

Course: High-Tech Meditation

Class 3: Human Brainwaves

Phil ...

Hello and welcome to our course on High-Tech Meditation. Previously, Master Charles has thoroughly delineated the mechanics of meditation and its importance as the primary balancing technique in human experience. He has shown us how the classical forms of meditation are not very effective in our modern world, and he has pointed out how the application of modern technology can greatly assist us by making the meditative experience more precise and, therefore, more impactful. Thus, we have a good foundation for this 3rd class today, which I've entitled, Human Brainwaves: Precision Entrainment and the Awakened Mind.

Before we begin, this class will be more meaningful if we are focused and wakeful. We begin with a technique in focused awareness. First, bring your awareness to your breath. Breathe slowly and deeply. Watch the in-breath and the out-breath. There's nothing to do. Just watch, breathe and relax ... in-breath and out-breath, breathing deeply. Keep watching as your mind settles down. You are becoming quiet and still and relaxed. Now, while watching the breath, create the Balance Position. Your focus is on your computer screen, my image and voice. This represents your exterior, objective polarity. Simultaneously now, bring your awareness to your inner stillness, your subjective polarity. We live in a two-polarity relative reality. The two polarities are always present, always interactive, always simultaneous. The Balance Position is the conscious awareness of the simultaneity of the two opposite polarities—the interior stillness and the exterior activity. Hold this simultaneity as we proceed.

In this class, we will first delineate the four human brain waves and present what they represent in our 24 hour daily lives. We will show the effect of meditation and, specifically, High-Tech meditation, on our brainwaves. Finally, we will present research that has validated this observation in the lives of Synchronicity meditators for more than a quarter century of experience.

To begin, it is well known that the brain is an electrochemical organ. It generates a tiny, tiny amount of electrical power. Even though this electrical power is very limited, it occurs in very specific ways and is displayed in the form of brainwaves. Brainwaves, like all waveforms, are measured in two ways. The first measure is frequency, or the speed of the electrical pulses.

Frequency is measured in cycles per second (sometimes called Hertz). The second measure is amplitude, or how large the brainwave is. One can say that amplitude correlates with the power of the wave so that low amplitude reflects low power and a high amplitude wave means higher power.

Next, human brainwaves are classified into four types: beta, alpha, theta and delta, and I suspect you've heard of these types.

These four types of brainwaves range from the high frequency, low amplitude beta to the low frequency, high amplitude delta. The same four brain waves are common to the human species. They are consistent across all age groups, all cultures. Men, women, and children experience the same characteristic brainwaves. Furthermore, although one brainwave may predominate at any given time depending on the activity of the individual, the remaining 3 brainwave states are always present.

Let's now review our first illustration and get acquainted with what it represents.

In this illustration, I first call your attention first to the vertical line, bottom to top, with numbers from 1 to the mid 20s. This is the speed of the brainwaves, or the frequency. For example, in this illustration, beta is displayed in orange and red—or from about 14 in frequency up to the mid-20s. Notice, also, the horizontal axis from left to right. This axis represents the amplitude, or size of the brainwave. Finally, notice there are two sides, which correspond to the two sides of the human brain—the two cerebral hemispheres. You will see they are not equal—they are not symmetrical. The pattern that you see on the right side of the illustration actually represents the left side of the brain as if the brain is facing you. Notice the waves in the left side of the brain in this illustration have somewhat more amplitude. They are somewhat larger than those on the right side, and this is consistent with the left brain representing the default dominant objective polarity in the relative field. We can say that humanity is a left brain dominant species.

Now we will discuss the four brainwaves beginning with beta, and we will continue to refer to this illustration.

When the brain is aroused, when it is actively engaged in mental activities, it generates beta brainwaves. As you can see, beta waves are relatively low in amplitude, and they are the fastest of the four types of brainwaves. Shown in the colors red and orange, the frequency varies from about 14 to the mid-20s or more cycles per second. Beta is our normal thinking

state. It's our active external awareness. It's our thought processes. Without beta, we would not be able to function in the world.

Beta is characteristic of an engaged mind. It's that active awareness state that we experience from day-to-day at work and play. Beta brainwaves occur when we think logically, when we solve problems and when we confront external stimuli. However, beta can also cause significant problems for the individual by increasing muscle tension, raising blood pressure and creating a state of anxiety. Yes, too much beta places humanity at risk. Yet, it is a hallmark of our world today that beta is dominant. We live in a beta world.

Before we move to the next brainwave, alpha, let's check in on our balance and focus. Continue your focusing technique. Are you watching your breath? Are you maintaining the Balance Position—the noisy exterior of this class material while aware of your inner stillness? With sustained balance, awareness expands, and you are a witnessing consciousness watching what is happening. It doesn't matter what's happening. It's all consciousness, and it's happening, and it's appropriate, and you are watching.

