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Biophotons and MORA Bioresonance A Theoretical Approach

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Summary

On a biological observational level there are no justifiable doubts about the transference of information with

the MORA Bioresonance Method. A series of controlled studies with animals and plants as well as clinical studies verifies this.

It is likewise obvious that electromagnetic couplings form the physical basis of the information transfer. These can only be weak coherent interactions. However exactly how these couplings work is unclear until now.

In a first attempt to understand the phenomena, elements of the Coherence Theory of Biophotons are applied to the Bioresonance-relevant low frequency oscillation field:

- 1) We suspect that the "active noise" which is measured in healthy people through the cables of the MORA Bioresonance device is the communicative oscillation field. An observer can thus detect only the communication basis in a healthy person. With disease the "pathological oscillations" are marked by lower or higher oscillation amplitudes. The dynamic bond is disturbed. The characteristic feature of a "pathological oscillation" is its "rigidity" and the isolation from the integrated oscillation field.
- 2) In our opinion, the phase-constant electronic inversion of the "pathological oscillations" as it is carried out by the MORA Bioresonance Method, means physically that these oscillations accomplish a destructive interference with themselves. Thus they are integrated again into the oscillation network field and are formed anew by its regularization forces. This then has consequences on the physiological level.

The destructive interference is an elementary explanatory concept in biophoton research. It seems to be an important communications principle in nature; two examples are discussed.

Key Words

Biophotons, Bioresonance, destructive interference, MORA, electromagnetic oscillations, constant distribution, active noise, pathological oscillations.

Introduction

MORA Bioresonance therapy is the logical advancement of the medication test of Electro-Acupuncture [3, 10]. By systematic investigations with senders of electromagnetic waves on which the medication information was uploaded, Dr. Morell and Mr. Rasche documented the same electrical point modification in the framework of Electro-Acupuncture measurements as with the original medications in the measuring honeycomb (Fig. 1). As a result they postulated that the medication information has electromagnetic character and logically that an electromagnetic oscillation system must exist in the person. Because otherwise how could the electrical resonance phenomena in the acupuncture points be explainable? Then after further investigations they electrically connected acupuncture points leading from one to another (just like in the medication

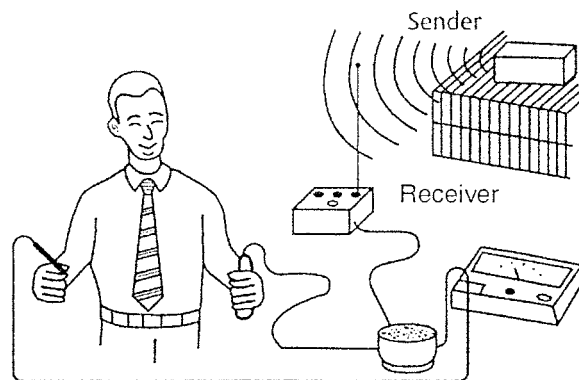


Figure 1: Test-Sender-Receiver. Wireless transmission of medication information by Morell and Rasche in 1975. The sent medication information works in the Electro-Acupuncture test the same as the original medication in the measuring honeycomb [3].

test the acupuncture point is then connected with the medicine). They created an electronic inversion circuit (Ai or Inverted A Mode) between the points which as a result electrically changed the acupuncture points (Fig. 2). And they were sure that endogenic oscillations exist which can also be used therapeutically.

In 1975 and 1976 Morell and Rasche worked in the range of 1 hertz to 150,000 hertz. Historically it is interesting that Popp and Ruth [13, 18] discovered biophotons at approximately the same time, and therefore also electromagnetic oscillation phenomena in living systems, however in a much higher frequency range.

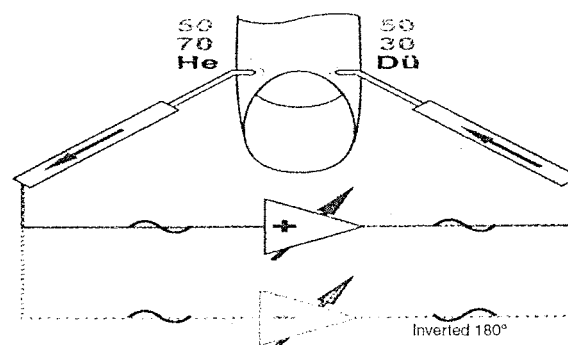


Figure 2: "Energetic Balance" in acupuncture points through phase-constant inversion according to Morell and Rasche. If one connects an acupuncture point with high conductivity (He = 70 SkT, "pathological") electrically leading with phase constant amplification (red) to its lower partner meridian point (SI = 30 SkT, "pathological") no balance takes place. On the other hand, if one carries out this connection with phase constant inversion (green), both balance themselves to the standard value 50 SkT [3].

