Did you know there's a really fascinating experiment done on weight lifters?

They lifted no weights for two weeks.

They just sat there and they visualized themselves lifting weights.

They had a 13% increase in muscle mass.

People should realize how much potential they have in their brains.

Dr Tara Swart.

She's a neuroscientist, medical doctor, executive advisor, and best-selling author.

She's here to teach us on how to build mental resilience.

To overcome our biggest challenges is stress contagious.

So cortisol is the main stress hormone,

and it will leak out of our sweat about this far around us,

go into the skin of everybody else, and it's going to impact them.

Hat.

And as a survival mechanism, it will help you to store fat around your abdomen.

So stress causes belly fat?

Belly fat that's really hard to shift.

There's another rabbit hole you could go down about social contagion.

So there are statistics that show that you meet people who are at a similar psychological level to you.

For example, if someone gets divorced, you're more likely to get divorced in the next year.

Your own brain can play tricks on you.

So what can I do about that?

The brain is actively growing and changing till we're about 25.

But from 25 to 65.

If you do things that are intense enough to force your brain to change,

you will actually improve the highest functions of the brain.

Things like regulate your emotions better, solve complex problems,

think flexibly, override any unconscious biases that you may have.

It begs the question then.

Where do I start?

Dr. Tara Swart.

What are the sort of existing ideas that your work and what you speak about is confronting? The like, unhelpful existing preconceptions about the brain, human potential that your work is confronting head on.

So the first thing I came up against, because this was around the time of the financial crisis, was the lack of understanding of the brain-body connection.

So these high-performing executives were kind of acting like their body was just the vehicle that was moving their brain around from meeting to meeting.

And both disrespecting their physical health, but also not understanding that what they were actually really being paid for was to use their brain.

And they weren't creating the best conditions for that brain to operate in.

And I'm talking about really basic things like sleep and a good diet and hydration and not being

sedentary, managing your stress, etc.

So, you know, this tiny organ, if it's not in an environment that is giving it the best chance of doing its job, it's not going to.

A crack's going to appear somewhere.

And the first time I really kind of had a big confrontation with the bank was when people were dropping dead on the trading floor of heart attacks.

And they asked me to work more in my capacity as a former medical doctor to help with physical stuff.

And I said, I can't do that if we don't address the mental and emotional piece, because that's what's causing this.

And they just could not get that.

What did you want to do with those people in a specific and practical sense?

If you could have, you know, been in charge of preventing them from dropping dead on the trading floor, where would you have started?

The understanding that stress, so everything that you're experiencing mentally and emotionally that's challenging, and things like a lot of travel, which is challenging for your body,

that that raises levels of the hormone cortisol, which comes from your adrenal glands.

And that cortisol courses around your blood through your entire body and brain.

And the brain has receptors for understanding what's going on in terms of threat to your survival. So in a 24 hour cycle, depending on your age and your gender, there's a normal range for cortisol. So it can go up and down like this, you know, if something challenging happens, we need to adapt and rise to meet that challenge.

But when that level is above the top range all the time, these receptors in your brain basically think that there's an imminent threat to your survival.

So there's this whole cascade of hormones.

And they basically cortisol causes inflammation in the body.

So inflammation of your vascular system, inflammation around your heart and everything else, gut and other things.

But particularly around that time we were seeing a lot of heart attacks caused by stress.

This was in the absence of high blood pressure, high cholesterol, smoking.

It was all stress.

I read a study and I was watching a TED Talk that seemed to make the case that stress was somewhat subjective, i.e. it's an interpretation of events.

So one can be in a situation where they feel very stressed.

You can put a different person in that situation and they wouldn't experience it as stress.

Also there is, I think there's quite famous TED Talk that makes the case that stress only has physiological consequences in the form of disease and inflammation $\frac{1}{2}$

and the heart attacks you're describing.

If we believe that stress is going to have that effect on us, if we believe stress is bad.

It's bad, yeah. I get that.

Is that true?

So I would define stress as when the load that you perceive on you physically, mentally, emotionally

or spiritually is too much for you to bear.

So yes, it is subjective.

When I moved into business and leadership, people would use the terms good stress and bad stress.

And I found that really difficult having been a psychiatrist and seeing people actually break down to think that there's any such thing as good stress.

But what I have, you know, the way that I've adapted that over the last 10 or 15 years is that there's an adaptive response which is a healthy response to a challenge.

And we have that for a reason. We need that and that can be a good thing.

But that should be a spike. It should go up and it should go back down again.

If it stays high all the time, that's not good.

My second question now was about the contagion of stress.

Once upon a time I googled, because I had a thesis, I googled, is stress contagious?

And it came up and it said it was contagious.

Is it contagious? In what circumstances do we need to be aware of that contagion?

And more importantly, how and why is it contagious?

Okay, I will tell you the answer to that, but I'm going to ask you a question first.

Have you ever walked into a room with someone and by the time you've left that meeting with them, you just feel so drained.

Okay, so you know the feeling. So I'll tell you how it works physiologically.

I'm going to start with something else to like build you up to this story.

So did you know that women who live together or work closely together will synchronize their menstrual periods within two or three months?

Yeah, I found this out many years ago and it has completely changed my perception on so many things.

So many things because I have to be honest, I'm a very sort of logical.

I need like science and evidence and so I always thought about, I don't know, physical things.

Like if I can't see it, it doesn't exist.

It's kind of been my framework for thinking about life.

And when I heard about that, I checked it was true, found out it was true and it broke the frame in which I think,

because if it's possible that invisible forces now between me and you are interacting with our bodies.

I go, what else is possible?

I'm already using a certain form of eye contact with you to create emotional resonance.

What have you done to me?

We're going to get sidetracked. Do you want to go back to the hormone?

What kind of eye contact are you using with me?

So basically...

We'll go back to the hormone thing. We'll just park that.

Yeah, we'll park that. It's related.

So when a baby is born, one of the ways that it learns what emotion the mum's experiencing,

how it understands its own emotions, everything that grows over childhood and teenage

into pro-social behavior, starts off mostly with eye contact with the mum.

So at first they can hardly see anything.

They can just kind of see two blobs and then they start to understand more about like micro facial expression changes and stuff.

Eye contact with the mum is hugely important.

So most people are right-handed.

So they'll be holding their baby in their left arm so they can still use their dominant hand to do stuff.

And that means that when you gaze at your baby, your right eye is looking into their left eye.

And then that interaction from the optic nerve is going around the brain.

It's impacting the amygdala where emotions come from.

And it's creating this emotional resonance loop that's part of how the mother and the baby bond.

So that right eye to left eye eye contact is the most bonding eye contact that you can have with someone.

Now you could say, oh, but my mum was left-handed or you could be left-handed.

But you know, if I'm taking a chance on trying to build that bond with someone,

that's the statistically most likely one to create good resonance between you.

So you walked in here and you started looking in my left eye.

I waited till we sat down.

I gave you a hug. You gave me a hug.

So all of those little things, they start to...

And you know, we've laughed about a few things before we've come on air.

Those are the sorts of things that create like higher levels of the bonding hormone oxytocin.

So you're more likely to lower your guard, trust the person, take a healthy risk.

So yeah, I mean, like I said, I know that stuff so I live my life like that.

Just want to make sure I've got that clearly in my mind so I could repeat that to someone else later.

It's great for dating.

Yeah, of course it is. I think we might go down that path a little bit.

But the reason that works is because there's association in our brains

that if someone is looking into your left eye, it kind of triggers something,

a bonding response that is quite innate in us.

Yeah, basically.

Okay, super interesting. What else?

What else? If I'm trying to bond with someone.

So everybody listening to this right now, whether they're in work, they're in sales,

they're looking for a partner, whatever.

It's a nice little trick to look into someone's left eve.

I'm going to only look into your left eye for the rest of the time.

With your right eye.

How do I... I'm just looking with both.

Yeah, you feel like that. But once you start doing this, I promise you, you will notice a difference.

Okay. What else? What are the tricks to make to encourage bonding?

Encourage bonding. So physical interaction.

So, you know, depending on the appropriateness of it, minimum handshake,

maybe a hug, maybe a kiss on the cheek, you know, depending on what situation you're in.

I do this handshake where we hugged so we didn't handshake.

Many, many years ago, I read an article that if when you shake someone's hand,

you put the other hand over the top of it, it creates a sense of warmth and trust.

So I've been doing that for 10 years now.

Give them my left hand or my right hand and the other hand goes over the top of it.

It's definitely extra. And you see this in a lot of kind of more ancient cultures,

that there is like more of a handshake than what we do, which seems it's just one hand and it's quite brief and stuff.

So, yeah, the more of that kind of physical touch that you can get, the best.

So, you know, everyone that I've met since I've come in this morning,

I've either shaken hands with them or hugged them and I would not not do that.

Is there anything else in terms of encouraging the release of oxytocin that you're aware of?

What are the behaviors that increase that bonding chemical in our brains?

Eye contact and touch are the main ones.

Laughing together is another one.

And then not to do with another person, but if you take a bath rather than a shower,

then you'll release more oxytocin.

Massage helps. Well, you're immersed in warm water, so it feels like a hug.

So, you theoretically get out of the bath and be kinder and happier and more people would want to bond with you more?

Well, you'll be more in the mode of doing that, yeah.

So interesting. What about vulnerability?

Because I heard shared struggle is one of the things that causes oxytocin.

Yeah, so going through something not necessarily traumatic,

but that's highly emotional, that is very bonding as well.

So we see this a lot on the reality shows where people are like, are we going to be friends for life?

You know, if you do something like a skydive or a bungee jump in a group,

then you do feel more bonded to those people.

But they're not as practical as just the little things that you can do every day.

Okay, so let's go back to this hormone conversation. We'll take that off the shelf.

So we're talking about stress and the contagion of stress.

So you started by setting the scene with the fact that women who interact with each other physically closely,

they synchronize their menstrual cycles.

And so whenever I want to explain something that's complex or I don't actually know the current neuroscience,

I always take it back to what happened in ancient times.

So when we were living in the cave, the men hunted and gathered and lived quite nomadically.

So sometimes they would go away for months at a time.

And actually if they went far enough away and were closer to another cave of the same tribe, they would actually just stay there and never return to the original tribe, original cave.

But mostly they would leave for weeks or months and then return to the original cave.

And in those days, the most fundamental important thing for the survival of the human species was that the alpha male must pass on his genes.

So if he was going to be away for months and there weren't men there to defend the women from predators,

maybe there was going to be a spell of the Ice Age and they would all freeze to death or they wouldn't have food,

he needed to make sure that at least five women were impregnated with his sperm at the same time.

So that if there was a food shortage or there was still birth or miscarriage or whatever,

at least one out of five would survive.

So to be able to do that, they had to be fertile at the same time.

So that's why that mechanism exists.

Now we don't need that mechanism now, but it's still wired into the way that we operate.

So those sex steroid hormones like estrogen and progesterone, they leak out of our sweat about this far around us.

And that's why if you're living with another woman or if you're sitting across the desk every day, then particles of hormone from my sweat would go into the, through the skin of the other woman. If she's within what distance?

I mean, it's not, you wouldn't have to be sitting next to each other.

If you live together then that means you're interacting enough that it would happen.

Okav.

But not if you work together?

If you work together and you sit right next to each other every day, then it does happen too.

So, you know, in a small office that's got like six girls in it, the menstrual synchronization will happen.

Interestingly, it's led by the alpha female.

So, yeah.

So you can, you can work out if you don't know already who the alpha female is.

