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Sound Medicine for the New Millennium

Dr. Jeffrey D. Thompson, D.C., B.F.A.

Human beings have been using sound to access deeper states of consciousness, expand awareness and heal the body for thousands of years. Chanting, toning, Tibetan singing bowls, Chinese meditation gongs, and mantras, are just a few examples of this use of sound. Today, with highly sophisticated technological equipment, we can not only observe the functioning of the body and the brain in unprecedented detail, but also measure the changes that take place in the mind and body in different states of consciousness and different states of health.

Research projects in major universities across the country have explored the neurophysiology of meditation, deep relaxation states and mind/body interactions during healing. In one study a simple meditation technique used for 20 minutes a day caused profound changes in blood pressure, stress handling ability, immune response and feelings of well being - never mind using any kind of high-tech approach which could bring consciousness to very deep levels of relaxation. Using this technology as a daily tool for mind/body integration and stress reduction can have many positive benefits.

Present technology allows us to affect the body/mind in two parallel ways:

1. Healing the body with physical resonance using sound frequency vibrations.
2. Changing states of consciousness using sound with sympathetic resonance of brainwave function - Brainwave Entrainment.

Physical resonance is like making a wine glass vibrate with the correct sound frequency. In this case, we can resonate different parts of the body with sound for healing. My first attempts with this were chiropractic spinal adjustments using sound. Each vertebra is a different size, density, and mass and, just like a wineglass, can be resonated with the correct sound. This causes the vertebra to vibrate back into position using only sound waves. Similarly, cranial bones and cerebrospinal fluid can be influenced with sound resonance. Each organ is a different size, density and mass for each person and also has a fundamental frequency, which causes a balancing of the cellular function. These changes can be seen on a blood chemistry-screening test.

The brain itself is an organ. This organ also has a unique size, density and mass. What would the effect be of exposing the brain to its own fundamental frequency vibration pattern? It would be a normalizing of its function as an organ, responding as any other organ would respond. Since the brain's function is to coordinate and direct the function of all the other systems, we should see a global balancing of all the body's systems at the moment the brain is exposed to its own single fundamental sound frequency.

Using sound, it is possible to make profound changes in brainwave patterns and states of consciousness, observable on brainwave mapping equipment (EEG), as well as positive changes in the body measurable with blood tests, biofeedback equipment and other sophisticated procedures.

Bio-Tuning® - Using the Sound of Your Own Voice to Facilitate Self-Healing

This process, which I called "Bio-Tuning®," became the object of my full-time research after I moved from my Holistic Health Center in Virginia and established the Center for Neuroacoustic Research in San Diego, California in 1988.

With modern electronic sound equipment, we can test with frequencies accurate to 1/100th division of sharp or flat between two notes on the piano. To raise the accuracy and effect to a higher level, we must use a person's own voice singing this fundamental note. This releases a unique set of harmonics and overtones, which only your own vocal cords can produce - a voice vibration fingerprint. This is an exact pattern match of your essential vibratory template - the one your "Biological Organic Intelligence" used in the first place to form your body from two cells and then to maintain it moment by moment thereafter. There is also a profound sense of recognition by the same part of the deep subconscious of the vibration frequencies of your own voice.

We then use this voice-tone-frequency, sounding the exact tone for balancing and healing, through a special sound-therapy table. This table has speakers built into it, so that you become the sound itself. It becomes difficult to distinguish where the body ends and the sound begins. There is a sense of melting into the vibration of your own sound and your own voice.

To us, this is what the mantra really was. You go to the great master who sees that the entire world is vibratory patterns. He sees that you are a unique vibratory pattern in the universe. He sings the acoustic octave of this sound to you, you sing it back until you know it and memorize it, then you go off and meditate and chant this sound to yourself - resonate yourself from the inside out and balance yourself right down to the core of your consciousness.

For example, the imbalances one may experience physically, emotionally, or mentally are external projections of the only real imbalance that can exist - in consciousness itself. Reaching this place and coming into balance - me with my Self - is the only way I can heal the real cause of my pain and suffering.

Sound Frequency Patterns Built into Music Cause Positive Changes in Brainwave Function

In a series of recordings based on these principles I have used sound frequency patterns built into the music that have been shown clinically to cause positive changes in consciousness and brainwave function.

By precisely altering the sound signals in the right and left ears, a "frequency modulated pulse" appears which causes a sympathetic response in the brain. This leads to coordination of right/left brainwave activity and a general slowing of brainwave activity, which is associated with deep relaxation, stress reduction, creativity, insight and problem solving. This phenomenon is called "brainwave entrainment."

A good part of the stress we all experience in the twentieth century is due to the advancements of our own technology. This same technology, combined with our traditional techniques for healing and achieving balance, may help neutralize the stress we have created.

In this series of recordings we have used three coordinated methods for bringing the mind/body into a state of deep relaxation and balance; "Primordial Sounds," "Brainwave Entrainment" and "multi-layered music" recorded in 3D.

Many of the sounds heard on these recordings are sounds you don't even notice. Certain sounds have the power to awaken deep levels of recognition in the subconscious mind. We call these sounds "Primordial Sounds," - i.e., sounds that are primordially recognizable to the subconscious mind, regardless of race, sex or language.

"Primordial Sounds" Awaken our Organic/Biological Intelligence

Our first sensory experience in life as a fetus in the womb is of sound and vibration. We float in body temperature amniotic fluid - weight-less. We have fluid in our nose and mouth, which eliminates the senses of smell and taste. We have our eyes closed and are in the dark - no sense of sight. We have fluid in our ears pressed right up against the eardrum - but sound travels through water five times more effectively than through air, therefore our sense of hearing is actually amplified. The symphony of

sound patterns we experience at this time will be deeply embedded in our subconscious mind for the rest of our lives - the sound of water swishing, arterial pulse sounds and voices. These are our first experiences of "Primordial Sounds."

