

Dave Asprey ([00:00:01](#)):

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([00:00:07](#)):

You are listening to The Human Upgrade with Dave Asprey. Today's episode is all about tools that let you more quickly rewire your brain and make better decisions. And who's going to teach us how to do that today? Is it some crazy Tibetan monk? No, actually it is a renowned neuroscientist named Nicole Ola. She's a BS in Neuroscience and a master of science and organizational psychology, which I found gives her a unique view on teaching you how your brain actually works when you're not looking. And her newest book is called Rewire Break the Cycle, alter Your Thoughts and Create Lasting Change. And the reason that I want you to listen to the episode today and to learn from her is that there are huge numbers of things that your brain wastes energy on, things that you don't choose, but that feel like they're real, feel like they're there.

([00:01:02](#)):

And the more energy you have, the more energy you have to change the way your brain works. Once you have that energy though, if you don't understand how it works, how are you going to change it? So there's a lot of learning here, and I would say that Nicole is one of the emerging voices in the field of neuroscience, and part of my job is to find people doing cool stuff who haven't developed big platforms. That's why you've seen Tim Ferris on the show before he had a podcast, although he had a giant platform just saying, and Andrew Huberman before he had a show was on here. So it's like, oh look, someone's doing something interesting. So this is someone who's doing something interesting. Nicole, let's talk Neuroplasticity. Welcome.

Nicole Vignola ([00:01:44](#)):

Thank you very much for having me. And wow, what an intro. I'm glad that it's being recorded so I can play it back to myself and I'm having a bad day.

Dave Asprey ([00:01:51](#)):

There you go. Is that one of the neuroscience things, record things and play them back?

Nicole Vignola ([00:01:55](#)):

Not really. That was just, yeah, I might include that in my second book actually. That's a good one.

Dave Asprey ([00:02:01](#)):

Sometimes it makes a difference. I've experimented over the years with recording affirmations in my voice versus listening to a track in someone else's voice. And even whether it's a man or a woman's voice has a huge difference. Steven Porges, the guy who created polyvagal theories, he's been on the show a couple of times and he uses women's voices modulated in a very certain way to elicit trauma release responses. So who would've thought the voice that you use to play something back might affect you?

Nicole Vignola ([00:02:36](#)):

So what affects you most? Your own voice or someone else's?

Dave Asprey ([00:02:40](#)):

The answer might depend on whether you're a man or a woman.

Nicole Vignola ([00:02:43](#)):

Okay, interesting.

Dave Asprey ([00:02:44](#)):

It feels like your brain, or at least certain parts of it are more used to hearing your own voice. But all of the research out there says that hearing a female voice has a different calming effect on the nervous system. And even with mice, if men feed mice, you get one result and if women feed them, you get a different result because the mice don't get stressed and women feed them. Interesting. And they don't control for that in any of the lab studies and like, oh, so there's all this complexity. So I would say someone in the field of neuroscience ought to do a study about listening to affirmations in your voice versus a random dude's voice and a random woman's voice and see what the difference is.

Nicole Vignola ([00:03:25](#)):

Yes. I actually might just do that anecdote on myself and see what comes out.

Dave Asprey ([00:03:29](#)):

Okay, I like this. And then you could have it record your voice in an AI system and then do it in different languages. What's your native language?

Nicole Vignola ([00:03:38](#)):

English, but also Italian,

Dave Asprey ([00:03:40](#)):

So this is super crazy, but I've done trauma healing work with people who are non-native English speakers. And if you learn to say in the language they spoke when they were two to say whatever they needed to hear, and you say it in that language, totally different response.

Nicole Vignola ([00:03:56](#)):

Yes, that I can 100%.

Dave Asprey ([00:03:58](#)):

Even though it has the same meaning, right?

Nicole Vignola ([00:04:00](#)):

Yeah. And what's interesting, when I speak in Italian, I speak very differently. I'm a lot more direct. I think growing up in England, well not growing up, but I've lived there for 12 years, I've kind of been accustomed to soften things up and sugarcoat them a little bit because the English do that and they'll say something like, if it's okay and you don't mind, could you please possibly? Whereas in Italian we just get straight to the point we're like, do this for me please. Thank you.

Dave Asprey ([00:04:24](#)):

Is that because England has a lot of trauma, do you think?

Nicole Vignola ([00:04:27](#)):

Oh, I dunno if I can answer that question, but I do think that the English are very polite and I think that it's a nice thing actually, just as an anecdote, I drive in Portugal and no one says thank you for anything. Whereas in England everyone's like, thank you, thank you. And you're become a much nicer driver I must say in England,

Dave Asprey ([00:04:42](#)):

Gratitude is a powerful thing. I was kind of joking, my last name is English, so I have a lot of that genetics. But actually same thing, I didn't plan this, but it was a Steven Porges on the show talked about how when he came to London and played that specific soundtrack that within 30 seconds they had to turn it off because most of the rooms started having a trauma response. And he said, normally it's 10%. And he's like, oh wait, everyone who's native lived through bombing and everyone else got kicked out of their country and became an immigrant. So they all had these deep traumas that they were unaware of really, that you don't see them being activated every day unless you have some PTSD response, but that they were flavoring their reality. And so maybe the overly pleasing this is don't bomb me. I'm not sure

Nicole Vignola ([00:05:33](#)):

Could very well be, and that's a really interesting topic. I'm going to have to go and do a little bit of research on that deeply. Fascinating. Well,

Dave Asprey ([00:05:40](#)):

The area where you focus on neuroplasticity is really interesting. My big book about brains was mitochondrial function plus neuroplasticity equals much better head, much better brain, yes. But neuroplasticity in the context of healing or just overall personal development or consciousness expansion, if you can turn on neuroplasticity via any means necessary and then go into a healing state, you can get the results of meditation in a lot less time.

Nicole Vignola ([00:06:09](#)):

Exactly.

Dave Asprey ([00:06:10](#)):

So we'll talk later about potentially even pharmaceutical things. There's one that I'm doing at my digital neuroscience company that I want to run past you, but let's talk about your book now. Just walk me through neuroplasticity. I keep dropping this term, but some listeners may not even know what it is. So walk me through what it is and why I care about neuroplasticity.

Nicole Vignola ([00:06:31](#)):

Yes, and I actually had a post go viral recently. Now I realized that there's a big lack of understanding in neuroplasticity when it's being communicated to the general population. So I will actually rein it back quite a lot just so that we can really get those fundamentals in. So you have neurons in your brain. You then have supporting neurons, astrocytes, glial cells, which help the neuron maintain cell survival and just support the neuron overall. Now the neuron communicates via the axon, which is the arm that comes off with the cell body and that is what communicates with other neurons in the vicinity. And these neurons can create long term pathways or long pathways that are then communicated by a white

matter because it may be communicating from the visual cortex of the frontal cortex, et cetera. You also have dendrites which are part of the neuron which connect to other parts of other neurons as well.