Well, if you, you know, basically, let's say my cycles don't change and everyone says, oh, I got my period earlier.

I haven't had my period yet, but now it's started.

Then that would mean that probably I was the alpha female.

How does the body know who the alpha female is?

That will be to do with levels of testosterone.

Why, why did the body, why does that matter who the alpha female is?

Why does it matter that they sync up with her?

I don't, I don't know if it really matters.

I think it's just a case of physiology.

So it's a little bit like in the troops of gorillas, the stress levels of the silver bat gorilla affect the other gorillas more than gorillas who appears to each other.

So there is, we have a natural hierarchy and it must be related to survival as well.

So she was probably the person who the alpha male was going to impregnate first?

Probably.

So everyone needs to kind of fall in line because when she starts having sex, they need to be ready. Yeah.

Okay.

And also it'll probably be to do with things like, you know, survival genes.

So it'll be the people with the hardiest genes because that's what you want to pass on as well.

Okay, makes sense.

Most resilient.

Okav.

Okay.

So where were we?

Stressing contagion.

We did all the hormones in the menstrual cycle.

So basically cortisol is a hormone that works in that same way.

So cortisol is the main stress hormone.

And this one doesn't matter if you're male or female, but it does matter where you are in the hierarchy of the organization as I just mentioned.

So usually in that conversation I mentioned to you where you go into a room and you just feel completely drained afterwards.

Usually the person that comes out feeling drained is less senior than the person that's had that effect on them.

And that's why this is so crucial to leadership because your stress levels as a leader, as a CEO are going to have more impact on everybody else than the rest of the people put together basically.

So managing your stress is obviously important for you, but it's important in terms of what happens to other people.

And the first issue I came up against was CEOs and CFOs that said, well, I won't show them that I'm stressed.

I won't tell them what's happening with the numbers.

I won't display emotions in front of them.

And I said they're still going to know physiologically it's going to impact them.

So now you really have to do something about it.

And the other thing about cortisol, which is quite funny.

Well, one of the side effects is quite funny is that as a survival mechanism, it will help you to store fat around your abdomen.

So, you know, again in the cave, if you were potentially going to like not find food for a month, then if you had extra fat around your abdomen, you could digest that and survive till you could find food. So with my clients in financial services, it got to a point where as soon as I walked into the room,

they just lift their t-shirt up and say,

now you know how I've been in the last month.

And then I had a really, really funny incident when I was speaking at a bank and the CEO's PA was there in the audience.

And I was explaining that, you know, leadership stress leaks down, that that stress can lead to

abdominal fat, that you can't shift.

And she shouted out, so he's the reason that I'm fat.

But Steve, no one laughed.

Really?

Yeah.

And that's when I knew that, okay, he obviously is like really stressing everyone out.

Oh gosh, no one laughed?

No.

Through fear or something or just because they thought it was true?

It wasn't funny. It was true.

Jesus.

So stress causes belly fat.

Belly fat that's really hard to shift.

So again, what I would see with people is that they would say, oh, I've put on a bit of weight around the middle, you know, had to loosen the belt a bit.

So I've started eating less.

I've started like exercising more and I still can't shift it.

And again, that's when I would explain this is the impact of cortisol.

As long as you're still leaking out extra cortisol, nothing's going to change.

So, and like I said, even exercising more or eating better, less or differently, whatever it is, wouldn't shift that fat.

You had to get to the root cause.

You had to reduce cortisol.

It also made me think about when you consider promoting someone in your organization, you have to be very careful that if you put a particularly stressed cortisol leaking individual high in the organization,

there's going to be a significant impact for everyone below them.

Yeah.

Is that accurate? Is that an accurate observation?

Yeah. Yeah. No, that's a really good way of putting it.

I mean, I always think of that phrase, what got you here, won't get you there, which is more about the fact that people get promoted because they're good at what they do, but they don't really get taught all the, you know, best management and leadership skills.

But that's a really pertinent point.

If there are a person who is stressed, particularly who suppresses stress, which some of these, you know, successful people do, then it would have an impact down the organization.

It begs the question then.

So if someone's listening to this and they go, do you know what, I'm a leaky cortisol person, I'm highly stressed and it's probably getting to people around me.

What can I do about that?

So first of all, if someone's saying that half the battle is won, the problem is when people are not aware of that.

But let's say you are.

So let's say that I give you that list of signs and symptoms that you've got high levels of cortisol, which include things like sleep disruption, because cortisol is part of the 24 hour clock.

Melatonin helps us to wake up, cortisol helps. Melatonin helps us to fall asleep, cortisol helps us to wake up.

Maybe you've noticed the belly fat.

Because of the really strong connection between the brain and the gut, any sort of reflux or indigestion symptoms are often signs that you've got high levels of cortisol too.

And of course, things like irritability and mood changes.

What I mostly would hear people say is that I can just about keep it together when I'm at work.

But when I get home, if my kids are, you know, annoying or my partner's asking for too much, I just snap.

So that means you're like one step away from snapping at work if somebody like pushes you too far. So that's not good because cortisol is pro inflammatory.

It's very drying of the system as well.

So you might notice that your skin's really dry or you've got skin problems.

Your skin isn't just the physical border of your body.

It's the psychological boundary of your body too.

So often stress shows up in the skin.

Then there are two main things that you can do.

One is physical exercise because you can literally sweat cortisol out of your body.

So you can sweat XL excess cortisol out of your body by doing aerobic exercise.

The other one is journaling.

So writing out what's on your mind rather than just said it be in there and keep going round and round.

Or if you've got a therapist or a trusted friend speaking it out loud.

So it's all about getting cortisol and or the negative thoughts that are associated with your stress out of your brain body system.

I find it incredibly fascinating that when we look at the back end of Spotify and Apple and our audio channels,

the majority of people that watch this podcast haven't yet hit the follow button or the subscribe button.

Wherever you're listening to this, I would like to make a deal with you.

If you could do me a huge favor and hit that subscribe button.

I will work tirelessly from now until forever to make the show better and better and better and better and better.

I can't tell you how much it helps when you hit that subscribe button.

The show gets bigger, which means we can expand the production, bring in all the guests you want to see and continue to do in this thing we love.

If you could do me that small favor and hit the follow button, wherever you're listening to this, that would mean the world to me.

That is the only favor I will ever ask you.

Thank you so much for your time.

Back to this episode.

I've had a real revelation in my life over the last maybe six months about sleep.

Again, it's why I said, I think before we start recording that I don't have any meetings scheduled before 11 a.m.

and I sleep with my eye mask on and I just wake up when I wake up.

Yeah, me too.

Oh, really?

Yeah.

I've never really met anybody that has that.

It is a privilege.

I have to acknowledge that, that not everyone can do because of work circumstances, whatever else.

But the importance of sleep, you're a neuroscientist.

There's a lot of people who have dysfunctional sleep.

We live in a world where I feel like it's increasingly difficult to have, you know, great sleep.

How important is that for the brain?

And also, you know, we were talking about stress there, but for containing our stress levels.

It's so important.

I can't stop going on about it.

And I do understand that for some people, it's not a choice that they just don't sleep well or their sleep gets interrupted because they've got young kids or they do shift work.

So I'm not particularly talking about the people where there's a reason that you can't sleep in this way.

I'm mostly directing this out if you have a choice.

This is the way that you need to sleep and this is why.

If you don't have a choice, there are some things that you can do to mitigate it as well.

I mean, obviously, I have done shift work as a junior doctor in the NHS and I travel a lot.

So I'm like jet lagged half the time, but I try to do everything I can to make that as good as possible.

And the reason is we've always known that when you sleep, you lay down your memories and new learning, you process your emotions, the cells in the body regenerate themselves.

We've known that for a long time.

That's never really been enough for these very driven CE level people to want to give up eight hours a night to sleep.

If they feel they can get by on four or five, then they'll rather do that because they've got so much to

The ideal is eight hours and 15 minutes in population norm studies.

So that doesn't mean it's for everyone, but for most people, that's the ideal.

Actually, sleeping more than that can be depressogenic, so it can start to lower your mood.

So you don't want to really be sleeping for nine plus hours, but you ideally need to be in bed for nine hours to get that amount of sleep.

And so there was some award-winning research around 2012 to 2014 when we were beginning to understand how important the cleaning of the brain is overnight.

So this entirely new system that we didn't know existed, which is called the glimphatic system.

It's like the glimphatic system in your body, but it's to do with glial cells.

So it was named the glimphatic system.

That system is a very active kind of waterway channel cleansing system of the brain.

We used to think that the fluid around the brain and there's ventricles which are like lakes and then there's just like trickling areas that that sort of passively drip through the brain overnight.

We did not expect to see like jets of fluid flushing out toxins from the brain.

So the exact things that we see in the pathology of dementing diseases like Alzheimer's and

Parkinson's, like tau proteins and amyloid plaques and neurofibrillary tangles.

How do you say that in English?

Those things are being flushed out of the brain very actively overnight.

And that process takes seven to eight hours to complete the cleaning.

That's why you need to be in bed for eight to nine hours.

So it takes seven or eight hours of restorative sleep or just being in bed?

Just sleep, not in bed.

If you're in bed awake, you're not asleep.

You have to be asleep, but you'll go through the different sleep cycles every 90 minutes.

This isn't in time with that.

This is just taking seven or eight hours to flush this stuff out of your brain.

So one of the things I do say to people who don't sleep well is if you find yourself awake at night and you're not lying on your side,

turn yourself onto your side because that's the best position for this cleansing process.

I actually have a special pillow that makes me sleep on my side because I wasn't naturally a side sleeper.

So it doesn't matter if it's the left or the right, but that is a better position in terms of the veins in your neck than sleeping on your back or your front.

So that's one thing you can do.

Oh, you woke up, your sleep was disturbed, at least turn yourself onto your side.

What is this special pillow?

You just bragged about it, then moved on, I feel like.

It's a memory foam pillow. Am I allowed to mention the brand?

Of course, yeah. We'll make sure they sponsor it before that.

It's a memory foam pillow.

My one is by Tempor UK and they gifted it to me because I was talking about side sleepers.

I'm a side sleeper, my girlfriend's a back sleeper, but I can't sleep on my back.

It's funny because I start at my front.

That lasts for 15 minutes because I get a bad back at the bottom of my back and I roll onto my side. I've always wondered if there was, when you look at tribes and our ancestors, how they would sleep, would they sleep in groups, would they sleep alone, would they sleep on their side, their back?

Do you know the answers to any of that?

I know that co-sleeping is definitely how we evolved from co-sleeping, so in groups.

What I find interesting is that you needed to huddle together like that for physical warmth in the

cave,

but also because of that proximity and interaction, you got more of the bonding hormone oxytocin, so you also experienced the warmth of being part of a tribe.

I think they slept on their side because they would have to be ready for an attack from a predator, so you'd need to keep your dominant arm ready to grab something,

and most likely they slept on their left because they would have been protecting their most vital organs, the heart.

Just thinking then about this bonding chemical and how it comes out when we're in close proximity, a lot of couples, a lot of people, me sometimes as well, sleep in the spare room

because I have work commitments that mean that I'm up early or my partner has work commitments,

that means she's up early, but even some of my friends who are in the early stages of parenthood have separated and have a sleep divorce situation.

When you talked about the bonding in the oxytocin being released when we're in close proximity, and obviously at night time is when we're literally touching each other,

is it conceivable that by separating rooms and by doing a sleep divorce, we're actually eroding our bonding?

I would never do it.

You would never sleep in a different room from your partner?

Never.