Now ... Returning to our brainwave illustration (Illustration 1) ...

The next brainwave is alpha. Here, alpha is depicted by the two light blue colors in a frequency range of 8 to 13 cycles per second. For many people who are objectively oriented and have a strong mental focus in life, it helps to hold beta in check, to hold it in check by developing relaxation techniques, which means emphasizing alpha brain waves, the next brain wave in order of frequency.

Whereas beta represents arousal, alpha represents non-arousal. Alpha brain waves are prominent during relaxation, mostly with the eyes closed. They are prominent in day-dreaming and fantasy and upon deep self-introspection. Alpha adds images and visuals. It is produced in most people when they focus the mind, such as when they concentrate, or when they relax by sitting or reclining, say with eyes closed. You produce alpha when you sit on the beach or take a walk in nature.

Alpha is mostly produced by the brain in short bursts, but long-term meditators may produce continuous trains of alpha waves. When your brain is producing alpha frequencies, you experience a pleasant, comfortable, slightly relaxed yet wakeful state of awareness which seems relatively stress-free and somewhat euphoric.

Another representation of alpha is shown in the next illustration in which you can see alpha waves increasing in size (amplitude). They are quite dramatic here. The more alpha that

is produced during ordinary states of awareness, the easier it is to access deeper meditative states. Furthermore, as meditative experience deepens, so does the dominant frequency in which alpha is produced. This frequency is in the lower ranges of alpha (8-9 Hz) where it plays an important function as a bridge to theta, the real meditative state.

As you can see, after our discussion of each brainwave, we are reminding ourselves of focused awareness, balance and wakefulness ... so breathe, do the Balance Position. Are you noticing your awareness? Perhaps it is more expanded and you are noticing a dominance of stillness while the content of the class is unfolding. This is the experience of balance in duration. Maintain this balance in duration. If your attention has drifted, recall it with a focus on your breath and then the interior polarity simultaneous to the dominant, noisy exterior polarity. Maintain your wakefulness as we proceed.

The next brainwave state, in order of descending frequency, is theta.

Theta is illustrated as dark blue and in a frequency range of 4-7 cycles per second.

Whereas beta activity is considered the conscious mind, theta is the sub-conscious mind. Slower than alpha and present in dreaming sleep, it is the experience of moderate to deeper meditation. Like alpha, theta is characterized by a blissful state of well-being. However, in theta, the experience of holistic awareness increases. It is a state in which creativity and imagery may predominate so that experienced meditators are accustomed to a wide variety of inner images and visions, which seem to correlate with increased theta activity. This is demonstrated in Illustration 3 showing the brainwave changes of an experienced meditator. In this illustration notice the further increase in amplitude of alpha, which is above the increase in theta. Theta brainwaves engage the subconscious where we hold our memories, sensations and emotions. The alpha-theta border brings creativity, intelligence, detachment and deep relaxation.

Returning to our first illustration, the slowest human brainwave is delta and it appears as purple in this non-meditator illustration. Delta brainwaves occur in the frequency range of 0.5 to 3.5 Hz., and they are normally associated with sleep.

Delta brainwaves represent our unconscious mind. But when present in combination with other brainwaves in the waking state, delta acts as a form of radar—seeking out, looking for information—reaching out to understand on the deepest level things that we can't understand through the thought process.

Let's return to our 3rd Illustration, the experienced meditator. Usually, only the most advanced meditators can remain wakeful while producing delta brain waves. This graph demonstrates the brainwave pattern of the experienced meditator. It shows significant increase in amplitude in delta brainwaves. The experiences typical of subtle dimensional actualization occur in the deepest levels of delta brain wave frequencies.

It's time to revisit our wakefulness focus ... not a complicated assignment. Just watch your breath. Watch every breath. Be aware of your breath and simultaneously what is happening in your exterior world — the content of this class. With all of this new material on brainwaves, you are beginning to understand High-Tech Meditation. And, at the same time, you have awareness of the polarity opposite to the exterior, opposite to the dynamic activity unfolding before you. It's your "still" interior that is always there, always simultaneous to the exterior ... two polarities, always interactive. This awareness is balance.

Let's continue ...

As the creator of Synchronicity High-Tech Meditation, Master Charles was well aware of human brainwave research from the laboratory of Maxwell Cade, an Englishman who grew up in a tradition of meditation and Zen training. After a distinguished career in science, Professor Cade became interested in whether he could measure the brainwaves of people who were experiencing higher states of consciousness. With a colleague, he developed a unique technology, which allowed him to measure and record human brainwaves. With this instrument, he tested thousands of people. He tested non-meditators, beginning meditators, healers, spiritual teachers, swamis, advanced meditators and meditation masters whose states of consciousness people sought to emulate.

