# HUMAN RHYTHMS AND G2WAVE TECHNOLOGY

"All vital functions of our organism, respiration, blood circulation, the activity of nerve cells, are performed with a specific periodicity and rhythmicity. Our life in general is a continuous transition between calmness and activity, fatigue and rest. And in it, like the tides of the sea, reigns the great rhythm, arising from the connection of the life processes with the rhythm of the Universe." *Ulrich Ebbecke* 

### INTRODUCTION

This quote by the German physiologist may be considered as the quintessence of chronobiology, which is one of the reasons why it is given in several books and articles. It is right to the point. In fact, since the times of Ebbecke (he died in 1960), it has been revealed that rhythms permeate every living thing, from subcellular level to social constructs.

According to modern chronobiology, the whole system of biological rhythms of an organism is a single interconnected structure. This seems to be quite obvious because one of the definitions that could be given for "an organism" is the general concerted action of its parts. Various mechanisms of this correlation are being proposed: resonance mechanisms (including the hypothesis of parametric resonance), fractal mechanisms etc. All of these mechanisms presume the rhythm entrainment effect<sup>[1,2,3]</sup> as the basis for the mutual rhythm adjustment. In order for rhythms to form a single connected system they should be in a position to adjust to each other. The same mechanism is used for the synchronisation of the biorhythms of an organism with the rhythms in the environment.

The availability and necessity of external synchronisation for biorhythms is presently a well-accepted fact. The best known source of such a synchronisation is the circadian rhythm resulting from the Earth's rotation. The point here is probably not in the succession of day and night (organisms living in deep waters or below the surface are not in a position to observe sunrises and sunsets), but in a different physical parameter, some hypotheses even proposing reactions to changes in gravity and the magnetic field. Circadian rhythms have been discovered in bacteria, plants, animals and humans.

However, circadian rhythms alone are clearly not enough for synchronisation. Well-known biological rhythms have periods starting from less than 1 ms and up to several years (corresponding to frequencies of 1000 Hz and down to practically 0 Hz). The frequencies of the rhythms enforcing synchronisation should be close to the frequencies of the rhythms undergoing synchronisation, and in any case should not differ by several orders from each other.

## GRAVITATIONAL WAVE RESONANCES AND THE INTERFERENCE RHYTHM BLANKET

We presume that biological rhythms are synchronised by gravitational waves in the Solar System, to be more exact, by resonances formed by these waves. These rhythm drivers are immanent of the biological evolution on Earth, being signals that are allpenetrating and sufficiently stable, even though weak (in terms of our physical instruments). By "resonance" we also mean anti-resonance effects, both of them being a manifestation of gravitational wave superposition. Constructive superposition will lead to resonance, destructive superposition will lead to anti-resonance. Nevertheless we retain the name "resonances" as the primary observed phenomenon In greater detail gravitational wave resonances are considered in previous articles<sup>[8,9,10]</sup>.

Gravitational wave resonances seem to be almost the only possible source of synchronising rhythms with a period less than 24 hours for all living organisms on Earth. We do not know of any natural and stable, to a significant extent, sources of electromagnetic signals in this range, especially since under water and under the Earth's surface the electromagnetic radiation propagates with great difficulty. In fact, the only persistent, natural electromagnetic phenomenon in this frequency range, is the so-called Schumann resonance, a standing electromagnetic wave between the earth and the ionosphere with a frequency of 7.82 Hz. This signal is not only weak and unstable, but it is also subject to considerable daily and seasonal variations. Not to mention the fact that for the effective reception of electromagnetic signal at this frequency it is necessary to have antennas that are much larger than the characteristic size of most biological living objects. Other types of signals (acoustic or seismic) are local in nature and cannot be considered as global rhythm drivers in the scale of the whole Earth.

The structure of rhythms in an organism, as we presume, is similar to a polygonal (multidimensional) "blanket", that various external rhythms (that we call cardinal) will force to oscillate at different amplitudes. As a result, an interference picture is created on the blanket. This is just a hypothesis, but it is as good as the hypothesis about the fractal nature of biorhythms.

Cardinal rhythms may vary in amplitude and some of them (caused by mutual gravitational wave resonances between planets) may also vary in frequency. At first the interference picture on the blanket arises from the formation of biological rhythms (during gestation, birth and the first years of life if we refer to humans). In a way the process is similar to hologram recording when a laser illuminates an object and the interference picture created after reflection is recorded in a thick layer of photographic emulsion. Only in our case the frozen interference picture is not of the waves themselves, but of biological oscillators exited by these waves. "Frozen" here is used as a figure of speech, in reality rhythms are quite flexible, but some of their properties and interactions are fixated at the stage of their formation.

Depending on the mutual force of cardinal rhythms, different biological oscillators will be formed differently. In a very simplified way, let us say that during the formation of the normal heart rhythm there is also a combination of cardinal rhythms that give a response at a close frequency. If in future such a combination of cardinal rhythms arises again, then the oscillator that was formed under its support may start to falter. And the other way round: an oscillator formed under a weak signal of cardinal rhythms, may subsequently experience difficulties in adapting its frequency (for example, during physical activity) if cardinal rhythms become stronger.