Apart from maybe if there was a young baby and one person had to go to work and one person didn't,

that I get, but that's temporary, and ideally people would find ways to make up for that.

I mean, I guess you're in a bit of a love bubble with the oxytocin from the baby at that time, so that is quite neuro-protective, but co-sleeping is fundamental to our survival.

It was physically when we were in the cave, but now I would say emotionally, spiritually, it's fundamental to our survival.

What do you mean by co-sleeping, just to clarify?

Sleeping together.

So mostly in our society, that's as a couple, but a lot of other cultures, the whole family sleeps together.

Why would you never do it? You seemed guite passionate about that.

Because it's so good for you.

The bonding, the physical warmth, the skin-to-skin contact, the love, the trust.

I mean, I'll put up, if somebody's waking up early and I don't have to wake up at that time, I'll even put up with that.

So you'll have less quality sleep?

It won't be less quality sleep.

I've worn HRV monitors and shown that even at the time, if my husband woke up at five and I wouldn't wake up at all before eight,

and he gave me a kiss goodbye, I got a spike of resilience at that time.

Resilience?

Yeah.

How do you measure that?

So I was using that Finnish technology where you wear the HRV monitor with a gel pad on your chest.

And so it's colour-coded for whether you're doing light exercise, heavy exercise, whether you're stressed or whether you're recouping resilience.

And mostly people recoup resilience overnight.

But you could clearly see with people with young children, you could see when they were woken up overnight because it would go into stress.

Some people recoup resilience during the day if, let's say you're with your partner or your sibling and you're just sitting together and it's super relaxed,

or if you love your job that you can see that happening during the day as well.

But because I am so obsessed with my sleep, I wouldn't normally welcome any sleep disturbance.

But the power of sleeping together and cuddling all night is so neuro-protective that I would encourage everybody to do it if they can.

I also know some people who say, I sleep better if I sleep on my own.

But we were not meant to survive on our own, we were meant to survive as part of a tribe.

And I think now, you know, since the pandemic, people are more lost and lonely and disconnected than ever.

If you've got somebody that you can actually sleep with overnight, I strongly suggest that you do it. So I want to go in that direction because I'm super compelled by that, the change in the world and the lost, the lonely, the disconnected.

But just to pause for a second on this word resilience you're using, link to heart rate variability.

You're talking about like a physiological resilience, like the body being more resilient versus the kind of, when we talk about resilience,

we say it in more of a psychological context of like, I can withstand greatest stress or pressure.

But you used a heart rate variability monitor that measures the distance between heartbeats and saw that when your husband gave you a kiss,

your heart rate variability increased, which means that your body was more physiologically resilient. It actually measures both because it compares your heart rate variability to your heart rate.

So it knows if you're exercising because your heart rate has gone up.

But if your heart rate is at like base level, then the change in variability can either mean that you're stressed or you're recouping resilience.

If your heart rate is high, then it's obviously physical.

But it's a factor of both.

So it's not just looking at physical resilience, it is looking.

When it's in this turquoise zone, that is actually more about recouping psychological resilience.

But those two things, you know, they feed into each other, but it can tell the difference because of your heart rate.

So obviously I was asleep, so my heart rate was low.

You saw what on the monitor when he gave you a kiss?

I literally saw it because it does it by every 15 minutes as well.

And I saw the highest spike of turquoise at that exact time.

Funny because my girlfriend about a month ago or two months ago, I left the house quite early in the morning, maybe about the similar time, 6am in the morning,

when she was still in bed and I came up to her and gave her like a big kiss.

I basically kissed all around her.

This is so sloppy.

I kissed all around her face and on her nose and just gave her a big, big hug and stuff.

And I walked away, like got on the taxi and left, whatever.

And she said to me the same day or the day after, she went, I don't know what happened there, but it unlocked something in me.

And, you know, then my girlfriend went on to say she had some challenges with her menstrual cycle and she came on her period.

That's amazing.

I love that.

And she's always right.

Like when she says things to me and she knows this, but I give her a credit.

I'm always skeptical because we think differently.

She's quite spiritual.

I'm very like, I need some science.

And she said that to me and I just thought a kiss and a hug in the morning.

It hasn't, couldn't have had any physiological impact on her.

But now I'm starting to question whether once again I was wrong.

That's amazing.

I mean, you know, some of these things can't necessarily immediately be explained by science.

But if you use your intuition, then you have to ask yourself and I feel like you are coming around to thinking that could be true.

When I'm given a reason, I accept things.

If, you know, if there's even, even a slither of science that could justify it, then I come around to ideas, but I do need the science.

Do you think that men and women are different in terms of their intuition and their ability to want your smiling, their ability to kind of understand some of these forces that exist in the air?

Because my girlfriend seems to be so attuned to feelings and intuition and I'm less so.

Yeah.

So if let's, let's put it like this.

If you had a hundred people in a room, 50 men and 50 women, and you asked them to line up in order of height, not all the men would be taller than all the women.

In the middle, there'd be a bit of a mixture.

And it's like that with the brain and intuition and everything else.

So yeah, there are some, there's some disparity.

So I think most people would agree that it feels like more women are in touch with their intuition than men, but it's absolutely not all women versus all men.

Do you believe women are more in touch with their intuition?

I think they're more open to accepting that it's a thing.

And I believe that the more men need the science to explain how intuition works.

Interesting.

I wonder if there was like a brain, a neurological reason for that.

I think there'd be more women and men that believed in intuition and those like feelings that are hard to explain.

Yeah.

That's changed a lot.

I mean, I remember when I was teaching at MIT about seven years ago and I was teaching the science of intuition.

Someone actually stood, you know, it's all senior leaders in the classroom, executive education. Someone stood up and said, well, I'm not going to make a really important decision like higher or fire based on my gut feeling, am I?

And he was quite young and quite a few of the older guys turned around and were like, that's absolutely how I would make my decision and my most important decisions.

But at that time it was still kind of like, not everybody was really sure that that's like your superpower.

But I think people are beginning to understand more that with age and experience and wisdom, you do understand that intuition is actually your strongest,

should be your strongest decision making modality.

What is intuition?

So because you can't remember everything that you've experienced in your whole life,

but, you know, somewhere in the neural architecture and, you know, in the gut neurons as well, that information is stored because you have experienced it.

So maybe you would say that you understand that wisdom and experience is the product of patterns that you've seen repeating in your life that are conscious to you.

Intuition is the lessons that you've picked up along the way that you're not conscious of but they're still stored in your nervous system.

And so the less conscious you are of them, the deeper they're pushed into the nervous system.

So there's a process called Hebbian learning named after the neuroscientist Donald Hebb.

And that is, it's basically, you know, neurons that fire together, why together?

But it's that the things that you've learned today, like things that you've learned by speaking with me,

that's going to be very front of mind and kind of just in like little pathways that adjust kind of connecting up with each other.

But stuff that you learn when you were five, like when you put your hand in a fire and it burnt you and you never, ever want to do that again,

that's deep down. You're not really conscious of that, but, you know, and other things maybe that you don't recall.

So we believe that your, that wisdom gets pushed from the outer cortex into the limbic system, which is the emotional system of the brain, into the brainstem, into the spinal cord and into the gut neurons.

And that's why they sometimes call it gut instinct, because it's that feeling of knowing something but not knowing why you know it.

But it's actually to do with the fact that you have wisdom and experience that is, it's embodied in you, but you're not conscious of it necessarily.

It's guite surprising to hear that those memories that wisdom could be in the gut.

People think of, you know, I think I'm certainly someone who always thought that my cognition, my memories in my, all of the intelligence exists just in my brain.

Your memories in your cognition and your IQ are in your brain, but your intuition is in your brain and your gut.

This sounds super stupid, but I don't care. I should just be, I should just be honest about my stupidity.

Where in my gut? I thought that was like my stomach. That's where I put the food.

Yeah. So, you know, you've got your stomach, you've got your small intestine, you've got your large intestine.

Yeah.

You have other organs, your liver, your spleen, your kidneys, and they're all innovated, which means they've all got nerves going into them.

So does your heart. So, you know, we could, we could have a similar conversation like this about your heart as well, because your heart only knows how to beat because of the nerves that penetrate it.

So, you know, this round brain in here and the spinal cord that goes down the center of your back, that gives rise to all of the neurons that go out to your arms, your legs, all of your organs, your skin, which is your largest organ.

And so that's, that's how that works, because every single part of your body has nerve cells or, you know, nerve pathways in them.

So that's the connection. That brings us back to what, you know, what I was saying about the brain-body connection, that they're intimately connected and it's a bi-directional thing.

They can't exist without each other. And the more you understand that there's that constant feedback going back and forth, the more you can tap into that kind of thing, the more you can know days before you're going to get sick.

I bet your girlfriend knows days before she's going to get a cold or flu.

Yes, she does.

Yeah.

All the time.

And my clients never know. And as soon as they go on holiday, they're sick the whole week.

Why, why when they go on holiday?

Because they suppress it to be able to do their job.

And you can suppress illness or you can just not, not acknowledge it.

It's not necessarily that they had a cold virus that they suppressed, but it's that their body is, you know, the immune system is being run down by the cortisol.

And so as soon as it gets a break, that's when it kind of succumbs.

And there was a time after the financial crisis when I had people saying, I've had, you know, I've had

this cold for like four weeks now, six weeks, but everybody's got it.

And I was like, I'm sorry, but do you actually think that's normal? Do you think it's normal to have a cold for more than a week?

And, you know, then it takes a challenge like that because also the other thing that happens in, you know, with group think whether it's at work or in your social circle is that we don't challenge each other enough on those sort of things.

So if a friend said, oh, I've had this cold for six weeks, I might say, oh, poor you.

But if I wouldn't, but someone might, but, you know, it's also about saying, is there something else wrong?

Because that's not, that's not usual.

And for me, that would absolutely lead back to cortisol.

Second ago, we were going to go down the pathway of the looming crisis that you speak about.

What is the looming crisis that you're concerned about?

Stephen, I saw this looming at the beginning of the pandemic. It's not looming anymore. It is, we are in crisis.

So, you know, all of the health anxiety and the uncertainty and the fear and the loss that we experienced during the pandemic was bad enough.

It caused a level of stress that no one who's alive today has experienced before.

But we've come out of it, you know, we're relatively, I don't know if I could say back to normal or in the new normal.

And we have not paid any attention to the consequences of what happened to us.

And when I say us, I mean, everyone from the babies that were born at that time, they never saw anyone but their immediate family.

The teenagers that interestingly boys did better than girls because they play video games on the internet, so they stayed connected.

You know, the older people that isolated, the people that lost loved ones, etc.

Like, there's so many things I could say more things than that.

We haven't really acknowledged that that's what happened and what we went through.

We, most people are not really understanding what's changed for them or what's going on for them at the moment as a result of that.

And we certainly haven't made any plan for the future.

You know, I'm really into like, Indigenous wisdom at the moment.

And one of the things I've learned about the first Americans is that when they make a big decision for their community,

they imagine the impact of that decision seven generations into the future.

We don't even think about one generation into the future.

We just think about like what's going on right now.

We don't even really think about our own future like some of the time.

I remember thinking like literally in March of 2020, this is going to be a mental health crisis like whatever happens physically.

And as time went on, more so, I thought mental health crisis, mental health crisis.

And then I started to think, okay, what else could it be?

And I had time, of course, to indulge in some of the other areas of interest that I couldn't when I was like travelling and working full-on.

So I, you know, started reading more about spirituality and ancient cultures and stuff.

And I thought this could be a spiritual revolution.

When you say spiritual revolution, it's a very big broad term.

What do you mean?

