Welcome to the Huberman Lab podcast where we discuss science and science-based tools for everyday life. I'm Andrew Huberman and I'm a professor of neurobiology and ophthalmology at Stanford School of Medicine. Today my guest is Dr. Sam Harris. Dr. Sam Harris did his undergraduate training in philosophy at Stanford University and then went on to do his doctorate in neuroscience at the University of California at Los Angeles. He is well known as an author who has written about everything from meditation to consciousness, free will, and he holds many strong political views that he's voiced on social media and in the content of various books as they relate to philosophy and neuroscience. During today's episode, I mainly talk to Dr. Harris about his views and practices related to meditation, consciousness, and free will. In fact, he made several important points about what a proper meditation practice can accomplish. Prior to this episode, I thought that meditation was about deliberately changing one's conscious experience in order to achieve things such as deeper relaxation, a heightened sense of focus or ability to focus generally, elevated memory, and so on. What Sam taught me and what you'll soon learn as well is that while meditation does indeed hold all of those valuable benefits, the main value of a meditation practice, or perhaps the greater value of a meditation practice, is that it doesn't just allow one to change their conscious experience, but it actually can allow a human being to view consciousness itself. That is to understand what the process of consciousness is, and in doing so, to profoundly shift the way that one engages with the world and with oneself in all practices, all environments, and at all times, both in sleep and in waking states. And in that way, making meditation perhaps the most potent and important portal by which one can access novel ways of thinking and being and viewing one's life experience. We also discussed the so-called mind-body problem and issues of duality and free will. Concepts from philosophy and neuroscience that fortunately thanks to valuable experiments and deep thinking on the part of people like Dr. Sam Harris and others, is now leading people to understand really what free will is and isn't, where the locus of free will likely sits in the brain if it indeed resides in the brain at all, and what it means to be a conscious being, and how we can modify our conscious states in ways that allow us to be more functional. We also discussed the fact that we can see that we can see that we can see that we have a very strong sense of the fact that we can see that we can see that we are not in the same way as we are. What it means to be a conscious being and how we can modify our conscious states in ways that allow us to be more functional. We also discussed perception, both visual perception, auditory perception, and especially interesting to me and I think as well, hopefully to you, time perception, which we know is very elastic in the brain. The literal frame rate by which we process our conscious experience can expand and contract dramatically depending on our state of mind and how conscious we are about our state of mind. So we went deep into that topic as well. Today's discussion was indeed an intellectual deep dive into all the topics that I mentioned a few moments ago, but it also included many practical tools. In fact, I pushed Sam to share with us what his specific practices are and how we can all arrive at a clear and better understanding of a meditation practice that we can each and all apply so that we can derive these incredible benefits, not just the ones related to stress and focus and enhanced memory, but the ones that relate to our consciousness, that is to our deeper sense of self and to others. Several times during today's episode, I mentioned the waking up app. The waking up app was developed by Sam Harris, but I want to emphasize that my mention of the app is in no way a paid promotional. Rather, the waking up app is one that I've used for some period of time now and find very, very useful. I have family members that also use it. Other staff members here, the Huberman Lab Podcast use it because we find it to be such a powerful tool. Sam has generously offered Huberman Lab Podcast listeners a 30 day, completely free trial of the waking up app. If any of you want to try it, you can simply go to wakingup.com slash Huberman to get that 30 day free trial. During today's discussion, we didn't just talk about meditation, consciousness and free will. We also talked about psychedelics, both their therapeutic applications for the treatment of things like depression and PTSD, but also the use of psychedelics and we discussed Sam's experiences with psychedelics as they relate to expanding one's consciousness. I also asked Sam about his views and practices related to social media, prompted in no small part by his recent voluntary decision to close down his Twitter account. So we talked about his rationale for doing that, how he feels about doing that. I think you'll find that to be very interesting as well. Before we begin, I'd like to emphasize that this podcast is separate from my teaching and research roles at Stanford. It is, however, part of my desire and effort to bring zero cost to consumer information about science and science related tools to the general public. Now for my discussion with Dr. Sam Harris. Dr. Sam Harris. You're just talking about this. You are indeed a doctor. I cannot save your life but I might save your non-existent soul if we talk long enough. Neither of us are clinicians but we are both brain explorers from the different perspectives, some overlapping. I'm really excited to have this conversation. I've been listening to your voice for many years, learning from you for many years. I'd be remiss if I didn't say that my father who is also a scientist is an enormous fan of your waking up app and has spent a lot of time over the last few years. He's in his late 70s, he's in almost 80s, theoretical physicist, walking to the park near his apartment and spending time meditating with the app or sometimes separate from the app but using the same sort of meditations in his head. He kind of toggles back and forth and even I shouldn't say even but yes even in his late 70s has reported that it has significantly shifted his awareness of self and his conscious experience of things happening in and around him. He was somebody who I