systems, even down to the subatomic level.

7) When we describe BA through biological and physiological categories, we might become more precise and differentiated in our theories, we can improve the application of BA by expanding our techniques. We can be inspired by all the different therapeutic schools who deal with modification of somatic and energetic structures.

8) Of course we will continue to talk to our clients about their psychological situation rather than about electrons and regulation systems. However, BA with its somatic approach has a unique opportunity, to describe psychotherapeutic processes with more congruency and closer to reality.

9) Such a materialistic perspective of human beings and the psychotherapeutic process may appear strange. We might be worried about losing the human element, that what makes life beautiful and meaningful. In the process of working with these perspectives many of my own concepts have changed ; but actually, I am more in awe about us human beings, about life and about our universe as I struggle to understand its structures and processes and when I realize just how complex we really are.

## Literatur

Dzempra - Depré, Michael, Physik der Erleuchtung, New Age

Capra. Fritjof, Wendezeit, 1984, Scherz

Capra, Fritjof, The Web of Life, 1996, deutsch: Lebensnetz, 1996, Scherz

Damasio, Antonio R., Descartes' Error, Emotion, Reason and the Human Brain, 1994, Putnam's Son. deutsch: Descartes Irrtum, Fühlen, Denken und das menschliche Gehirn, 2.Aufl. 1996, List

Miketra, Gaby, Netzwerk Mensch, Den Verbindungen von Körper und Seele auf der Spur, 1997, 1.Aufl. 1991, rororo

Popp, Fritz. A., Biologie des Lichts, Grundlagen der ultraschwachen Lichtstrahlung, 1984, Paul Parey, ISDN 3-489-61734-7

Bischof, Marco, Biophotonen, Das Licht in unseren Zellen, 1995, Zweitausendeins, ISDN 3-86150-095-7

Kerner, Imre, Kerner Dagny, Heilen, Wie Heilen wirkt, Energiesystem des Menschen, Heilen ist erlernbar, Heiler im Test, 1997, Kiepenheuer & Witsch, ISDN 3-462-02640-2

Reich, Wilhelm, Äther, Gott und Teufel, 1983, Nexus, ISDN 3-923301-45-6. english: Ether, God And Devil, first published as Volume 2 of The Annals of the Orgone Institute, 1949

Boadella, David, Wilhelm Reich, Leben und Werk, 1981, Scherz.  
english: Wilhelm Reich, The Evolution of his Work, 1980

Mahr, Rainer, Körperpsychotherapie zwischen Psychoanalyse und Physik Energie und Charakter, Nummer 14, 1996, Herausgeber: David Boadella, Bernhard Maul Tel: 030 456 3882; Fax: 030 6227801, Postanschrift: Thomas Stoehr Torfstr.25. D - 13353 Berlin, Tel: 030 4534249

Energy and Identity, Rome, May 95, Body and Identity, First clinical congress of the European Federation for Bioenergetic Analysis-Psychotherapy, S: 121 - 134, published by: Società Italiana di Analisi Bioenergetica (SIAB), via di Peitralata 147/B Roma (Italy), Tel: 0039/6/4510309 deutsch: Energie und Identität, Forum der Bioenergetischen Analyse, Nummer 1 1995, S: 39 - 52 ISSN 0946-8846

Mahr, Rainer, Das Konzept der Orgonenergie von Wilhelm Reich. Forum der Bioenergetischen Analyse, Nummer 12 1996, S.65 - 68, ISSN 0946-8846