

## Free Will and the Biocybernaut Technology for Training Subtle Brain Energies

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**Received:** May 22, 2021; **Published:** June 29, 2021

### How brain waves rule™

On an evolutionary time scale the size growth of the human brain has been beyond rapid, almost explosive. Modern Europeans now average one cubic centimeter of brain volume more than their near relatives of the 15<sup>th</sup> century. Although some creatures like termite insects have remained largely unchanged during the last 130 million years and the coelacanth fish have remained largely unchanged during the last 420 million years. Mother Nature, as Providence, has been inventing, designing, building and adding neural circuitry to the human brain at, for Her, a breathtaking pace. Her materials are carbon-based molecules. Her tools are time, bio-electric chemistry and the forces of evolution, which impel increasing complexity and subtlety, higher orders of functionality, expansion of Consciousness and Beauty.

As we have increasingly learned how to read the historical and pre-historical records, we can watch with awe and wonder this expansion of the human brain, especially the outermost layers of the cerebral cortex. Along with these additions of new carbon-based neural circuitry inside the skull that have increasing complexity of interconnections among our new and pre-existing neural circuitry, have come profound advances in the functions of the brain and the mind. These advances include advances in our consciousness and our increased abilities to sustain a self-reflective consciousness. These increasingly conscious human beings have then created advances in human culture and our technology.

This self-reflective consciousness is Mother Nature's design; it was not invented in a human laboratory. However, human laboratories have spawned electronic technology which can aid in the development, the deepening and the expansion of this self-reflective consciousness. First with vacuum tubes and now with silicon-based micro circuits, we have been able to detect, amplify and study the complex and subtle electromagnetic emanations from the human brain. Silicon-based circuits can now interact directly with the carbon-based neural circuitry of the human brain. Yes, these new silicon-based circuits are, for now, outside of our brains, and yet they can be seen as the next (outer) layer of our cortex, just outside of the skull which houses the rapidly expanding neo-cortex of our brains. The outer layer of our brains have expanded the most rapidly and now, with the aid of our neuro-technology, that expansion has leaped the barrier of the skull and is continuing its expansion, now with silicon-based circuitry outside of the skull. The warm, wet and cozy environment inside the skull is supportive of the fragile neurons and glial cells of our brains, which are carbon-based living cells. By contrast, the harsher environment outside the skull is more suitable for silicon-based circuitry, which, while outside of the skull, can be connected with the brain cells inside the skull by (in the Biocybernaut technology) by gold disk scalp electrodes, which pick up the electroencephalographic emanations (EEG) of the brain. These subtle microvolt level signals are then amplified 100,000 times to make it easier for our computers to read and analyzed them. In a mu-metal room that shields whatever is inside from external electromagnetic signals, the Alpha rhythms of the human EEG can be detected 50 feet away from the brain. So when we are in the proximity of other people, we are all bathed in the electromagnetic emanations of each other. And we do affect each other, unknowingly, thereby.

As a demonstration of this inter-personal influence that our brain waves have on other people, there was an intriguing study done in Mexico City by a researcher with a non-typical Mexican name. Dr. Jacobo Grinberg-Zylberbaum. He was/is a Mexican neurophysiologist

and psychologist. He studied Mexican shamanism, Eastern disciplines, meditation, astrology and telepathy through the scientific method. He wrote more than 50 books about these subjects. He disappeared in December, 1994 and conspiracy theories about his disappearance exist. In one of his studies [1], he went out into the streets of Mexico city to recruit, and to offer to pay, pairs of adult strangers for this study. He put EEG electrodes on them that were then connected to EEG amplifiers and the resultant amplified EEG signals were written out onto a polygraph. He seated these strangers, two at a time, in chairs facing away from each other. The backs of their heads were about one foot apart. He then gave each of the two strangers their own silent button to push along with one simple instruction: "If you feel a sense of rapport with the stranger behind you, then push your button".

