

# MetaMusic: Opening the Learning Door in the ADD Mind

By Barbara Bullard, MA



**THE CHILDREN OF THE NEW EARTH** are continuously bathed in an ocean of music and sound. Like the air in which it travels, it swirls unnoticed around them during the course of their day, they seem to carry it with them in their hearts as they play with their toys and their friends. They use it at the earliest possible age. They

dance to it unabashedly or talk about what they love (or sometimes hate) about it. They ask for it as soon as they're in the car, and it's a big part of what makes television interesting to them. Music is the friend that helps them understand their feelings, express their joy, find their fire, and feel safe and comforted.

Music is the friend that lulls them to sleep at the end of a long and full day.

But for many of them, music can be much more than just a friend; it can help them to awaken their unique brain structures, to coordinate their brain processing and to learn to study smarter, not harder. Splendid books by musicologist Don Campbell: *Physician for Times to Come*<sup>2</sup>, *Music and Miracles*<sup>3</sup>, and *The Mozart Effect*,<sup>4</sup> examine much of the current research which reveals that music has a powerful impact on almost every aspect of the body and mind of the listener. Mass media is well aware of the great import of music on learning. There is no advertisement, television program, or movie that fails to embed its message with music.

All of us have had experience of the effect of music on learning. We learned our ABCs in elementary school by singing them, and we remember our favorite tunes, as well as the words and images that accompany them, throughout our lifetime. It is a truism that what goes in repeatedly with music, comes out with music, even decades on.

## ■ Music: the key to superlearning

Why is it, then, that music is so often left out of the modern educational process? This question has perplexed me for some time. Over the past 30 years, as both a teacher and a parent, I have been interested in discovering methods by which students might learn faster and more efficiently.

Inspired by the techniques of ‘super-learning’ in the works of Dr George Lozanov,<sup>5</sup> and Ostrander and Schroeder,<sup>6</sup> which demonstrated the widespread neuronal impact of certain musical compositions on enhancing memory or peak performance states, led me over the past two decades to recommend background music as a key element in the application of super-learning. My students can attest to the significant impact of certain music in facilitating super-learning states, and my research led to the co-authoring of a book, *Communicating from the Inside Out*<sup>1</sup>.

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The specific topic of this article, the use of Metamusic compositions that combine the synergy of superlearning musical formats with Hemi-Sync®, is a more recent adventure of my research, brought about by the personal challenges of raising two children with impulsivity and Attention Deficit Disorder (ADD).

At the end of 1990, my two younger children were challenging all my parenting skills and the patience of their teachers. They were the type that walked on the classroom tables, talked incessantly and flitted from project to project. The teachers encouraged me to try using Ritalin® on them. I figured there must be a less invasive alternative, and yes, there was! It was to be found in the Hemi-Sync® technology, to which I was introduced when I attended the Professional Seminar at The Monroe Institute in 1989.

For those not familiar with The Monroe Institute, it was founded by Robert Monroe and is dedicated to researching the impact of Hemi-Sync® (a patented audio technology which enhances whole-brain capabilities) and sound on the brain.<sup>7</sup>

The insights I gained in that week propelled my own research in a quantum leap. I was deeply impressed by the work of Micah Sadigh, M.D. and Skip Atwater, Ph.D. as slide after slide demonstrated the widespread neuronal effects of Hemi-Sync® on eliciting desired brainwave patterns in a synchronized manner across the cortex.

This was followed by a remarkable presentation by Dr Suzanne Morris, an internationally known speech-language therapist who works with children with developmental disabilities.<sup>8</sup>

The research of Dr. Morris involved using Metamusic with Hemi-Sync® on children with autism and severe brain damage. I was awed as I watched her video of an autistic child who could not even bear to be touched, yet within ten minutes of listening to Metamusic moved towards its source, wrapped her arms around the tape player and allowed herself to be gently massaged by Dr Morris while the music played on. To ordinary relaxation music the child made no response. For me, this was a dramatic image of the “magical” effects of the designer music titled, Metamusic. Meta (more than) music - which it truly is.

**“Reports received since 1994 indicate that Metamusic embedded with beta Hemi-Sync® patterns may also help with other learning disabilities, specifically dyslexia and slow reading development.”**

I was intrigued by a discussion of research, led by Robert Sornson, Ph.D., Executive Director of Special Education Services, Norville Public Schools, Michigan, that demonstrated an insufficiency of coordinated hemispheric brainwave pattern, especially with beta brainwaves in the left hemisphere, for those with ADD.

