

Beneficial Subliminal Music

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„The greatest illusion is
that mankind has limitation.”
Robert Monroe

The present doctoral paper is a follow-up the research paper “Subliminal music” published in the journal “Artes” (Vol. 6, pp. 141-154), which focused on presenting the harmful effects of the messages hidden in the musical discourse. According to this paper, “information perceived subliminally is processed and appropriated at a subconscious and unconscious level; thus subliminal programming becomes an instrument used to influence and alter behavior”¹. The present paper, Beneficial subliminal music, describes the use of subliminal music to obtain beneficial effects on the human mind and organism with the help of the technologies Binaural Beats și Hemi-Sync.

The human body is conceived in such a manner that it can vibrate with the sonic waves. We hear not only with the aid of the auditory apparatus, but also with the neural cerebral system, while it is self-evident that “the auditory system can operate only because it is connected to the nervous system. The human body is similar to a reverberating musical instrument”². The frequency of the audible sonic wave is between 30 and 15.000 vibrations per second, measured in Hz. The intensity of audible sonic waves is between 0 dB (corresponding to the lowest sound that the human ear can perceive) and 140 dB (the intensity of a sound so loud that it almost reaches the pain limit). This is how Yehudi Menuhin describes the vibrations that surround us and the way they are captured by the auditory apparatus: “Since music consists of audible vibrations, I would like to consider the human ear for a moment. What an extraordinarily strained instrument this is and how indefatigable, as ears continually demand to be satisfied and are never entirely idle. It is symbolically significant, to my mind, that we are endowed with eyelids to cover our eyes, but there is no stop for the ears, no way to block or remove the noises around us. Our ears can cause us to wake from the deepest sleep and only the deaf person, whom I conceive of as the loneliest of people, can imagine a world of total silence. At best, our ears can detect sounds that vibrate at less than 30 beats per second to 15,000 beats per second. These sounds, however, represent only one fraction of the much wider set of vibrations existing in the world; some of them can be perceived by our

¹ Rosina Caterina Filimon, „Muzica subliminală”, revista **Artes**, Vol. 6 (Iași: Artes), p. 141.

² Dorothée Koechlin de Bizemont, EDGAR CAYCE. MUZICOTERAPIE – MAGIA VINDECĂRII PRIN MUZICĂ (Editura PRO, 2005), p. 59.

ears as distinct individual beats, for instance the heart beats, at an average of 72 per minute, while others can only be seen, such as the ocean waves, the day-night cycle, the phases of the moon, the change of the seasons”³. The entire body is permeated by sound and responds with a sound, like a genuine musical instrument. Both musicians and music therapists, Steven Halpern and Louis M. Savary have put forward the idea that ”if on the one hand our body cells and our senses may be seen as vibration transformers, on the other hand the whole body is an instrument that releases its own vibrations and sounds. Some sounds such as the breathing rhythm and heart beats are audible, whereas others are more subtle and more profound and seem to escape us. Were we endowed with the appropriate auditory apparatus we could «hear» our own harmony”⁴. The human body captures the vibrations, then internally transforms them into emotions and responds through its own vibrations, through its own music. Menuhin stated that „there is sound right in the middle of the vibrations’ cycle. I am very sure that music helps us stay in touch with all the vibrations in the world. When the lowest sounds of a big church organ are heard, we can feel the vibrations in the whole body: also the violin which releases sounds up to the seventh octave has a similar impact on us”⁵. The human body responds to a sound with another sound due to the resonance phenomenon.

While the science phenomenon of resonance has been known for a long time, its impact on health has just recently been studied. In 1665, The Dutch physicist and mathematician Christiaan Huygens (1629 – 1695) (who is also the scientifically who developed the undulatory theory of light) noticed that two pendulums located one next to each other on the same wall show a tendency to synchronize their oscillatory motion, getting the same rhythm by a mutual transfer of energy⁶. In fact, the two pendulums mutually synchronize their own frequency. Similarly, sounding a tuning fork which emits a sound wave with a constant frequency of 440 Hz, will determine another sounding fork to start vibrating spontaneously in response to the sound waves released by the former. Resonance has an impact on the whole universe and manifests itself at sound, electromagnetic, nuclear and gravitational levels. If we carefully listen to the effect that a speaker has upon some glasses positioned in its vicinity, apart from the music from the speaker we will perceive some other sounds emitted by the glasses that have started resonating with the vibrations from the sound source. Upon trying various types of music we will notice that vibrations bear different impact on the glasses. The same is true when the human body is in contact with

³ Yehudi Menuhin, Davis W. Curtis, MUZICA OMULUI (București: Ed. Muzicală, 1984), p. 22.

