The Music of the Spheres: Em, Sound, Music, and Genetic Expression

THE MUSIC OF THE SPHERES: EM, SOUND, MUSIC, AND GENETIC EXPRESSION

by Joseph P. Farrell
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In my book on mind manipulation technologies and techniques, *Microcosm and Medium* (Lulu), I spent much of the first chapter trying to illustrate how the arts, and in particular, music, through an ancient doctrine called *Affektenlehre* (doctrine of the affects) played a major role in the cosmology and thinking of most composers up to the beginning of the classical and romantic eras, when there was a fundamental philosophical shift. Certain types of harmonic, rhythmic, and melodic procedures, and musical structure itself, contributed to a manipulation or evocation of specific universal human passions proper to the human nature. I also reviewed the mind manipulation research that took place in the Soviet bloc that was specifically tied to the arts and music. And, in addition to all of this, most of us have probably heard of those articles about plants growing better if exposed to certain type of music, or infants that have higher IQs when exposed to music, and so on.

That book sparked a somewhat lively discussion on this website in our members' vidchats, over whether or not this might have an effect on biological systems directly. On such occasions, I've told about my experiences growing up playing the pipe organs of various churches in and around Sioux Falls, South

Dakota. Most of the instruments I practiced on were fairly substantial and large instruments, in "wet" acoustical chambers with lots of reverberation. Organs like this are unique, in that the soundbox of the instrument is the building itself, and not a box or sound chamber like on a piano or a guitar or violin. You're sitting *inside* the instrument, not outside of it, and the result is a very unique musico-physiological experience. One *feels* the vibrations of the music in a very unique and immediate way. That experience and those discussion led to speculations that perhaps there was a direct influence of music on genetic or epigenetic expression. And in my own experience, I credit having attempted to play the organ — no one ever really masters the instrument, it masters them — with my drive to connect dots and patterns across several different contexts, after all, that's what contrapuntal music and in particular, organ music are all about. It does something to the mind that is quite marvellous, and I know there are organists out there who know exactly what I'm talking about.

Well, lo and behold, one of our alert readers and regular article contributors, S.D., spotted this amazing article and passed it on to me, and when I saw the subject and read the article, it vaulted right to the top of my "finals" folder this week:

Life Rhythm as a Symphony of Oscillatory Patterns: Electromagnetic Energy and Sound Vibration Modulates Gene Expression for Biological Signaling and Healing

There are a number of quite astonishing statements in this paper that more or less confirm the idea that somehow, music modulates genetic expression and "rewires" the neural pathways of the brain; picking out just a few of these, and retaining their order in the paper, just consider the following:

> *All life exists within a sea of vibration, and rhythm is fundamental to all of life. Diurnal, seasonal, lunar, and*

solar cycles, and the resonant electromagnetic field (EMF) oscillations of our planet make up the symphony of rhythms in which life on Earth exists.

That statement alone is as succinct a modern statement of the ancient idea of the music of the spheres as I think can be made; it echoes the late Leonard Bernstein's phrase about music and the "poetry of earth" made during his 1973 Harvard Norton Poetry lectures. But the authors of the paper – David Muesham PhD and Carlo Ventura, MD., PhD – go on to include some rather astonishing research and details:

Rhythm is the fundamental characteristic of music. In frequencies, timbres, and the passage of beats through time to form rhythms, music is an apt metaphor for this carrier of life-information. And the notion that music can touch the core of our being and is as old as human consciousness. Plato grappled with the powers of music in The Republic, stating that the various Greek modes convey specific qualities: "Then beauty of style and harmony and grace and good rhythm depend on simplicity—I mean the true simplicity of a rightly and nobly ordered mind and character."[10] And though Shakespeare has been famously quoted as referring to music as the "food of love," he went much further, writing that music has the power to create: "Orpheus with his lute made trees, And the mountain tops that freeze, Bow themselves, when he did sing," and the power to destroy life: "In sweet music is such art, Killing care and grief of heart, Fall asleep, or hearing, die."[11]

Music has been shown to modulate several cardiac and neurological functions and to trigger measurable stress-reducing pathways,[12] to modulate blood pressure, heart rate, respiration, EEG measurements, body temperature and galvanic skin response; alter immune and endocrine function; and ameliorate pain, anxiety, nausea, fatigue, and

> *depression.[13] Significant correspondence has been found between specific musical tones played to the skin through speakers and traditional Chinese descriptions musical tones associated with the acupuncture meridians.[14] The notion that one "hears" sounds not only through the ears but rather through the whole body is echoed in the words of the Sufi musician, healer and mystic, Hazrat Inayat Khan:*
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> > *A person does not hear sound only through the ears; he hears sound through every pore of his body. It permeates the entire being, and according to its particular influence either slows or quickens the rhythm of the blood circulation; it either wakens or soothes the nervous system. It arouses a person to greater passions or it calms him by bringing him peace. According to the sound and its influence a certain effect is produced. Sound becomes visible in the form of radiance. This shows that the same energy which goes into the form of sound before being visible is absorbed by the physical body. In that way the physical body recuperates and becomes charged with new magnetism.[15]*
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> *Here, Khan reinforces the notion of a deep relationship between music and neurobiology, indicating that further understanding of how music can modify nervous system activity could have implications for developing mind-body-spirit therapies that are effective not only as adjuncts, but as central treatment modalities in rehabilitation and therapy.[16]*

There are other gems in the article, in addition to a mountain of details (which I hope the readers of this blog will read in the whole article). Here are just a few of those gems:

> *Also, a remarkable study recently found that the human body is able to distinguish at the molecular level between two*

> *different internal states: eudaimonic well-being, derived from "striving toward meaning and a noble purpose beyond simple self-gratification," as compared to hedonic well-being, that which is derived from "positive affective experience."[231] Although hedonic and eudaimonic well-being produced similar subjective feelings of happiness, they were found to engage distinct gene regulatory programs.*

Or this:

> *In order to encourage a medical tradition that incorporates understanding of the patient's mental, emotional, and interpersonal life, sensitivity and compassion are needed on the part of the healer. Such a medicine crosses the boundary of Science and Art, as the doctor's own sensitivity, clear understanding, and capacity for pathos would play an important role. And just as music can have the capacity to touch our deepest sentiments, and evoke feelings across the entire spectrum of human emotion, as scientists begin to understand the language of health, emotions, and heart rate variability,[6] and begin to decode the language of cellular vibrations and biofield information, it may be possible to develop new forms of healing. As healers have used music for therapeutic purposes for centuries, might cell-music or EMF "biomusic" be further developed as a kind of medicine?*

In a way, if one did not know otherwise, one might think one is reading a treatise about the *Affektenlehre* by Mattheson, or Werkmeister, or for that matter, passages of Albert Schweitzer (a physician and organist! [pupil of Widor]) in his biography of J.S. Bach, and his extended treatment of the musico-rhetorical practices Bach used – *constantly* – in his music and particularly his organ music. What the good authors of the article are suggesting is that there are actual quantifiable neurophysiological and genetic expressions that result from immersion in certain types of vibratory fields, whether

electromagnetic, acoustic, or both. And most musicians playing in ensembles or solo, will be familiar in a very intuitive way that this is their experience.

This considerations lead to a final thought, namely, that perhaps it's time that these types of researchers and researches go back and look twice that the old exponents of the *Affektenlehre*, the Werckmeisters, the Matthesons, and so on, because if these authors are correct – and I definitely think they are – the old doctrine is being revived in a major way, and given some new scientific legs to stand on.

See you on the flip side…

Source