[\(00:07:25\):](#)

Now we can't create new neurons thus far that we know of anyway in the neocortex. So the newest layer of the brain, so the cerebral cortex, there is speculation and there is, depending on which scientist you ask, some will say it's been confirmed. Others will be a bit more coy around answering this question. There is perhaps neurogenesis in two areas in the hippocampus. One is the sub ventricular zone and the other one is the subular zone. We don't really know what the clinical relevance to that is yet. So I think that's why neuroscientists are being a little bit coy around answering that question because we want to preserve neurons as much as possible so we don't lead to neurodegenerative diseases. And I think to start discussing someone like neurogenesis when there's a lack of understanding around health as a whole and how people can look after themselves starts to I think confuse the topic a little bit too much.

[\(00:08:21\):](#)

So we can create new synapses, we can unlimited amounts of synapses as far as we know anyway. I mean the number is estimated at 10 to the 14, which is 10 with 13 zeros next to it. That's trillions and trillions of connections in the brain. And what's really fun about that is that we can actually, through mathematics, have figured out that we have these things called combinatorial explosions. So if you have three numbers, one, two, and three, there's six different ways in which you can combine those numbers to make them look in a particular sequence. So 1, 2, 3, 3, 2, 1, 1, 3, 2, 1, 2, whatever. There's six different combinations. The more numbers you add, the bigger that number becomes. And if you have sort of 30 numbers, for example, there's I think 7 billion, I can't remember the exact number off the top of my head, but I'll have to double check then combinations. And that's kind of how learning works and how synapses work. So when we are learning new things, we're just adding more information to this pool of data that we have about how the world works, and I just want people to understand that we can create new synapses, we can create new pathways, we can undo pathways, we can undo bad habits, et cetera. But as far as we know, neurodegeneration is pretty dire because we can't regenerate the cell of the neuron.

Dave Asprey [\(00:09:42\):](#)

I think there's a breakthrough coming through in that field. A guy who's a friend who's been on the show a couple of times, Paul Sta sort of the most, well-known mushroom guy has a new pharmaceutical company. I invested in it and they found a combination of niacin, which is a B vitamin and psilocybin and lion's mane mushroom, something I've had in the field of biohacking since the early days. It causes whole brain neuron regeneration or neuron creation, not just in the hippocampus and all. And so there's at least some evidence that we can do it under some circumstances, which means we might do it a lot more we just never noticed before. So I'm hopeful there

Nicole Vignola [\(00:10:30\):](#)

In

Dave Asprey [\(00:10:30\):](#)

That nerve growth factor, BDNF and things, and Eric Kendell who won the Nobel Prize for saying, no, we really can grow neurons has been on the show and man, he's doing something right in his nineties, his brain is still so sharp. So we see enough corner cases where people have everything intact, but did they save their neurons or did they regenerate them or is it more that they didn't even do either one, they

just maintained the right axonal connections, the interconnectedness that made them intelligent. Do you know which one that is?

Nicole Vignola ([00:11:03](#)):

Well, I was going to say, I mean speculating. I would imagine that if you live a healthy lifestyle, and this is just me sort of again, speculating. If you live a healthy lifestyle and you may be able to regenerate neurons and ideally your lifestyle supports the fact that you are either regenerating or maintaining more than what you're losing or that naturally you'll be losing some. So for example, we lose about three to 10% of our dopaminergic neurons with every decade. That is why my 6-year-old mother doesn't have motivation to want to exercise. And I'm like, of course you don't because you haven't exercised for 30 years and then to try and get you to exercise now is even harder. But we can mitigate the amount of loss of these dopaminergic neurons according to our lifestyle. So it might be closer to a 3% decline with every decade versus 10% or more because you are drinking every week, smoking, whatever. I can list all of the things you shouldn't be doing, but I think everybody pretty much knows, especially after listening to your podcast.

Dave Asprey ([00:12:01](#)):

What about a vegan diet? Is that good for the brain or bad for the brain?

Nicole Vignola ([00:12:05](#)):

I dunno enough, but I've got to tell you, Dave, I eat meat. I eat meat.

Dave Asprey ([00:12:10](#)):

Well, you sure look pretty smart and healthy, so therefore it's working.

Nicole Vignola ([00:12:13](#)):

Thank you very much. I don't know enough about the arguments between veganism and carnivore, but for me it makes sense that I would eat, I would eat

Dave Asprey ([00:12:24](#)):

Meat. I don't know that either one is the right solution, but generally speaking, be cautious of plants. Know what you're getting and get enough meat. Seems like a really good algorithm. I did not have good luck on all meat years ago before we called it carnivore or, and the veganized disastrous for neurons in particular because we have the myelin sheath, which is the neurons that get used the most or the nerves that get used the most will be insulated by this fatty layer that's not made out of plant fats, right?

Nicole Vignola ([00:12:58](#)):

Yeah.

Dave Asprey ([00:13:01](#)):

If you want to stay healthy as you age, you need to keep your muscles strong and ready to move. You might think the answer is to hit the gym harder, but there's a hack for this. So you don't even have to add a single rep to be stronger. It's called MIT pu by timeline. As you age, your muscles naturally start to shrink and you feel tired and worn out. Studies say that weakened mitochondria make you feel that way. MIT peer by timeline gives your mitochondria a big jumpstart, which means better muscle strength

and endurance even if you don't hit the gym more. I use MIT peer and it's a real game changer. Give MIT peer a try for two months and you'll feel the difference. At least that's what the studies say. And hey, if you visit timeline.com/dave, you'll even get a sweet discount. Can you talk to me about habits and myelination and neurons and pathways that get used a lot versus don't get used a lot?

Nicole Vignola ([00:13:54](#)):

Yes. So we'll have some particular pathways that perhaps you go down because it's easier. Maybe you acquire these kind of rules to life based on your peers, your parents, your formative years, which kind of give you this sort of programming where you learn a set of rules of how the world works. So you may observe your parents shouting at each other and then you learn through observational knowledge. That is how people communicate in stressful situations. You then go into your twenties, thirties to realize in the workplace that that's not going to get you very far and you need to acquire different skills. So that's just a little example that I think comes up a lot is people who mirror their parents' behaviors. Another classic one is abusive relationships where people know that it's morally incorrect, but that is what is familiar to the brain. Now the brain has the conscious brain of course has morals, but on an anatomical level, neurons that communicate with one don't have a moral compass that says, Hey guys, we shouldn't be doing this.

([00:14:54](#)):

If that pathway has been ingrained and strengthened and solidified, that's the route that's more traveled. That's the easiest route to take. And that is why people repeat patterns of abuse in their adult life, even though they know that it's incorrect. Until you get the help you need deserve to change these patterns, you will, what's that famous saying by Carl Young till you make the unconscious conscious, it'll drive your life and you'll call it fate, something like that. And I love that quote because it's true and we'll kind of say and blame our, but blame our maybe circumstances, et cetera. But the wonderful thing about neuroplasticity, as you know Dave, is that we can change these pathways. We can essentially become who we want to be and what neuroscience tells us is that there's a couple of prerequisites for this to happen. Now there needs to be a tension involved in adult change.