think already saw himself as a pretty aware person thinking about quantum mechanics and the rest. Thank you from him indirectly. Thank you from me now directly. I really want to use that as a way to frame up what I think is one of the more interesting questions and not just science and philosophy and psychology but all of life which is what is this thing that we call a self. Because I know we have not localized the region in the brain that can entirely account for our perception of self there are areas of course that regulate proprioception you know our awareness of where our limbs are in space maybe even our awareness of where we are in physical space there are such circuits as we both know. But when we talk about sense of self I have to remember this kind of neuroscience 101 thing that we always say you know when you teach memory you say you wake up every morning and you remember who you are you know who you are most people do. Even if they lack memory systems in the brain for whatever reason pretty much everyone seems to know who they are what are your thoughts on what that whole thing is about and do we come into the world feeling that way. Appreciate answers from the perspective of any field. Yeah, well big question I mean the problem is we use the term self in so many different ways right and there's one sense of that term which is the target of meditation and it's the target of deconstruction by the practice and by any surrounding philosophy so. You'll hear and you'll hear it from me that this self is an illusion right and that there's a psychological freedom that can be experienced on the other side of discovering it to be an illusion. And some people don't like that framing some people would would insist that it's not so much an illusion but it's a construct and it's not what it seems right. But it's not that every use of the term self is illegitimate and there's certain types of selves that are not illusory. I mean you know I'm not saying that people are illusions. I'm not saying that you can't talk about yourself as distinct yourself as a whole person and you know as you know psychological continuity with your past experience as being distinct from the person and psychological continuity of some other person right. Obviously we have to be able to conserve those data it's not fundamentally mysterious that you're going to wake up tomorrow morning still being psychologically continuous with your past and not my past right and and you know if we swapped lives you know that would you know demand some explanation. So the illusoryness of the self doesn't cut against any of those obvious facts so the sense of self that is illusory. And again we might want to talk about self and other modes because there's just a lot of interest there psychologically and you know ultimately scientifically. The thing that doesn't exist certainly doesn't exist as it seems and I would I would want to argue that it actually is just a proper illusion. Is this the sense that there is a subject interior to experience in addition to experience so most people feel like they're having an experience of the world and they're having their experience of their bodies in the world and in addition to that they feel that they are a subject internal to the body and very likely in the head most people feel like they're behind their face as a kind of locust of awareness and thought and intention and and and that it's almost like they're your passenger inside your body you know most people don't feel identical to their bodies and they can imagine this is sort of the origin the psychological origin and you know the folk psychological origin of a sense of that there's there might be a soul that survive the death of the body I mean most people are are what my friend Paul Bloom calls common sense dualists right you you you used to the default expectation seems to be that. Whatever the relationship between the mind and the body. There's this there's some promise of separability there right that the and whenever you really push hard on the science side and say well no the mind is really just what the brain is doing that begins to feel more and more counterintuitive to people and there still seems some some residual mystery that you know at death maybe something is going to lift off the brain and go elsewhere right so there's a sense of dualism. That many people have and obviously that that's supported by many religious beliefs. But this feeling it's a very peculiar starting point with the people feel that in it you know they don't feel identical to their experience right as a matter of experience they feel like they're on the edge of experience somehow appropriating it from the side you kind of on the edge of the world and the world is out there your body is is in some sense an object in the world which you you know it's different from the world you know the boundary of your skin is still meaningful you can sort of loosely control your body and you can't control you can control your gross and subtle you know voluntary motor movements but you can't you're not controlling everything your body is doing you're not controlling your heartbeat and your you know your hormonal. Hormonal secretions and all of that so there's a lot that's going on that is in the dark for you and. Then you take you you give someone an instruction to meditate say and you say okay let's examine all this from the first person side let's look for this thing you're calling I. And again I is not identical to the body people feel like their hands are out there and they're good when they're going to meditate they're going to close their eyes very likely and now they're going to pay attention to something they're going to pay attention to the breath or sounds and it's from the point of view of being a focus of attention that is now aiming attention strategically at an object like the breath that there's this dualism that is set up and ultimately the ultimate promise of meditation I mean they're really two levels at which you could be interested in in meditation. And one is you know very straightforward and remedial and non paradoxical and very well subscribed and it's it's the usual set of claims about all the benefits you're going to get for meditation right so you're going to lower your stress and you're going to increase your focus and you're going to you know stave off cortical thinning and others all kinds of good things that science is saying meditation will