If I look back and you've, you know, you've led a very nice story of my journey since I changed career is that it started off with that physical piece.

You know, for me, where I was working, there was stress, but people were having heart attacks.

Then I spent many years working on mental resilience with people.

And emotional regulation was part of that.

And that became important again in the pandemic because we were in like close quarters with people and, you know, and it was just very different.

And it was hard and there was homeschooling and working and everything.

What I've seen as some of the good things I've seen as a result of the pandemic is that we've definitely appreciated again the importance of our time in nature.

So I think most of us felt that, you know, being able to get out and be somewhere green was really important.

And because there was like no planes and no traffic, you know, we could see the stars in the sky again.

We saw amazing sunsets. People began to appreciate birdsong.

And now the studies are showing that time spent in nature actually has a really positive impact on your physical health, your mental health and your longevity.

So, you know, that's one good thing that's come out of it.

But are we all still, you know, making time for that?

Or are we just going back to kind of our old ways?

The other thing, things of interest that have come out is that having a purpose that transcends yourself is really important to your mental health, particularly, but it will have knock-on effects.

So, you know, you could say, well, I do my podcast and I love doing my podcast and I get to meet interesting people and, you know, I share that knowledge with others.

A lot of that is still to do with self-satisfaction.

So having something that doesn't necessarily do anything for you but gives you purpose in life is really important.

And what could that be? That could be?

That could be volunteering. It could be, you know, for me, like, I give out a lot of free information on Instagram and not to try to get work or anything like that.

It could be so, you know, when I say volunteering, that sounds quite big, but it could be like asking your elderly neighbour if you can do their groceries for them when you go to the supermarket. It could be calling up a friend and checking that they're OK.

Just something that makes you feel like life is worth living but doesn't necessarily earn you money or directly improve your life.

I've spoken to a lot of therapists who talk about the fact that we, two of the things we never want to

feel is like we're A different and B we're not enough.

And I was thinking about that through the lens of our tribes.

In the context of a tribe, if I was different, there was a risk of me being kicked off the tribe.

And if I didn't feel like I was enough, I, again, would have a risk of being kicked out of the tribe because I'm not valuable to the tribe.

And in the context of what you were saying about serving others, is that again, sort of like a prehistoric desire to feel like we're adding value and we are of use to the tribe by serving the greater good of our tribe?

Is that where that instinct comes from?

I love what you've done, which is exactly what I said, which is when I'm not sure of the answer, I'll go back to evolution.

I always do that.

Yeah, I love that.

I think I hadn't thought of it like that exactly like that before, but I think it's true.

You know, a tribe, sadly, could not afford to carry dead weight.

So if you weren't enough, you know, if you were injured, if you were immobile, if you were elderly, if you weren't contributing, then you might get left behind.

And then there's this really interesting new area of research called neuro aesthetics or neuro arts, which is about having some kind of creative activity in your regular schedule.

So there's lots of research that shows that if you're not doing something creative once a week, and that could be dance, music, painting, drawing, going to the theatre, reading a novel.

So really guite broad time in nature actually is included in it.

Then because nature is the palette that we all love, you know, you could have different taste in art or music to me, but all humans love nature because we've always been in that beauty.

So the impact of that on your mental health and your physical health and your longevity is huge as well.

But even just like every morning, I actually thought of this this morning because I wanted to mention this, but I had zested a lemon last night when I was cooking.

And so this morning when I went to get the milk out of the fridge, I smelled it because it was in the fridge and I just thought, that is so beautiful.

And so they say things like, you know, if you've put like a bunch of flowers on your bedside table and it smells nice, and that's the first thing you smell in the morning.

And then you like look at the beautiful flowers.

If you've got objects of beauty in your house, if you listen to birdsong in the morning, that that's all neuro aesthetics.

It's living a life that is aesthetically pleasing to your brain. And that's good for your health.

Why should we go back to evolution?

Please, that's my favorite thing to do.

I think it's to do with safety.

So if you were able to spare your mental resources to appreciate beauty, that must mean that you're safe.

That must mean that you're not just trying to survive.

So it's actually, I mean, we do appreciate beauty.

So seeing, smelling, you know, hearing, tasting nice things, it's going to make us feel better.

But also, we're only going to be doing that if we have the luxury of being able to do that, then it can be such small things.

But also what it signals to your brain is I'm safe because I have time to read a novel or I have time to crank the music up and dance around my living room.

Through the frame of this idea that pathways that fire together, wire together.

I was also thinking about every time I've seen a tree, I've been safe.

So is there an association that trees are safety?

You know what I mean?

Every time I've been out in nature, I've been physiologically, psychologically safe.

So is it now the case that because there's that neurological association, the pathways of wired and fired together, if I, you know, do you talk about the brain body response?

If I put myself in that situation again, it will signal to my body that I'm safe.

Yeah, it will.

That's neuroplasticity.

It's repeating that and giving yourself the message that every time I'm around trees, I'm safe.

I feel safe.

It won't be the same for everyone.

I would imagine that again, when we lived in the cave that we naturally did things like looked at the stars in the sky at night, danced around the fire, did cave paintings.

So that's very wired into our psyche as well.

You know, they would adorn themselves a lot more than we do.

So that appreciation of aesthetics has always been there and not just from nature, from some of our rituals and ceremonies as well.

And really the conclusion that I've come to with this whole spiritual crisis and then the potential revolution is that all the things that we need to go through that revolution have always been in the world as long as we've existed.

And that, to me, is beautiful because it's not like we have to do some crazy new different things that we've never thought of before.

The way that I put it is we know about generational trauma and intergenerational trauma and epigenetics and how all these bad things can come down the line.

But there's also a lot of beauty and wisdom that's there that we can have access to.

We don't have to reinvent the wheel at all.

We can just go back to doing the things that we did when we were at peace.

It's interesting, but that's not easy to do in the world we live in because we've built a society in a world where we live in these four white walls in cities alone.

We're more lonely than ever before.

We order our food using glass screens.

We use pornography as a replacement for intimacy and connection.

We use social networks instead of socialising.

Internet connection has reduced real connection.

You'd have to completely redesign society, it seems.

You can start with yourself.

I completely agree with what all those things that you've just said is how most people live, but I don't live like that.

How do you live, Doctor?

I actively try to spend as much time in nature as I can and I have a lot of plants and flowers around my house.

I am very, very careful about who's in my tribe, so it's positive, meaningful, deep spiritual relationships.

I don't use pornography or dating apps.

I'm just going through your list.

What do you think of pornography on the brain?

The two most basic drives in the brain are sex and food, so the potential impact is huge.

I agree with you that increasingly it has created a big disconnect between men and women in real life, which is really sad.

What is that disconnect?

I think that the ideal of what a woman has to be or can be is very distorted by pornography.

I think if I put together what I hear from my friends about dating apps with that, that the way that people feel they can treat others has really, really changed.

And I think this has accelerated since the pandemic as well.

So there's a real lack of empathy for the consequences of your actions and comments on other people.

And I think pornography contributes to that because it changes the way that men view women.

I think the impact on women in terms of what you have to look like, like how much plastic surgery you have to have,

what you've got to be prepared to do in an intimate relationship,

or actually the biggest issue I would have is what you're expected to do when you're not even in an intimate relationship.

When it becomes more of a transaction, when the rules have changed about, again, what I hear now very commonly is,

oh, we've been on three or four or five dates or whatever it is, that must mean move to the next level kind of thing.

So I think that going back to having really respectful relationships, having a lot of empathy for other people,

looking out for the people in your life that might be lonelier than you.

I mean, I absolutely do not have my phone in my bedroom, but when I say limit screen time, that is a difficult one because we all use our screens for work and to communicate with our friends. But there are studies that show the amount of time you spend even communicating with friends online versus face-to-face

has all sorts of impacts in terms of like how socially comfortable you are, how empathic you are. It can even have on teenagers a really big impact on body dysmorphism.

So it's fine to actually spend quite a lot of time online as long as you are also spending a lot of time

with people face-to-face.

One of the things you said there was about limiting who's in your tribe.

Why is that important? Why is it important to not hang around with certain people and spend more time with other people?

From like a neurological perspective in terms of our health and our outlooks and our outcomes and neuroplasticity.

So if we just link this back a little bit to the question that you googled, which is stress contagious, then there's another rabbit hole you could go down which would be about social contagion.

So there are statistics that show that in your social group, if someone gets divorced, you're more likely to get divorced in the next year.

If someone in your social group is obese, you're more likely to become obese.

Now, I'm absolutely not saying don't be friends with someone because they got divorced or they put on weight,

but I'm talking more about the attitudinal stuff.

So how you treat other people, how kind you are, how generous you are, how open you are to conversations about intuition or spirituality,

basically you meet people who are at a similar psychological level to you.

So we're always working on ourselves, hopefully, and if you are, then you want to be with people who are growing too,

who are open to challenge, who are learning, who are interested in exploring spirituality,

who care about their mental health and other people's mental health.

So it's really about having this circle of trust and knowing that you've got support,

equally that if you do something that's really not okay, that somebody's going to tell you.

You mentioned the word earlier neuroplasticity.

What is it, why did it matter?

And I think from looking at your work previously, you had a bit of an epiphany on this subject matter in your career,

where you realize that, you know, probably like most people don't even think it's a thing.

They think that once you grow up, you're set in your ways,

but it sounds like there was an epiphany at some point in your career where you realized the importance

and the possibilities that neuroplasticity presented.

Well, we have to start by saying that when I was at medical school and doing my PhD in neuroscience,

we did not know about neuroplasticity.

So we absolutely thought that when you physically stopped growing,

that everything in your brain was set for the rest of your life,

that you couldn't change your intelligence, you couldn't learn to manage your emotions differently, that it would be much harder to learn new things.

What we know now is that the brain is actively growing and changing till we're about 25.

Fuck. I missed it.

No, you didn't, you didn't miss it.

I'm 31, I know I look 24, but...

You didn't miss it.

So from 25 to 65, and I would say even beyond now,

if you don't do anything to change your brain, it will tend to plateau.

So if you're in a job where you do the same thing every day and you're pretty good at it,

you could stay like that for the rest of your life, and that is fine for some people.

If you do things that are intense enough to force your brain to change,

then you can basically learn lots of new things,

but also get what we call global benefits in your brain.

So let's say you decided to learn a new language.

Maybe you'd learned Portuguese or French.

Have you spoken to her?

Have you spoken to her?

No.

That just felt very...

It feels like...

You know when someone says something to you and it feels like they've really had a conversation behind your back

because it's so on the money.

No, I actually have a deal with her this year that I'd learn Portuguese by the end of the year and win September now.

And I know six words.

So that just felt a little bit close to home.

So let's move on.

So that's great.

So you have actually a reason to learn one or two languages.

If you do that, your brain will not only get the benefits of being able to speak French or Portuguese, but you will actually improve your executive functions.

Now, these are the highest functions of the brain.

Things like being able to regulate your emotions better, solve complex problems,

think flexibly, think creatively, override any conscious or unconscious biases that you may have.

These are great benefits to get from actually just doing something like learning a language or a musical instrument.

And it can be smaller things like travel, interacting with people who've had a different life to you, cooking something new, taking a different route to work, reading a newspaper or a magazine that's very different to what you normally read.

Doing a podcast?

But you do this every day.

Yeah, exactly.

Yeah, so it's not inducing neuroplasticity in your brain.

So you're meeting different people.

Yeah, you're meeting different people, you're learning new things.

But it's probably not what we would call attention intense enough to actually be shifting pathways in your brain.