([00:15:48](#)):

So Michael Menik is one of the leading neuroplasticity of researchers, and he did a series of experiments where he saw that basically they tactile discrimination on a barrel and when individuals were not paying attention to this barrel and this sort of, there was bumps on the barrel when they were engaging something else, they weren't creating any plastic change in the brain when they started paying attention and discriminating between the different sizes of which intervals these sort of gurus were hitting the finger, they were then they were seeing plastic activity in the brain, and what they realize is that we need norepinephrine, which sort of activates the neurons and we need acetyl coline. Acetyl coline is essentially a cone like spotlight that tells you what is important. So you are looking at me right now, but there are things in my periphery, but your brain is telling you that I'm important, I hope anyway, but you could focus your attention to the drum set behind me on the side or whatever it is, and I could focus my attention onto your background or maybe sounds in your periphery. We can direct this attention to something specific. So we have to tell the brain what is important, because if you're going through life and you've got a French tape on in the background, your brain is not going to tell you that this is important. You need to learn French, you have to actually pay attention to the words because we have this particular activating system that filters out things that are not important in your periphery.

Dave Asprey ([00:17:16](#)):

I got really interested in that system because I had to do a lot of brain retraining. I used to have Asperger's syndrome, so that meant to get over it. I had to fix my mitochondria, fix my neurons and the myelin sheath and then reprogram a lot of the patterns in the brain including vision. So when I started doing vision retraining, I found out I only saw a television. I had never turned on my peripheral vision, and when I started doing exercises to turn it on, it took somewhere between three and six months and I was just so tired all the time because my brain was growing because I had to learn to see all this stuff out here that I just had never bothered paying attention to as my brain was evolving as a young child.

Nicole Vignola ([00:18:06](#)):

Yeah, I'm glad you said that because to make these changes, it does take effort. It takes cognitive energy. The mitochondria that are producing energy have to work to create these new pathways and conduct new action potentials and new communications and new synaptogenesis. So there's a lot of work, for lack of a better term, going on in the brain to create these new pathways, and that is why when you're tired, stressed, I don't know, something mildly inconveniencing comes into your day, you can revert back to what is automatic back to those old patterns, and that's why making sure that you, and I've got a section in the book that I called pushing through the boundaries. You have to push through that boundary of discomfort, the resistance because it's a lot of work.

Dave Asprey ([00:18:52](#)):

I found that on the days when I would do that heavy brain retraining just in my visual processing system, I was kind of an asshole for the rest of the day. I was really short tempered what was going on there.

Nicole Vignola ([00:19:03](#)):

So we call that vigilance decrement, so you have a finite amount of resources that your brain can allocate to particular things. This is my area of research and I essentially called it mental currency. So you've got a bank of energy and what are you given it away to? You were given it away to something for a good cause, retraining yourself, but people are mindlessly scrolling on social media for hours on end, arguing in the comment section, but giving it away to things that don't matter, and then how much currency do you have left for the things that you want to do? So your cup or your currency was essentially depleted, so by the end of the day you didn't have much to give. That's where the irritability comes in. It's just essentially the metabolic organelles are depleted in a sense.

Dave Asprey ([00:19:49](#)):

I think it was in headstrong, in my brain book, I talked about willpower and I found a couple studies that showed mitochondrial sufficiency drove willpower, which just makes sense, but it's nice to have a study confirming what makes sense, and so if your mitochondria depleted because you were focusing or learning or doing something, you're going to have less willpower when you're done and less willpower means less willpower to with kindness instead of being snappy when you've been taxing your brain. How much of just the rudeness that we see in the world and people just being reactive, how much of that do you think is coming from weak mitochondria versus neuroplasticity issues?

Nicole Vignola ([00:20:34](#)):

Probably a bit of both. I mean, I would say it's a combination. I think it's bad patterns that people have acquired. There's really interesting research by a woman called Dr. Susan Greenfield. I highly doubt you'll ever get her on a podcast because she's just not in the media. Unfortunately, she's wonderful, but she's British and she is doing research on the impact of social media and phones on young adolescents.

Now if we are, so it's been hypothesized at 7% of a conversation as words. 21 is body language, sorry, 21 is tone and the rest is body language. There's some nuance there because you can pick up tone through phones and obviously times have changed since they've sort of stipulated what these numbers were. But what she's basically saying is that we are able to say whatever we want through a phone because I can tell you whatever I want about you, and you're not going to be able to say anything back or I'm not going to get a punch in the face because I can get away with it.

[\(00:21:31\)](#):

You are on the other side of the world. So we're learning, well, we're unlearning to communicate effectively, especially in a mildly stressful situations. So disagreements, which debating and disagreeing with someone with diplomacy is a skill, and if we're losing that because we can say whatever we want to each other, our phones and raise our cortisol levels, raise our stress, blow up block somebody, then when we translate that into everyday life, we're diminishing that response. Now you couple that with someone's patterns of behavior that they acquired from their families, or maybe they've got trauma, maybe they've got circumstantial issues, maybe socioeconomic factors in whatever environment they grew up coupled with mitochondrial dysfunction. You've got a recipe for disaster when it comes to being able to conduct yourself in everyday life.

Dave Asprey [\(00:22:24\)](#):

Makes a lot of sense. I know that at the times when my mitochondria were weakest, usually from either stress or quite often from mold, toxins that directly inhibit mitochondrial membrane potential, I sure could act like a jerk. It happens. And then when you've had a good meal and you're just feeling good, it's really easy to have patience. So the idea for me that patience wasn't about my morality or ethics, but patience was about the performance of my subcellular organelles. It was kind of freeing because it means if you screw up, you're like, look, I did my best, but I didn't have enough power at the time, so that's what my body does. Maybe I should make sure I have more power, more electrical power, and then it seems to be easier.

Nicole Vignola [\(00:23:08\)](#):

Yeah, I like that. And I think that that really aligns with the message that I've been sort of conveying and rewire that you've got to have the hardware in good functioning order so that you can make upgrades to the software so that you can stop being so short tempered and reactive, but you also need to be looking after the hardware component, the mitochondria, so that you can then change or improve.

Dave Asprey [\(00:23:32\)](#):

Why can't you just try harder

Nicole Vignola [\(00:23:33\)](#):

In what sense

Dave Asprey [\(00:23:34\)](#):

That you've wanted to improve? Just put more effort into it?

Nicole Vignola [\(00:23:37\)](#):

Yeah. Well, I mean there'll be a level of that that will work maybe in the morning. First thing when you start, you can try really hard and then by the end of the day, as we said, it starts decrementing slowly,

slowly. Now when we wake up the first eight hours of our circadian cycle, and hopefully people's circadian cycles are aligned with day night structures, not everybody's like that. There's a big argument around that, and we can go down that route. But that's a rabbit hole for me because I am not entirely sure that I believe in chronotypes, but we can go down there another time.