Then he started the polygraph to record the brain waves of both people. To his surprise, when the button pushes occurred, they were nearly simultaneous. When one person "felt" a sense of rapport with the stranger behind them, the other person "felt" this same sense of rapport almost instantaneously. This is fascinating, even if you do not believe in ESP, as Dr. Grinberg-Zylberbaum did. And there was an obvious biological reason, or correlation, for this simultaneity of button pushes. When the buttons were pushed, Dr. Grinberg-Zylberbaum noted that in that same moment, both of the people had Alpha EEG, known as synchronized brain waves, occurring simultaneously. Alpha is not the fastest brain wave and it is not the slowest, but it has the BIGGEST amplitude of the EEG frequency bands in normal awake healthy adults. It is the most energetically powerful normal brain wave in the awake human brain. It has the highest Amplitude and amplitude is the square root of Energy. This occurrence of simultaneous Alpha EEG activity (synchronization) in both people in the moments of button pushes is fascinating, because those simultaneous button pushes indicated the simultaneous experience of "rapport" in both of the strangers. This finding provides additional insight into the transcendent states of consciousness attainable in High Alpha. For example, in two types of meditators: Yogis in the super-conscious Yogic state of Samadhi and Zen monks in the super-conscious Zen state of Satori, both have very high Alpha waves all over their heads. You may have heard of the amazing mind powers, the Siddhis, that come from such much higher Alpha waves.

But there was another result that Dr. Grinberg-Zylberbaum observed that was even more fascinating. The person with the more powerful Alpha seemed, somehow, to be influencing the frequency of the Alpha of the person with the less powerful Alpha. Here are the details and some background on the meaning of frequency changes in Alpha waves. Human Alpha EEG is observed to occur across the frequency range of 8 cycles per second to 13 cycles per second. Many adults center around 10 Hertz, abbreviated Hz, which means cycles per second. The Alpha frequency slows with age after the onset of atherosclerosis (hardening of the arteries), and if the frequency drops off below 8 Hz, then the Alpha is gone and the person enters senescence and senility and often dies soon thereafter. Faster Alpha, above 11 Hz seems to be associated with intellectual brilliance. There are many individual differences in the average frequency of a person's Alpha, and trainees at Biocybernaut's Alpha Feedback Training Programs are seen to speed up their EEG Alpha frequencies as a part of the Age-Reversal effects of the Biocybernaut Alpha trainings.

With this short introduction to frequency changes in the human Alpha EEG, it is easier to appreciate the next amazing finding that Dr. Grinberg-Zylberbaum made. He saw that the person with the larger Alpha amplitude, seemed to be "recruiting" the other person, the one with the smaller Alpha amplitude, to shift their frequency toward the frequency of the person with the higher amplitude. This is a BIG DEAL! When the frequencies match up, miraculous things happen. This implies that emergent properties of mind will occur when people synchronize their brain waves. For example, when the frequencies of two harmonic oscillators are equal, when they match up, an amazing phenomenon of "Resonance" emerges. If you simultaneously strike two tuning forks (simple harmonic oscillators), that are tuned to the same note (same frequency) so that both are simultaneously struck, to start their humming, and you then place them close together so their vibrations go back and forth through the air, you can then stop one of the tuning forks and the vibrations from the other tuning fork will restart the stopped one. Restarting is never seen in single tuning forks that are stopped from humming. Systems with such "Resonance" exhibit Emergent Properties that cannot be observed or even inferred from single tuning forks or single brains. You will never find an isolated stopped tuning fork spontaneously start humming. But this is common in systems that exhibit "Resonance". Dr. Grinberg-Zylberbaum discovered resonance between pairs of human brains.