Then from these first experiences and theses the MORA Bioresonance therapy was developed, because many independent doctors and naturopaths confirmed the theses of Morell and Rasche.

This theoretically oriented system, the attained basic knowledge, which is typical for the methods of empiricism [3], admittedly states nothing about the internal operating principles (it was investigated only with the outer contour of a Black Box), but the success is obvious to each unprejudiced observer.

Since in the first investigations we could only document white noise at the electrodes and cables by oscillographic measurements during MORA Bioresonance Therapy, the conventional reductionist oriented orthodox medicine rejected the therapeutic procedure. Their point of view: There are no classical signals and if such signals cannot be measured, then no information transfer can take place. Therefore the biological effects can only be a Placebo Effect. Orthodox medicine (in our time era) regards the conventional physical perceptions of information transfer as the absolute truth. This is simply false from an epistemological perspective.

However, an unprejudiced consideration, without the mental limitation of the reductionist dogma, shows that the biological effects are obvious.

The case reports of the therapists, the summarized application observations of the clinical picture [5, 11, 19], and even controlled studies [1, 4, 6, 7, 9, 12] verify this. These positive therapeutic results confirmed through a series of controlled investigations on animal and plant models which document the biological effects of the Bioresonance Method [3].

Therefore a low energy information transfer must take place through the Bioresonance Method. But how is it understandable?

The Basic Physical Effective Approach

The basic physical effective approach of this low energy information transfer can only be the electromagnetic interaction. These investigations verify this with the Test-Sender-Receiver system, the technical method for implementation of the Bioresonance Method with its reproducible effects on people, animals and plants, and the digital electronic storing of relevant substance information with its biological and therapeutic effects [3].

Coherent low frequency electromagnetic waves seem to be transported by the metallic conductors. They are emitted from substances and living systems and are received by the highly sensitive living systems.

Application of the Coherence Theory of Biophotons on the Low Frequency Oscillations Relevant to Bioresonance

The theoretical solution seems to lie in the activity of the electromagnetic noise. This low frequency noise is not therapy device noise, but is clearly caused by the electronic and thermal noise [8]. Thus it is an **active** noise of living systems.

Consequently we have the same situation present with the Bioresonance device/humans in the low frequency electromagnetic range as that

found by Popp and Ruth [13, 15, 18] with the discovery of biophotons in the high frequency range: For them also the white light or white noise showed up with the wavelength analysis of the biophotons through color filters, i.e. the individual frequencies clearly had almost the same amplitudes over the measuring device noise. Popp called this same distribution the "f = constant distribution" of living systems, because it drastically differs from the emission characteristic of dead organisms at the same temperature (Fig. 3).

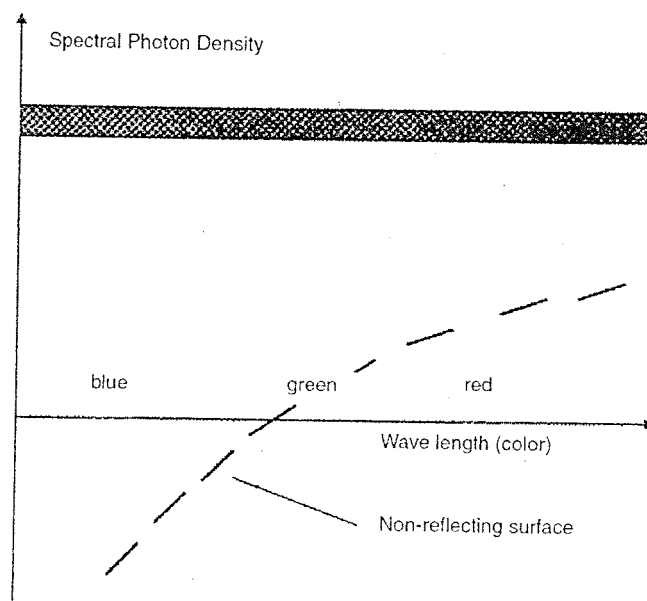


Fig. 3: the $f = \text{constant}$ distribution (schematically blue depicted the fluctuation area is changed according to [14]). In the measured wavelength area (200-800 nm) the photons emitted from the living systems are almost constant. Living systems are far away from thermal balance because they have a 10^{20} to 10^{40} higher photon density and thus color temperature at physiological temperatures (non-reflecting surface).