Dave Asprey ([00:24:11](#)):

Yeah, I'd love to explore that at some point. I mean, I've had the guy who wrote the book about them on the show I think a couple of times and it seems to describe things well, but it could just be there's types of circadian disruption and we just call those counter types. I don't know the answer to

Nicole Vignola ([00:24:24](#)):

That. Yeah, exactly. And I think with epigenetic changes, I think you could shift your circadian clock to your clock genes at least to maybe function better. I mean, anyway,

Dave Asprey ([00:24:35](#)):

I did. I went from, since I was 10 years old, I was a 2:02 AM going to sleep, and it was very consistent, 2 0 2, 2 0 3, 2 0 4, and oh, maybe eight, nine years ago through biohacking. I just finally got it shifted where I go to bed at a normal time and I know all the variables and I teach people how to do it. Sleep with dave.com, by the way, guys, if you want that, it's the best of world ever, but it's free.

Nicole Vignola ([00:25:00](#)):

I was going to say that's the best URL ever. We

Dave Asprey ([00:25:02](#)):

Sleep with day for free. It's even worse. But the idea is it's just the core teachings about sleep in a concentrated form so I don't have to keep saying it.

Nicole Vignola ([00:25:12](#)):

Okay, amazing. I love that.

Dave Asprey ([00:25:16](#)):

Do you ever wish that you had a remote control that could just change how you feel at any time? I do, and there is such a thing. It's called the Apollo Wearable by Apollo Neuro. It doesn't just track your biometrics. Like most wearables, it allows you to control your biometrics, how you just wear it around your ankle, your wrist, or as a clip attach to your clothes, and it helps to rebalance your autonomic nervous system using vibration. The more you wear it, the more it improves your HRV and trains your body to relax, sleep better and find deeper focus. Neuroscientists and physicians develop the Apollo wearable and it's got research to back it up. Users experience up to 40% less stress, 30 minutes more sleep at night and up to 25% more focus. I've been wearing it whenever I feel like I want help shifting my state, and it makes a big difference in stress levels. Try it out and see how it works for you. Head to apolloneuro.com/daveasprey to save 15% on your Apollo wearable. That's apolloneuro.com/daveasprey save 15%.

Nicole Vignola ([00:26:19](#)):

So back to my point. What was my point? What were we talking about?

Dave Asprey ([00:26:22](#)):

Effort. Why can't you just try harder?

Nicole Vignola ([00:26:24](#)):

Yes. So I had lost my train of thought then.

Dave Asprey ([00:26:27](#)):

Oh, so okay, we got to pause for a second here. I

Nicole Vignola ([00:26:30](#)):

Remember.

Dave Asprey ([00:26:31](#)):

Why did you lose your train of thought? What happened in there?

Nicole Vignola ([00:26:33](#)):

Because I'm excited. I'm having a really good time and sometimes I dunno trajectory, but I must say it is four o'clock for me in the afternoon and I am a 6:00 AM kind of girl. So this is my peak sort of down trajectory for

Dave Asprey ([00:26:45](#)):

Okay, you're a little tired.

Nicole Vignola ([00:26:46](#)):

I'm a little bit tired. Okay.

Dave Asprey ([00:26:48](#)):

I actually love that answer because the teaching here for everyone is if you forget what your brain is doing, there's a reason, right? You probably don't know what it is. And I had such bad problems with this in my twenties that it was happening a hundred times a day that I got really militant about it. Now, if something like that happens to me, there's a little process goes, I wonder what I did to cause that. I'm like, oh yeah, I slept four hours last night. Well, I deserve that.

Nicole Vignola ([00:27:13](#)):

That actually brings me back to my point, which is the point that I now remembered is that the first eight hours of your circadian rhythm is you're higher in dopamine and you've got higher levels of dopamine, higher levels of norepinephrine. Now, in the second eight hours of your day, you're more serotonergic because serotonin, melatonin, melatonin sleep. And that is why we tend to be a little bit more irritable in the evening where more emotional serotonin has emotional regulation and can also make you feel a bit more warm and fuzzy, if you will. I always say that trying to adopt habits that are calmer, less metabolically demanding, and I got scrutinized online because I said something like meditation is better in the evening than the morning if you're trying to adopt it as a habit versus running, did

Dave Asprey ([00:28:00](#)):

The yogi people try to bully you? Because yoga bullies are the best.

Nicole Vignola ([00:28:05](#)):

I dunno if they were yogis, but they were. Yeah, I mean the internet is an interesting place. We can go on about that for ages and factually speaking, running is going to take up more energy from you than something like meditation, this be honest, that is the fact. But anyway, so in those first eight hours you have higher levels of norepinephrine dopamine, so you're going to be more energetic, more ready to conquer the day. And again, that might change for some people. I'd like to do a little bit more in depth research on that. But generally speaking, at this time for me, I've been up for a few hours now. This is me going down. This is where I start doing things that are a bit more nurturing. I cook, I take my dog's for a walk, et cetera. So yeah, I think that that's why people will tend to lose that kind of ability to be nicer by the end of the day

Dave Asprey ([00:29:03](#)):

Just because we're depleting ourselves, depleting our willpower, our mitochondria,

Nicole Vignola ([00:29:09](#)):

And I don't think we're helping ourselves by not putting in strategic breaks in place. If you don't take a mental break, your brain's going to take one for you and it will be at the time where you need to hold a bit of poise when answering somebody.

Dave Asprey ([00:29:24](#)):

I'm going to save that little segment. I'm going to send it to my executive assistant, Christine. I swear I have a 45 minute lunch and some days, in fact, almost every day I am every minute like a Tetris. It's all in there because I'm running multiple companies and I'm okay at 45 minutes. That's my mental break. Then she'll call me to talk about calendaring and I'm like, I'm going to just put my face on the grill right now because I actually just needed to not think, especially thinking about scheduling shit. That's the most horrible thing for me.

Nicole Vignola ([00:29:54](#)):

The was.

Dave Asprey ([00:29:55](#)):

Yeah. Okay. So why for me is scheduling things harder than writing a new algorithm for consciousness or something. What would make a certain brain hate calendars?

Nicole Vignola ([00:30:05](#)):

It depends on who you are. I mean, I like scheduling.

Dave Asprey ([00:30:08](#)):

So you're a masochist?

Nicole Vignola ([00:30:09](#)):

Yes, to some degree. Yes. It makes me feel good when everything's color blocked in my diary and I'm like, that's really sexy actually.

Dave Asprey ([00:30:17](#)):

Okay, I'm going to say there, I just don't know. You're the one who does it. I have a beautiful calendar, but if I had to call all the people, can you meet now? I can do two meetings. I can schedule two meetings a day or I can conduct eight of them, but I don't know why there's resistance. I've never been able to get to the bottom of that. Why is it so hard for me to do that? Or for some people, and my assistant's amazing. She schedules 20 meetings. I don't know how she does it. Is this like a brain wiring thing? Is this some kind of mental superpower?

Nicole Vignola ([00:30:46](#)):

I think we all have positives. We all have strengths and we all have weaknesses. And maybe scheduling is your weakness, and I don't think that you should try change that. I think scheduling is pretty dire, to be honest. So embrace it.