So having all these conversations isn't like expanding my...

It is in terms of the facts that you're learning.

Yeah.

But your actual process of finding a person, doing a bit of research into them,

meeting them, having a conversation with them, being good at asking them certain questions, that's a very natural pathway for you.

So you're getting better and better at it, but that's not a new big change in your brain.

So what...

Okay, right.

So I think when people hear about neuroplasticity, when I first heard about that it was even a thing, it was a revelation that we could do things to change our brains.

What is it that people typically want from neuroplasticity?

They want to be someone else in other ways.

They want new habits, they want new ways of thinking,

they want to stop being a negative thinker or an overthinker in certain situations.

Yeah.

If I wanted to stop being an overthinker or a negative thinker,

or if I wanted to, you know, there's certain habits we all have and that I have in my life

that I'm like, I just feel like it's me now.

Yeah, like procrastination.

Procrastination shows up sometimes.

I'm just saying that because I'm not learning anything.

Yeah, who have you spoken to?

No, I don't procrastinate too much because I don't really have a choice these days.

I procrastinate on some things.

I think we all do, things that I find.

Yeah, veah, we all do.

No, I'm really glad you've taken this into the intangible,

because obviously I use the analogy of language as a great one to help people understand that you...

you learn something new, it builds up that pathway in your brain,

it shifts your brain around, it has other benefits.

But what people are really looking for is changing habits

and behaviors that are not serving them in life.

Yeah.

So whether it's...

Lack of motivation.

Yeah, lack of motivation, overthinker, negative thinker,

lose your temper,

you know, sort of feel very stuck,

people pleasing, you know, like so many things.

Mood, reactions and reactives.

Yeah, yeah.

So the process for that, which is underpinned by neuroplasticity,

like the physiology of what happens in the brain,

is raised awareness.

So let's say that you've, you know,

you've had a relationship break up again for the similar reasons

and, you know, whatever happened before.

So then you get to a point where you're like,

okay, last time I just kind of didn't really deal with that

and just moved on to the next relationship.

Now I'm beginning to see there's a pattern,

I think I need to do something different.

Step one is spot the pattern.

And step one is 50% of the battle.

So, you know, once you know,

okay, this is the thing that I think or I believe or I do

that comes out with a result that I don't want,

that is half the battle.

So once you've done that,

you don't try to change anything straight away.

The next stage is called focused attention.

So you look around in your life at work,

in your personal life, in like, you know, sports,

if you play sports,

with different types of people

and through your past,

where are the times I've done that?

What triggers me into doing that

or what pushes me into doing that?

Let me give you an example.

So we can work through these steps with an example.

Got a friend in my life that repeatedly dates people

who are married or in a relationship.

Oh.

And it ends how you'd expected to end in her heartbreak.

But it's this spiral she's on.

So step one would be becoming aware of this pattern.

You're dating people that are in this.

For some reason, you're...

So in this case, that is obvious.

If you're getting into relationships

with people who are already attached, you know, you're aware of that.

What I would want to dig into with her

is what it is that she believes about herself

that makes her think that that's okay.

And I'm imagining already that there must be

a level of self-worth that is...

has struggled, you know,

and maybe there's something in her childhood

that's caused that.

But you would only do that

if you didn't believe that you deserved someone of your own.

So that's the kind of conversation

I would have with someone like that.

I would probably ask her, like, you know,

what goes through your mind

when you decide to do that again?

And she would say something that she's conscious of thinking.

I would want to dig below that

and ask what it is that she believes about herself

that makes her think that.

So that's quite an important part of the raised awareness,

which is getting below the thought into the belief.

Next step is...

Well, certainly if she's got a history of this,

is, you know, maybe in journaling, acknowledging,

writing down, okay, this time that I went out

with someone that was, you know, kind of engaged

in a relationship with someone else.

Well, this time I had an affair with a married man.

What happened?

Like, that decision-making process,

the point from which you agreed to get into that,

what was the consequence?

So really, that's the focus to tension,

to marrying together that decision with the consequence.

You know, one of the things I say is,

you are basically the sum of every decision

that you've made in your life.

That's who you are.

So once there's a bit more understanding

and attention around, like, what causes that

and how it happens,

the next stage is deliberate practice.

So the first challenge is going to be

the next time she meets a man who's not available.

And she may not yet be able to say no to that.

She may have to make another mistake,

but she'll make it armed with all the knowledge

that she's got now,

and she'll see it for what it is.

Or she will be able to say no to that man this time.

So the next step is deliberate practice,

which is where you say,

okay, I used to behave like this.

This is the new me that I want to be,

as somebody who says no to every man that's married,

who, you know, replaces every negative thought

with a positive thought,

or whatever it is that you're working on.

You then look for scenarios to practice this new behavior.

And at first it will be hard,

because you have a pathway there

that may have been set since childhood

that is used to doing a certain thing.

And the brain is a very energy-hungry organ,

so it's always trying to use the path of least resistance.

Let's say I'm an over-thinker, okay?

And you're asking me these questions,

and I've got this voice in the back of my head saying,

why is Stephen asking me that?

What's he trying to get to?

Is he trying to trick me?

What I would try to do

is silence that voice in my head

and say, okay, in this podcast with Stephen,

I'm going to focus on him,

I'm going to take his questions for what they are,

and I'm going to speak from my area of expertise.

I'm not going to worry about that other stuff

that, you know, can go on in my head.

And let's say this time I managed to do that 50% of the time,

and then I go and do another podcast next week,

and I managed to do it 75% of the time, you know, and so on.

Eventually, this new pathway that I've been building will become stronger than the one that I had before, and then every time I turn up for a podcast, I'll just be completely present and attentive, and I'll get to the end of it, and that's the new me now. So behaviors that we repeat.

So let's start starting at the beginning of those three steps.

The first step is becoming aware of the pattern in our lives.

The second step is becoming really cognizant

of the pain or the consequences of that pattern.

And the third step is kind of like setting an intention

for who we want to become and the goals we have,

and then practicing it as much as possible.

And that is the three steps to...

The fourth is not a step, but the fourth factor is accountability.

Because most people left to their own devices

will give up on that process when it feels too hard.

At step three.

Yeah.

So, you know, with years of practice and journaling, I have become better at holding myself accountable. But for most people, there's got to be some external, so it could be a friend.

One of the reasons I'm a big fan of doing these action boards is that there's a very tangible thing in front of you that with images of what you said you wanted to achieve this year, which you can clearly, and your friends and family, can see at the end of the year whether you did or you didn't.

And, you know, of course, you can have an actual,

like, professional person that is there,

like your language teacher to hold you accountable to.

We're going to have to edit this out

because you really are pushing this.

You've got an agenda here.

I've been really...

You talked earlier about just a second ago about how when you're trying to create a new pathway, if there's an existing one that is very well established from your childhood, it's increasingly harder.

So, I've always been unorganized.

I grew up in a home that was looked like an atomic bomb had hit.

It was just a shit show inside. It was an absolute mess.

So, that habit of just being messy is quite well established.

The pathway in my brain of being messy is well established.

But more broadly, I'm thinking here about trauma

and how trauma looks in the brain.

And we've had really traumatic experiences in our life

or in the context of my friend,

we might have learned that we're not deserving of someone

or we're not worthy or we're not enough or we're different.

That might be a really well-established pathway.

Doesn't that suggest that there are some behavior patterns

that are just practically immovable, practically unchangeable?

I don't want to say yes to that, but what I'm going to say is

we've moved away from using this term hardwired,

which kind of means it's there forever.

And we talk about soft wiring now because of neuroplasticity.

I know people who have been through incredible amounts of trauma.

There's going to be an example coming up on my podcast soon

who has done so much work on herself

that she's really in a beautiful place as a psychologist

and a Vedic astrologer,

helping other people learn to deal with their trauma.

So, there's a lot that can happen.

She was clearly a very resilient person and got herself educated.

Some people deal with the consequences of trauma

for the rest of their life and it runs their life and it's sad.

You may not be able to deal with every single thing

that you've experienced or the full extent of what you've experienced,

but I do believe that there's a lot that everybody can do.

Earlier you talked about generational trauma and epigenetics, as you said.

What are both of those things?

The first time I heard about generational trauma,

I thought it was like woo-woo, fluffy, hopeful, wishful.

It's a nice way to blame your ancestors for the way that you are.

When I first heard about this concept,

you could be passed down trauma from your parents or your grandparents.

It just seemed like it couldn't possibly be true.

Yeah, I know.

It's a relatively new area of research.

I'm actually going to separate this into a few things.

So generational trauma, and you can look at this art,

is related to specific times of acts that were placed

onto particular marginalised groups,

like First Americans, slavery.

In Asia there are some particular groups that were treated in a certain way.

The impact of generational trauma is when something happened to one generation, there's a psychological spillover,

and it can be something to do with you always feel isolated,

or you always feel lonely, or you always feel at the margin,

or you always feel left out.

That's because a whole generation were treated in a certain way,

and that has an impact.

Intergenerational epigenetic trauma is about how some external event

actually changes the expression of your genes.

So we have a genotype and a phenotype.

A genotype is your DNA, it doesn't change,

but the phenotype is which bits get switched on and switched off.

The most famous examples of this are the Holocaust and the Dutch famine,

but there are other examples.

And we are sufficient generations away from that now

to have seen like three plus generations changes in the stress responses.

And it's not always bad.

So sometimes people are more resilient because their grandparents

or great grandparents went through something terrible,

sometimes people are more anxious.

And it's hard to know necessarily why things might go one way or another.

I always say to people that you aren't born with the genes

that your parents had when they were born,

you're born with the expression of the genes that your parents had $% \left(x\right) =\left(x\right) +\left(x\right)$

around the time of conception.

And then of course your mother's stress levels through the trimesters of pregnancy.

And this isn't meant to blame anyone for what happened in the past

or how stressed they feel when they're pregnant.

It's meant to raise awareness of the fact that if you have something

in your family's history or you did have a particularly stressful pregnancy,

you can use neuroplasticity to improve the chances of your baby

expressing genes that will be more helpful for them in life

than if you didn't know about all of this stuff.

So if you had a particularly stressful pregnancy, let's say,

you're a woman who was really under stress when you were eight months pregnant,

how does that impact the baby?

And what symptoms are you likely to see in that baby

that it wouldn't have had otherwise?

Okay, so I'm going to give you a really tangible answer

before I take it back to something we were talking about before.

Imagine the mother's a heroin addict.

That is affecting the baby, right?

Yeah, yeah.

And that's because they share the same blood supply.

Yeah.

So if the mother is stressed and she's got high levels of cortisol,

then that cortisol is going through the placenta into the baby's blood supply.

And basically being stressed from in utero could switch on genes

for not being resilient to stress or being more liable to anxiety or mood disorder.

And it's already starting off, you know, inflammation in this like tiny baby

that hasn't even been born yet.

I know that sounds terrible and I really don't want this to come across

like all mums have to be completely zen and never get stressed

because that's just not reality.

But, you know, everything that you can do, of course,

to manage your stress during pregnancy is helpful.

But then completely understanding that if your child then starts to show

any like symptoms of anxiety or, you know, inability to manage their emotions

after an age where they should be kind of able to do that,

you can introduce them to meditation.

You can sit with them and talk to them about their emotions and how they're feeling.

There are lots of really like great books and videos that you can use to like

educate children about that kind of thing.

I always say knowledge is power.

And unfortunately, difficult things can happen to people in life.

But every time something like that's happened to me,

I've gone down a rabbit hole of, okay, what can I find that can help me

to overcome this and be better?