So, when two people sitting close together, who are mentally “reaching out” to the other person to detect the occurrence of “rapport”, start to show evidence that one person’s (larger amplitude) brain waves are seeming to influence the frequency of the other person’s (smaller amplitude) brain waves to bring their frequencies closer together, we have obvious transmission of subtle brain energies from one person to another. At Biocybernaut we take this fascinating phenomenon to the next level with Biocybernaut’s Shared Feedback™ trainings, in which two or more people, in the same feedback chamber, hear both their own EEG feedback tones, and the EEG feedback tones of one or more other people with whom they are doing their Biocybernaut Shared Feedback™ training. When Dr. Hardt did this Shared Feedback™ training with two Army Intelligence Officers, who did, first, a week of the regular (solo) Alpha One feedback training and then immediately followed up with a second week of Biocybernaut’s Shared Feedback™ training, these Army Intelligence Officers were astonished to discover that they had secrets slip between them, which is an obvious example of ESP. Typically, when Dr. Hardt did Shared Feedback™ training with anyone doing his Alpha Brain Wave Feedback trainings, they would have their highest Alpha of their entire week of training. However, when Dr. Hardt offered to do Shared Feedback™ training with these two Army Intelligence Officers, who were both Lt. Colonels, they reluctantly declined, because they both had high security clearances and Dr. Hardt had no security clearance, and they wanted to be respectful of their oaths of secrecy. One of these Army Intelligence officers rose to the rank of Colonel and he subsequently wrote a book called *The Warrior’s Edge* [2].

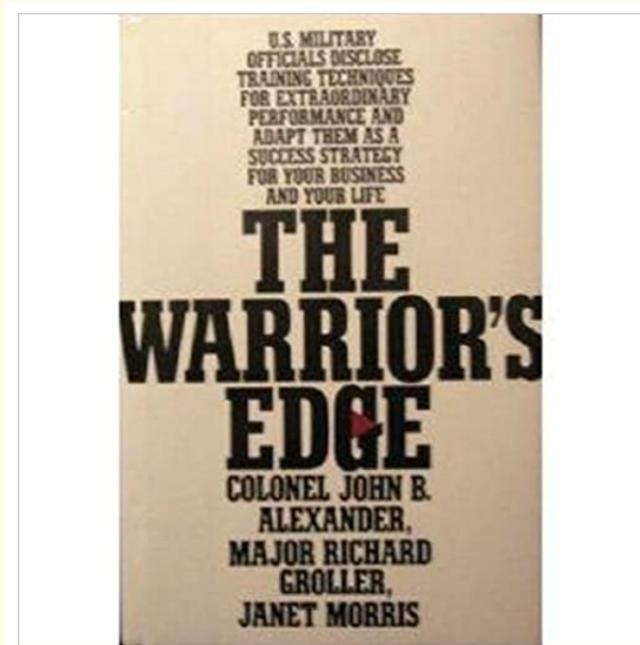


Figure 1

In this book, Col. John B. Alexander, dedicated a full chapter to his experiences in those two weeks of Alpha training at Biocybernaut Institute. He thus confirmed, with the imprimatur of US Army Intelligence, that the Biocybernaut Shared Feedback™ training produced telepathic exchanges between the two Army Intelligence officers, and he was one of them. The title of this present paper is: FREE WILL and the BIOCYBERNAUT TECHNOLOGY for Training SUBTLE BRAIN ENERGIES and this result, confirmed by US Army Intelligence, is immensely relevant to Subtle Brain Energies. But where does the other part of the title come in: Free Will?

All physical life, that we know of, is based on carbon-based chemistry. Intriguingly, exo-biologists tell us that if any non-carbon-chemistry-based life exists in the universe, then that life would almost certainly be based on silicon chemistry, because silicon is the one element, after carbon, that has the second most possible forms of combinations with other elements. So, silicon is the next most supportive (after carbon) substrate for the complex processes required for life. And here we are, *Homo sapiens sapiens*, on the threshold of becoming a hybrid life form, in which our consciousness is based on both carbon and silicon. Even common sense tells us that two heads are better than one. And common sense would also tell us that modern Europeans, with 1 cubic centimeter more brain volume than their near ancestors of the 1500's, have more mind power and more freedom of opportunities than their 15<sup>th</sup> century ancestors. Do modern Europeans also have more free will and more conscious experience of free will than their 15<sup>th</sup> century ancestors? Here we must speculate, although clues abound. How many modern Europeans would abandon their modern lives if given a chance for amnesia and a one-way ticket to the 15<sup>th</sup> century?