⁴ Gianfranco Inserra, *Il corpo e la musica*, <http://www.psicoterapia-corporea.com/>

⁵ Yehudi Menuhin, Davis W. Curtis, *ibidem*.

⁶ Richard Gordon, QUANTUM-TOUCH: THE POWER TO HEAL (Berkeley, California: North Atlantic Books, 2006), p. 16.

sound vibrations, in cases such as audition in a concert hall, or producing sounds ourselves. Not all sound sources have a positive impact on health: for instance, atonal contemporary music creates a physical and mental state of discomfort in the body by the multitude of dissonances, and so do hard rock and heavy metal music, as well as the noise in the surrounding environment.

A physician specialized in alternative medicine Masaru Emoto (b. 1943) made it possible to visualize the effects of vibrations generated by music, words, and feelings based on research results related to wave fluctuation measurement in water. Frozen water crystals previously subjected to vibrations were photographed in special conditions and showed that due to resonance, the transmitted vibrations had changed the water's crystallographic structure to a great extent. In Masaru's opinion, this structural modification is valid in the case of water contained by the human body as well, taking into account that water in the human body amounts to a huge ratio (90% at birth, 70% in adulthood and 50% in old age). In the case of classic music "that water was exposed to well-formed crystals resulted, with distinct characteristics. In contrast, the water exposed to violent heavy metal music resulted in fragmented and malformed crystals at best"⁷. The picture gallery authored by Emoto comprises harmonious images of crystals created using pieces by composers Bach, Vivaldi, Mozart, Beethoven, and Tchaikovsky. "Be mindful, then, of the music you're listening to, for it is like food: we should not limit ourselves to a superficial taste, but we should try to evaluate what effects it has on us, or whether we <<digest it>> well or whether it is harmful, for if we listen to a certain type of music, our state of well being may increase or decrease"⁸. Just as we avoid food additives, so we should avoid the musical equivalents of food additives!

The resonance phenomenon accounts for brain waves-related occurrences. Even though by nature people are characterized by a specific combination of different brain waves, research shows that related individuals exhibit a cerebral synchronization of as much as 90%. These findings have created opportunities for assessing phenomena such as empathy, telepathy, and couple affection. Similarly, it has been found that when the brain was subjected to visual, sound or electric impulse, it had a natural tendency to synchronize itself with the transmitted impulse. The phenomenon was called Frequency-Following Response (FFR)⁹. For example, when the cerebral activity induced stress in the body and the subject was exposed to a different frequency stimulus corresponding to a state of relaxation, the brain would modify its activity due to resonance with the induced pattern. These investigations were the starting point

⁷ Masaru Emoto, *MESAJELE ASCUNSE ÎN APĂ* (Braşov: Ed.Adevăr Divin,2006), p. 25.

⁸ Enrico Cheli, *I poteri nascosti dei suoni*, <http://www.globalvillage-it.com/enciclopedia/med>

⁹ F. Atwater Holmes, "Assessing Anomalous States of Consciousness with a Binaural Beat Technology", *Journal of Scientific Exploration, Society for Scientific Exploration*, Vol. 11, No. 3, 1997, p. 263.

that led to the discovery of frequencies called Binaural Beats¹⁰. The technology was discovered in 1839 by the German physicist Heinrich Wilhelm Dove (1803 – 1879) and tested on the encephalograph by the American biophysicist Gerald Oster (1918 – 1993)¹¹ in 1973 at Mount Sinai School of Medicine in New York.