In the course of his research over several years, he found what he was looking for. He found the common thread for which he had been searching. He observed a recurring pattern of brainwaves in advanced meditators and meditation masters, and he termed this pattern the "Awakened Mind". The highly evolved minds that exhibited the awakened mind brainwave pattern had a lucid awareness of meditation, which was consistent with cognition of the process. This pattern was found not only during meditation but also throughout their daily activities as well.

Now let's look at an illustration that depicts the Awakened Mind pattern. Notice the hallmarks of the pattern. There is substantiated delta and theta indicative of deep access to the unconscious and subconscious mind. It shows large alpha waves which, in the advanced

meditator, is felt to play an important role in facilitating the experiences to be accessed by the conscious mind. The conscious mind and its beta are indicated by the lower beta bulge. Thus, in advanced meditators the experiences of the unconscious mind and subconscious mind can be cognized by the conscious mind.

Finally, note how symmetrical the two sides of the brain are. For a comparison, I show you a completely asymmetric unsynchronized imbalanced brainwave pattern in Illustration 5. This imbalanced brainwave pattern is at least sometimes found in most of the humanity of the planet. Remembering this pattern, we return to our 4th Illustration and the symmetrical pattern of whole-brain synchrony characteristic of the Awakened Mind pattern that is found in the advanced meditator.

The Awakened Mind is a consistent brainwave pattern of masters of meditation. It is seen in advanced Synchronicity meditators. When one produces all of the brainwaves in the right proportion and right relationship with one another, one experiences: the intuitive, empathetic radar of delta waves; the personal insight and spiritual awareness of theta waves; the bridging capacity and relaxed, detached awareness of alpha waves; and the ability to consciously process thought (beta waves) ... in other words, to cognize the entire process at the same time.

In his creation of the entrainment technology, Master Charles includes precision sonic technology to entrain the awakened mind pattern of brain waves. Remember that human brain waves are very slow. Below beta, there is alpha, theta and delta. Thus, the focus is on the low end of the brainwaves—the alpha, theta and delta. Here the technology precisely delivers a vibrational frequency pattern below the audible range and, when the human brain is exposed to the sonic technology, it simply follows along according to the principle of entrainment. A dictionary definition of sonic entrainment is “a pulling toward” or “a drawing along after”. A scientific definition of the brain’s response to sonic entrainment is “frequency following response” — simply meaning the brain patterns its response after the frequency it is exposed to.

With repetition, over time, the brain remembers the pattern and adopts it as its default pattern. In Synchronicity’s flagship meditation program, *The Recognitions Program*, Master Charles offers the ultimate meditation entrainment profile. He offers the awakened mind pattern of vibrational frequencies. Thus, Synchronicity meditators rapidly evolve to the awakened-mind brainwave pattern. Furthermore, Master Charles has evolved the technology to include a comprehensive set of entraining frequencies that not only address our dense dimensions (including our brain, as shown in brainwave mapping), but our subtle dimensions as well.

Finally, and most importantly, High-Tech Meditation is the creation of a master of meditation, Master Charles Cannon. It is his music, his voice, his technology, and his holistic state of being all included with the technology. The sonic medium accurately and precisely conveys his holistic energetic to the meditative listener. It can be truthfully said that one cannot separate the creation from the creator. And this simple statement is why Synchronicity High-Tech Meditation is so transformational and so effective. It is created by an authentic master of meditation, and it contains and transmits his holistic Sourcefield.

Next, I show a graphic depiction (Illustration 6) of a non-meditator's brainwaves in comparison to a Synchronicity meditator after 3 years' practice. You're well familiar with the non-meditator's brainwave. We examined it carefully at the beginning of the course. Look at the striking increase in alpha brainwaves in the High-Tech meditator as shown in the two lighter shades of blue. You also notice some increase in theta as shown in dark blue and, in fact, a sizeable increase in delta after just 3 years. Furthermore, notice that the two sides of the brain (the two cerebral hemispheres) are more balanced than in the non-meditator because the brain is coming into synchrony and whole-brain balance.

How are you with your practice of focused awareness? Are you watching the breath? Are you maintaining the Balance Position? Are you watching the content of this class in the simultaneity of the "content-less" interior of yourself (the noise simultaneous to the stillness)? Bring your focus to your maximum level of wakefulness as we bring our class toward its completion.

To summarize, the four human brainwaves range from the high frequency, low amplitude beta to the low frequency, high amplitude delta. We know about high-frequency beta. It is the brainwave of the active, thinking mind and it is dominant in our world of today.

