



MUSCLE EXPERT PODCAST



EPISODE 61

JAMES V HARDT

EP-61 : Dr. James V Hardt

Welcome to the Muscle Expert podcast with Ben Pakulski, one of the world's top professional bodybuilders – an expert on human performance and mindset mastery. Ben dives deep to deliver the strategy of top experts to upgrade your body, mind, muscle, strength, performance, biochemistry, and how to become the upgraded, modern man.

Join us on www.benpakulski.com to learn the cutting edge techniques to take control of your body, your brain, and create your greatest life!

BEN

Hey what's up ladies and gentlemen? Ben Pakulski, the host of the Muscle Expert Podcast. As always, I have a beyond brilliant guest joining me today. This gentleman is literally changing the world. I'm so excited to dig deep into what he's doing in three different locations, which he just corrected me on. So we're now in Sedona, British Columbia and also in Germany. This gentleman's name is Dr. James Hardt, he's doing something or he's pioneered something known as the field of neuron feedback, which I'm not even going to try to define. I want to hear it from the horse's mouth. So Dr. Hardt, welcome.

DR HARDT

Hey, it's wonderful to be here with you.

BEN

This is absolutely exciting for me. I'm a big fan of living an optimal life. In the previous life, not so long ago, I was a professional bodybuilder. Most people look at that and they attach to stigma as they will. But I saw it more as a means of transcending some of the limiting beliefs in my mind or a laziness around family. And I think I did a pretty good job doing that and now that I've been transparent with my exit from bodybuilding, now it's about transcending my mind and overcoming limiting beliefs, overcoming everything holding you back in your mind.

And as we now learn, that it all is exactly that, in your mind. It's not reality, it's all things your holding in your brain that can hold you back and you've come so far as to turning that into a definable science and now people can practically change.

DR HARDT

Yes they can. When you change your brainwaves, you change your life. brainwaves rule, as a simple way to put it.

BEN

Absolutely.

DR HARDT

You talk about things that hold you back. Well, we also want to help people know the things that will release them, that will spring them forward, that will empower them, get rid of one and you enhance the other.

BEN

Can you tell us, for my listeners who aren't familiar with what neuron feedback is, exactly what it is and how it works?

DR HARDT

Sure. In 1908, an Austrian psychiatrist went looking for electrical waves in the brain with very primitive equipment. And he found something. And because he was the first, he called them Alpha Waves. They are not the fastest, they are not the slowest, but they're typically the biggest electrical waves in the brain. Alpha Waves oscillate positive negative between eight seconds per second and thirteen seconds per second.

There're other brainwaves, Delta is 0 to 4, Theta is 4 to 7, the Shuman is that little gap between Theta and Alpha, seven to eight, above Alpha is Theta and above that is Gamma. This is the seed of brain life that all of us have to one degree or another. But unfortunately, most people don't live that, don't activate the really powerful and effective brainwaves, Alpha and Theta. In fact, if you think of these as gears of a car, your car would not give you very good gas mileage and it'd be in the shop a lot if you shifted from first gear to high gear, and then from high gear, back to first gear.

Well, a lot of people operate their brain that way. They maybe take a sleeping pill to go sleep, probably they don't sleep enough to wake up. They take caffeine or something else that gives them adrenaline, and so they're operating their brain in a way that it gives them low productivity and high stress which translates into high medical costs. And the way around that, is to learn how to shift smoothly from each brainwave state to another as needed. Alpha and Theta are among the really beneficial brainwaves that most people don't have enough of.

BEN

Incredible. I know that and people who are students of brain function, brain physiology, meditation are very aware of that. And we spend years trying to accumulate the abilities of constantly gong from state to state literally. You know we've heard that it's said that it could take forty years of meditation to achieve the ability to mindfully and consciously go through these states.

So Dr. Hardt, can you just give us an idea as to how, maybe what the process looks like and then how this neuron feedback has actually allowed people to do that, at a chemical level, or rather a physiological level? So I think my listeners, you can understand, are maybe a little bit more advanced than more scientifically inclined. So they want to know the nitty-gritty, the geeky stuff, maybe not to your level but a couple steps below.

DR HARDT

Ben, you're absolutely right that in many traditions, to achieve mastery through meditation, it can take up to forty years! And then a famous study done in Japan by Katomasu and Harai, showed that it took between twenty one to forty years of intensive daily practice of Zen, in order to reach the state of advanced Zen where you had certain brainwaves. With the Bioybernaut technology, you can achieve those same brainwaves in a week! Instead of twenty one to forty years of Zen, you can achieve that in one week with the appropriate brainwave feedback training.

And the key is, because you have to accumulate experience, but you can experience things rather slowly in meditation, or very rapidly in the brainwave feedback. To give you now the nitty-gritty, you can think of it as a signal to noise metaphor. The alpha waves are very tiny signals in the brain, just a few millions of the vault. And so in meditation, you're trying to tune in into this very tiny signal and to make more of it.

And so, you know, you go to a quiet place, you have a retreat, maybe have a meditation room, you go to meditation center or maybe you go to the woods or to a cave like Zen masters often do. And there you reduce the external noise, so it's easier to tune into this tiny internal signal. In the Biocybernaut training centers, we reduce the external stimulation, people sit in quiet dark rooms, however, that's not the only advantage. With our technology we reach in and we pick up these tiny brainwaves with powerful amplifiers, and we boost them a hundred thousand times, so that they become big enough the computers can read them.