The Binaural Beats technique is a recent discovery in music therapy and currently it counts as “the best known method of mental training”¹², being researched and experimented upon in various research centres and universities. The use of binaural beats is achieved through mixing them with music or various sounds. When put into practice, this acoustic alchemy resulted in a significant increase in the creative power and in the acceleration of the learning process, in decreasing pain, anxiety and depression, in inducing sleep, relaxation, meditation and hypnosis. This happens when two sounds of dissimilar frequencies are sent separately through earphones to each ear, while the brain operates a difference in phase between the two sounds. The brain processes the two different sounds of 1000 Hz maximum frequency and creates the sense of a third sound called Binaural Beats. This sound must not exceed 30 Hz so that the brain may be stimulated in a positive way only, thus inducing the desired cerebral wavelength. Since the human ear does not perceive sonic waves with a frequency lower than 30 Hz (classified as infrasounds), it has to be “deceived” through this special technique. Electronics and computers applied to music make the use of such frequencies possible through the special sonic waves. Depending on the frequency of the stimulus, a certain brain wave is induced, which is associated to a certain state of the organism. To conclude, Binaural Beats are in fact a subliminal aural message because they cannot be captured by the human ear and are perceived unconsciously at brain level.

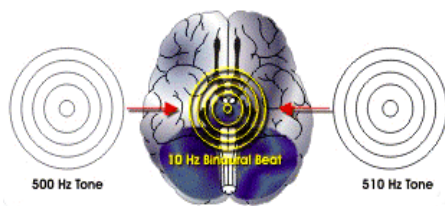


Fig. 1 Graphic representation of the Binaural Beat wave

For example, if a sound of 510 Hz frequency is released in the right ear and another of 500 Hz is simultaneously released in the left ear, the difference of 10 Hz will be perceived and decoded by the brain which in turn will be stimulated as a reaction to the new sound generated by this innovative technique. Binaural Beats are brain’s auditory responses coming from the superior oval nucleus of each cerebral hemisphere (Fig. 1). “In the case of

¹⁰ ibidem, pp. 263-274.

¹¹ Gerald Oster, “Auditory beats in the brain”, **Scientific American Magazine**, Nr. 229, 1973, pp. 94-102.

¹² Vadim-Alexandru Pungulescu, “Câteva considerații despre remodelarea cerebrală frecvențmetrică”, **Sesiunea de comunicări științifice „Spațiul sud-est european în contextul globalizării”** (București: Ed. Universității Naționale de Apărare “Carol I”), 2007, p. 163.

binaural beats, the brain acts like a mixer. These impulses encourage mental training. In ancient cultures monoaural beats were used to induce a state of trance in the brain using rhythmic drum sounds and other instruments that generate such waves, a specific example being the Zulu and the South American rituals”¹³.

The brain is in a permanent flow of electric and chemical activity, releasing electric impulses called brain waves: Delta, Theta, Alpha, Beta, and Gamma whose combinations determine an individual’s different states of conscience. In order to understand the underlying principles in beneficial subliminal music it is necessary to understand our brain waves activity. The states of conscience are associated with brain waves frequency patterns illustrated by the electroencephalograph. These wave frequencies calculated in Hz vary depending on the individual’s state of conscience. The brain waves used in the binaural technology have been categorized into four frequency bands which correspond to the four frequency patterns reflecting different brain activities. Delta waves ranging between 0.5 Hz and 4 Hz correspond to deep physical and mental relaxation of deep, dreamless sleep. They also define the clinic condition of unconsciousness and are produced in either self-degeneration or self-healing processes. Theta waves which are located between 4 Hz and 8 Hz accompany deep meditation and REM dream-type sleep. They also associate with artistic, creative processes as well as with eager study habits. Children, more than adults, are by nature in the Theta stage, therefore learning and retaining information is much easier for them. Alpha waves have a frequency ranging between 8 Hz and 14 Hz and characterize the vivid yet relaxed state of conscience, calm and receptive mind, and are typical of meditation. Beta waves ranging between 14 Hz and 30 Hz underlie our fundamental activities related to survival and are associated with brain’s alert intellectual activity (Fig. 2). For instance, on reading these lines your brain produces beta waves. At times of stress and anxiety, the Beta waves allow us to keep the situation under control and easily find solutions.

Cerebral waves	Wave band	Cerebral states
Delta	0.5 Hz – 4 Hz	deep sleep
Tetha	4 Hz – 8 Hz	drowsiness and the first stage of sleep
Alpha	8 Hz – 14 Hz	relaxation
Beta	14 Hz – 30 Hz	alertness and focus

Fig. 2 The cerebral waves, their respective wave bands and the brain states they induce

¹³ ibidem, pp.163-164.