Intimate interactions between carbon and silicon circuits enable expansion of useful subtle brain energies.

The silicon-based circuitry of our subtle energy electronic technology, which is now in increasingly intimate interaction with the carbon-based circuitry of the neo-cortex, has begun to facilitate enormous enhancement of our self-reflective consciousness. At Biocybernaut we know that Brain Waves Rule™ and we are in the process of becoming better and more powerful humans through these interactions, as in Biocybernaut Brain Wave Feedback trainings, which increase IQ +11.7 points [3-5], boost Creativity by +50% [5,6] and raise Emotional Intelligence, called EQ +15.8 points [5,7] and which also elevate Peak Performance in US Army Green Berets [8]. In addition, this Biocybernaut Alpha training reduces Anxiety [9,10] and also reduces many other forms of Psychopathology [11-13]. Clearly, this intimate interaction between carbon-based circuitry and silicon-based circuitry has begun to empower our higher brain functions to better control the deeper and more primitive layers of the brain, giving us more conscious control of emotional and even vegetative functions of the reptilian brain. Below the cortex, deeper in the brain, is the limbic system, the emotional brain, which includes the amygdala. When the amygdala is damaged or removed, the person cannot experience anger. Instead of surgically removing the amygdala to reduce harmful expressions of anger, it is better to learn how to consciously regulate it, by regulating the emotion of anger that activity in the amygdala produces. We all know the problems that anger causes in ourselves and the problems that it has caused to others in our lives. With the Biocybernaut Alpha trainings, people learn how to self-regulate their own brain waves so they can then self-regulate their emotions, including anger, so that it no longer disrupts their lives and damages or destroys their relationships and their businesses. Expressing anger is a form of public littering, and such expressions are best eliminated in most settings in modern life. Now this does not mean that one should suppress the experience or the feeling of anger. No indeed, that is not healthy. And if the experience of anger is unwisely suppressed and the person is unwilling to admit to themselves that they are angry and if they do not allow themselves to experience the anger that is there, then they will descend into sadness and maybe even depression. But to honestly experience the feeling of anger does not mean that one has to express it. Public littering is not necessary. There is no need to suffer higher blood pressure, turn beet red or to shout or swear or throw things or to beat people up. The experiencing of anger, without expressing it, is the preferred, sane, virtuous and healthy way to deal with this excess of activity in the amygdala. Biocybernaut Alpha trainings teach one how to go from recognizing the experience of anger at the first hint of its appearance, and then to go immediately into forgiveness, so that the anger does not grow into an emotional and sometimes physical hurricane, with all the biochemical damage this brings (increases of blood pressure, adrenaline and cortisol) and all the relationship damage that comes from expressing anger towards those you love and cherish or with whom you work.

There is an important story to share here on the difference between experiencing anger and expressing anger that comes from one of Dr. Hardt's amazing teachers who then, later, became one of his colleagues. This person is Dr. Charles Levant Yeager, M.D., Ph.D., who was a brilliant Clinical Electroencephalographer. This is an almost now-vanished form of scientific and clinical expertise. Dr. Yeager was so gifted in reading brain waves, the EEG, that he could look through a 21 channel EEG recording and make accurate clinical diagnoses of psychiatric clinical states like Paranoia, Schizophrenia, Anxiety, Depression, Mania, etc. Jim Hardt first worked with Dr. Yeager when Jim was a

graduate student and later they worked together analyzing the brain waves of Zen meditators [14] when Dr. Jim Hardt was an Assistant Professor of Medical Psychology at the Langley Porter Neuropsychiatric Institute, which is within the University of California at San Francisco. Dr. Hardt continued these studies of Zen meditation, and of the amazing interhemispheric brain coherence and front to back brain coherence produced by Zen meditation [15-18] discovering the electrophysiological basis of Halos [18-20] and showing that the Biocybernaut Alpha One training produced in just 7 days the same patterns of brain changes as did 21 to 40 years of Zen meditation [6,17,18].