Just thinking about as you're talking about grief and the brain,

the relationship between, you know, what happens in the brain

when we're experiencing grief and stuff?

Think about grief and heartbreak as strong emotions.

So many of us, including one of my best friends,

is recently grieving a relationship he's lost.

And I've got another friend that's lost someone in their life who's passed away.

And it's such an all-consuming force that seems to be resistant to advice.

I just wondered if through your work you'd learn anything about grief in the brain and heartbreak in the brain.

Yeah, so I think there's so many versions of grief that we've seen particularly

in the last few years, which is loss of sense of self,

loss of someone through a relationship breakdown,

and loss of someone through actual death.

And it's interesting to hear you say as a, you know,

caring onlooker that it's something that's so overwhelming and resistant to advice.

I strongly believe that to ever heal from grief,

you have to go to the bottom of the hole.

And however you do that is not something that anyone else can comment on.

I think if you are doing things like throwing yourself back into work

or like partying too much to avoid it, that's not right.

But if somebody has to go somewhere emotionally to deal with grief,

they've got to be supported and allowed to do that.

And then maybe at times gently nudged in terms of like, how are you doing?

You know, is it kind of, are you feeling any sort of like healing

or resolution or understanding or acceptance?

I do think particularly with grief that if we haven't been through something ourselves,

it's really hard to imagine how bad it is, even though you might, you know, care very deeply.

What makes you think that?

What makes you think that you have to go to the bottom of the hole?

Because I think we are very avoidant emotionally.

I think that's part of the, you know, great issue that I was talking about,

which is being lost and disconnected.

And I remember when my first marriage broke up and I was changing career,

thinking if I hadn't been a psychiatrist and know the things that I know,

I can see how you could end up on a psychiatric ward going through, you know,

the breakdown of a marriage.

So all I'm trying to say, I'm not trying to say you have to feel terrible.

What I'm trying to say is you have to process all the emotions

and you kind of have to surrender to it a bit,

because if you try to gloss over that, it will come back and bite you later.

And I've seen many stories of that happening where people, you know,

did really great things like write a book about it or, you know,

shower all of their care and love and attention onto other people,

and then eventually found that they hadn't actually dealt with their own emotions.

So when I say go to the bottom of it, I don't necessarily mean feel really terrible.

I mean process all of the emotions fully,

because then you can actually heal and at some stage move forward.

It doesn't mean you forget, you know, the person or what happened.

But if you try to gloss over it, I think it's dangerous because it's such a deep emotion.

It's such a facing of your own mortality.

Quick one, I discovered a product which has changed my life called Eight Sleep.

And I'm so proud to say today that I had a chat with the founder of the brand

and they are now a podcast sponsor.

And one of the things I've come to learn on this podcast from speaking with sleep experts

like Matthew Walker is how important temperature is when it comes to sleep,

the temperature of your room, the temperature of your bed.

And also one of the big insights I had from speaking to some experts

was that the temperature of the room should fluctuate throughout the night

as you move through different stages of sleep.

So when you first get into bed, it should be quite cool in bed.

It should then get a little bit cooler and then the temperature should increase near the end.

And that is a reflection of what would have happened in nature once upon a time.

You've probably come to learn that I have sponsors on this podcast that I use and products that I love.

My sponsors should be a reflection of the conversations I'm having

but also a reflection of what I'm using in my life.

So to celebrate them being a new podcast sponsor, I always want to get a discount for you guys and I've got one.

Go to atesleep.com which is e-i-g-h-t sleep.com

slash Steven and if you do that, you'll save \$150 on the pod cover that I have on my bed.

The one I'm talking about.

Grab your pod cover, send me a DM and let me know how you get on.

As you may know, this podcast is sponsored by Hewlett.

If you're living under a rock, you might have missed that.

I've come to learn over time, not all of the products they have are for me

but the ones that are for me have really, really changed my life in a profound way.

All of the products are designed for different use cases and different people.

For me, as you'll probably know, the ready-to-drink bottles are a staple of my life at the moment and they have been for many, many years.

But for a lot of other people, they have the hot and savoury, which is a five-minute hot meal that's nutritionally complete and contains all the good stuff that all Hewlett products contain which is the 23 vitamins and minerals and the wonderful balance of sort of nutritional completeness. And then you have the bars as well.

If you've heard about Hewlett on this podcast, you've heard me talking about it a lot.

You're aware that I'm an investor in the company, you're aware that I'm on the board of the company and you're not sure where to start.

I would highly recommend starting with the bestseller bundle.

Basically, we'll send you a package in the post containing all of the favourite products that people love

and then you try them all and stick with the ones that really, really fit you.

The link is in the description below to try the bestseller bundle.

In your book, you talk about the mechanisms of neuroplasticity.

What are the mechanisms of neuroplasticity and the three factors that have the biggest impact on changes in the brain?

So the first one is myelination and anyone who does a lot of sport who repeats a certain weight training

will understand that that's what's happening in their muscles.

You know when I said, you come here pretty much every day and you sit with someone and you interview them

and you're really great at asking questions.

That's like something you're super good at that because you repeat it, it becomes like a superpower.

And that means that what's happening there is myelination.

So myelin is a fatty substance that coats some neural pathways

and those pathways become fast pathways.

Now there's a reason from evolution why we have some fast pathways and some slow pathways and the reason is that if you put your hand in the fire,

your reflex to snatch your hand out is a fast pathway

but your pain reflex is a slow pathway because if you were incapacitated by pain,

the minute you put your hand in the fire you wouldn't be able to get away from it.

One of the mechanisms of neuroplasticity is becoming even better at something that you're really good at

and that happens through myelination.

The most common one, which is something that you're quite good at

but if you had loads of time, you could become really good at it

but you maybe don't have loads of time, happens through synaptic connection.

So that's the one that can feel like quite hard work

but if you put in the effort then you can change your brain.

So that means that neurons that already exist in the brain

connect up with each other and start to form new pathways.

And the third mechanism, which doesn't happen a lot in the adult brain

but it does happen around the hippocampus because we do lay down new memories in life,

happens a lot in children's brains, is called neurogenesis

and that is little embryonic nerve cells that float around in the brain

actually becoming fully formed nerve cells, neurons,

and connecting up through synaptic connection and maybe getting myelinated.

And there's a factor, a growth factor that's involved in that

the embryonic cell becoming an adult cell which is called BDNF

or brain-derived neurotrophic factor and trophic means growth

so neurotrophic is growth of neurons.

And the things that contribute mostly to that are aerobic exercise and eating dark-skinned foods.

Yeah.

Dark-skinned foods?

Yeah, so let me just cover the exercise one first

because this is one of my fun facts which is that

if you are regularly doing aerobic exercise

the turnover of those cells in your brain is about 13-14%.

So like the amount and the speed in which they like die off?

No, the speed in which they go from embryonic to full-grown cell.

Oh okay, okay.

So because we want neurogenesis to happen.

If you haven't been doing exercise for a while and then you start

the rate of cell turnover is like 30%

so it increases after a period of inactivity with new aerobic exercise

so that's my excuse for like being a couch potato half the time

when they're starting up again.

Oh yeah.

Who are you kidding?

Okay, so it will accelerate the speed in which you're making those connections.

Making the embryonic cells grow into new cells

and then connect up with existing ones.

So I want to make sure I'm super clear on this.

So if I'm trying to develop, if I'm trying to speak a different language

by doing exercise that has an impact on...

Oh help you learn and retain memories, yeah.

So in simple language, if I'm doing aerobic exercise

my ability to accelerate my neuroplasticity will increase.

Yeah.

What if it's like not aerobic exercise?

What if I'm just lifting big weights?

There are benefits to your brain of other types of exercise

but weight training doesn't relate to neurogenesis as much.

Okav.

This isn't so much about language

but it's another example of mind over matter.

So this was an experiment done on two groups of weight lifters.

Thought you might like this one.

That's a big compliment. Thank you so much.

You think I'm a weight lifter.

You think I identify as a weight lifter.

You looked at me and thought weight lifter.

Totally.

Thank you so much.

This was finger and elbow weights though.

So maybe not so glamorous in this experiment.

Okay.

So one group lifted finger or elbow weights.

I think this was a two week study

and they showed I think it was about a 40% increase

in muscle mass of the targeted muscle group for those weights.

Their counterparts only imagined lifting weights for two weeks.

They lifted no weights for two weeks.

They just sat there and they visualized themselves lifting weights and they had a 13% increase in muscle mass.

Interesting.

So we can tell our brain to grow muscle.

Have you been secretly doing that?

No, but I could be doing that instead.

I've been going to the gym.

It would be much easier if I could just watch the football

and tell myself that I'm lifting weights.

Well, I don't think you can watch the football.

I think the whole visualization and intention

and attention stuff was important part of it.

I mean, that speaks to the power of our thoughts again, doesn't it really?

If our thoughts can tell our brain to grow muscles.

Has that been, is that?

It's in the book.

But is it widely accepted as the truth?

I'm surprised there's not like personal trainers

that just sit you down in an empty room and just go right.

Well, think about the number of athletes that use visualization

as part of their training.

Of course, they do the exercise and the practice and everything,

but that's hugely used in sports.

Interesting.

It's obviously not a case that I would just then go home

and start imagining working out,

but it does again remind me of the importance

of just thinking about positive things

that are in line with my goals.

Yeah.

I mean, what's the harm in imagining yourself more muscular

or more youthful alongside eating the dark foods

and getting enough sleep, you know?

It's like, it's part of the package.

Do you want to know what you should eat so that you can...

Please, what is dark-skinned foods?

So, basically, you know, at the basic level,

we want people to have a healthy balanced diet,

mostly plant-based,

but where you can choose a darker version of a food,

the pigment in the skin of that food has higher levels

of antioxidants called anthocyanins, and they also contribute to neurogenesis. So, it's basically like eating black beans instead of white beans or eating blueberries instead of strawberries, dark chocolate instead of milk chocolate, purple sprouting broccoli instead of green broccoli, and good-quality coffee counts as well. Yeah, so, you know, I try to vary what I eat, but also always choose the darker option, if I can. Okay, so, is there anything else that one needs to know about the process of neuroplasticity? So, from what I've ascertained so far, it's about understanding the patterns we have in our brain, understanding the consequences of them. Repetition is key to establishing new pathways. Is there anything else that I need to be really aware of? Because I do want to grow my brain and change my brain. Yeah, so, the accountability piece, which we discussed. But also creating the conditions in your body for your brain to be able to do all of that stuff. And so, you know, this is a bit of repetition, but sleeping roughly eight hours a night, having regular sleep and wake times seems to have an additional benefit, we don't know why. So, within an hour, so go to sleep between 10 and 11, wake up, whatever. Not being sedentary, so being physically active doesn't necessarily mean you have to pound it at the gym. To be honest, in terms of neuroplasticity, you don't want to do too much high intensity exercise because it spikes your cortisol levels, so it's better to do kind of guite gentle exercise. Eating 30 different plant products a week and varying the color as much as possible. You know, managing your stress, whether it's through meditation or just like removing the causes of stress. If you're doing and being hydrated, if you are doing all of those things and you want to play at level two of the game, you could start doing time-restricted eating. So only eating between, I only eat between 12 noon and 8pm,

but you could do 8am to 8pm. So that kind of fasting is very beneficial for your brain as well, but only if you've got the foundations right, it's not going to help you if you don't. What does it do for the brain, fasting, intermittent fasting? Well, it helps to regulate your blood sugar levels. So, you know, spiking blood sugar levels aren't good for your body or your brain. And fasting and calorie restriction, they do have like brain health and longevity benefits. but that, you know, only if your foundations are right. You know, somebody who's stressed or eats badly or doesn't sleep enough will not benefit from time-restricted eating or intermittent fasting. Because it is a form of stress on your body,

but it's a form of stress that your body can take

and use to build resilience if the baseline level of stuff is good.