We also know about and frequently experience alpha. Alpha brainwaves are slower than beta. They represent a state of light meditative focus and relaxation. Synchronicity alpha entrainment technology is very useful to relax, to de-stress, or when concentration and mental clarity are needed.

Theta brainwaves are slower than alpha. Theta is considered medium range meditation and is the doorway to the subconscious. Theta entrainment technology is useful for creative inspiration and access to deeper and more blissful states of awareness.

Finally, there's delta. Delta brainwaves represent the slowest level of brain activity. They're usually associated with deep sleep and, in this presentation, they are the most profound

states of transcendental awareness that are associated with states of witness consciousness and unified consciousness. Delta entrainment technology is part of the Recognitions Program, Synchronicity's advanced meditation course. Our experience has shown that after only a few years in Recognitions with delta, meditators develop consistency in delta brain waves, a finding that is equal to those individuals who have spent a lifetime of practice using traditional methods.

Now I am going to present some research that validates the effectiveness of Synchronicity High-Tech Meditation technology by showing some studies that have focused on what happens to brainwaves in meditators with and without the precision sonic technology.

There are a number of documented studies. The most notable are the measurements on the Dalai Lama's attendants (roughly twenty monks) during the early nineteen seventies and, more recently, those reported by Tomio Hirai, in the book "Zen Meditation and Psychotherapy." In this latter study approximately forty Zen monks were measured.

This illustration reveals the findings of the Zen study compared to a similar longitudinal study (that is, over time) in Synchronicity meditators. In the study, the Zen monks were classified into three categories — novice, intermediate and long-term, depending on their number of years in meditation practice. You can see novice is arbitrarily placed at 5 years, while intermediate is 5 to 15 years and long-term at 20 to 40 years of meditation practice. In novices, consistent alpha waves were found at the end of 5 years. Alpha had decelerated into "low alpha" frequencies of 8-9 cycles per second between 5 and 15 years. In long-term monk meditators, their brainwaves demonstrated consistent theta after 20 to 40 years of meditation practice.

What can one say? Meditation works in remodeling the brain. It changes the brain. And with classical methods, it takes time.

In comparison to the Synchronicity meditators, one is struck by the rapidity with which brainwave changes occur. Even in a beginner — within a year or so — one sees the early development of alpha. By 3 years, alpha is significant and theta is appearing. By 5 to 7 years, the Synchronicity meditator demonstrates alpha, theta and delta — even the beginnings of the awakened mind pattern.

It is very important to note here that the Zen meditators in this study were cloistered monks practicing under the most ideal circumstances, whereas the Synchronicity meditators were almost exclusively comprised of individuals living in the world with career, family, and other responsibilities, a lifestyle which could hardly be considered as ideal in terms of meditation.

In the study quoted above, High-Tech Meditation students were followed over time with serial brainwave profiles, and they served as their own controls. An important and impressive finding was evidence of hemispheric balance — that is, of the two sides of the brain — and significant alpha waves developing in new meditators within 6-9 months of beginning Synchronicity High-Tech Meditation. This finding validates the anecdotal reports from Synchronicity meditators that High-Tech Meditation technology is transformative from the beginning. These studies give objective support to Master Charles' hypothesis of at least a four-fold acceleration in results when using Synchronicity High-Tech Meditation and Holistic Lifestyle versus the classical, traditional systems.

As we close this session, let us again focus on wakefulness. How focused are we? Bring your awareness, if necessary, to restore wakefulness and balance. This course is on High-Tech Meditation, so you will want to continue the applications we have practiced here today in your own meditation. Use them (these applications of wakefulness) and the Balance Position. Begin your meditation with whatever focusing technique you prefer to deliver yourself to balance. Then stay with the balance and the simultaneity of the oscillating polarities — the objective and subjective, the exterior and interior — and observe your experience. Observe your awareness expanding. Observe the experience of witness consciousness. Do you experience yourself as blissful consciousness? If yes, you are experiencing true reality. Note your experiences. I encourage you to post them on the discussion board.

This then brings us to the completion of Class 3, Human Brainwaves, Precision Entrainment and the Awakened Mind. The material you have learned will greatly assist you in understanding your own experience of High-Tech Meditation.

On a personal note, after I had been in the Recognitions Program for a couple of years and having my brainwave profile measured at retreats, I was astonished to see the evolution of my own brainwave pattern with increasing symmetry and large delta waves. To be fully awake and observe delta activity in real-time was an amazing experience for me because, before this, I had associated delta with sleep. To see it fully developed in my waking state was very validating that this technology really worked.

Before our next class, post your questions or personal experiences in the discussion area of our course website where our staff will address them. Thank you for joining me in this session. I'll see you next week.