At one point in Dr. Yeager's long and brilliant career, he was in charge of a ward in a VA Hospital [Veterans Administration Hospital] that was exclusively for soldiers who had taken a bullet in their brain during the Korean War. X-rays could sometimes see fragments of the bullets or shrapnel still in the brains and what brain areas they had damaged. If a soldier was in a deep coma and showing only Delta waves, Dr. Yeager would watch his EEG closely every day across many days. Because if a soldier who had lain in bed in a deep coma making only pure Delta waves for a long time, suddenly broke forth into high Alpha all over the head, Dr. Yeager would know that this man would die soon, usually within about 15 minutes. Dr. Yeager did not, at that time, know about the whole-head High-Alpha of Yogic Samadhi or Zen Satori, but he understood that the deep brain was "cutting the cortex loose" as the consciousness prepared to leave this man's body. This same, or a similar, type of "cutting loose" or "non-attachment" is a goal of deep meditation, and the degree of benefits of meditation may be traced to the degree of non-attachment that one is able to attain in meditation. And the bigger one's Alpha waves become, the greater is the degree of non-attachment that is attained. And in the Biocybernaut Alpha training, the greater the degree of non-attachment that can be attained (in part through the Biocybernaut Forgiveness Protocols), and thus the bigger the Alpha waves become, the more types of benefits and the greater the benefits one attains from their Biocybernaut Alpha Brain Wave Feedback Training. When a Biocybernaut Alpha trainee doubles or triples their initial, pre-training levels of Eyes Closed Resting Baseline level of Alpha, they will live in a profoundly improved and profoundly altered reality. This is because Brain Waves Rule™ and when you change your brain waves, you change your Identity. Frederick Dodson, in his book, *Parallel Universes of Self* says that Identity is synonymous with Reality [21]. This is also because they have, among other things, profoundly mastered the control of their limbic system, which produces often disruptive emotions. One of the first yogic teachers of Dr. Richard Alpert when he went to India, and the man who eventually took him to his guru, Neem Karoli Baba, where he became Ram Dass, was a 6' 7" blond former surfer from Laguna Beach, CA who was born Kermit Michael Riggs on May 17, 1945 and who later went to India and took the Indian name: Bhavan Das, and there he met and then instructed Richard Alpert (Ram Dass) that: "Emotions are like waves. Watch them disappear in the distance of the vast calm sea (of awareness)".

Indeed, the Sanskrit word for thoughts is "Vritis", which means "waves". And "Vritis" exist in the "Chita", the "Mind Stuff". We know that thoughts are electrical (EEG) waves in the brain which affect the mind, and in Sanskrit thoughts are called "Vritis" in the "Chita", the mind stuff. At Biocybernaut we teach that "Brain Waves Rule™" and they do rule your life. Your brain waves rule your thoughts, your emotions and even your perceptions. You can only "see" the color blue when you have the brain waves for "blue", so when you learn, in your Biocybernaut Brain Wave training programs, how to control your brain waves, you then are the Master of Your Internal Universe. This is because Brain Waves Rule™ and when you change your brain waves, you change your personality and thus your Identity [3-6,8,10,12,13,18,22-34] and also because Identity is synonymous with Reality according to Frederick Dodson in *Parallel Universes of Self* [21]: "There is no separation between Identity and Reality".

Consciousness is not within the body, brain or mind. You can observe your body and your mind, therefore you cannot "be" them.

Identity and Reality are synonymous.

This means that: a change of identity implies a change in reality.

You see the world not as it is, but as you are. Life doesn't happen to you, - but through you".

This means that when you change your brain waves, you change your identity and then your reality changes too. Multiple personality people undergo massive and profound spontaneous changes in their brain waves when they switch from one personality to another. And

Dr. Hardt has found, as cited above, that when you change your brain waves with Biocybernaut brain wave feedback, that your personality changes. Bigger Alpha waves bring better personalities, and whereas more Beta brain waves bring negative personality and negative mood changes.