And for neuroplasticity to happen,

we need to be taking on big cognitive challenges.

Challenges that kind of break existing pathways.

Yeah.

So I want to learn to DJ.

I've been learning for about 12 months now.

That feels like a big cognitive challenge for me.

Yeah, that's great.

That's the type of thing that would establish

a new pathway in my brain.

Absolutely.

Someone's just looking to build their self-esteem $\,$

and their confidence.

What does the brain tell us about the process of doing that?

Does it go back again to what we said about awareness,

about understanding the feelings and the consequences

and about setting goals and repetition and accountability?

It will get to that,

but there's actually a little bit of a jumpstart to that,

which is really helpful,

particularly in terms of confidence and self-esteem,

which is that usually there's a particular recurring negative thought

that's associated with feelings of lack of confidence.

So if you can identify what that is and create a positive affirmation that's like the opposite of it or something that counteracts it,

then that can be a great way to get started.

My phrase would have been,

it has to be perfect and it's not going to be perfect.

I wouldn't have been able to say this last year,

but now I would probably be able to say,

it is going to be better than perfect.

It is going to be amazing, like I know it.

But to get myself there, I could have said,

it doesn't have to be perfect, but it's going to be great.

Or I could have said, maybe it will be perfect.

Sometimes a question I ask myself is,

what's the best possible outcome that could happen here?

So it's changing your language in your mind

about the things that you think.

So that's basically metacognition,

which is that you can understand your own thinking

and then reversing that narrative quite strongly,

even if it doesn't feel like it's totally true,

and just repeating that so much

that you start to wear down that other pathway.

Does language really matter, the language we say to ourselves?

Oh yeah, yeah, it really matters.

Yeah, how we speak about ourselves.

How do we know that matters?

I mean, it's neuroplasticity.

If you're repeating something in your mind or out loud,

then if that's being repeated more

than another statement,

it's the one that your brain's going to believe.

So we can trick our brains effectively

by saying something else to ourselves repeatedly.

Because there's this whole movement

in the personal development community,

which says you just kind of look in the mirror

and you say to yourself,

like, I'm beautiful, I'm attractive,

everyone's going to love me, I'm going to be rich.

And I've found it hard to get on board with that train.

Because I know I'm bullshitting myself.

But in my subconscious or whatever,

I just know if I said those things,

I'm not saying about myself,

but saying those very, very far away things,

I just think my brain is smart enough to know

that I'm bullshitting myself.

Yeah, I think there's an element of reality to it.

So there's a few things there,

which is those particular things that you said are very shallow.

They are not really the things that people should,

you know, need to be saying to themselves.

What I find, and I picked this up from the podcast with Lewis,

he said that sometimes he would just say to himself,

I'm safe, I'm safe, I'm okay.

And actually just sometimes saying to myself,

I'm safe is that's what I need to hear.

Not, I'm beautiful and I'm amazing.

That does feel like, A,

it's the kind of thing that everybody probably wants to say.

B.

It's not addressing the underlying issues, is it?

Yeah, it's not addressing.

And I'm going to be rich.

I mean, that's the worst one,

because you actually have to do stuff to make that happen.

You know, you can't just say that.

So I think finding the stuff that you need to say to yourself

that is not to do with social expectation

or parental expectation or, you know, social group,

what everybody else is doing,

like what you really want to know for yourself,

that's going to set you up to be able to go out into the real world

and do the stuff that you need to do

to get the other things that you want.

There you said, you can't just say it,

you have to go out and do it.

Now, when people hear this term manifestation,

it's highly associated with just kind of saving stuff

or thinking stuff,

and it's less associated with actually going out and doing it.

So a lot of people just turn off when someone talks about manifestation,

because it sounds kind of woo-woo,

put it on the vision board, and it will happen.

And in fact, I think I've said this a few times,

but I wouldn't say it was an argument,

but a disagreement which resulted in the person I was speaking to

literally getting out of a taxi in the middle of New York City

and walking off.

I was on a date many years ago,

and the girl was saying to me that she goes,

you can just manifest anything into your life.

So you can just think about it and then it will happen.

So I said to her, I was like,

you think you could just think about becoming a millionaire

and then it will happen.

And she goes, yeah.

And you wouldn't even have to do all the stuff.

And she was like, no, you could just think about it

and the universe will attract it into your life.

Do you believe in manifestation?

And if so, what form of manifestation

and how is that supported with neuroscience?

So I believe in manifestation

based on your brain.

So your thoughts, your beliefs, your actions.

So where I've called my book, The Source,

I have said your brain is the source

of you being able to attract everything

that you want into your life.

So I sat down one summer and I, like,

researched the laws of attraction

and just looked at whether I could explain them

through cognitive science, which is psychology and neuroscience.

And I could.

So I was kind of like, oh, I'm onto something here.

And the first stage for me was understanding

that it is absolutely to do with the way that you think,

but then it's not magically like attracting something

in the atmosphere.

It's to do with the changes that you make

based on your thought process.

I do believe in vision boards, but I call them action boards

because I see them as a representation of what I want,

but I still have to go out there and make those things happen.

I think it's also much more empowering to believe that it's your brain that's making that stuff happen and not some external force that you're not really sure what it is.

So how would I manifest something into my life? Say I want to manifest a great relationship.

I'm in a great relationship, but say I was single and I wanted to manifest the perfect partner.

How would I manifest the perfect partner into my life using the brain as the source?

Yeah, so with that one, I think the preferred method is to create a list of the attributes that you want in that person, but you then have to make sure that you are everything that is on that list.

So if I want to blonde, I've got to dye my hair.

No, I'm joking.

I'm joking.

Okay, I get what you mean.

So you're talking about fundamental qualities and values and then making sure that you represent those qualities and values.

I've never heard anyone say that, but that is so important $% \left(1\right) =\left(1\right) \left(1\right) \left$

because I know so many people who would write a list

that they couldn't meet themselves in terms of fundamental values.

They'd probably want their partner to be disciplined

to care about their health, to be honest.

And if they ask themselves, are they those things,

they'd probably fail at that.

To be fair, my partner is so much better than me

in so many ways, nearly every way.

I'd probably fail at that list too.

Why is that important?

I think that you hear a lot of people saying,

this is what I really want in someone.

But you never really hear people saying,

I've really worked on myself and this is what I believe I have to offer.

And so psychologically, you meet people at the level

of psychological evolution that you're at,

but equally on the sort of flip side of the coin,

you meet people at the level of psychological wound that you have.

So to be in a balanced relationship with someone that's really great, $% \left(1\right) =\left(1\right) \left(1$

you've got to be bringing something to the party.

I mean, no one's going to go out with you if they're really amazing and you're a drag.

But drags want amazing people and this is the problem, right?

That's true, right?

I guess so.

Are you scared to say it?

When I was an optimal drag in my life,

when I was the most drag in my life, I attracted drag people,

but I wanted amazing people and I could never get them.

Yeah, but I feel like with you, that was part of your journey

of knowing that you could become an amazing person.

I believed I could.

Yeah, exactly.

So you got an amazing person once you did the work that took you out of Dragsville.

Amen.

Okay, so that's super interesting.

So make sure you are the things on that list

because we'll rise to the level of our values

and we'll fall to the level of our wounds.

Yeah, I love the way you put that,

but also that what you have to offer in a relationship

is just as important as what you want out of it.

And I don't know, as a society,

we just don't really seem to think about it like that.

There's actually a note in my diary where I wrote,

people who focus on what they want

don't typically get what they want.

People who focus on what they have to offer

typically get what they want.

That's amazing.

That's like basically the same thing.

Yeah, I actually just parroted it off you,

plagiarised it.

No, but it is in my diary,

and I posted on Instagram a story a while ago,

that it was just an observation to me in business

when you hire people,

the people that are focused on like,

can I get a pay rise?

Can I get a pay rise?

Don't typically get the pay rise,

but the people that focus on what they have to offer, they're the ones that you give all the, you promote and you give the pay rise to because they're focusing on the most important thing, which is I think over prolonged periods of time, not always in the short term and not always in every case, but life will eventually give you roughly what you deserve. Over a long term, generally for most people, not always because there's going to be someone that says, so you can't what about me because I've presented the caveat, but generally that's what I've observed and I've seen people cheat the system. I've seen people get a little bit further ahead than their talent or their value, but life has a wonderful way of bringing us back to the level of our values and you said it in relationships, life will drop you to the depth of your wounds or to the height of your values. So really if you want to find a sustainable way to get what you want in life, it's to do that work on what you can offer other people. And as you were speaking, it made me think that actually, let's say if I was constantly like, oh, you know, I want this pay rise, I want that man, that's got to be a cortisol inducing state in your body. But if instead of that. I'm like, what can I do for Stephen? I have so much love to give, that's going to be oxytocin and who's someone going to be more attracted to? Interesting. Oh, that's so true. One of the things I want to talk to you about that has been risen in culture recently is neurodivergence.

Big topic, autism, ADHD, so much there.

I had a mother send me a voice note the other day. Her child has just been diagnosed with autism and she's really struggling with it and trying to understand what it means and where it came from and was a hereditary. And there's so many guests on my podcast have talked about the rise and diagnosis of ADHD and is it something that we are causing by the way that we choose to live our lives? From an understanding of neuroscience, what is neurodiversity and what are causing it and what is curing it? Yeah, so this would come more from my experience as a psychiatrist when I did do some work with children as well. So neurodiversity is basically anything that doesn't fall into the category of a typical brain. So the way that most of the population think and how their brain works. So that would include things like dyslexia and dvscalculia and ADD, ADHD and autism slash asperger spectrum and other things. I think that a lot of it is to do with better diagnosis. So I'm not saving it isn't the case that these things have risen but I think we're also much better at diagnosing them. So for example, when I worked with mostly little boys with ADHD when I saw them for the first time and I took the full family history there was quite often an absent father who'd actually been in several different relationships and couldn't hold down a job and you kind of thought, yeah, he probably had it but was undiagnosed. So there is an element of that. I do think that it is an adaptation to the world which is changing at such a rapid pace which is always switched on so much technology

and some people would say that autism

is even like a form of evolution

in a way to help us keep up with the changing pace of the world.

So you don't necessarily think we know

if it's increasing in prevalence?

I think it is but it's partly naturally increasing

and partly because we're better at diagnosing it.

Okay.

I do wonder as well sometimes things like dyslexia

whether humans have always had an element of dyslexia

but it's more obvious

and more of a challenge in the world we live in.

Think about the schooling system

and writing and education.

These are fairly new constructs.

Yeah, yeah, exactly.

And so this isn't to do with neurodivergence

but to do with things like gender identity

and sexual orientation.

What I found in my research with the indigenous wisdom

is that those things were understood long ago.

There was a place for people

and an understanding of their role in society

and sometimes even an elevated role.

So it's really interesting that we're grappling with things now

like what gender does your child want to be

and what life is your child going to have

if they're gay or whatever.

And apparently these ancient cultures

were dealing with this all the time, no problem.

Your second series of your podcast

is going to focus on some of this work that you learned.

What are some of the interesting things

that if you could only tell me a few

that you think would have the most significant impact on my life

and you can't mention learning Portuguese,

what would you tell me about?