Recordings of these types of sounds form some of the "primordial sounds" heard on these recordings. Each of these sounds is intentionally altered and disguised by slowing them down and speeding them up. By changing the speed of these sounds we can side-step the rational/thinking mind, which will no longer recognize the sounds, and tap into the subconscious directly, with sounds it deeply recognizes and responds to. In one sense, the organic/biological intelligence, the same intelligence that grew our entire body out of two cells, will certainly be awakened with a recognition of sounds recorded from this body.

Experiments with Sound Have Led to Some Startling Revelations

An interesting thing happens when recordings of people speaking are speeded up and slowed down. If these recordings are doubled in speed three times (raising the pitch by three octaves), human speech patterns sound remarkably like birds chirping. When raised in speed by eight octaves, these recordings sound just like crickets chirping. Slowed down from normal speed by three octaves they sound like dolphins and at eight octaves slowed down, sound like the ebb and flow of the ocean.

It is interesting that recordings from the human voice should sound like nature sounds. What happens if we take cricket sounds and slow them down? They sound like birds chirping. Bird sounds slowed down sound like dolphins, and dolphin sounds slowed down sound like people singing.

The famous Psychiatrist, Carl Jung, would have been pleased - this seems to fall directly in line with his theory of the "collective unconscious." A level of the unconscious mind deeper than our personal unconscious shared by us all, populated with universal archetypal images ("primordially recognizable" images, just as these sounds seem to be "primordially recognizable" sounds). The collective unconscious in this sense would be access to my larger body/mind, the planetary level of my collective unconscious, which knows how to "grow" a planetary ecosystem of which my personal body is just a part. It is almost as if the whole universe is one organic being with many parts all designed from variations of the same blueprint.

Awakening the Various Levels of the Subconscious Mind

In 1989 I came in contact with an aerospace engineer with sound recordings from the Voyager spacecraft. These recordings were taken as Voyager passed by the outer planets of our Solar System - Jupiter, Saturn, Uranus, and Neptune. These NASA recordings from outer space, which were of charged electromagnetic particles (ions) in the magnetic fields of planets vibrating within the range of human hearing, sounded remarkably like ocean sounds, dolphins, choirs of voices singing, crickets and birds. There are also other sounds too strange to identify, but which seem very familiar. Interestingly enough, the rings of Uranus produce sounds like Tibetan bowl recordings that have been slowed to reflect their subtle harmonics. Could this be a deeper, vaster level of the collective unconscious mind which knows how to "grow" a planetary solar system of which Earth is just a part - and which my body grows out of?

Could These Sounds be Recognizable at a Deeper Level of the "Collective Unconscious?"

It is these three classes of sound ("Primordial Sounds," "Brainwave Entrainment" and "multi-layered music") that are embedded in the sound track of some of these recordings to awaken the various levels of the subconscious mind.

It is at this inner level of ourselves that our bodies are self-organized from two cells by the same inner system from which the daily functions of our body are coordinated and directed. It is from here that the knowledge of our problems and the answers and solutions to them reside.

This is what we mean by the use of "Primordial Sounds" to access a deep level of ourselves for healing, relaxation and balance.

These sounds are mixed into the soundtracks we have recorded in such a way that they can be heard but not necessarily recognized for what they are by the rational-thinking mind. Some of the nature sounds on these recordings are actually space-sound recordings or human body sounds.

Entrain Your Brain

Brainwaves can be controlled with sound waves using a technique called "Brainwave Entrainment." This involves creating special pulse rates in the recordings that cause a sympathetic response in the brain.

Brainwave Entrainment is part of a larger biological function called "Biological Sympathetic Oscillation". Our biological "clock" sets itself to external cosmic events; day length cycles, full moon cycles and seasonal cycles to name a few. The body will set itself to the most powerful external pulse cycle it is exposed to. In this case we can create powerful sound frequencies pulsing at exact brainwave speeds and cause the brainwaves to alter themselves to match the sound frequencies - that is, entrain themselves, to the sound pulses thereby altering one's state of consciousness.

We know from many research endeavors that certain deeply relaxed states of consciousness are associated with specific brainwave patterns on an EEG brain monitor. We also know that with brainwave entrainment we can cause brainwaves to sympathetically "lock on" to an external sound-pulse at a brainwave speed. This gives us the tools to gently guide brainwave function and states of consciousness into deeply relaxed and balanced states.

On all of these soundtracks all of the pulse frequencies are built into every sound you hear, including each instrument sound, voice sound, nature sound and NASA space sound on the recording. The frequencies used mostly are low Alpha and Theta brain frequencies. The brain states associated with these frequencies are peaceful relaxation, heightened visualization/images, problem solving, insight and intense creativity.

When we compose and create these musical soundtracks, the Brainwave entrainment pulses built into the instrument sounds entrain my own brainwaves and state of consciousness into a state of intense creativity - that's where the music you hear is coming from.

Certain types of sounds and music have a proven effect in creating states of relaxation, balance, healing and visualization. Generally these include certain types of lyrical, flowing melodies and chord arrangements. Certain chord arrangements can create an atmosphere of peace, mystery, awe and openness.

To get the full effects of the 3-D sound and brainwave pulse-wave information, which requires the right/left sound images to be completely separated from one another, it is best to listen to these recordings with headphones on, eyes closed, and lights out. You will hear the sounds moving around you in three-dimensional space. You can get a similar effect with speakers if you place them directly to the right and left of your body. This way, you will also feel certain parts of your body resonating with certain sound tones in the music.

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