And Eugene Taylor describes what happens when someone uses brain wave feedback to study their own consciousness. He says in his book, *Shadow Culture: Psychology and Spirituality in America* [35]: “[T]he closer we get to the objective study of consciousness, the closer we get to the very mind, that is studying the object,- to the very consciousness that is generating the scientific knowledge (or that is generating the self awareness). And as everyone knows, here is the great limitation of that extraordinary enterprise, science, (also the limitation of the intellect), indeed its fatal flaw, namely, that science (and the intellect) cannot objectively study itself”.

“The mind, (the intellect) cannot objectively study itself. And when it does, or when it tries to, at that precise point it becomes something else: philosophy, metaphysics, religion, or whatever name we give to the process of the beyond-conscious becoming an object of consciousness. And whatever it is, the object is always (always) transformed”.

“Self observation, always leads us to an existential point about the metaphysics of experience, and it is almost always a transforming moment”.

At Biocybernaut the people who are in the brain wave feedback trainings are conducting the most powerful and most penetrating self-observation that they have ever done. They are self-observing their very own brain processes that give rise to their consciousness that is then observing these brain processes. This is always a transforming moment that takes people outside of the limited awareness that they thought was their awareness and their consciousness. This is always a transforming moment. One common theme of people who have come to Biocybernaut: everyone wants change. Albert Einstein said, “Problems cannot be solved at the same level of consciousness that created them”.

So, it is clear that the Biocybernaut technology for training subtle brain energies produces changes in brain waves, which produce changes in consciousness and personality and identity, which also changes reality.

Another fascinating discovery of Dr. Yeager’s that demonstrates how changes in brain activity create changes in reality involved the emotion of Anger and the brain structure known as the Amygdala. The amygdala is located in the medial temporal lobe, just in front of the hippocampus. It is so deep in the brain that it is very near the top of the spinal cord. The following two images show the location of the amygdala.

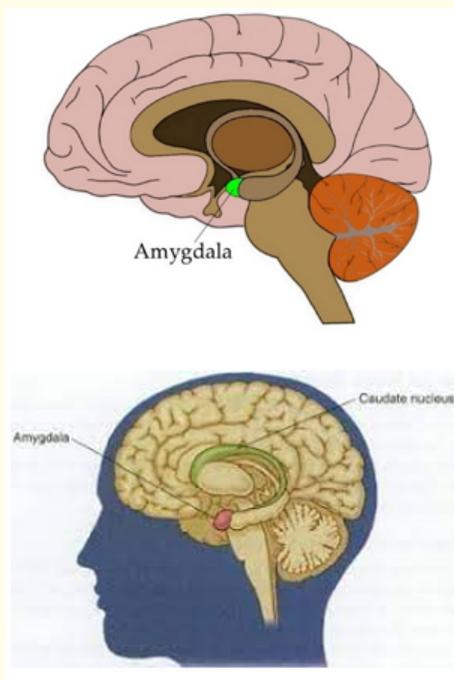


Figure 2

Dr. Yeager was a very keen observer of people and he observed something very interesting about soldiers who had bullet or shrapnel damage to their amygdala. He headed up a ward in a VA Hospital for soldiers who had taken a bullet or shrapnel in the brain during the Korean War. VA Hospitals are often understaffed with fewer nurses and orderlies than would be ideal for the best care for the wounded soldiers. Dr. Yeager noticed that if ten soldiers would ring their call buttons at about the same time, the few nurses and orderlies would leave the same soldiers until last to be helped. These were the soldiers who had a damaged amygdala.

This was so interesting to Dr. Yeager that he secretly undertook to study this phenomenon to find out why. What he learned, by keen observation, was that all of these soldiers, with a bullet or shrapnel in their brains, were totally dependent on the few nurses and orderlies on their ward for the most basic functions, including bathroom functions. So, if a soldier's call button was not answered in a timely manner, then later, when the nurse or orderly did finally arrive, they would, in most cases, be met with anger. The soldier who had soiled his bed for lack of bathroom assistance or for any other needed assistance would EXPRESS ANGER toward the nurse or orderly who arrived too late. This expressed anger was naturally confined to verbal expressions because the soldiers were bed ridden and could not get up without assistance. But even though their EXPRESSED ANGER was only a verbal EXPRESSION, it was still unpleasant for the nurses and orderlies, as we all understand.