So one theme that's come through quite strongly

is related to creativity which was kind of mentioned

but that doing things like humming and chanting

are actually really beneficial

and they've obviously been around forever

and we don't really know why people did them in the first place

but in terms of expressing creativity

and calming down the nervous system

that's one thing that seems to have come through

from kind of like Ayurveda

but also from the first Americans as well.

James Nesta said that to me.

Humming was good for your health and immune system

I think he said.

Like through your nose.

There's different types.

You can do even just like...

Go on.

I can see you.

You're avoiding it.

Don't be in the trailer.

But also humming like at the back of your throat

humming like between your lips.

It's such basic stuff.

I mean you can do that on the tube.

You can do it.

That was going in the trailer.

Why would that help?

Why would that help us?

I don't really actually know the answer.

I'm just thinking of this like

what can we get from Indigenous wisdom that could help us now

but I guess it's something to do with regulating

your parasympathetic nervous system.

That's actually what he said.

This point about aging generally.

Longevity and aging.

One of the really interesting things you talk about in the book

is this idea of psychological priming

and psychological priming of aging

and that psychological priming is the effect

that the mindset of aging has on our physical body.

How our thoughts about aging affect our physical abilities.

What I interpreted from that is

our thoughts about aging

have an impact on our aging.

There's a really fascinating study.

It's one of my favourite ones to talk about which was three groups of octogenarians.

What's an octogenarian?

People in their 80s.

One group was the control group

so they just lived normal for a week.

One group had to reminisce

about being in their 60s

for most of the week

whenever they had an opportunity to.

One group were actually driven

to retrofitted versions of their homes

that looked like

what their house looked like 20 years ago.

They were given newspapers

dated from 20 years ago.

They had photos of themselves in that house

when they were in their 60s.

One of the things was they got there

and they were like,

who's going to carry our suitcase up to the bedroom?

They were like, no, you're 60 now.

You carry your own suitcase.

It literally started from the minute they got there

and gentlemen had to carry their cases up.

After one week,

the people in that group

were taller

because their posture improved.

They had better musculoskeletal coordination

than they had a week before.

In before and after photos

that were shown to people that didn't know them,

they were rated as younger

in the one week after photos

from arriving at that place.

The reminiscing group also had some improvements

but not as much as a group that lived

like they were in their 60s.

So there was three groups.

The ones that went back and relived their life,

the ones that reminisced

and the ones that did nothing at all.

That really goes to show the impact

of what we think about ourselves

and then all of the physiological consequences of that.

You talk about your eyes as well.

Was it like laser eye surgery?

No, no.

People told you you needed glasses.

Well, my optician told me.

He's of Indian origin, same age as me.

He said, you're probably going to need reading glasses next year

and I was like, no, I do not want reading glasses.

That makes you look really old.

He was like, I know we both look younger than we are

but your eyes are going to age just like anybody else's.

And I was like, no, they are not.

So I left, came back a year later.

He said, how's it going with the reading?

I said, it's fine.

He sort of went, okay, Tara.

So he's doing my eye test.

He spins around on this little chair halfway through and says,

your eyes haven't got worse.

They haven't even stayed the same.

They've got better.

And I said, I know.

And he said, what have you been doing?

And I said, well, I just said no to you when you said,

I'm going to have to get reading glasses.

And when I'm like looking at my phone or a book

and it feels like it would be a bit easier

if I moved it further away.

I just don't.

And what's that doing in the brain?

Why did that improve your reading?

Well, I hadn't experienced a problem with my reading

but he was obviously seeing the numbers slightly change.

I really didn't do much more than what I've just said.

So it was like not accepting the limitation

and then not changing my behavior.

And I think that's what you see from the third group of people,

which is that they had to change their behavior

to live without any help and in a way that they h

and in a way that they had to when they were younger.

So that essentially removed the limitations

that we impose on ourself, which is that if I'm ex-age,

it must mean that I need reading glasses

or I need a walking stick or whatever it is.

There's a kind of opposite experiment to that too,

which was done with young medical students in Florida

and they had to walk between five rooms

and on the table were five pieces of paper with a word on it

and you had to string a sentence out of it.

But that wasn't the real experiment.

They thought that was the experiment.

The real experiment was that in one of the rooms,

the words that were on the table were

Florida, beach, sunshine, walk, bungalow.

And all of them walked more slowly out of that room

than any of the other rooms

because those words are associated with retirement.

And that made them slow down.

That, you asked me, is language important in art to our brain?

That's how important it is.

So just saying words can change our behavior so quickly.

That's what the experiment showed.

I've been thinking a lot, you know, I said,

I've got this vlog on YouTube called Behind the Diary

and in two of the episodes,

I've caught myself out while I'm filming

because I said words that I thought would be unhelpful.

I think people, someone in the comments actually challenged me

because there's one day when I'm filming Dragonstone

and I'm filming myself, I'm just talking about what's going on

and I go, oh, I really need a coffee this morning

and I stop myself and say, I shouldn't say need.

And then I go, there's something about this casual use of the word

need throughout our lives that is disempowering me.

It's making me a slave to the coffee.

So I make this point, which I'm sure people think a little bit,

but weird for making that.

I really need to not say the word need associated to the things

because I will then probably develop a psychological

and maybe a somewhat of a physical need for that thing.

And it's also just bringing that word need into your life.

You don't have enough that you need something.

I'm constantly changing my words, like tweaking them like that.

So I would say, oh, I'm going to treat myself to a coffee.

And that was your decision. You were powerful there.

That's a choice you made.

There's an overarching point here about personal responsibility as well.

When people talk about, I can't exercise.

I don't have any time.

It feels like a really disempowering frame

versus I've got other priorities, which feels empowering.

And I think about this all the time

because if you ask them why they don't exercise,

they'll typically blame it on some force.

The frame makes it seem like there's a force

that's controlling their life for them

that has not given them the time or that they could not.

Whereas really, it's just a typically case of priorities

and your child or your job that pays your mortgage

can be your priority.

But I think it's important.

I've always felt it's important to acknowledge the fact

that you made the choice to take care of your child

or to go to your mortgage paying job

versus I didn't have any time.

This is what I think about language so much

and the language that I use

and how that's dominating my life,

even constantly telling myself that I'm unorganized

and messy, so how that's probably making me a messy person.

What have we talked about

that we probably should have talked about?

Is there anything at all?

Any studies or any insights into the brain

and how we change habits that are stubborn

or anything else at all that you've learned

from the ancient wisdom?

I know that we've talked very broadly

on lots of different things,

but I hope that for me,

my intention with every sentence that I've said to you

is that people should realize how much potential

they have in their brains, like how capable they are of having an even more amazing life than they have already. I think I accept that now more than I ever have before because I've had this conversation with you. I think I accept that there's so much untapped potential in me and that I'm not this kind of fully formed, rigid lump of cells. I can change fundamentally.

I think a lot of people probably,

if they've gotten to this point in the conversation, will also accept that.

If you were to close with, I guess the step one, like the thing that I should immediately do as I move forward in my life from here, that would help me to start moving towards that person that I want to become, the organized, great partner,

successful in his business.

great with his podcast, all of those things.

What is that first step?

And you know what's funny is,

because my brain keeps thinking about the taxi driver

that I met on the way here,

who said he'd listen to the podcast

and he told,

gave me a little bit of a window into his world,

so he's driving the cab every day.

And I meet a lot of cab drivers

that listen to the podcast and we chat.

And oftentimes they have dreams of doing other things.

So they might say to me,

I want to start my own business one day

and I'm just looking for the first couple of steps.

But I reflect on what you said and go,

they're going to be so hardwired into their patterns

and their jobs and their habits and their routines

that it's very hard to make that jump.

Yeah.

So if I could give people a takeaway to start with that's really simple.

but it doesn't mean there isn't a lot of hard work

at the other end of it.

It would be very clear on what it is that you want.

So you've mentioned a few things.

Spend five minutes sitting down

and visualizing those things being true

and then give gratitude for that.

That would be my first step.

Give gratitude for those things being true.

Just five minutes.

I'm a great partner.

I'm not messy.

My podcast is super successful.

See it, feel it in your body,

taste it in your mouth,

hear it in your ears.

Completely immerse yourself in that five minutes

longer if you can.

And then just be so grateful for all of that.

Essentially what you're doing is moving your brain

from a fear state to a trust state

and that is the gateway to making these changes.

Thank you so much.

Thank you.

Really a thought-provoking, wonderful conversation

and I've learned so much

and you've given me so much food for thought.

Thank you.

And you've changed my mind on a lot of things in my life.

That's a great compliment.

I know a few things about neuroplasticity

because I've had guests here that have spoken to me about it,

but I have a better understanding of it now

and I also understand, I think most importantly,

the part of manifestation

that is understandable through the lens of science, I guess.

We have a closing tradition on this podcast

where the last guest leaves a question

for the next guest not knowing

who they're going to leave it for.

This question is,

what could you choose to change

and choose to feel great about?

The same thing. I could finally realize my dream of feeling like I am truly a creative person and I'm not exactly sure how that would look vet, but I'm on the path to it. So I think getting clearer on that would feel great and actually doing it would also feel great. I think that's a great thing. Thank you so much for saying that. I feel like I have one more step to go before I really feel that I've done that because that was such a deep-seated thing for me. I mean, there's a bit more of a backstory to it which I didn't give you, but my English teacher said to me, you are so good at drama, you should read English Oxford and go to Radar. I think that's a great thing. I think that's a great thing. You should read English Oxford and go to Radar. I came home and told my parents and they literally said, my dad said over my dead body, you'll go to medical school and then after that you can do whatever you want. So I think there is that frustration in there that's been in there for a long time. These days you can't imagine anything better than your kid coming home and one of the teachers having picked them out is exceptional. But of course, at that time, there were no brown people on TV. So it was seen as an even bigger risk than it would be now. And I have to say, every time I see someone that looks like me who's made it as an actress, it makes me so happy. So... Why did your father say that? I think that Indian parents,

they think that stability is the key to happiness for their children. Having a stable career, having a regular salary, I don't really come from a family of entrepreneurs which is why it was so crazy when I gave up my job and started up a business, no one could understand it. And I was afraid of not having a regular paycheck. And then at some point I realised I could earn zero in any one month, but I could also, well, there's no limit to what I could earn and I think this realisation came in one month I invoiced what I was earning in a year as a doctor. Didn't they think you were your grandmother reincarnated? And she grew up in a village in India and didn't have access to education and that was a big regret of hers. So I was given, you know, the best education that money could buy. Got an MD and a PhD, it's like overcompensation and it wasn't really necessarily what I ever wanted. Thank you so much. Giving me so much to think about, what a wonderful conversation, what a wonderful ray of sunshine and light you are in the world. I'm so excited to see your career continue to evolve and touch and help so many people. All of your work is incredible. You've got your podcast coming up as well which I think everyone's going to be super excited to hear about because if it's anything like this conversation, it's going to be of tremendous, tremendous value. When is that going to be out? It's launching on October 4th,

Re-invent yourself with Dr Tara which is the second season.

listen to it already.

In that second season, you're aiming to do a lot of the ancient wisdom stuff, so exciting. Really, really excited to hear that. So October 4th, we'll look out for that. Thank you so much for your time. Dr Tara Swart. There's actually the word art in your name. Oh, that's so cute. But there is, have you ever noticed that? Okay. Well, I'm excited for our next conversation and to hear about how you've pursued that creativity because it's certainly within you and it's such a wonderful honor to have met you today and to learn from you. Thank you. Thank you so much. Thank you.

Thank you.