And then we do what's called a spectral decomposition, which is as simple as in light where you take a triangular prism, and you pass a shaft of sunlight through the prism, and what you get is the spectrum, the rainbow. We use the electronic equivalent of a prism to decompose the brainwaves into the spectrum: Delta, Theta, Shuman, Alpha, Beta, Gamma. And then once the brainwaves are broken down into their constituent parts, and after having been amplified a hundred thousand times, then computers can go and read them, analyze them and then (here's where the real magic comes in), give people feedback. Now, everybody is familiar with a mirror. A mirror gives you visual feedback. If you stand in front of a mirror, it's not going to make you smile, and the mirror is not going to make you frown. But if you need to practice your smile or your frown, a mirror is a perfect feedback device to use. Because when you initiate some pulling of muscles in your face, you get instant feedback on the results. Well, in the Biocybernaut training, when you initiate something either by a thought or a feeling or the absence of a thought or a feeling, because sometime in meditation you go for empty mind, when you achieve this state, then there are changes in your brainwaves and you hear those instantly as sound.

What we do at the minimum, it's like in the Alpha one, there's nine levels of the alpha training, in Alpha one people hear their Alpha brainwaves from four different regions of their head, left and right, back and top. And the feedback tone for each of the sites are, bom, bom, bom, bom (rising intonation). So there are pitch queues, as well as the speakers, four speakers, in different regions around the head. So you can tell where on your head the Alpha waves are starting to occur. And when they get bigger, the musical tone gets louder.

So you hear your brain as flutes and hobos and organ music, and then when you go to Alpha two and you have four more sites on the head, left and right, side and front, then you add in a cynance of saxophones and a cynthecentric voice called mystic choir. So you are creating a symphony of sound. In this symphony, you are the composer, you're the performer, you're the conductor and you're the audience! Hopefully you're not the music critic!

BEN

Right. So this is all going on, people going through Alpha one and Alpha two, is that going to take seven days or are they going through all levels of alpha training in the seven days?

DR HARDT

Each one of these levels is seven days. We do have a short form abbreviated course we call boot camp for the Alpha one. That is where people go into the chamber twice each day, and in fact the seven day training also have a form, which we call the premium double, where people go into the chamber twice each day. I introduced the premium double about two years ago, this October. Instantly, about two thirds of all the people signing up went for the premium double because the people that we get are interested in maximizing their performance. They want the most out of life and so, if there's an opportunity to get more in a week, they're going to go for it.

BEN

Fascinating. So is it the type of thing where you're kind of seeking as you hear the tunes that sound desirable and are desirable, you just try to continue in that state of thought. Is that kind of the objective?

DR HARDT

Well, if you have a big burst, of course you will want to continue it. But what people very quickly discover is that, when there's a big burst, and I can say this from personal experience, when I was first learning, there'll be a big burst of sound, and my rational mind would jump out and go, "What was that? How did I do that? How can I keep it going?" and of course, it would retreat. And so, I had to learn to put a leash on that rational analytical analyzer, and if I could hold it back for half a second, then the Alpha would continue loud for half a second, and I would get more Alpha energy and would get bigger scores.

And so as you do this work, you learn how to come out of logical analytical and even verbal awareness, into a larger state of awareness, in which you would then have much more alpha waves. And thus your access to greater creativity and greater performance physically. I've worked with US army green berets, and they found that the training was so awesome, that after their training, I trained two 12-man teams of green berets on a secret army base. And after their training, by contract, I left the technology on the base for almost three months.

And these high performance, got to do the maximum you can do kind of guys, found it so valuable that on voluntary days, at once a week they'd have a voluntary day, they could take their girlfriends to a good movie, they could play ball, they could swim, they could sleep in, two thirds of them went in for more alpha training.

BEN

Now one thing you said is that you would score higher, is this the type of thing that's kind of a graded system whereby you get a feedback at the end, you get like a rating like you scored this, and allow you to see progression throughout the week. Is that the objective?

DR HARDT

It is. And Norbert Wiener, the famous information scientist, said that the stationary period of the EEG, some brainwaves, is fifteen seconds. So it's not meaningful to score the energy of less than fifteen seconds in most cases. And the scores the scores we present to people when they are doing alpha feedback training, occur once every two minutes. So in that, our eight, fifteen seconds scores averaged together, and so the scores interrupt the eyes closed auditory feedback, for only eight seconds.

And then people open their eyes, they see the scores, which differ for obviously different places on the head. And we also have scores to indicate the degree to which the left and the right brain is working together. We call those semi-coherence scores. And so the power scores, literally are the square root of the energy that was produced at each of the sites on the head. So it's a real physical phenomenon and more is better.

BEN

Really interesting. So I'm really curious as to what types of people, it sounds like it's very high level of performers and which is really at my alley but what type of people are you typically experiencing coming through Biocybernaut?

DR HARDT

Well, it ranges so far from children as young as eight, and we will take children as young as seven.

BEN

So let's speak to that. What is their desired result?

DR HARDT

Typically, children will come and between seven and twelve, they must come with at least one parent who does the training with them. Most cases, the children have been diagnosed with attention deficit disorder or attention deficit hyperactivity disorder. And many are even being maintained on Ritalin . And so every single child who's done the training who has ADD, at the end of the week they didn't need their Ritalin anymore.