The EEG signal dominant frequency establishes the brain's state: if, for instance, the Alpha wave amplitude is higher than of the others waves, the brain is in the Alpha state. If Beta waves are predominant and a 10 Hz stimulus corresponding to Alpha waves is induced, the cerebral activity will change and get synchronized with the frequency to which it was exposed, thus changing the individual's mood. When the brain's state is closer to that of the stimulus applied, this state is even more efficiently induced. In fact, if the desired effect is the leading of the brain cells to a certain state of "emission", it is necessary to apply a frequency that corresponding to their "wavelength" at that moment, which should then be augmented or reduced, so that the brain is in permanent resonance with the stimulus applied, until the desired state is reached. The cerebral synchronization occurs naturally on a day-to-day basis but only incidentally and on short term periods. The majority of people in modern society use the vigil state of their brains, leading to Beta wave predominance. This wave frequency is typical of analytic thinking as well as permanent tension, concern and anxiety, based on which most of the cerebral wave transformers attempt to convert Beta waves in Alpha ones.

The easiest methods of brain stimulation are put into practice using auditory and visual subliminal stimuli. Such techniques are already used in space missions. For example, when for technical reasons the astronauts have to work long hours without a break or stay awake to monitor the equipment, they are submitted to a treatment based on intermittent light and sounds which alter their biological clock and reactivates focus, enabling them to fight sleep and fatigue.

Many companies have applied the Binaural Beats technology in creating the so-called *Mind Machines* which induce the desired state in the brain thus yielding similar effects to yoga meditation, autogenous training, but in a much shorter time and through easier techniques.



Fig. 3 Reson-8

One such device is Reson-8 (Fig. 3), a miniature Binaural Beats generator that synchronizes the cerebral hemispheres to the Alpha, Theta or Delta wavelengths. Reson-8 is equipped with a microprocessor containing eight audio programs on different frequencies: three programs for inducing Alpha waves, three for Theta waves, and two programs for Delta waves. The use of the device is very simple, requiring mere program listening using a headset. Reson-8 was created to improve the learning processes, to help cure insomnia and headache, addiction to medicine, drugs, alcohol, or smoking, and to support excessive weight loss. Ronald Montplaisir from Saint Louis, State of Missouri (USA) shared his experience using Reson-8 wave generator "to help me learn to create more endorphins so I could quit taking morphine. I have a rare bone disease (Erdheim-Chester). /.../I searched

the Internet and found the brain wave generator. I set up a 10 voice profile and used it for 4 months almost non stop day and night. Next month I stopped taking Zoloft and 13 months later I was completely off pain killers. From time to time the pain rises up and I use the generator for a few days. /.../ My case is very well documented and I would be happy to discuss it. This technology is quite remarkable.”¹⁴ Rod Paille from Mount Carmel, State of Illinois (USA) stated that “for years I have been suffering from cycles of insomnia, sometimes sleeping only 4 hours a night for days in a row. As owner of a health food store I have access to all herbal products for sleep. These would help sometimes but only for a while. [...] When I tried the brain wave generator I was able to design some presets that have worked extremely well for me. I fall asleep easily and if I wake up usually a few minutes with the tape is all it takes. My insomnia has decreased by at least 90%. I am greatly impressed!”¹⁵

The subliminal cell phone is one of the Samsung Company’s notable achievements, apart from cell phones capable of fingerprint recognition or movement detection. Samsung SCH-S350¹⁶ promoters state that this cell phone can induce Alpha waves in order to increase mental vividness and focus. The Alpha waves are released by a cell phone-integrated MP3 player.

The Binaural Beats phenomenon was also researched by Robert Monroe at the research centre bearing his name – The Monroe Institute (TMI)- founded in 1974 and aimed at the development of human potential. In his experiments, Monroe proved that certain sounds can be mixed so that they modify the cerebral activity, triggering a change in the individual’s mood from deep relaxation or sleep to states of expanded consciousness. The technology studied and developed by Monroe based on the *Binaural Beats* phenomenon was called *Hemi-Sync*¹⁷.