Presumably the previous paragraph also holds the key to the rational foundations of natal astrology. We have no academic affiliations, so we are not afraid to talk about the rational foundations of astrology, following Kepler (and even allegedly Newton, who did not compose horoscopes himself but felt deep respect towards astrology). Even more so since we are just reiterating Kepler: "In heavens there are no stars that bring misfortune", but the human soul is able to "resonate" with light rays coming from heavenly bodies and capture in its memory the configuration of these rays at the moment of birth. Of course Kepler believed that heavenly bodies had souls and interacted with human souls by tones and this resulted in harmony<sup>[4]</sup>.

The "interference blanket", that was formed after birth and after rhythms have been established, apparently maintains quite a stable structure as time goes by, reacting to specific combinations of cardinal signals (or a part of them), and "natural signals", thereby replicating to an extent the picture of cardinal rhythms at the time of formation of the "blanket". Here, we assume, lies the key to the rational foundations of medical astrology, as a system of knowledge concerning "bad" and "good" times for the health of various organs and functional systems of a specific individual.

#### **DESYNCHRONOSES AND DISORDERS**

In the life of an organism (say a human) this blanket (just like any other) wears out and may be impaired, which leads to rhythm distortions localised at the level of cells and organs as well as at the level of functional systems. This phenomenon is called desynchronosis and it is one of the reasons and symptoms of many disorders including metabolic and oncological<sup>[5]</sup>. We think that desynchronosis is a reason and symptom of most chronic disorders (except perhaps infections). Indeed, according to modern data, the cells of an organism are constantly renovated, the time of complete cell renovation for different cells varies from few days to tens of years<sup>[6]</sup>. At the same time chronic disorders last longer than the time of full cell renovation of the affected cells, with some persisting over the whole span of life. If the reason of chronic disorder lies not in the cells and tissues, that are constantly renovated, then it may lie in the faulty synchronisation of the functioning processes in these cells.

As the "blanket wears out" it is possible that various types of desynchronoses begin to appear, for example a weakening or extreme reinforcement of a rhythm, degradation of the parameters of the rhythm entrainment mechanism, reconnection of a rhythm to an incorrect rhythm driver, emergence of regions of autonomous synchronisation etc.

Desynchronoses may also arise as a result of a (perhaps intense) pathogenic process or as a result of direct impact on biological oscillators.

We presume that throughout the biological evolution on Earth the gravitational wave resonances were perhaps the only external, and in fact quite weak, source of rhythmic signals. We also presume that the whole system of biorhythms relies particularly on the rhythmic structure of the resonances. Melody and music, dance, patterns on fabric and in architecture, symmetry in all its manifestations: rhythmic signals were perceived by the human (and not only) brain and sense organs as a rare and desirable phenomenon.

But this was the case up to the first industrial revolution and the revolutions that followed. Currently the frequency range of biological rhythms (0 – 1000 Hz), and even wider, is densely cluttered by technogenic signals of electromagnetic, visible, acoustic and seismic nature, on Earth as well as in the near-Earth space. And a large, if not overwhelming, part of these signals is rhythmical. During evolution there was never a task of filtering external rhythms, on the contrary, biological oscillators seek to catch external rhythmic signals.

The "blanket" of biorhythms, already worn out due to the modern and not always favourable ecological environment, begins to tear apart under the roaring rhythmic cacophony of our technological civilisation. The result is obvious: a sharp increase in chronic disorders, especially cardiovascular and oncological, observed in the prosperous "technologically civilised" part of the world.

Undoubtedly the efforts of humanity to reduce the pressure on the environment are extremely important. The struggle to decrease harmful emissions, improve waste disposal, reduce consumption, is a necessary attribute for the survival of humans as well as the planet. But in the case of desynchronoses and the problems caused by them it is slightly harder. Modern technological achievements may be somewhat successful in reducing emissions and improving the energy efficiency. However, the wind generators are actually sources of rhythmic electromagnetic and mechanical radiations of high intensity; electrical cars are hundreds of times more powerful than petrol and diesel ones, when seen as a source of electromagnetic rhythmic signals; mobile and generally modern wireless communications are a powerful broadband source of rhythmic electromagnetic signals. With respect to the last point, new studies are published regularly concerning the health safety of mobile devices. And though non-invasive electromagnetic brain stimulation (NIBS)<sup>[7]</sup> has a pronounced detectable impact, a far more powerful transponder, in cell phones of the 2G/ 3G/4G standard, working next to a person's ear is nevertheless deemed harmless to the brain. Desynchronoses and the relevant disorders are inseparable companions of the modern technological civilisation and constitute the price to be paid for its benefits.