To give you one example, we had a nine year old boy come in with his father from Iowa. The little boy had scored 60% on the Iowa Statewide Achievement Test. So during the summer, he came, did the alpha training, and when he went back to school, not only did he seek out the biggest bully and teach the guy how to meditate, but at the end of that year, he was 96% on the statewide achievement test! And then about eighteen months ago, the little boy's father wrote me an email and said that the son had now graduated from college with honors!

And so the principle reason that children will come, although children can have also very profound spiritual experiences as well, just as adults do. One of the most recent results that we've just come up with, is that the alpha one training boosts a person's EQ, or emotional intelligence. Now it turns out that only about 10-20% of your success in life is related to your IQ, your regular intellectual intelligence. But 60-70% of your success in life is related to your EQ.

In fact, according to Dr. Travis Bradbury's book, 'Emotional Intelligence 2.0,' for every one point that you gain in EQ, that translates into \$1300 additional income annually. And what we're seeing for men is an EQ increase of over twelve point. Which translates, if you look twenty years out from the time you do your training, into almost 320,000 additional dollars of income, that you will get, compared to what you would have gotten if you hadn't done the alpha training. And Dr. Bradbury in his 'Emotional Intelligence 2.0' book, points out that these emotional intelligence benefits applies to all people in all jobs, in all parts of the world. They haven't found a job in which emotional intelligence doesn't increase your effectiveness and your earning power. And so it's really powerful that the brainwave training produces changes in the emotional intelligence, which translates directly into more money for people.

BEN

Can we go back to the nine year old boy, I'd like to talk about what you think was actually happening there. Was it exclusively his ability to control emotion? Was it exclusively his ability to just bring himself down into a more aware brain state, or be more aware of his thoughts? I just want to get a little more practical understanding of actually what's happening, post Biocybernaut.

DR HARDT

Sure. One of my cousins had a little boy who was ADHD and during the course of one summer, the little boy was so hyper that at one point they tried to put him in a classroom with regular kids. And when a girl in the desk next to him rustled a piece of paper, the stimulus was so intense that he bolted out of his seat, ran across the room, knocking over other children's desks, ran into the wall, and knocked himself out.

And so, the nervous system is hyperactive. It's similar to what happens in post-traumatic stress syndrome, where soldiers come back from the wars and their nervous systems are coiled like a tight spring. And the least little stimulus will set them off. And so what the alpha training does at one level, is to calm down an overactive limbic system, the emotional circuitry in the brain. And so, the result that people produce for themselves, and because it's not done by a drug, and they have to learn how to do this within their own brain, the results stick.

And in fact, at one point I ran a federal grant from the National Institute of Mental Health that I wrote one and directed at the University of California San Francisco, and it was entitled, 'Anxiety and Aging'. It turns out that as people age, once atherosclerosis sets in, which can happen as early as a person's twenty's, depending on their genetics, their lifestyle or their diet, once atherosclerosis sets in, the frequency of the alpha slows down by eight tenths of a hertz. That's eight tenths of a cycle per second, for every ten years of life.

So if your Alpha is running around ten, as it is ten cycles a second for most people, it doesn't take very many decades before you drop off, below the lower limits of Alpha, below eight cycles per second, and then you enter senescence or senility and often die soon thereafter. So that's why we say that the alpha training at Biocybernaut can actually reverse aging in the brain. Not just slowing it down, but actually reverse aging in the brain by restoring the Alpha waves in people, for whom the slings and arrows of outrageous fortune have begun to deprive them of this very important resource in their brain.

BEN

Interesting. So these people who are coming to you are, let's talk in PTSD, we're talking this boy who is really over sensitive, are they just constantly living in Beta or they just constantly living that excited state or threshold, or is it even Gamma? Like what are you seeing that's maybe characteristic of the people that are coming in, whether it be physical manifestations or from a brainwave perspective?

DR HARDT

Sometimes, the children in ADD are actually stuck in Theta. And they overstimulate themselves to get out of what might be another one's true lethargic state. The point is that there are ideal brainwaves for every activity. Just like if you have a five-speed car, there's an ideal gear for every driving situation, and a skilled driver will be able to shift swiftly from one gear to another, depending on the demands of the driving. And once you've learned to control your brainwaves, you can shift your brainwaves into whatever gear, so to speak, is appropriate for the task at hand.

BEN

Interesting. Just so we can give our listeners a quick understanding, I think you may have glanced over this, but I want to get a little deeper. What kind of state of awareness is associated with each level? So Delta is typically sleep, correct? Deep state of sleep?

DR HARDT

This is going to be, we can do one which is like the text book. And then there's what's really going on.

BEN

Okay, let's go with what's really going on. I'm curious.

DR HARDT

Okay. In Delta, we'll typically see that if somebody is in a comma, or if they are in state three or four of sleep. These are the two deepest stages of sleep. And in Delta sleep, your levels of growth hormones in your body are at their highest levels. And so it's important that you get a lot of Delta sleep each night. And it typically takes the average person at least ninety minutes, to drift down from wakefulness, before they hit Delta for the first time.

So people who would sleep an hour at a time, would typically not have any Delta sleep and their bodies will physically fall apart pretty quickly. Now if you take melatonin when you go to sleep, of course you have to take it the right way, you have to be just ready for bed, you turn the light out, put the melatonin under your tongue and then get in bed. Your descent into sleep can be more into the deep state of Delta sleep, can be more like the dive of a sperm whale, right down into Delta, rather than drifting gradually down over ninety minutes.