Dave Asprey ([00:30:58](#)):

You said something important about changing weaknesses versus focusing on strengths. When people come into 40 years of Zen, which is my neuroscience brain upgrade, EEG program, a lot of them are wired to, I want to deal with weakness, but we always encourage them maybe a little bit if it's a serious weakness, but focus on the stuff where you just totally are amazing. What neuroscience supports the idea that you should focus on your strengths instead of filling in your weaknesses?

Nicole Vignola ([00:31:27](#)):

Well, we tend to have a negativity bias. So let's use smoking as an example. You're trying to stop smoking and you smoke a pack a day, that's 20 in a pack, right? And now you cut down to, I don't know, maybe two a day. What tends to happen is people will berate themselves with the fact that they're still smoking two a day. They won't count the fact that they're smoking 18 less per day, which in a month is, I'm not very good at math, but 18 times 30 is a lot. It's like 400 and something. That's a lot of cigarettes that you've now cut down on. But people will still focus on the fact that they still suck and they're not there yet. And that's kind of how we are with our weaknesses and our strengths. We tend to overlook the strengths and maybe ignore them and then focus on the negative that keeps us stuck.

([00:32:10](#)):

When we start to congratulate ourselves and start looking on the positive, like our strengths and nurturing those, we actually release dopamine. Now, dopamine is involved in reward-based learning. So if you release dopamine because you feel good, the brain is going to learn what you did that it can do that. Again, you don't release dopamine when you're berating yourself. How many times has someone not eaten the cookie game because they berated themselves for eating it in the first place? Never. Right? So you have to congratulate yourself and focus on how amazing you are doing because you did something else. Maybe you ate vegetables and fruit. I know you can have a conversation about that, but I'm just using that as an example. Maybe

Dave Asprey ([00:32:51](#)):

I feel triggered right now.

Nicole Vignola ([00:32:53](#)):

I did that on purpose just for you.

Dave Asprey ([00:32:57](#)):

Well played.

Nicole Vignola ([00:32:59](#)):

No, so you could congratulate for having the willpower not having one at lunch, and it is just simple things like that. So the weaknesses are always going to be there, and I think if we keep focusing on them, we are paying too much of this mental currency too. Them, unless they're really bad, change them. If they're not very bad, then just focus on what's good in your life and make that super, super human. What is it? Human upgrade.

Dave Asprey ([00:33:23](#)):

There you go. I like that.

Nicole Vignola ([00:33:25](#)):

Make it the best that it can absolutely be because we're all going to have some little things. And to be honest, I even like my weaknesses at times. I lose everything, and that's just who I am now. So

Dave Asprey ([00:33:36](#)):

Yeah, developing a practice of gratitude and forgiveness of yourself goes a long way towards just turning off those voices. And that's really the first part of your book is how do we turn off the thoughts? Dr. Daniel aimed is a good friend fellow, a neuroscientist or psychiatrist, talks about ants, automatic negative thoughts, and I'm on his directors and I'm really grateful for his work educating me when I was in my twenties. So he talks about ants and a lot of people talk about the angry critical voice in their head, and there's different words for it. What is that voice and how do you change it?

Nicole Vignola ([00:34:11](#)):

Yeah, so we have these voices in our head that reside within an area called the default mode network. Now, the default mode network is a network of brain areas, as the name says. That is your default mode of thinking, your idling state. What are you thinking about when you're not thinking about anything? Generally speaking, those source will arise when you are not in the network that you're in now, which will be essential executive function. So you're paying attention to me, but it'll be more when you are washing the dishes, folding your clothes, and just doing mundane things like walking, maybe driving. For some people, that default mode network has all to correlated with negative self-referential information. So it may have stronger connections to the amygdala or it may be exacerbated with negative thinking, ruminative type thinking. The problem is that the thoughts in this default mode network, they don't really have a beginning and an end.

([00:35:05](#)):

They're spontaneous, and it's the reason why sometimes you're washing the dishes and you have this idea, you're like, oh yes, I've got the answer. I know what I'm going to do. That's the same thing, but with negative thinking. The problem is, is that there's no real narrative to these thoughts. They run seemingly inherently in the mind, and they can exacerbate feelings of negative thoughts and negative feelings and emotions. So one way that we can interject that is to start generating words. So when you

generate a word and you start putting a sentence to it, you use more the frontal cortex, the medial prefrontal cortex to be exact, and that snaps you out of that default mode type thinking because as soon as you have to explain how you feel, you'll find that people generally struggle to do that. And it actually either means that you didn't feel like that at all, or that the feeling wasn't as bad as you made it out in your own head. I dunno if you can resonate with that.

Dave Asprey ([00:35:59](#)):

I definitely can. I used to have a very, very mean voice in my head. You get all the criticism and anger and shame and all that stuff that gets mixed up in there. A lot of people have experienced bullying get that, or just even normal parenting where you say, oh, my childhood was pretty good. Be like, yeah, well, there's times when even the best parents are just, they've had enough. And frankly, when you're two, you act like a little asshole a lot of the time you don't know better. So it's always a game of how much energy and patience do parents have versus how much energy which children have more of and patience, which they have none of, right? And so there's always going to be even in the best possible scenario times when you got yelled at. So that can evolve over time into that pretty harsh voice. And when I sit back now, I don't have a voice in my head the vast majority of the time, good or bad, but that's taken six months of electrodes glued to my head doing advanced meditation work to sort of silence that.

Nicole Vignola ([00:36:58](#)):

Well, that is a good point you make, and that was what I was going to bring this point to is that in this default mode network, it can also be hyper in the sense that it's more creative, and it's kind of the way that I describe it. It's a bit of a garden. If you don't tend to this garden and you let it overgrow with weeds and you kind of ignore it, you're like, I don't want to sit with my own thoughts. I'm just going to push it away, it overgrows, and it's a place that you don't want to go to. If you meditate and you spend time in this place and you nurture this place, obviously being the default by network and you plant the seeds and you water the garden and you pull out the weeds, you have a place that is wonderful.

([00:37:35](#)):

I don't have those negative thoughts. I used to have a negative voice in my head that repeated a particular narrative. And as you said when you said that, I thought, you know what? I don't think I have a good or bad voice either. I just have thoughts. I'm thinking about stuff, but there's no real narrative in my head. But I spent a lot of time taking care of it, meditating, going to yoga and doing all different practices to see what worked for me, breath work, spending time alone, going for walks, exercising. Those are all forms of meditation to some degree. And then you've got layers to it where you actually meditate. So I looked after that, the area of my brains that I could sift out those thoughts. The problem is that people don't want to sit with their thoughts, so they push them away, and then they come at night, 11 o'clock lying in bed, tossing, turning, oh, I'm a night owl. My chronotype says that I should be awake at this time. No, you just haven't sat with your thoughts and now you're digesting them all in one place.

Dave Asprey ([00:38:31](#)):

It seems like there's some correlation with your age and what happens with age comes wisdom. So I'm guessing you're thirties.

Nicole Vignola ([00:38:41](#)):

Yeah, 32.

Dave Asprey ([00:38:42](#)):

32. Okay.

Nicole Vignola ([00:38:43](#)):

I was hoping you were going to say twenties. I'm not going to lie.