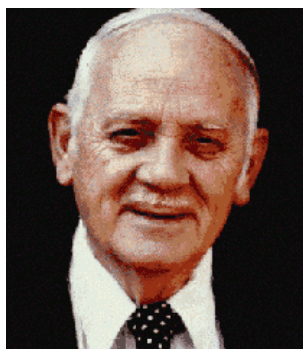


Fig. 4
Robert Monroe

Robert Allan Monroe (1915 – 1995) (Fig. 4) was an American engineer, businessman, inventor, a pioneer in investigating the human consciousness, radio station producer and director, and was also known as a radio, TV and cinema music composer. Born in Lexington, Kentucky in 1915, he graduated engineering at Ohio State University and in 1937 became a producer and manager at two radio stations in Ohio. Two years later, he extended his radio career to New York, where he produced and managed weekly radio shows and finally set his own

¹⁴ *Brain wave generator: testimonials from users*, <http://www.bwgen.com/comments.htm>

¹⁵ *ibidem*.

¹⁶ *Samsung's SCH-S350 emits alpha waves*, <http://www.engadget.com/2005/04/18/samsungs-sch-s350-emits-alpha-waves/>

¹⁷ Hemi-Sync reprezintă prescurtarea de la Hemispheric Synchronization (sincronizarea emisferelor cerebrale)

broadcasting company; in the 50's and 60's this company produced around 28 radio programmes. In this period, Monroe became notorious as a composer of music for the radio, television and cinema. He bought several radio stations in North Carolina and Virginia and engaged in the development of cable television; he was one of the founders of the company *Jefferson Cable Corporation*. While he continued his successful radio activity, he initiated his first experiments in the states of expanded consciousness. In 1956 he created a research and development department to study the effect of various sound patterns on human consciousness. He initiated experiments of methods and techniques aimed at learning processes acceleration, including the possibility of learning while sleeping. Furthermore, Monroe worked in close connection with physicists, biochemists, doctors, psychiatrists and psychologists to add more perspective to his initial findings. His preliminary studies were published in his first book "Journeys Out of the Body"¹⁸ (1971) available in 8 languages.



Fig. 5 Monroe Institute,
Blue Ridge Mountains of Virginia

His research led to remarkable discoveries on the nature of the human conscience and in 1975 Monroe patented his *Hemi-Sync* audio technology. In the 70's he started to present workshops on the exploration of the conscious mind in various areas of the United States; in 1979 The Monroe Institute moves in its own building in the Blue Ridge Mountains of Virginia (Fig. 5). The methodology promoted by the Monroe institute does not contain any political or religious creed; it is rather a non-invasive method – the attendants exercise their free choice and retain their convictions. Monroe's research has triggered the development of an extended industry of audio products for the mind; millions of people have benefited of them so far. The programmes within the Monroe Institute are accompanied by CD-s containing *Metamusic* aimed at helping and cheering the listener and do not contain any subliminal messages. *Metamusic* mixes the *Hemi-Sync* technology with various types of music ranging from classical to New Age. Through these CD-s the brain is stimulated by auditory means and the immediate effects are deep muscle relaxation, diminished pain, a feeling of deep calm and peacefulness and increased well being.

¹⁸ Robert Monroe, *ULTIMATE JOURNEY* (New York: Broadway Books, 2000).

Examples of metamusic audio materials released by The Monroe Institute:



Fig. 6
Einstein's Dream

The CD “*Einstein's Dream*”¹⁹ (Fig. 6) is aimed at intensifying mental abilities using the Mozart Effect²⁰. It addresses the spirit and the intellect, stimulating focus and imagination. It is also meant to help patients suffering from Attention-Deficit Hyperactivity Disorder (ADHD), dyslexia and other learning challenges. The CD includes Albert Einstein’s favorite pieces, i.e. Mozart’s thaumaturgic *Sonata for Two Pianos in D major, K. 448* to which the *Hemi-Sync* sound technology was added in order to facilitate the desired cerebral synchronization.

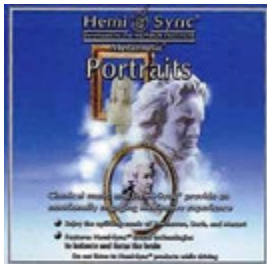


Fig. 7 *Portraits*

The CD “*Portraits*”²¹ (Fig. 7) use Hemi-Sync sound technology to balance and focus the brain and includes music by Bach, Mozart and Beethoven in recognition of their genius. The CD is exploring the imaginary possibility for the three composers to create using the presently available technology and puts forward a reevaluation of the existent audio material.