So Delta sleep and coma are characterized by Delta waves. However, and this is not known to many neuron psychologists, it's not known to many neurologists, there're also very profound waking states that are characterized by Delta. One of these is the profound spiritual state of condoleny. When the condoleny rises, it's like a free train of energy coming up the spine, and as it tips each one of the shockers to spring into super conscious awareness, somebody who's had an experience like this is forever profoundly altered.

I made the first report of Delta waves to the scientific community some years ago, and I have seen it occur, we do Delta training, but it sometimes occurs in Theta trainings, so let's then jump to Theta. Theta is seen in stage one and two of sleep drowsiness. However, Theta is a brainwave that wears many hats: the aura, that precedes and epileptic seizure, where somebody would be seeing a vision or something. At certain point of the vision they go into seizure, that is characterized by Theta. A growing brain tumor will produce Theta waves. If the brain has been traumatized by a fall or an injury to the head, the scar tissue will produce Theta. And Theta can also be produced by normal healthy tissues.

There's a difference between what I call mystic Theta and ordinary Theta or drowsy Theta. A mystical Theta, the morphology of the wave forms is different. Instead of looking like little pointy crockane wickets as it does in drowsy Theta, in mystical Theta, the Theta waves are too many spindles. They're sinusoidal, looking a little bit like slowed down Alpha. And in this state, mystical experiences can occur, and also, people in mystical Theta can access an energetic library called the akashic records. The akashic record some say, is an energetic database of all knowledge that was, that is now, and some say that will be. Now, lest people think this is sort of new age mambo-jambo, there're really important examples that everybody would know about, where the inventor used Theta waves to pull the inventions out of the akashic records. Probably the most famous name is Thomas Edison, the inventor of the electric light bulb. Now Edison had over 1000 patents, and he pulled the knowledge for these patents out of the akashic records with an invention technique which even though he used it before people knew about brainwaves, involved increasing his Theta waves.

What Edison would do when he wanted to invent something, he would lie in a recliner chair. In each hand, he would hold a large steel ball bearing, and he would drape his arm over the edges of the chair. And underneath each hand, he would place a large metal pipe plate. Then while thinking about what he wanted to invent, he would try to fall asleep. Well you know, as soon as he had Theta, he's going to lose his grip on the balls, the scientific way to say it, he would lose pastrotelness. And so the steel ball bearings would fall into the metal pipe plates, making a clattering ding which would wake him up and he would grab his pencil and he would write down whatever little piece of the invention he'd been able to pull out of the akashic records before he became fully awake. And then he'd repeat the process.

And so Thomas Edison derived his over 1,000 patterns, by a skillful use of Theta brainwaves, and this was before we had any technology to measure or to train brainwaves. And so the idea that there is an akashic records is seen throughout science, there're other examples like Kekule discovered the benzene ring. He was actually an organic chemist, seeking to find the structure of benzene, which had become an important industrial solvent that was in short supply from natural sources. So he'd work late in the lab, come home, have a big dinner, drowse in front of the fire, and he began to see these furry balls playing in the fire!

And so this became interesting, fascinating, and there was no TV back then, no internet, no cellphones and so he looked forward to this. And over days, weeks, the furry balls evolved so that they would sometimes bump into each other and make chains. And one night the chains were undulating through the fire, and the furry balls had like indistinct edges. Kind of like an atom viewed through an electron microscope has indistinct edges, the cloud of electrons around an atom doesn't end suddenly, it sort of just thins out. And so at one point, Kekule was watching a chain of six balls undulate through the fire and he started to play crack the whip!

And he cracked the whip so hard that the two ends spun around and stuck, and he knew in a flash that was the structure of benzene. And he counted the number of furry balls: one, two, three, four, five, six, and then he knew that the structure of benzene was a ring in which six carbon atoms were hooked together in a ring. And each carbon atom had two hydrogen atoms hooked to it. So it's cyclical hydrocarbon and so Kekule discovered the benzene ring, visually seeing it even though in his time, nobody knew about the structure or the shape of atoms, and it was like he had his own electron microscope. Where in Theta, with strong desire, he could pull out of the akashic records, information necessary to do his invention.

BEN

Wow! So that's kind of a thing he documented personally?

DR HARDT

It's what?

BEN

Is that something he's documented personally in his records or his books or something like that?

DR HARDT

If you go to Google and you search on Kekule, I believe it's K-E-K-U-L-E and the E has a circumflex over it, you can read about Kekule's discovery of the benzene ring and his description of his furry balls.

BEN

Amazing.

DR HARDT

Yeah!

BEN

Very curious. That's fantastic stuff. This is something I didn't even realize existed and tapping into Theta obviously sounds like it's something we want to do. Do you think it's pretty uncommon now due to technology and TVs and internet and cellphones and stuff?

DR HARDT

At one point, Michael Ray, a Stanford professor, was very interested in creativity in business among the highest level of highest achievers and so he surveyed the types of industry in many of the Silicon Valley companies. He was located at Stamford, the heart of Silicon Valley. And what he found was that many of the types of leaders of these high-tech companies had gotten into trouble as children in school, for staring thoughtlessly and wordlessly at the window! They were trancing in Theta.

So some people have this ability naturally, and if they use this ability, they can rise to become very wealthy, powerful leaders. If you don't have this ability, you can do the Biocybernaut alpha and then theta training and learn how to develop this ability on your own. So the fact that you weren't born with it is irrelevant because there's a training method that allows you to learn how to do it.

BEN

You're doing this with kids as young as seven, I'm obviously assuming there's absolutely zero negative side effects you've ever seen from it.