In the interpretive context of the Coherence Theory of Biophotons is this same distribution of the external expression of a dynamically fluctuating oscillation network system in the LASER threshold (far away from thermodynamic equilibrium), which shows the communicative base of healthy living systems [14]. All frequencies (vibrations, oscillators) are dynamically connected with each other. Health lies in the dynamic unity of the oscillations.

The uniform distribution of the oscillations means that the living system can use all possibilities of communication. Everything "flows" without communicative blockades. No levels of freedom are restricted.

Deviations from this uniform frequency distribution by "rigid" oscillations with too high or too low amplitudes indicate a loss of unity and thus a loss of communication in this oscillation system.

The uniform oscillation distribution, thus that the equal and uniformly strong integrated vibrations of all oscillators **is** – according to biophoton theory – the oscillation communication field of living systems. The healthy oscillation field thus does not have a signal content for an external observer.

The significance of the " $f = \text{constant}$ distribution" as a vitality characteristic of living systems was also demonstrated by Strube [20] by spectral

stimulation examinations with food. Vital foods show a uniform spectral distribution.

The Oscillation Model of Health and Disease

The above discussed prototype concepts seem to us to be applicable to the active noise in the low frequency area and thus also to Bioresonance therapy. The $f = \text{constant}$ distribution seems to be a general biological phenomenon which applies to the whole electromagnetic spectral range of living systems. Popp assumed that already right after their discovery [14].

Then health means the flexible stability of the oscillations from the LASER-, MASER- and RASER thresholds down to the lowest frequency range with almost equally distributed frequencies, which are formed by all integrated electromagnetic oscillators of the organism (Fig.4).

Disease means that the non-integrated "rigid" oscillations permanently stand out from the fluctuation range of the uniform distribution (Fig. 5). This is the external signal of their inadequate unity or rigidity.

The first experimental notes for the correctness of these ideas were published by Ludwig [8].

See Fig. 4 and 5 on next page.

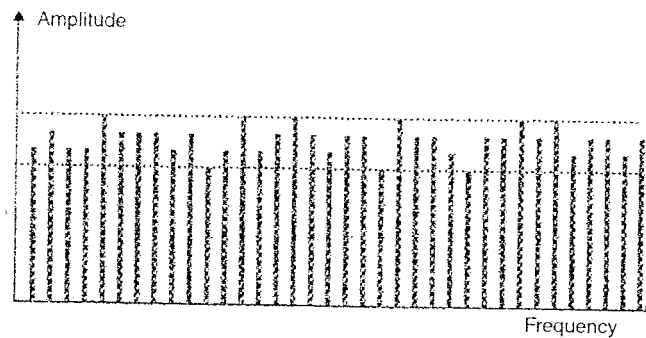


Fig. 4: The oscillation model (amplitude spectrum) of health. Dynamically fluctuating oscillations within a physiological range ("Physiological oscillations"); broken line: fluctuation range.

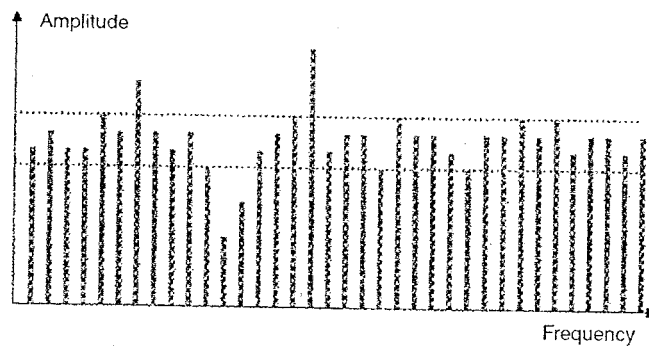


Fig. 5: The oscillation model (amplitude spectrum) of disease. "Rigidity" or un-dynamic oscillations ("pathological oscillations": marked in red) stand out upwards and downwards from the physiological fluctuation range (broken line).

The "rigid" frequency, i.e. the non-integrated or isolated oscillator which displays the partial communication loss from the oscillation network system, seems to be a concrete physical capacity that Morell and Rasche postulated to be "pathological oscillation".