Fig. 8
Baroque Garden

The CD “*Baroque Garden*”²² (Fig. 8) contains pieces composed by Bach, Vivaldi, Corelli and Albinoni combined with the *Hemi-Sync* technique in order to create a suitable environment for concentration and creativity. The music on this CD is interpreted by *Arcangelos Chamber Ensemble* and produced by Richard Lawrence and Joshua Leeds. For instance, the first entry on the CD is the second part *Largo* in Vivaldi’s *Concerto for Oboe and Violin, RV 548*. On comparing the original form of this composition with the

one recorded on this CD, it can be seen that even if the original form has been preserved unaltered, some changes have been made: while the soloist instruments are the oboe and the violin, on the CD the oboe is replaced by the flute; the version recorded on the CD has a simplified melody of the solo part, interpreted in *Largo* by the flute, while the melody ornaments and variations on a theme are eliminated; the figuration accompaniment of the violin in arpeggios is interpreted in pizzicato. All these alterations were performed for the recording to accomplish the CD’s declared vision of a “Baroque Garden”. The audio

¹⁹ *Einstein's Dream*, Primary Artist: J.S. Epperson, Record Label: Monroe Products, Music with Hemi-Sync® Binaural Beats, 1996.

²⁰ Rosina Caterina Filimon, „Efectul Mozart. Sonata KV 448”, revista *Artes*, Vol. 5, pp. 242-247.

²¹ *Portraits*, Record Label: Monroe Products, Music with Hemi-Sync® Binaural Beats, 2000.

²² *Baroque Garden*, Record Label: Monroe Products, Music with Hemi-Sync® Binaural Beats, 2000.

material rearranged by Richard Lawrence does not on the beauty of the original composition: it offers a new perspective to which value was added by means of interpretational accuracy.



Fig. 9
Richard Lawrence

Richard Owen Lawrence (1946 – 2005)²³ (Fig. 9), Richard Owen Lawrence (1946 – 2005), born in Troon, Scotland, Lawrence was a violinist, composer, orchestrator, producer and sound engineer. At 12 he won the *Edinburgh Music Festival* trophy and went on to study the violin at *The Royal Scottish Academy of Music* in Glasgow. He studied under the *Amadeus Quartet*'s guidance, was a member of the *BBC Orchestra* in Bristol and of other orchestras and

chamber music ensembles in Europe, Canada and America thus performing a vast repertoire. As a musical director of the company *The Arcangelos Chamber Ensemble* and *Advanced Brain Technologies (ABT)*²⁴, Lawrence combined his musical talent with his skill as a sound engineer. He produced audio recordings for ABT aimed at enhancing focus development, learning, thinking, motivation, productivity, inspiration, and relaxation support (Fig. 10).

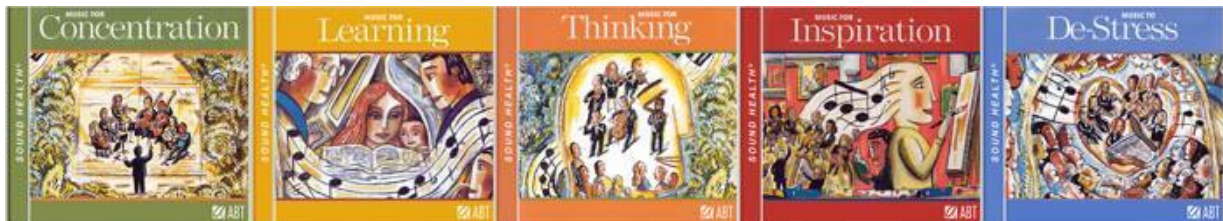


Fig. 10 CD-s produced by ABT Music

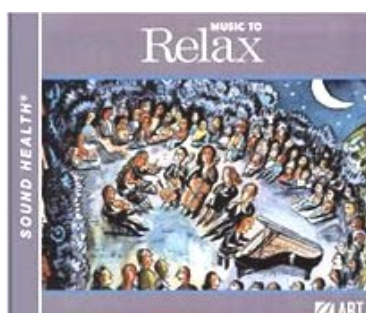


Fig. 11
Sound Health – *Music to Relax*

As with other metamusic recordings, the CD-s in this series contain re-orchestrated classic music whose parts have been reorganized in order to increase the effectiveness in reaching the targeted aim. For instance, “*Music to Relax*”²⁵ (Fig. 11) is focused on mental relaxation, rest and rejuvenation, muscular hyperactivity decrease, and reflective ability improvement and contains the following musical pieces: 01. Bach – *Arioso* from *Concerto for harpsichord, strings and basso continuo* No. 5