DR HARDT

We put the electrodes on with water soluble pastes and gel. We use coal disc electrodes and so there is a negative side effect that it messes up your hair a little.

BEN

I love it! But nobody has ever come out with maybe a heightened sense of, you know, being over stimulated. It's always going to be that typical, now I'm able to control my Theta, my Alpha. There's never been somebody who's maybe had a reverse effect?

DR HARDT

The beautiful thing about the Alpha training, and there's good news and bad news, the good news is, you only get as much as you can handle, and the bad news is, you only get as much as you can handle.

BEN

The irony of life.

DR HARDT

Because if you start to become even a little bit uncomfortable, then that pinches off your Alpha waves and the tones get quieter and the experience backs off. Many of the people will experience out of body in their alpha training. And this often begins when you start to feel a little bit light in the chair. Of course if you notice this, then you know, it's like noticing an alpha burst, it would back off. And so you have to learn to look at it out of the corner of your mind's eye, so you allow it to happen. But if you get freaked out about it or even a little concerned, or even just pay too much attention to the phenomenon, then it backs off. So you only get as much as you can handle.

BEN

I'm sure you're very aware of the current trend in what is said to be Silicon Valley, and truthfully, it seems to be going all around the world, every podcast in the world is talking about this stuff, about the micro dosing of drugs to try to achieve these states. So for all these guys out there who are thinking about doing that stuff or have done that stuff, is there a negative, I'm guessing they're trying to achieve state of Theta and Alpha, is there a negative effect to going out there and artificially stimulating these states with chemicals? Or is that going to be something that allows you to enter back into the states organically?

DR HARDT

Many questions there. Let me take them on one at a time. At Biocybernaut, we teach something called the psychophysiological principle. In simple language, it's brainwaves rule. brainwaves rule you emotions, they rule your thoughts, they rule your performance, they rule your emotional intelligence here, anything about you, that's any experience you have as a living human being, is determined by what brainwaves you're running.

And when you change your brainwaves by any means, drugs or meditation or brainwave feedback or fasting or Sufi dancing or whatever, if you change your brainwaves, you will change your experience of reality. Now the problem with drugs is of course many of these are illegal, that's one problem, but the other problem is that it's a do it to you technology, it's not a learning technology. And so it doesn't happen so much anymore, but back even into the early 90s, on day three or four of the alpha training, people will come out of the chamber and they go, "Man, that was better than my best acid trip!"

And they had previously done LSD and what they found that when they could turn on the Alpha waves, they were having experiences that were more profound, more healing, more awakening than anything that they have had on LSD. In 1962 before LSD became illegal in California, Barbra Brown, a psychologist researcher in Southern California, legally gave LSD to college students and then measured the brainwaves. And what she found was that, in some people, it made more Alpha, but in other people, LSD suppressed Alpha. And they divided on whether they would visualize things or not. So a drug is not going to reliably produce Alpha increases for everyone, it's going to have differential effects. But the brainwave feedback can be targeted, so you can target not only specific brainwaves like Alpha or Theta or Delta or Gamma or Shuman, but you can also target it at particular places on your head, so you can learn how to be fully functional in a new way.

BEN

Targeting different places in your head meaning different regions of the brain?

DR HARDT

Exactly. For example, I'll tell you a story, and this shows about the brainwaves of wealth making in a certain kind of way. About 80% of people have their biggest Alpha at the back of the head in the visual cortex which is called the occipital lobes of the brain, left and right. On rare occasions, somebody would have Alpha bigger elsewhere on the head. One time I had a guy come in for training, and on the first day I could see that his Alpha waves were much bigger at the frontal location, so above the eyes, F3 and F4 locations in the international 10/20 electrode placement system.

And I looked at his brainwaves and I said, "Man, you would make a great strategic planner." And he smiled and said, "That's my job!" And so he had type cast himself into a career in which he could make lots of money, by using the enhanced and unusual Alpha waves at the frontal side. The reason I was able to say that was, the frontal lobes are at the association cortex, where people make associations. If you can make associations creatively which Alpha allows you to be more creative, if you can make creative associations, then you can project into the future and you could be a gifted strategic planner.

There are some brainwave training locations where what they do is they measure your brainwaves, and they compare you to a normative database, and if you differ from the average student from the herd, they would try to train out of you the very brainwaves that give you your giftedness. So if this guy had gone there, or the Zen master had gone there, they would have tried to reduce his Alpha waves, because they were not like what the average person has. Because he had brainwaves which were not like the average person, he had a huge salary and an amazing job, where every day he would be asked to make strategic planning, times of creative association using his deviant, abnormal, high levels of frontal Alpha.

So depending on what job you have, for example, like professional athletes, you can't measure brainwaves when people are moving because muscles produce signals thousands and tens of thousands times bigger than the brainwaves, swamping the brainwaves. But there're some sports, in which the athlete is motionless before the shot. A golfer before he pats, an archer before he shoots, a pistol or a rifle marksman before they shoot, a basketball player at free-throw, in all of these sports, the brainwaves have been measured. And if there's a big burst of Alpha right before the shot, it's going to be one of the best shots. And so, one way to have peak performance in sports is to learn how to turn on your Alpha waves at will. And the same thing in science or any area where you have to be creative. In order to have creative processing of information, coming up with solutions, you need increased Alpha waves. Carla Mendel studied people who had the obvious in the sphere of creativity. Their texts, their publications, their paintings, sculptures, and then he compared them with a group of people who were demographically in the same age and sex and so on, from the same community.

