



Sound Healers Association

[Home](#)

[Membership Directory](#)

[Join SHA](#) [About SHA](#)

[Temple of Sacred Sound](#)

[Courses & Training](#)

[Listening Library](#)

[Articles & Bibliography](#)

[Events](#) [Links](#)

[Contact Us](#)

[Login](#)

Chanting, Listening and the Electronic Ear

The Pioneering Work of Dr. Alfred Tomatis
by Don G. Campbell

For nearly two years, the monks of Santa Domingo in Spain have been making the top of the charts for months and months in Europe and the U.S. The monks themselves think it is because of the marketing techniques of their producers, but it may be because of a far more interesting phenomenon predicted nearly twenty years ago by the remarkable French MD, Alfred Tomatis.

Since the 1950's Dr. Tomatis has researched the effects of Gregorian chant upon the brain and body. By the early 1970's when Vatican II modified the liturgy of the Roman Catholic Church, Dr. Tomatis was being asked to visit monasteries and council the abbots and monks on their failing health and energy. He remarkably noted that until they returned into their natural sounds of Latin singing psalmody and chant, that they would no longer feel the natural rhythms of the day.

Dr. Tomatis was not making these suggestions from a fundamental, conservative, Catholic viewpoint. He realized that the power of self-generated tones, elongated vowel sounds and the power of the rhythmic breath could alter the whole attitude and physical body of a person, not to mention the spiritual relationship with God.

To stimulate the brain, actually charge it with energy, is most easily done with the voice, intoning vowel sounds. Gregorian chant is an ideal way to use slow vowel sounds to relax the body, mind and soul. Taking long deep breaths with a light humming sound demonstrates the effect of the voice on the body after only a few minutes. To listen to the sounds of Gregorian chants makes a suggestion to the body to breathe more deeply and to center itself. It is one of the most simple ways to balance the mind and body. Gregorian music is not boring although it does not create a magnetic rhythm or melody to enchant the listener. It actually stimulated the brain with long sounds and elongated breaths. This humming or slower toning of the vowel sounds actually massages the body from the inside out.

For the past forty years, Dr. Alfred Tomatis has tested over one hundred thousand clients in his Listening Centers throughout the world for listening disabilities, vocal and auditory handicaps as well as learning disorders. He works with a wide scope of people, including professional musicians, Benedictine monks, autistic children, as well as people with severe head injuries. His comprehensive view of the ear sets altogether new paradigms for education and rehabilitation.

Dr. Tomatis' research into auditory neurophysiology provides a solid foundation to our intuitive appreciation of the powerful healing potential of sound and music. For more than four decades, his pioneering efforts to understand the nature of the auditory phenomenon has generated a growing depth of recognition of the pivotal role of the ear in human development and function.

Tomatis' accomplishments are many. He was the first to understand the physiology of listening as distinct from hearing. He has clarified understanding of the dominance of the right ear in controlling speech and musicality and developed techniques to improve its function. His research on prenatal listening led to therapeutic treatment for certain types of hearing loss and emotional disorders associated with trauma during pregnancy. He is credited with the discovery that the voice can only reproduce what the ear can hear, a theory first ridiculed, but later widely accepted and dubbed the "Tomatis Effect" by the French Academy of Medicine.

Tomatis' father was a well-known opera singer, so when the young physician entered medical practice after World War II, he often found himself treating his father's many musical friends. It was as a result of this early clinical experience that Tomatis discovered a cybernetic loop between the ear and the voice, which meant that the voice was not primarily influenced by the larynx, but, in fact, was controlled by the ear.

Tomatis was also learning from studies of aircraft factory workers that hearing loss was not necessarily strictly physiological in nature but may at times have psychological roots. In turn, his scientific curiosity later led him into the world of the womb, where

he described how the mother's voice was conducted through the bones to the unborn child and its role as a primal source of nurturing orientation. This theory led to the development of a technique called "sonic rebirth" that filters simulated uterine sounds to treat types of hearing loss or emotional disorders.

One of Tomatis' most important contributions concerns the way the ear stimulates the brain. In fact, according to Tomatis, the main function of the ear is to charge the nervous system with electrical energy. This cortical charge is vital to the body's ability to function in dynamic balance. In other words, we hear in order to live. Furthermore, the better we listen, the better we think, a view that turns the traditional view-one listens better if one thinks better-upside down. Of course, listening does entail the desire to hear, which is a cognitive function, but one that operates within specific neurophysiological parameters.

In short, Tomatis views the ear as the primary sensory organ affecting the brain. It has a profound impact on physical well-being. The ears control motor skills, regulating balance and coordination through the inner ear vestibule. The ear integrates the information in sound, organizing language and the ability to sense laterality and verticality. When finely toned, this listening ability can facilitate a range of positive health effects, including improved vocal control, more energy better disposition, even improved handwriting.

Tomatis' scientific discoveries rank him as one of the great twentieth century medical minds, but his research has been but a prelude to the development of practical therapeutic treatments based on his electronic ear technology. The Electronic Ear, which uses filtered high frequency sound to improve ear function, had proven effective in treatment of conditions ranging from depression and attention deficit disorder to chronic fatigue and dyslexia. As well, this technology is used as an adjunct to psychotherapy for people recovering from early childhood trauma, sexual abuse, and depression, and by artists and singers seeking to overcome creative blocks or vocal limitations.

How does the Electronic Ear work? Tomatis explains that the distinction between listening and hearing begins in the middle ear. It is possible to correct a *hearing* or *learning* problem that is in reality a *listening* problem through stimulating the muscles of the middle ear. The electronic ear exposes listeners to a sound continuum of non-filtered or normal sound to sound filtered to exclude all frequencies below 8000 Hertz. Specifically, the Tomatis Method relies on filtered high-frequency Mozart, Gregorian chants, and spoken voice. The sound gently alternates between low bass and high pitched treble sounds. To hear these fluctuating high and low pitches and ascending high-frequency sounds, the stapedius muscle in the middle ear must exert control over the three small bones or ossicles known as stapes. The physical ability to listen thus gradually improves as the electronic ear exercises and conditions this muscle.

Every listener's treatment is individually tailored, with most programs lasting from twenty to forty days and entailing about two hours a day of listening. If an individual requires long-term treatment, there may be three or four-week breaks between programs to allow time for proper integration of changes in listening skills. The treatment usually begins with a passive phase in which therapeutic sound enters the listener through the bone and air conduction in the deadeast. A young listener, for example, may be exposed to simulated womb sounds that generate a sense of emotional nourishment as he or she experiences a kind of unconscious primal return to earliest awareness.

An active phase of listening follows as music and sound is de-filtered in a process called "sonic birth." The listener's own voice is recorded as he or she is encouraged to sing, tone, and read aloud. The client then hears these sounds as modulated through the electronic ear, replaying in a newly integrative way the developmental stage in which language and expression were first learned.

In July of 1995, I visited with Dr. Tomatis at his apartment in Paris. For a decade we have been discussing the many theories of sound treatments, therapy with music and the importance of consciousness. At age seventy-five, he senses dynamic research beginning with the quantum physics of sound. He is writing three important books on laterality and language ability. He is researching the "Big Bang" theory as a purely sound event for a major new book, *The Galaxy as Sound*.

In the past decade the importance of the Tomatis work has increased with over a dozen centers in North America and over a hundred worldwide. Listening is essential for all like. I hope we can profoundly listen to the wisdom of Dr. Tomatis as we move forward in the next millennium.

© 2007 Spirit Music Inc.