According to Sornson, who had been working with Hemi-Sync® using beta-harmonic sound patterns specifically designed to increase the level of awareness,<sup>9</sup> brain mapping research has indicated that those with ADD have difficulty maintaining the high levels of brain arousal associated with sustained alertness and focused attention.

(For a more complete discussion of beta-deficiency in the left-hemisphere I refer you to the exceptional brain mapping research of Dr. Daniel, M.D.)<sup>10</sup>

## ■ The Mozart Effect

After discussions with Dr. Sornson, we conceived the idea of creating some super-learning music to combine with beta +Hemi-Sync® patterns. I hoped this would benefit my college students, as well as my teenagers with their issues with ADD.

During the following two years, Sornson and I collaborated with The Monroe Institute on incorporating these theories. Music appropriate for superlearning and peak performance states had to meet many technical standards and had to be complex enough to incorporate the underlying beta-Hemi-Sync®.

An enchanting composition was ultimately created by J.S. Epperson, a graduate of the USC School of Electronic Music. This ‘designer Metamusic’ was titled *Remembrance* and was launched by The Monroe Institute in 1994. One of our first test subjects was my youngest son, then aged 12. Fortunately, regular use of *Remembrance* and four other Hemi-Sync® tapes enabled my teenage son to outgrow his ADD and to avoid taking Ritalin®. He currently earns a B-plus average and is a senior in college.<sup>11</sup>

Articles by Debra Davis, MA<sup>12</sup>, and Peter Spiro<sup>13</sup>, contain numerous examples documenting the success of *Remembrance*, which in turn led to the creation of a second composition by Epperson in 1996, a modification of Mozart’s Sonata for two Pianos in D Major, titled *Einstein’s Dream*.

Much has been written by Campbell and others about the Mozart Effect, including that, “Mozart’s musical architecture evokes a sympathetic response from the brain, the way one vibrating piano string can set another humming.”<sup>14</sup> Hence, the second Metamusic sought to incorporate the Mozart Effect.

Two additional Metamusic selections with beta harmonics were introduced in 2002: the aptly-titled *Indigo for Quantum Focus* by J.S. Epperson, and *Seasons at Robert's Mountain* by Scott Bucklin. Seasons recreates the Four Seasons by Vivaldi to take advantage of the positive effect of Baroque music on superlearning states.

Reports received since 1994 indicate that Metamusic embedded with beta Hemi-Sync® patterns may also help with other learning disabilities, specifically dyslexia and slow reading development, both of which have as an underlying cause a disparity of errors in timing between the two hemispheres.

As one researcher reported in The Brain-Mind Bulletin: "While reading, most good readers have left-hemisphere activity in the beta range (around 13 Hz) and mid-range amplitude. Dyslexics, on the other hand, tend to have left hemisphere measurements in alpha (roughly 10 Hz) and higher than average amplitudes, although some have unusually low amplitude..."

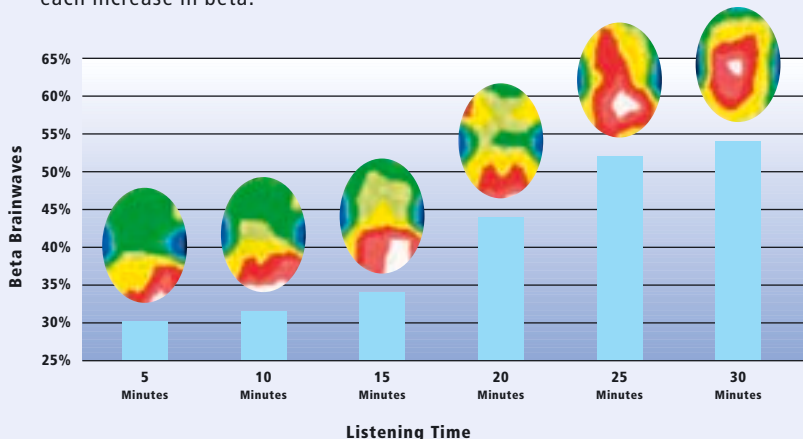
The cerebellum of dyslexics has not yet 'learned' the co-ordination and timing involved in internal balance of the body."<sup>15</sup>

### ■ Stimulating greater retention and recall

What is it about this 'designer' Metamusic that can be so helpful to those with ADD and dyslexia? I believe that it is the whole-brain entrainment that occurs from the synergistic effect of two whole-brain triggers in combination. Music in general is the one single input which naturally synchronizes the hemispheres of the brain. When you combine this with the whole-brain impact of Hemi-Sync® it seems to help co-ordinate the flow of beta brainwaves in both hemispheres, the side-to-side effect is accompanied by a front-to-back stimulation and then a top-down process integrating the cortex with the limbic brain where our emotions are triggered.