He brought them into his lab, measured their brainwaves, and at rest, there was no significant difference between the creative people and the normal. But when he gave them problems to work on, the normal sat there in their normal brainwave state and did only as well as normal usually do, and the creative people, immediately went into a high Alpha state, in which they quickly and effectively solved the problems, in a manner that distinguished them as creative people. And so Dr. Mendel said creativity was simply a matter of having the right brainwaves. And with the Biocybernaut neuron feedback technology, people can learn how to increase their Alpha waves, whenever they want to.

BEN

I'll say this is the most fascinating technology that I've literally ever come across, and I'm so excited that you've brought it to the world. Now you're saying you've been doing this since the nineties, and I've seen your videos on YouTube and you're not kidding. So how long have you been doing this?

DR HARDT

The first formal academic study that I did done at Corinimel University, and it was in 1971. And what I did was, I trained twenty students, ten of whom were extremely high anxiety, and the other ten were low anxiety. And what I found was, that when a high anxiety person increased his Alpha above his resting, eyes closed baseline, he suddenly became a low anxiety person. Now in that study, because of the constraints of working with college students, I wasn't able to give them enough training.

Then I moved out on a pre-doctoral fellowship to University of California, San Francisco, and I repeated the study with ten high anxiety and ten low anxiety students, giving them more training time. And in this study, 50% (first study only 12%, second study more training time, 50%) of the high anxiety people learned to make Alpha and became low anxiety people. So then looking at the learning curve, I increased the training time and improved the technology even more, so now we can take 100% of a high anxiety group and they can learn to increase their Alpha above a resting baseline, and they become low anxiety people.

Now that's not the only beneficial changes in personality, because I would measure using things like the MMPI, the Minnesota Multi-phasic Personality Inventory, which is very good at discriminating between schizophrenia and paranoia and depression and mania and hypochondriasis and psychopathic deviancy, you know, there's clinical skill. And what I found was that, when the Alpha went up, these clinical examples of psychopathology would be reduced.

And so I recently repeated that work in Biocybernaut Institute of Canada, that trained a cohort of male and female Canadian Aborigines, many of whom are as profoundly into post-traumatic stress disorder as returning war veterans, because of the residential school system, in which children were ripped away from their parents and sent to these schools, which had as a stated purpose to destroy the Indian culture. These schools continued in Canada up until 1989 and so many of the adults there are so intensely traumatized, that they passed this traumatization onto their children.

In fact, child abuse is or was common in such people. 80% of old male Canadian Aborigines have also been sexually abused. And in some of the tribes, it's 100%, because of the abuse that was heaped upon them by the residential school system. So I published a paper in a pre-reviewed medical journal, Mind-body Medicine, which demonstrated that even with a highly traumatized group of Aboriginal people, that we could restore them to normal psychological functioning. We also measured six months later, their results in a variety of areas and we found that 71% of them were in improved economic circumstances with more sources of income, more savings, less death, and this is just six months after their alpha training. So we can see that the alpha training reduces personality dysfunction, increases IQ, increases EQ, increases a person's earning ability, increases their creativity, it's like, why wouldn't you do something like this?

BEN

Brilliant. So Dr. Hardt, a lot of people in my industry, in the fitness industry are very aware of neuron-chemical influences on the brain, and I'm going to guess that you've looked at some of the research and influences of neurological stimulation, on the neuron chemistry. Is that something that you've dove into at all?

DR HARDT

First of all, the brain is a bio, electro, magneto, chemical organ. And it's the chemical processes that produce the electrical activity of the brainwaves, that produces the magnetic activity which you can also measure outside the skull with a magneto encephalograph. And so you can intervene in this process at any stage. However, the brainwave training through either the electrical brainwaves or the magnetic brainwaves, are far more subtle and precise way of doing it, than by intervening with the chemistry.

First of all, it's hard to measure the chemistry in a living human being, you'd have to stick a needle into the brain and pump out little bits of the fluid and analyze it as you go, or you know, you'd give a drug which might affect the whole organism. Whereas with the brainwave training, you can target specific brainwaves, at specific locations on the head, and you can do this without disturbing the brain, without sticking needles into the brain.

BEN

So I'm curious if the neuron electrical training is influencing neuron chemistry at all.

DR HARDT

Has to.

BEN

Okay. By changing someone into more Alpha state is definitely going to change the way their body is producing neuron transmitters?

DR HARDT

It depends. Because are you talking learning or are you talking stimulation? As a former bodybuilder, you know that if you're going to build a muscle, you have to have some resistance. You might hold a dumbbell in your hand as you're doing curls and the weight of the dumbbell produces changes in the muscle. If you just hooked your arm up to a machine then moved your arm back and forth, you might develop some joint flexibility in your elbow, but you wouldn't build any muscle.

So no effort no gain, no strain no gain. And so if you stimulate the brain electrically or with say pulsed tones, this falls into the category of what I call inducement. You can induce a state with a drug, but it doesn't mean that you know how to access it on your own.

BEN

Fascinating. The reason why I'm asking, I'm curious, obviously with aging there's going to be some degree of degradation in neuron chemistry, and maybe even neuron electricity, so I'm just wondering if there's any way long term that you could positively influence in either direction, or obviously converse in negative of the influence in either direction. Because so many people these days are playing, for lack of a better word, with their neuron chemistry, by stimulating in so many different ways, whether it be drugs or supplements. So I'm curious to see if there's any research, if you've had any empirical evidence on the influence.