What Dr. Yeager observed with his continued observations was that the soldiers who had a damaged amygdala, and who were being left for last to be helped COULD NOT GET ANGRY. The bullet in their brain's amygdala had functionally amydalectomized them. Their amygdalas were not functioning, so they could not get angry. So, naturally, the nurses and orderlies began leaving those soldiers to the last. Anger would never be expressed towards them if they left those soldiers to last. And if 10 call buttons went off at the same time, and there were only 2 - 3 nurses or orderlies, they would leave until last those poor soldiers who could not get angry.

So, Dr. Yeager's keen observations continued and he observed that some of the soldiers with a damaged amygdala eventually learned how to PRETEND THAT THEY WERE ANGRY. This way they had a better chance of being earlier in the que of being helped by a nurse or orderly. And at least, they would not be left to last like the other amygdala-damaged soldiers who had not yet learned to pretend that they were angry.

So, this is the only positive thing that Dr. Hardt can say about the EXPRESSION OF ANGER. Here it is: "If one is in a situation of complete helplessness and the helpers are far too few compared to the number of helpless people in need of help, then PRETENDING to be angry and then to express that 'pretend anger' can be useful".

Dr. Hardt would continue, "At no time is it wise to actually EXPRESS anger, because this is both a form of public littering that harms others, and it also creates harmful blood pressure changes and biochemical storms in one's body, such as increased cortisol and adrenaline levels that can take hours to fully clear from the blood stream. If one experiences anger beginning to arise, then immediately acknowledge the anger and name it as anger and then start forgiveness immediately, so that this negative brain energy activity does not build up into an enduring and damaging emotional and biochemical storm. We do not want to become blind with rage or numb with fear".

Mother Nature's designs for the human brain depend heavily upon feedback between all systems on all levels from the micro to the macro. However, there is, as yet, still relatively little direct feedback between the biological carbon-based circuits of the brain and the higher consciousness of self knowing, self understanding and self-reflection. Some indirect feedback clearly exists and has been used by monastics in meditation practices for a few thousands of years. However, the circuits are still so few and their signals so faint and so hard to consciously access that arduous self-discipline and decades of patient practice (monasticism) are often required of those inner explorers, saints, monks and mystics who wish to master self-regulation of their brain activity and thus attain the desired experiential states of consciousness. Remember, Brain Waves Rule™.

As we explore the means of technologically accelerating the growth and expansion of our consciousness, we shall want to distinguish between brain feedback devices and brain inducement devices. Feedback devices are passive, like a mirror. They do not DO anything TO

you. They allow us to see, hear, feel, etc. what our brains are doing in real time. The perceptions then empower learning of voluntary self-regulation of brain functions and thus serve to increase our freedom and our choices. However, there are also inducement devices which impose action or inaction upon the brain from outside the brain. These inducement devices are like drugs in that they Do it To you. They impose action on or suppress action of our physiology. Here we must be both wise and cautious.

Caution and wisdom would probably not allow the current silicon-based brain wave feedback technology to have any substantial driving or forcing effects on the brain physiology and the brain waves. Fools rush in where angels fear to tread, and the rational mind is often too quick in imposing a little knowledge in situations where that is a dangerous substitute for patient and wise observation. The rational mind has not done well in managing the earth's biosphere and ecology. There is also an Ecology of Consciousness™ (the topic of another essay), and wisdom would suggest that we must learn about our brain and from our brain activity through feedback-given information about our brain activity before we arrogantly and egotistically presume to teach our brain and to compel our brain to make, possibly unwise and unhealthy changes, with inducement technologies. We must learn about states of mind and experience them before we begin to impose the underlying brain activity upon ourselves or upon others. It would be better, for now, to forego the intrusive brain inducement devices (pulsed lights, pulsed sound, or worse, pulsed electrical or magnetic signals), while we first begin to learn how we function and how to tap our Higher Sources of knowledge and wisdom.