Dave Asprey ([00:38:47](#)):

It's always dangerous to guess, but I have zoom filters to save me if I guess wrong. So there we go. So 32 is actually pretty young to have worked on the voice in your head, and I'm seeing something really encouraging. And for generation Xers, there wasn't a lot of work that would happen until you were 30. You might start paying attention to this stuff. And when I worked with people in their twenties, now, a lot of 'em are very steeped in neuroscience and meditation. They're very curious about their brains and they're aware of the voice in their head and all of that. So I'm really encouraged that we're starting to do the work at a younger and younger age. So there are a good number of relatively conscious people in their thirties. And if you're listening to this saying, well, Dave just judged me in my thirties. I did my first personal development thing when I was 30, right? It was a 10 day deep holotropic breathing and all kinds of crazy stuff, and it took about 10 years of deep work to really get my stuff where I wanted it to go. So if you're 25 and you get started now, and we have all the tech available now that wasn't available when I was 30, your speed of progression towards being just a kinder more conscious person, it could be dramatic because you're more neuroplastic when you're young, right?

Nicole Vignola ([00:40:04](#)):

Yeah. I do think that things are changing, from what I've seen anyway. It does appear that, well, firstly, I think social media is a wonderful thing. I don't have a bad relationship with it because I follow people like you. I follow other scientists and people that educate me all of the time. So for me, I'm learning a lot on social media, and I do believe that younger generations are able to now have access to this information that you wouldn't have had, and I probably had a little bit later, or you know what I'm trying to say? Yeah. We're starting to infiltrate this information into our everyday lives, so we are becoming aware of it and we can make these changes. We're breaking these generational patterns of trauma. I come from an awful background. I mean, my parents were awful. I mean, if my mom's listening, I'm sorry and I love you, but my childhood was shit. It was freaking awful.

Dave Asprey ([00:40:51](#)):

One of the things that I've learned at 40 years as Zen, I like these really successful people that'll come in and go, my childhood was perfect. And I'm like, oh, this one's going to be a handful. Because let's face it, we're always programmed to think our parents were perfect because they have to be perfect when you're three years old. Otherwise, it's scary. And at a certain point you realize my parents did some good stuff. They did some bad stuff. There were times I had a lot of joy times. I had a lot of pain, and you're not reactive to any of it, but if you have a story that's like it was AI or it was amazing, they're probably both a little bit dramatic,

Nicole Vignola ([00:41:24](#)):

Right? Yes. I mean, mine was very bad.

Dave Asprey ([00:41:29](#)):

You can say it with a smile. It's the people go, it's really bad. So you can wrap yourself in either end of that and just be able to recognize that there are some really bad parts, and there were probably some good parts too, but it was predominantly not good. Great, but you're not reactive to it. You can just talk about it.

Nicole Vignola ([00:41:48](#)):

And I wouldn't change it if I could go back in time and do it all if I probably would because it's got me to where I am today. So

Dave Asprey ([00:41:55](#)):

It's a sign of healing, like you feel the trauma, and as you heal the trauma, the negative thoughts in your head go away, right?

Nicole Vignola ([00:42:00](#)):

Yes, yes, exactly.

Dave Asprey ([00:42:02](#)):

That's what I like really most about your book is that you talk about breaking the cycle of negative thought patterns. I have been stuck in that, and it feels real, and you believe all the thoughts and they cause biological reactions. And it's one of the things that inspired me. All of my content is written. If someone had told me this when I was 19, imagine how much less I would've suffered physically and emotionally and all this stuff. And so if people just read the first part of your book about ditching the negative, do whatever it takes to have more positive voices in your head and your segments in the book ditch the negative. And you talk about breath work, you talk about hobbies. You already mentioned strategic breaks. Then you talk about shifting the narrative to be positive. What are the tools for making more of a positive voice? In my head, it's different than stopping negative. I want to create positive. Give me the hack.

Nicole Vignola ([00:43:03](#)):

Yes, I've got a seven step process. I'll obviously talk about a couple. One that I think is vitally important is definitely doing a spring scene on your social media. I don't get triggered by social media ever. I'll see things that I disagree with and I'm like, okay, cool, whatever. That's fine, and I'll just crack on. But some people do. They get triggered by other people's bodies or what other people are saying, get that out of your life. If it's triggering, you, get it out of your life for now anyway. If it's causing you to think negatively about yourself because you have low self-worth and body shame, then get rid of those people that are making you feel like that because it has a huge influence on how you portray yourself in the world. Secondly is visualization. So we can create a blueprint through thought alone about how we want to conduct ourselves in the world.

([00:43:51](#)):

Now, the research on visualization shows that it has to be paired with physical activity. So it's been used predominantly in athletic performance because the cerebellum then gets the functional connectivity between the cerebellum and the motor cortex improves. So when people talk about visualization or manifestation, it's generally too abstract. And some people have an amazing imagination and they can imagine themselves in the future being this particular person, and that's great. But a lot of people struggle with that, especially people that have AIA with an inability to actually imagine in your mind's

eye a red apple, for example. So what you can do is actually, if you're trying to say a running habit in the morning, you can visualize yourself the night before waking up, not snoozing the alarm, putting on your shoes, putting on your clothes, probably closed first and shoes, whichever order you want to do it in. I'm not judging, get out the door and go for the run. But you have to reinforce it with motor activity after you've done the visualization because the ones you've done it in vain, and that's just imagining.

Dave Asprey ([00:44:53](#)):

Okay, that's a good trick in order to do it. I like it a lot.

Nicole Vignola ([00:44:57](#)):

Yeah, because people will be self-conscious in work environments. They've got a presentation or they've got a speech to give or whatever it is, or they've got a review with their boss. You can visualize yourself being calm under pressure, and it can work so that you can actually then have those sort of difficult conversations in a way that you've practiced. Now, the other step I have is preparing for setbacks. So we spoke about it earlier. By the end of the day, you're a bit tired. Things start cropping up. You start getting irritable. Preparing for setbacks means that you are prepared for when those things arise. So I spoke about Michael Phelps in 2008. He broke the world record in the Beijing Olympics. He won eight gold and in the 200 meter fly his goggles, they sort of opened up and they got filled up with water, and he still won the race.

([00:45:52](#)):

When they had the interview with him and his coach at the end of the race, they said we were prepared for every single thing that could go wrong. We knew that his goggles could get filled with water. We knew that they could come off and he'd have to swim blind. So he knew exactly how many strokes to take before he had to tumble turn and then swim the rest of the race and win. And he did, which is remarkable. Now, many people will say, well, what if I start preparing for setbacks and it turns into rumination, or I'm just over catastrophizing? Or when you are doing that as a goal-directed activity, you are engaged in the logical centers of your brain. So it's a goal-directed outcome. It's a solution-based activity that tells you what you could do. So one example is maybe you have a personal trainer and perhaps they cancel on you. And the usual thing that happens is people go, oh, cool, I guess I won't work out today. That's my excuse. No, prepare for that setback and have a workout planned ready for you to do at home, even if it's 20 squats and 50 press-ups. At least you've done something.