DR HARDT

The study that I conducted, funded by the National Institute of Mental Health, had as one of its categories of research subject, people who were from sixty up until their eighties years of age. These were people who were kind of like retired, kind of like waiting around to die and obviously having the brainwaves of elderly people. When they got into the Biocybernaut brainwave training process, it was like they had drunk from the fountain of youth! We had people who had never graduated in high school, after their alpha training, they got a GED, they went to college, they got degrees. They went on, got advanced degrees, they started businesses. We had one woman who was 74, who took a 45 year old man as her lover, and she pronounced her both spiritually and sexually fulfilling.

And I remember there was a woman named Rosy, and at 80, she started a holistic health networking system, for senior citizens in the San Francisco Beach bay, and people I know who met her said, "My God! Rosy is the only woman I've met who gets younger every time I see her!" And so when you change your brainwaves, you change your biochemistry. This is a known fact. Change of brainwave feedback and alter the biochemistry of the brain.

BEN

Absolutely. And that's why I was asking if there's any research, negative or positive, because I'm assuming that, on so many levels you're influencing your neuron chemistry, you're also probably going to be influencing your endocrine system, your hormones, and I'm just curious to see how. Because it sounds it's all positive, I'd love to know like if I can stimulate this, I'm sure we could sell all my listeners on Biocybernaut if we can say, "This alpha training is going to increase your testosterone and increase your sex life." I think you've just got yourself a hundred thousand new customers!

DR HARDT

As you increase your Alpha waves, you are reversing a very important aspect of aging in the brain. And in a higher Alpha state, your brain simply functions better. And so it runs the hormones that digest in the endocrine system, runs everything better because it's now in a more optimal state. One study I know gave brainwave training to post-traumatic stress disorder hypoglycemic alcoholics. And they measured, these are people for whom nothing worked to get them off of alcohol. Because they are hypoglycemic, every few hours they'd be hitting the wall energetically, and they need a drink in order to just come back to a normal energy level. And so after thirty sessions of brainwave feedback training, 80% of these people were on the wagon, and four years later, 80% of these people were still on the wagon. And the researchers, Peniston and Colkasky by name, had undertaken to measure Beta endorphins before and after the training. Beta endorphins is stress related and alcoholics bring it down by drinking. Well, the brainwave training brought it down and so they measured a reduction in Beta endorphins, directly related to the brainwave feedback training.

And so this study brought brainwave feedback into national attention, because suddenly heart, neurologists, physiologists and physicians suddenly were awakened to the fact that brainwave feedback, "Hey guys, this can change your biochemistry in your brain in beneficial ways." And so brainwave feedback came out of a multi year doldrums where people kind of thought this didn't work for a while.

BEN

Now you said thirty sessions for these people, was that thirty days or thirty weeks?

DR HARDT

It was thirty sessions.

BEN

So, like a session is approximately a day?

DR HARDT

Our sessions take a full day, exactly.

BEN

Fascinating. So it's interesting, I mean just the fact that's possible is absolutely fascinating to me. Can you give us a bit of an idea to the demographics you get to work with? Is it literally just everybody or, I know you've got a lot of cases where you're working with PTSD, and definitely some high performers like Silicon Valley CEOs, or the documented cases. But I'm really curious as to who your typical customers or your typical clientele.

DR HARDT

I jokingly say, this training is not for everyone, it's only for people with brains! And the age range currently is 8 to 89, it includes big performers in sports, professional athletes, professional musicians, people who are scientists and engineers and computer programmers, people who need an extra edge, but it also includes children and grandchildren and grandmothers and grandparents. I've trained Zen masters and European and Middle Eastern royalty, I've trained CEOs of billion-dollar companies. I mean, if you have a brain, you can enhance your performance with this training?

BEN

Amazing. Is there anywhere that people at home can achieve some degree, other than meditation, obviously meditation is probably the answer, but are there any other ways that people can achieve some degree of Alpha brain stimulation at home, so they can just maybe see some of the benefits of what's possible with neuron Biocybernaut before they go all the way to your training?

DR HARDT

Yeah, there's several things that they can do that will be quite helpful. One is breathing exercises. Now there's many different forms, and taught by many different meditation teachers, breathing exercises are typically done before somebody sits down to try to meditate. One of the simplest is you simply observe your breath. You don't try to speed it up, you don't try to slow it down, you just watch it, you pay attention to your breath. And mindfulness is a way to describe that.

Another breathing exercise which is very powerful, it was used in a study with angina patients, people who have pain in their hearts because they don't have enough oxygen in their blood. And so a group of angina patients were cured of their angina by doing this breathing exercise. So it tells us that it produces extra oxygen in the blood, which is necessary to produce additional Alpha waves.

And so it's a simple exercise, described in Minnesota Medicine, you increase your breathing for a count, could be ten, twelve, fifteen, you're good, maybe twenty. And then you hold to that same count, and then you exhale for that same time. And then you begin again with the inhale. Now it's pretty easy to count to fifteen while inhaling, and then you have a lung full of fresh air so you can hold for fifteen seconds, but then on the countdown where you're exhaling slowly, you might get halfway through your exhale and feel that, oh my God, I have to take a breath! You are disciplined, you're a peak performer so you continue pushing. You push the air out, you don't rush it, you count to fifteen and then you start to inhale, which would be fifteen.