To be sure, Mother Nature has designed internal pacemakers which regulate and thus impose useful and necessary activity on our cells. Our hearts have pacemaker cells and our hearts respond obediently to these pacemaker cells which wisely increase the output of our hearts as our activity levels and needs for oxygen and glucose rise. And our Alpha brain waves are also regulated by the activity of pacemaker cells. These pacemaker cells are located deep in the brain, in the left half and the right half of our Thalamus. The Thalamus is so powerful that it is sometimes called the Brain within the Brain. The Alpha waves that we can measure at the surface of our brains originate in pacemaker cells deep within our brains in thalamic nuclei. Yet our conscious minds should not rush recklessly into designing artificial pacemaker circuits for our brains. At some point, in a wiser future, that may be useful, but for now, we know so little about the complex sea of different frequencies and fill our brains that we should first learn about and learn from our brains with feedback and with our own volition, our free will, before we try to impose regimentation on our own brain physiology with external forcing devices. Our attempts at brain self-regulation might wisely be limited to what is possible with the use of our passive volition and our active volition, aided by the information derived with biofeedback instruments such as those built and used for trainings at Biocybernaut Institute. The process of expanding our awareness should be one of self-discovery of our own naturally occurring brain activity, rather than entrainment to an external forcing metronome.

Through biofeedback on brain energies, we can consciously aid in our own evolutionary development by consciously creating more of the vital feedback circuits. The key is to suitably integrate carbon-based neural circuitry and silicon-based biofeedback circuitry. As this integration proceeds, in harmony with the ongoing biological evolution, we are becoming hybrid beings, with our rapidly increasing consciousness based on both carbon-based circuitry and silicon-based circuitry. We can now begin to choose with a conscious free will to perceive, to understand and to voluntarily control the brain's biological substrates of consciousness. In this way, all of humanity can begin to have access to the types of profound insights, knowledge and wisdom which heretofore have been the exclusive province of mystics, saints, advanced meditators, avatars and seers. Our highest rational achievements in science have also begun to validate the mystical world views, as is now occurring in Quantum Physics. There is a convergence between scientific knowledge and spiritual wisdom, and Biocybernaut is building a bridge between science and spirituality. Biocybernaut does Spiritual Science and has revealed the electrophysiological basis of previously scientifically and rationally unfathomable spiritual states like Kundalini [18,36-38], the ability to see Angels and other Astral Plane beings [39] and the manifestation of halos over the head of saints or divinity incarnate [18-20]. Jesus, the Apostles, the Buddha and Krishna are all often depicted with halos. For much of the 400 year history of science, there has been a war between science and religion or between scientific modes of knowing and spiritual modes of knowing. Biocybernaut ends that war with the development of Spiritual Science and thus ushers in an enduring golden age for all Humanity.

As we learn to detect ever more subtle process of the brain, and as we learn to make these detected processes more perceptible to the mind, we will grow in knowledge of how we function and how we malfunction and how to attain to and then sustain Hyperfunctions. At every stage in this growth of knowledge and wisdom, we will be aided in this exploration by the increasing integration of carbon-based and silicon-based neural circuitry. We will grow in wisdom as the nature of reality becomes more known to our expanding consciousness, which is grounded in our expanding neural complexity of our existing brain circuitry and the expanding complexity of our silicon-based microcircuits for brain wave biofeedback, and in our expanding knowledge of how best to integrate the two.

As we better apprehend the nature of reality and our own natures, we shall see more clearly the possible alternative directions for our evolution and the possible techniques for moving in those multiple alternative directions. Shall we create the future to have more free will? Certainly there could be more freedom, as current biological and mental limitations give way to greater knowledge. Also more freedom to will and to intend is likely as we learn how the mind creates the Universe. All form is within law. As we come to better understand natural law, and our places within it, our options shall multiply and grow as shall our understanding of the consequences of our current, hopefully wise, conscious choices.

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**Volume 10 Issue 7 July 2021**

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