Dave Asprey ([00:46:56](#)):

Wow, I was thinking you were going to say, just have a cheesecake ready, so you just go straight. Okay. I like your answer better. Actually, I don't. I like my answer better

Nicole Vignola ([00:47:04](#)):

Cheesecake after. Do you eat cheesecake?

Dave Asprey ([00:47:08](#)):

Actually, I don't because Well, the gluten and dairy, there's that, but you can curious. You can make one with collagen and butter and you can do pretty close.

Nicole Vignola ([00:47:14](#)):

Okay, fine.

Dave Asprey ([00:47:15](#)):

Now, I wanted to talk about the second, or I guess the third part of your book where you talk about boosting the positive using neuroscience. And that brings to mind to question, earlier we talked about healing traumas. What does healing trauma do to your synapses or synapses, as you would pronounce it over there?

Nicole Vignola ([00:47:39](#)):

Yes, it's the English and British English and American spelling is, yeah, I just wish we would all agree on something since we're all speaking the same thing, right? But any use, so from my understanding, you are essentially reprogramming, if you will, your memory centers with your emotional centers. So when you see something, does it now trigger an emotional response? So you're diminishing, excuse me, the emotional friction that a particular memory has on your life. So I can talk about my past and it doesn't trigger anything within me because I've worked through it. I've reprogrammed my understanding of what that memory means to me through different ways that the memory centers will communicate with the emotional centers, and whether there's a trigger involved. If I see something in my environment, does it trigger a response in me that is maybe deeply ingrained in a memory of my trauma and whether I've dealt with that. So you can rewire essentially the synapses or the connections that your memory centers have made with the emotional centers to diminish that friction and the impact that it has on you.

Dave Asprey ([00:48:52](#)):

If you get rid of the traumatic pattern in your synapses. Does boosting the positive the way you talk about in your book, does that regrow them? And given that we're so focused on fear and overemphasizing the negative, I'm assuming our synaptogenesis is the same way. How would you kind of trick the brain into growing new synapsis that are positive more quickly?

Nicole Vignola ([00:49:18](#)):

So the synapsis are not positive or negative, but it's your perception of how they are connecting. So you spoke about gratitude and being able to see the positive in your life is hugely important because if you don't keep that in check, you will focus on the negative. If I say to you right now, Dave, how many blue things are in your environment? You start looking around and I said, okay, how many red things were there? You're going to say, well, I dunno. I was only looking for the blue stuff. And that's kind of how the negativity bias works and the gratitude. If you are only looking for the negative things in your life, you're going to overlook all the wonderful things that are happening to you all of the time.

Dave Asprey ([00:49:59](#)):

The exercise that's worked best for me is one, I've written about it in at least one of the books, is sitting down at the end of the day and writing down a list of things you're grateful for. And I remember one time I did this list, I can only come up with nine things for the day, which is not that many. Most people have hard time just with three when you start, but over time you realize you could be grateful for dozens of things because small things. So I'm racking my brain, and that was the day that I got the phone call that said in my book, hit the New York Times Bestseller list, and I totally blanked that one out. So I'm like, I don't have anything to be grateful for today. And you just realize the power of the ego at making you forget all the good stuff because it's so negativity biased.

Nicole Vignola ([00:50:37](#)):

Exactly.

Dave Asprey ([00:50:38](#)):

And so the practice of just over the course of months making a list develops, I think a maybe new neural pathways that allow you to just recognize gratitude without, or at least feel gratitude without as much resistance as I used to feel. Does that seem rational?

Nicole Vignola ([00:50:58](#)):

Yes, a hundred percent. And I'll add another layer to it. You've got this reticular activating system that filters out unimportant information. So it could very well be that it's also become accustomed to filtering out positive information because it's so used to only filtering through the negative stuff. And there may be some synaptogenesis in those communication areas, the particular activating system, which is the system that communicates your senses and what's important to your conscious brain. So it could very well be that over time, and that's a really interesting conversation that I'm now going to go and research after this. But it could very well be that over time you are learning to filter out the positive more because as you said, you can be really grateful for little things. I'm really grateful that the span is on me right now because scorching in Madeira right now, but it sounds silly, and people kind of laugh and go, oh, but it is the little things.

([00:51:48](#)):

I'm grateful that I don't know that I'm even able to come onto this podcast. And I could easily overlook that because I do so many podcasts, I could just be like, oh, well, I just another podcast. No. So I'm grateful. I'm super grateful for this. And that's the thing with my clients, when I speak to them, they always go, I have nothing this week. And then I'll go, oh, that's a small win. And then they go, oh yeah, oh yeah. And then next thing you know, they're like, their body language has changed. And they're like, oh my God, I actually had an amazing week.

Dave Asprey ([00:52:14](#)):

It's funny, I'm reminded of a book by Andrew Wheel. Do you know Andy Wheel? Yes. Founder of True Foods Kitchen. And he came on the show years ago. He lived in one island over from where I lived on Vancouver Island in Canada. And we had a chance to talk, and actually it was at one of his restaurants, but in one of his books from 30 or 40 years ago, he talked about when he first went mushroom hunting, he couldn't see any of the mushrooms. And then after he learned how to do it, he could see them everywhere,

([00:52:46](#)):

And it's like they don't exist and then they do. And I witness it with my kids. My daughter is just so connected to plants and she'll walk through the forest and she sees all these things I don't see and she can spot the mushrooms and I walk through. It takes me a little while and a lot of focus and effort. And so what's going on there? Well, I think it's the same thing. Your brain is either trained to spot something or it's not. And if it's not trained, it won't notice it. So active practicing gratitude on hundreds of tiny, little seemingly stupid things every day that teaches the brain to recognize things that can be grateful for. And so now there's no more resistance. And then you walk through the forest of your life, you can see the mushrooms, but otherwise you don't see them because the brain was never trained to see them.

Nicole Vignola ([00:53:30](#)):

I love that. And I had goosebumps when you told that story because it kind of matched exactly what I was saying with a tangible example. So yeah, I think it's perfect.

Dave Asprey ([00:53:39](#)):

It's fascinating to me. And then I always go through it and go, what are the other things that I am not seeing right now? Because my brain isn't programmed to see them because they're probably there and that starts to get very, very quickly, like the secret and the art of manifestation. I don't know that this is what's happening in those things, but learning to at least have full consciousness means you're able to perceive these things without resistance.

Nicole Vignola ([00:54:06](#)):

Exactly. I love that. I love that a lot. And I think it's a valuable skill, very important skill.

Dave Asprey ([00:54:12](#)):

Now, some people have a hard time seeing the future and they're very skeptical and resistant. Is that usually from trauma?

Nicole Vignola ([00:54:20](#)):

I can't say for sure. Maybe it's also the way that they saw their parents interact in the world. Maybe you had a parent that was super anxious, worried about the future. All the time.

Dave Asprey ([00:54:31](#)):

I just learned to be skeptical because I worry, the studies show that skeptics on average died two years faster than non-skeptics. Actually, one movie says eight years sooner.

Nicole Vignola ([00:54:42](#)):

Wow, okay.