²³ *A Tribute to Richard O. Lawrence*, EEG Newsletter, Vol. 5, issue 5, February 2006, http://www.eeginfo.com/newsletter/vol5_issue5_newsletter.htm

²⁴ *Advanced Brain Technologies*, <http://www.advancedbrain.com/>

²⁵ *Music to Relax*, Artist: The Arcangelos Chamber Ensemble, Record Label: Advanced Brain Tech, 1998.

in F minor, BWV 1056; 02. Beethoven – *Adagio* from *Piano Concerto No. 5* in E flat Major (“Emperor”), Op. 73; 03. Chopin – *Largo* from *Sonata No. 3* in B minor, Op. 58, CT. 203; 04. Corelli – *Adagio* from *Concerto Grosso in G minor* (“Christmas Concerto”), Op. 6, No. 8; 05. Schubert – *Andante* from *Piano Trio No. 1* in B flat Major, D. 898; 06. Bach – *Air* from *Orchestral Suite No. 3* in D Major, BWV 1068; 07. Bach – *Adagio* from *Concerto for 2 harpsichords, strings, and basso continuo* in C minor, BWV 1060; 08. Vivaldi – *Largo* from *Concerto for violin, strings and basso continuo* in A minor Op. 3, No. 6, RV 356; 09. Schumann – *Träumerei* from *Kinderszenen* for piano, Op. 15/7; 10. Bach – *Arioso* from *Concerto for harpsichord, strings and basso continuo* No. 5, in F minor, BWV 1056.

The musical pieces have been selected based on his research and experience as a violinist on the one hand and his studies spanning over 20 years to determine the impact of music on the psyche and the human body, on the other hand. In producing the CD-s, Lawrence’s personal experience was supported by other researchers’ findings in studying the phenomenon, including the Bulgarian psychiatrist Georgi Lozanov (n. 1926) who studied the effects of baroque slow musical movements on learning and memorization processes, the English composer Cyril Scott (1879 – 1970) who wrote extensively about several composers’ music effects and influence on the social life of the time, the French doctor Alfred Tomatis (1920 – 2001) who researched the effects of music on the auditory function and cerebral processes, doctor John Diamond (b. 1934) who looked at the effects of music on interpreters and orchestra directors.

The ABT project accomplishment was for Lawrence an alternative to the noise of contemporary world. ”All of us, children and adults, are bombarded every day by noises and sounds that have deleterious effects on our nervous systems and well-being. Even when we consider our houses to be quiet, there is often a hum from the lights, refrigerator, and other electrical appliances. We have to work hard to «tune out» extraneous sounds in order to focus on conversations, our studies, or the task at hand. One practical solution to this modern problem is to create healthy sound to mask the irritating environmental noise pollution”²⁶.

Beneficial Subliminal Music

Lecturer **Rosina Caterina Filimon** PhD student
(The University of Arts “George Enescu”, Iasi)

Abstract

The PhD study hereafter is a follow-up to the scientific dissertation titled “Subliminal Music” and published in *Artes* journal (Vol. 6, pp. 141-154), in which the harmful impact of subliminal messages hidden in musical speech has been debated.

²⁶ Richard O. Lawrence, *Creating Sound Health*,
www.advancedbrain.com/resource_center/articles/Article_Creating_Sound_Health.pdf

The present study, *Benefic Subliminal Music*, describes the usage of subliminal music set to incur beneficial effects on the human mind and body through the Binaural Beats technology and Hemi-Sync technology. The Binaural Beats technology was discovered by the German physicist Heinrich Wilhelm Dove (1803–1879) in 1839 and tested on the encephalograph by the American biophysicist Gerald Oster (1918 – 1993) in 1973, at Mount Sinai School of Medicine in New York. This procedure represents a recent discovery in the musicotherapy field and a new brain training technique, studied and tested in many research centers and universities. The cerebral hemispheres synchronization technology Binaural Beats was applied by Robert Monroe (1915 – 1995) as Hemi-Sync sound technology by means of mixing cerebral wave frequencies with music, nature sounds, and verbal guidance to the result of something more than music – Metamusic. This acoustic alchemy put into practice has yielded significant results in creative capability development, learning processes acceleration, pain relief, anxiety and depression amelioration, as well as in relaxation, meditation, and hypnosis induction.