The Operating Principle of MORA-Bioresonance Therapy

The physical operating principle of the Bioresonance Method seems to primarily be the destructive interfer-

ence of coherent electromagnetic oscillations with itself [3].

The destructive interference weakens itself by the oscillators sending out coherent overlapping waves. The waves overlap due to their phase references in such a manner that the oscillation energy in the oscillation network becomes stored (integrated). This is at most a 180° phase shift. Then outside the oscillation network no oscillation energy is measurable.

The coherent electromagnetic oscillation waves behave like identical

tuning forks: If one gradually changes the distance between two weak tuning forks of the same frequency (coherence), then the tone accordingly becomes quieter or louder depending upon distance (phase reference). The sound energy is stored in the system or better in the oscillation network (destructive interference, counter-phase overlapping) or emitted (constructive interference, like-phase overlapping).

Applied to Bioresonance Therapy this means [3] that: With Bioresonance Therapeutics the “rigid” oscillations are integrated further into the oscillation network by the phase constant inversion (Ai or Inverted A Mode) by destructive interference with itself. The “rigid” oscillation energy is stored in the oscillation network and

is formed anew through the regulative forces of the network. Then afterwards the “rigid” oscillations resolve themselves with the correlated physiological regularization blockades.

The Bioresonance Operating Principle – an Elementary Physical Operating Principle of Nature?

If one places “identical” Daphnia (water fleas, little water crabs) gradually into a water filled quartz cuvette and measures the photon emissions of the group, then an interference-like photon emission of the Daphnia group arises with increasing density (Fig. 6) [2].

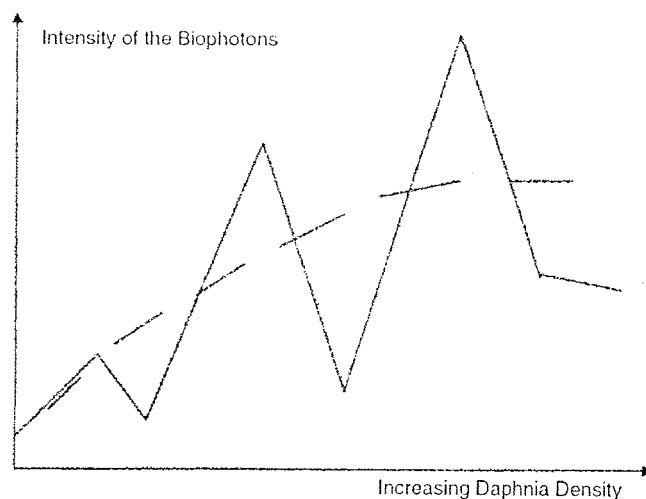


Fig. 6: Biophoton emission of a Daphnia group with increasingly heightened density (schematically blue [3]). With increasing distance the emission of the group changes between light amplification and light attenuation. Red dashed: Theoretical emission curve with absorption, if the Daphnia would behave like independent individual sources of light.

Now where do these intensity mountains and valleys come from [3, 16]?

Our answer: In the intensity valley the coherent waves emitted by the Daphnia overlap destructively. The photon energy is drawn in by the Daphnia network or is stored and integrated. This correlates with the light attenuation in outer space. Between the Daphnia attractive forces have an effect. They are in a collective phase. This is nothing else than the Ai-effect at the photon level in nature.

In the intensity mountain the coherent waves of the Daphnia interfere constructively. The photon energy is emitted by the Daphnia network into outer space, which leads to a light amplification (with at most 0° or 360° phase shift). In this phase repellent forces have an effect between the Daphnia (individual phase). This is

the A-effect of the Bioresonance Method at the photon level.

The Daphnia network (an association of coherent photon sources) can thus change through distance dependent light interference phenomena into either the closest bond or increasing isolation. The regularization of the spatial distance between biological entities, the most elementary purpose of biological communication, is thus connected with interference-like electromagnetic phenomena.

Also with the photon storage and dissipation from cell associations such interference phenomena play a crucial communicative role. In a quartz cuvette the cell density was gradually increased (the cell distance is decreased) and after external light stimulation the photon emissions were measured (Fig. 7) [21].