### ■ Hemi-Sync Beta Stimulus

The following graph illustrates changes in the percentages of beta brainwaves for one person while listening to the beta Hemi-Sync patterns imbedded in the powerful Remembrance audio-guidance learning tool. Notice the increase in beta coherence depicted in the brainwave maps associated with each increase in beta.



This cascade of brain stimulation truly facilitates a whole-brain integration. Any strategies which will enable our children to use more of their full brain capacities is desirable, since research has indicated that the ability to switch rapidly between hemispheres might be hallmarks of higher intelligence. One characteristic of gifted children is that they have a profound 'switching' ability between hemispheres.<sup>16</sup> *Remembrance* and its companion pieces have all been specifically designed to enhance this rapid processing partnership so desirable for learning, for the gifted among us as well as for those with learning challenges. Moreover, these compositions facilitate the anchoring of studied information into a wider neuronal pathway. Wider anchoring should result in greater retention and recall, perhaps as much as five to ten times greater recall.<sup>17</sup>

### ■ Children's brains are evolving

The widespread impact of music on brain arousal and learning is important to all generations, but even more relevant to the children of the new earth who have been diagnosed with ADD, Dyslexia, and other learning challenges. We have already discussed the disparity of beta-brainwave patterns in the slower left-hemisphere, which leads to lack of attention to certain aspects of the environment, such as reading, writing and mathematics. But what if this is just a symptom of an evolution in the brains of our youth?

I have speculated for some time that the brains of our youth are changing from the dominance of the left hemisphere to more whole-brain and right-brain access. This can have many benefits, as the right hemisphere works 860 times faster than the more linear left hemisphere, so one can process certain information rather quickly. However, the right hemisphere is largely focused on the holistic and non-verbal information in our environment. The processing style of the right revolves around a visual and kinesthetic perspective of the



world and is largely sub-conscious in its approach. I highly encourage parents to read the book, *Upside-Down Brilliance – The Visual-Spatial Learner*<sup>18</sup> by Linda Kreger Silverman to discover many tools to develop these skills. Any strategies that facilitate a quick shifting into more of our brain capacities should be investigated.

Ongoing research over the past decades at The Monroe Institute demonstrates the positive effects of Metamusic and Hemi-Sync® on enhancing the desired whole-brain states. Hundreds of anecdotal success stories may be found in articles on [www.DNAMusic.com](http://www.DNAMusic.com) or [www.Hemi-SyncTM.com](http://www.Hemi-SyncTM.com).

A wonderful aspect of Metamusic is that it is another friend of music which helps open up expanded use of the brain. I invite you to investigate its use and to add to our research with your feedback. I believe that between us we will continue to create more and more synergistic tools to help awaken the multiple capacities of these children of the new earth. And AWAKEN they will. Let's all stay tuned!

## References

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## ABOUT THE AUTHOR



**Barbara Bullard** has been Professor of Speech Communications at Orange Coast College for thirty-eight years, and is currently Chair of the Dept. She has been nominated five times since the 90's for Faculty Member of the Year at the college and received the prestigious NISOD Teaching Excellence award for Innovation from the University of Texas in 1994, 1999, and 2000. In 2000 and 2001 Barbara was a Master Presenter at the NISOD Conference speaking on 'Music and METAMUSIC in the Classroom.' She was selected for Who's Who Among America's Teachers in 2002, and has been a professional member of The Monroe Institute since 1989. Her most important achievement is that she is the proud mother of three self-described Indigos. The above article is based on her presentation at the 2002 Monroe Professional Seminar. Barbara has co-authored a book, *Communicating from the Inside Out*, (B. Bullard & K. Carroll, 1995) outlining quantum-learning strategies with music. For more information on Barbara's work with quantum learning strategies visit her web site, [www.DNAMusic.com](http://www.DNAMusic.com) or contact her at [Remembrancemusic@aol.com](mailto:Remembrancemusic@aol.com).