Again now, your natural tendency would be your empty of air, you want to go (exhales fast) and take a quick breath in, but you resist that tendency and you breath in slowly to your count, whatever it is, ten, twelve, fifteen. And then you do a dozen of these breaths. And now what this does, the deepest most powerful desire that people have is for air. This is more powerful than the desire for food or water or sex or friendship, the hunger for air is the most powerful. And when you can master that kind of technique in yoga is called pranayama, because along with mastering your breath you're mastering a subtle energy that pervades the universe, according to the Yogis, which is called prana.

So this mindfulness breathing, and then this controlled breathing where you do a three phase, inhale, hold, exhale, for a dozen breaths, are very good breathing exercises that will increase your Alpha waves and also potentially increase your intelligence. Now another thing that you can do is to eliminate drugs and foods that reduce Alpha. And these include; caffeine, nicotine, Alpha is reduced by both of those. Also alcohol, and people might bristle on this but onions and garlic, also produce an agitated mind in which it is harder to have Alpha waves.

And so we asked our trainees before they come, to eliminate for at least a week if they can, caffeine, nicotine, alcohol, onion and garlic. And so these are things you could do at home that will increase your Alpha waves.

BEN

That pretty much eliminates 60% of my caloric intake! I'm teasing, but that's obviously definitely doable and I think the breathing would be very helpful. I've noticed tremendous changes to my brain state with just controlled breathing like you say. So that's incredibly valuable. Dr. Hardt, I can't tell you how grateful I am, I think this is the most fascinating thing that I've pretty much ever heard of in my life for anyone who wants to be a high performer and everyone who listens to my podcast is striving for greatness.

The theme of my podcast is the upgraded modern man and anyone who wants to get over to Biocybernaut, in Sedona, where can they find you?

DR HARDT

www.biocybernaut.com, and we also have our training centers in Victoria, British Columbia and in Bavaria, Germany.

BEN

And I'll link all that in the show notes, which is found at www.benpakulski.com/podcasts. Dr. Hardt, are you on social media? Or what's the best way if I'm to reach you? Just on the Biocybernaut website?

DR HARDT

My email, personal is, jim@biocybernaut.com, but you can also go through the website and you will access people. Would it be of interest to your listeners to hear a thirty second clip of Tony Robbins talking about the training?

BEN

Absolutely. If you want to play it or I can link it to the show at post-production.

I'm a huge fan of Tony Robbins, I preach about him all the time. He's the guy who is the kind of guy who is the catalyst for my, you know, the transfer of my life. I acquit him with a lot, shifting my psychology, shifting my physiology, way back in like 2005, is really when I kind of started acknowledging what was possible and Tony was definitely a catalyst. So I'm a big fan.

DR HARDT

At one point, Michael Ray, a Stanford professor, was very interested in creativity in business among the highest level of highest achievers and so he surveyed the types of industry in many of the Silicon Valley companies. He was located at Stamford, the heart of Silicon Valley. And what he found was that many of the types of leaders of these high-tech companies had gotten into trouble as children in school, for staring thoughtlessly and wordlessly at the window! They were trancing in Theta.

So some people have this ability naturally, and if they use this ability, they can rise to become very wealthy, powerful leaders. If you don't have this ability, you can do the Biocybernaut alpha and then theta training and learn how to develop this ability on your own. So the fact that you weren't born with it is irrelevant because there's a training method that allows you to learn how to do it.

BEN

I think it's brilliant because it's the type of thing you're going to impact people in such a massive way and potentially change the paradigm of the world because I just see how this could change anyone who's got a negative thought process. Anyone who wants to do bad things, anyone who's had bad things done to them, I just see it as being such a valuable asset. And I'm so curious as to exactly at what level and it's definitely something I'd like to try myself, and I'm going to dive in hopefully very soon.

DR HARDT

Well, I look forward to welcoming you to one of our locations. And you speak about changing the world, we have a thing we call, the kit person program. It turns out we want to identify leaders in every field and bring them in for training because of course leaders have specialized knowledge, and they also typically have positions of power and influence. And far too many leaders lead from need and fear and greed. And after a week or two in the Biocybernaut chamber, they could come from high and clear and love and have an understanding of the wonders of all life as well as being almost twelve point smarter in IQ, and twelve points higher of emotional IQ, and it will very quickly show up in their work because they still have their specialized knowledge, they still have their positions of power, and so they can begin to influence the direction of the world evolves.

BEN

I think that's incredibly selfless of you to be honest. And that's fascinating. It just makes so much sense, right? If you're going to impact the world, you impact the influencers.

DR HARDT

Absolutely.

BEN

Brilliant. So you can count on me being there, I'd love to be there and I'll hopefully bring my wife along because I think it's the type of thing that maybe really effective done together, if you both in the same state at the same time, you tell me.

DR HARDT

I think it's incredibly important for people to bring along their partners. This could be the emotional or romantic partner, could be their scientific or their business partners, the idea of doing this with people that you know and you work with is so empowering because the operating words at Biocybernaut are: openness, honesty, love, forgiveness and appreciation. And when you add greater amounts of that to any kind of relationship, that relationship will thrive. I can't tell you how many marriages we've saved, by people coming with their spouse and reconnecting with the deep love they had for each other, and doing the forgiveness on all the little minor irritations that had built up. So yeah, that's very powerful.

BEN

Hey, I hope you enjoyed that podcast, thank you very much for listening. Head over to iTunes right now and leave me a review. Let me know if you loved it, let me know if you absolutely hated it. Either way, I need to know so I can improve my job, and bring you guys at the best information with respect to muscle building, health optimization, and building a better person – building a better man.

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