Dave Asprey ([00:54:43](#)):

The reason I'm worried is that there's guys like Peter Atia, he says he's into longevity, but in his book he says, oh, we're not going to extend human lifespan. You can't do that. I know I was a fat surgeon. And I'm like, that sounds really skeptical and unhealed trauma to me. And then it's like, well, so the only thing you can do is overtrain and take statins and get vaccinated. I'm like, I think you can do a little bit more in the field of longevity, but it's clear there's a blindness to the mushrooms versus a curiosity towards, well, we don't know, but let's work on it. Which is what I see in a lot of longevity things. So I'm trying to figure out is this a trauma thing or a parenting thing or let's diagnose Peter Atia because something's wrong there. If you say you can't live longer, right?

Nicole Vignola ([00:55:31](#)):

I'm going to give you a different perspective. You might not like it. Perhaps. He knows that he's talking to common folk that may not understand, and he wants them to do the basics. Maybe because there are very few people who can maybe take on your level of information that you're providing and apply to the lives. Most people don't sleep eight hours. They barely even drink water. I mean, we've been having this conversation for an hour and I'm drunk a little bit of water, but most people don't drink any water. They

don't even hydrate efficiently, let alone sleep and exercise and eat correctly. So maybe he's just catering to that demographic.

Dave Asprey ([00:56:03](#)):

There's a lot of work, and I am a fan of catering to people where they are. I just don't want to tell 'em it's impossible to do something that we're actually doing. That always feels disingenuous to me, and I see other longevity docs out there saying, well, we're not sure, but one 20. Well, at least we've seen that. And so I'm sort of like, where does that's impossible. That's skeptical. And so I've gone through history and I mean, even Einstein, five years before we had nuclear power, he's like, we will not be able to harness the power of the atom to make electricity. I'm like, oh, JP Morgan's banker saying, man, we'll never fly in machines. And the next year the Wright brothers did it. So I'm the guy who makes the future and invent some stuff and all that.

Nicole Vignola ([00:56:50](#)):

Yeah. I guess also scientists are trained to maybe speak with more, what's the word? Caution,

Dave Asprey ([00:56:59](#)):

Fear. Yeah.

Nicole Vignola ([00:56:59](#)):

Yeah, I would say caution because I guess there's a level of integrity maybe that they're having to uphold. I don't know.

Dave Asprey ([00:57:09](#)):

Do you think that's integrity? I think it's self-serving interest. Here's the most toxic words a scientist can ever say. More research is needed, dude, you just came up with new knowledge and you demonstrated something, which means now that's probably a better course than what we knew before. And you can just do that with statistics. Before it was a coin flip, now we have more information, so let's tilt our behavior towards that until we learn something else. But instead of making recommendations, they say, can I have more money? Which is the same as saying more research is needed and can I protect my tenure? So I'm calling on scientists. Even like you say, well write a fricking book about what you discovered. Share it with the world. Let's start moving in the direction of what we've learned and learn more and just continue course correcting because it kind of pisses me off. Maybe this is my own trauma where I'm like, we can't keep doing nothing for a hundred years as more research is needed because doing nothing equals crap. So there's something broken in our cycle of feedback for human evolution, and I'm working. How do we fix that? Any ideas?

Nicole Vignola ([00:58:15](#)):

Well, I was going to go back to the observational knowledge of your parents. It could be as well that you watch your parents behave a particular way. But I mean, it's a very big topic, and I know we're off in five minutes, but for example, with the, I do believe do believe that, I think scientists sometimes I think are a little bit kind of aghast with communicating information to people that are not necessarily always going to take it on board. And you've been able to curate a very niche platform of people that will want to do that top 5%, that top 1%. And perhaps I believe that scientists are maybe catering to the ones that want to get to that maybe 10%. And then you've got medical doctors that are only catering to the people that want to stay, not sick, not healthy, just not sick.

Dave Asprey ([00:59:06](#)):

There are definitely spectrums of that, and I think no one wants to be sick. You got that for sure. Now, I know we're coming up on the end of the show and I want to talk with you about longevity because I've worked on this field for many, many years, and I want to know if you could look and feel as good as you do now or better. How long would you want to live?

Nicole Vignola ([00:59:31](#)):

1 20, 1 50. As long as I'm good. I don't think I'd want to live forever, David.

Dave Asprey ([00:59:35](#)):

Me either. I just want to add a time in by a method of my choosing. Yeah, that seems like more fun, but I'll say at least 180. But if I get bored along the way and I'm done, I'm done. I don't care. I'm done. Right. I'm out.

Nicole Vignola ([00:59:47](#)):

But I will say my mother-in-law is 63 this year, and she is smoking, and she smokes me at tennis every single week. And she has completely changed my view on aging. I mean, firstly does not look her age, whatever that means, but I now have a different perspective of what we're supposed to act and be like in our sixties. So for me, 60 doesn't even feel old. I look at her and I'm like, you're not old. You've still got at least another 40 years at least. And my grandmother lived to a hundred, and she only died of a stroke right up until the end. She was fine. Wow. No illness. There was nothing wrong with her. No dementia, no Alzheimer's. The only thing that was wrong with a little bit of cataracts.

Dave Asprey ([01:00:26](#)):

And that's also a solvable problem too with the tech we have today. So I am more hopeful than ever about aging, and one of the reasons I'm so into longevity is that if you live long enough, you're going to learn about neuroplasticity. You're going to learn about letting go of your triggers, you're going to gain wisdom. And if you still have your energy and you have wisdom, then you get to help a lot of other people along the way. And that's what makes humanity evolve more quickly is having people who've lived through the pain solve the problem. And then you don't have to go figure it out from scratch yourself. They're there to tell you about it. Yes. So I like your answer. 1 20, 1 50.

Nicole Vignola ([01:01:01](#)):

I think one 20 seems more reasonable, but thank you.

Dave Asprey ([01:01:04](#)):

It's already been done. So come on. You just want to do as best as what we could do a hundred years ago. Do you know

Nicole Vignola ([01:01:08](#)):

What? I actually do think that I will get past a hundred myself. I mean, my grandmother's sister lived to 108 and she was again fine. So

Dave Asprey ([01:01:16](#)):

You have the supercentenarian genes most likely, so I like that.

Nicole Vignola ([01:01:20](#)):

Yes. And my family's pretty healthy.

Dave Asprey ([01:01:23](#)):

That helps. Your website, nicole's neuroscience.com, where you've got your book, you've got all of your thoughts on all this stuff, and you're just getting going in your career, helping people understand neuroscience and the fact that you can change yourself is really important knowledge, and then knowing how to do it is also great. So thanks for your work, and I look forward to having you back on the show.

Nicole Vignola ([01:01:44](#)):

Yeah, thank you so much for having me. I'm super grateful.

Dave Asprey ([01:01:47](#)):

If you like today's show, you know what to do, make sure that you check out Nicole's work, buy her book, and also take a second on YouTube or Spotify or Apple, wherever you're listening to this, and hit the subscribe button. I always appreciate that and it helps other people find the show. Thanks for your time and attention today. I won't waste it. You are listening to The Human Upgrade with Dave Asprey.