However, few of us can afford or are ready to voluntarily abandon the advantages provided by civilisation. It is practically impossible in our urban lifestyle to get rid of the imposed technogenic rhythmical signals. In the calmer countryside things may be simpler (especially if there are no cell phone masts, airports, electric substations or electrical transmission lines in the proximity). It is even better in the wilderness, far away

from any human dwelling or industrial facility. Such a case of digital detox was used by Christ, when he stayed 40 days in the desert, and it is used by hermits. The method used to work as long as the main source of desynchronoses were annoying people (and centred around them technogenic signal sources). Technology however does not stand still, and artificial satellites today direct onto the Earth's surface a fairly uniform and ample flux of electromagnetic signal without avoiding even the farthest places. The intensity of these signals may not be large by itself, but still significantly exceeds the intensity of signals from gravitational wave resonances, which, as we presume, are captured by biological resonators.

## THE G2WAVE TECHNOLOGY

So anywhere you turn there is a catch. But something has to be done. A modern version of digital detox, introduced not by us, seems to be a reasonable way of resisting desynchronoses, though it is probably not enough in current circumstances.

In fact, living organisms on Earth possess impressive abilities for adapting to external conditions. That biorhythm blanket is able to withstand at least "individual attacks" from external rhythms and still restore its functionality. A coordinated system of rhythms is at a stable condition corresponding to a local minimum of potential energy, and any possible rhythm deviations are suppressed. But as the blanket wears out and the number and intensity of attacks increase, the rhythm coordination weakens, the defence mechanisms start to fail, and the blanket begins to tear. Then it is a straight road to diseases.

In the case of a regular blanket, when torn, it can be disposed of, and we can buy a new one. Such a trick will not work with our conventional "biorhythm blanket". Even replacing the spine of a living person with a new one may be easier. On the other hand, we can try to mend our "biorhythm blanket", just like we would do with a regular one.

As we wrote earlier, our notorious blanket can be regarded as a hologram record, formed by the interference of the cardinal rhythms and the organism's own rhythms, which are themselves built based on the cardinal ones. Under normal functioning conditions this blanket is similar to a gently swaying canvas. Desynchronoses look like disturbances in the smoothness of oscillations of the canvas. If the desynchronosis region is at a small part of the blanket, then we can revert the process by providing a synchronising signal either at cardinal frequencies, that participated in the formation of the affected rhythm, or at its "correct" frequency. This may lead (and in practice indeed it does) to the restoration of the affected rhythm, either as a direct consequence of using the correct frequency, or because of the rhythm correlation in the holographic structure of the "blanket". Exceptions may include cases of heavy rhythm impairments, for example when the corresponding biological oscillators have been destroyed.

After turning off the synchronising signal the restored rhythm in the affected area and the correct rhythms in the remaining part of the organism very quickly get in phase (by the mechanism of phase synchronisation). If there is no acute reason for desynchronosis, then the rhythm in the affected area is maintained, because it is now a part of the general synchronised system of rhythms, which is an energetically favourable state of the system.

If the reason for desynchronosis is not eliminated, desynchronosis may arise again after the synchronising signal stops. But repeated efforts of synchronisation will still exert a therapeutic action and may at the end lead to a restoration of rhythm, because for the duration of action of the synchronising rhythm the affected rhythm is replaced by the correct one, and this will synchronise and normalise processes that were so far controlled by the impaired rhythm.

We assume that the mechanism described above forms the basis of the therapeutic effect of the low frequency modulated signal in devices implementing G2Wave technology. The G2Wave technology uses a Gertsenshtein generator for the formation of micro-powerful gravitational wave. This wave undergoes low frequency modulation in the device. The effect that we think the gravitational wave has on tissues is described in a previous article<sup>[11]</sup>. The low frequency modulation of this radiation allows the creation of

waves with parameters comparable to those of gravitational wave resonance and, assumingly, with the organism's own rhythms<sup>[9,10]</sup>. By using such devices, we can restore affected biological rhythms in cells, tissues and organs of the organism. We regard that the impact on biological rhythms (restoration of normal parameters) can effectively deal with various desynchronoses and the accompanying chronic disorders.

For the time being we do not know the exact parameters of all cardinal rhythms or all the biorhythms. The solution of such problems will probably require an effort comparable to that for decoding the human DNA. But we have some results<sup>[10]</sup> and we continue our search.

We presume that the G2Wave technology will allow us to fight efficiently oncological disorders as well. Malignant tumours, according to modern views, are areas of desynchronosis. According to some data, the tumours create their own system of rhythms different from the system of rhythms of a healthy organism. G2Wave technology allows the restoration as well as the suppression of rhythms. Together with the extremely high penetrating ability of this method, it may be possible to develop targeted impact for the suppression of tumour cells alone, achieving an efficient, non-invasive suppression of tumour growth, regardless of tumour location.

# CONCLUSIONS

We presume that the biological rhythms of a living organism are an interrelated complex system, that acquires its final form some time after birth, with the participation of external cardinal rhythms created by gravitational wave resonances in the Solar system. Throughout an organism's lifetime this system carries information about the cardinal rhythms that participated in its formation and interacts with them. Defects (desynchronoses) in this complex rhythm system, accumulating throughout lifetime under the impact of endogenous and exogenous harmful factors, are the cause and symptoms of many chronic disorders. Desynchronoses may be effectively eliminated with the use of G2Wave technology.

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