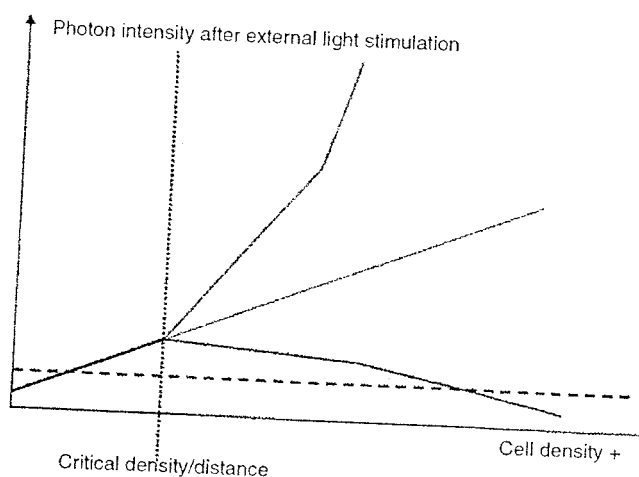


Fig. 7: Photon emissions after external light stimulation of the cell population with increasingly higher density (schematically, according to [21], blue: normal tissue cells, green: benign tumor cells, red: malignant tumor cells, dashed line: medium). The light storage behavior of normal cells and tumor cells differs fundamentally.

Normal tissue cells store the irradiated light with decreasing distance more and more (not linear) in the cell network. Normal cells soak up even more high density light from the medium. In our opinion this phenomenon is also based on the destructive interference which correlates with light attenuation in outer space ("Ai-regime"). The cells are attracted. They are in a social or collective phase.

With benign tumor cells the light storage capacity does not change with increasing cell density. They behave like independent light sources which are not communicatively connected by light. The cells are in an asocial phase.

Malignant tumor cells give off the irradiated light with more and more decreasing distance (not linear) outwardly ("A regime"). Their light storage capacity reduces itself with increasing density. They couple through constructive interference. This correlates with repulsive forces between the cells. They are in an antisocial phase or individual phase; the closer, the more antisocial.

These and other investigations [17] point out that above all the destructive interference, but also the constructive interference, between coherent electromagnetic wave sources are a fundamental communication principle between and in living systems.

The Operating Principle of Homeopathy

It is noteworthy according to these theses that the unequally distributed oscillations ("rigid" oscillations) of a diseased living system (Fig. 5) have a classical signal character for an external observer. Thus only in the case of illness is the environment of the living system found out. What sense should the communication of health make?

Which fundamental biological meaning does this phenomenon have [3]?

The "rigid" or pathological oscillation seems to be a kind of antenna which displays the communication loss of the network system and at the same time forms the rays of light in order to integrate missing information through destructive interference from the outside (the environment) into the network system. This then would be an ancestrally-historically programmed indirect regulation by means of a higher unity. Here also seems to lay the key for the fundamental understanding of homeopathy. A homeopathic medication seems to integrate the electromagnetic oscillation information from outside into the oscillation network by destructive interference with the "pathological oscillation". According to almost all theoretical concepts and experimental findings the homeopathic information also has electromagnetic oscillation character.

Result

The non-integrated or isolated oscillator which displays the communication loss of the oscillation network is the concrete physical substance of the "pathological oscillation". The re-integration of these oscillators into the network must be the primary therapy target.

The prototype concepts for the method of operation of the Bioresonance Method can be summarized as follows:

- 1) Every disease corresponds with "disease oscillations" ("rigid", isolated, inflexible oscillations) in the low frequency electromagnetic range.
- 2) These oscillations are so changed through confrontation with their own mirror image

(destructive interference) that with the regularization forces of the oscillation network they again become an integral part of these flexible dynamic oscillation networks.

- 3) With the "rigid" oscillations corresponding the "fixed" endogenous regularization forces are again released in this manner. The Ai-mode "*extinguishes pathological oscillations*" (first working hypothesis of Morell and Rasche) means nothing else than to *integrate these uncoupled oscillations again into the flexible-dynamic oscillation network*. The self regularization forces of the network are used to form it anew.

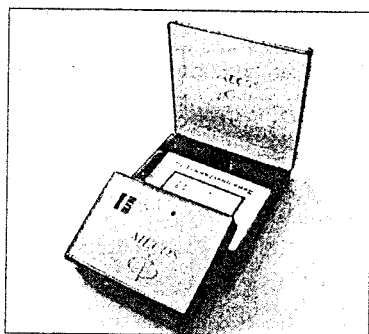
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