give you. And none of that entails really drilling down on this paradoxical claim that the self is an illusion or anything else of that sort but from my point of view the real purpose of meditation and its real promise is not in this long list of benefits and I'm not discounting any of those though you know the science for many of them is quite provisional. It's in this deeper claim that if you look for this thing you're calling I if you look for the sense that there's a thinker in addition to the the the mirror rising of the next thought say you won't find that thing and and you can what's more you cannot find it in a way that's conclusive and that matters right and it has a there's a host of benefits that follow from that discovery which are quite a bit deeper and more interesting than engaging meditation on the side of its benefits you know de-stressing increasing focus and all the rest. I have a number of questions related to what you just said and first of all I agree that the evidence that meditation can improve focus reduce stress etc it's there it's not an enormous pile of evidence but it's growing and I think that especially for some of the shorter meditations which I these days view more as perceptual exercises you know talked about this on the podcast before but for those haven't heard it before about you know perception you can have extra perception extending things beyond the confines of your skin interoception which is also includes the surfaces of the skin but everything inward and meditation through eyes closed typically involving some sort of intentional spotlighting something will get into to more interoceptive versus extra-oceptive events etc including thoughts and so I think of at a basic level meditation as a somewhat of a perceptual exercise. You can tell me where you disagree there and I would expect and hope that you would but I would like to just touch on this idea that you brought up because it's such an interesting one of this idea that our bodies are containers and that we are somehow somehow we are ourselves as passengers within those containers that's certainly been my experience and the image that I have is of as you say that is of myself or of people out there that sit a few centimeters below the surface or that sit entirely in their head and of course the brain and body are connected through the nervous system I think sometimes a brain is used to replace the nervous system and that can get us into trouble in terms of coming up with real real directions and definitions but the point is that there is something special about the real estate in the head I think for as much as my laboratory and many other scientists are really interested in brain body connections through the nervous system and other organ systems of the that the nervous system binds that if you cut off all my limbs I'm going to be different but I'm fundamentally still Andrew whereas if we were to lesion a you know a couple square millimeters out of my parietal cortex it's an open question as to whether or not I would still seem as much like Andrew to other people into myself even and so there is something fundamentally different about the real estate in the cranial vault right we don't remove both of my eyes I'd still be Andrew and those are two pieces of my central nervous system that are fundamental to my daily life but I'd still be me whereas and this doesn't I think just apply to memory systems I mean I think there are reasons of the frontal cortex that when destroyed have been shown to modify personality and self perception in dramatic ways so it's a sort of obvious point once it's made but I do think it's worth highlighting because there does seem to be something special about being in the head the other thing is that sitting a few centimeters below the surface or riding in this container makes sense to me except I wonder if you've ever experienced a shift as I have when something very extreme happens let's use the negative example of you know all of a sudden you're in a fierce state all of a sudden it feels as if your entire body is you or as me and as and now I need to get this thing the whole container and me to some place of safety and one whatever form this is also true I think in ecstatic states you can feel really when people say embodied I wonder whether or not we normally oscillate below the surface of our body when I say oscillate I mean in neural terms I mean maybe our sensory experience is not truly at the Xuan Li surface but sits below the bodily surface more at the level of and within our head, and then certain things that jolt us our autonomic nervous system into heightened states, bring us into states of, you know, bring us closer to the surface and therefore include all of us. Again, I don't want to take us down a mechanistic description of something that doesn't exist, but does any of that resonate in terms of how you are thinking about or describing the self? Yeah, yeah, there's a lot there. First on the point of the brand being, you know, the locus of what we are as minds. Yeah, I mean, there are people who will insist that sort of the whole nervous system has to be thought of as they will be talking about our emotional life and you know, the insolence connection to the gut and just the sense of self extends beyond the brain, but I totally take your point that a brain transplant is a coherent idea and you would expect to go with the brain rather than with the viscera. And so in that sense, we really are the old philosophical thought experiment of being a brain and a vat. I mean, we essentially are already, you know, the vat is our skull and we're, you know, virtually in that situation. The horrible movie, I'm sorry, I can't help but interrupt. When I was a teenager, my sister and I used to go to the movies every once in a while, we trade off who could pick the movie and she took me to see once the movie boxing, Helena, the David Lynch film where he amputates the limbs of a woman who he's obsessed by and keeps her. It's a really horrible film. And about 20 minutes into it, my sister just turned to me and said, I'm so sorry. And the question there and was whether or not two siblings should actually persist in a movie like that. We decided to persist in the movies so that we could laugh about it later. But it was rather disturbing. I don't recommend the movie nor do I recommend seeing it with a sibling. But in that movie, the woman, he takes her as a container and restricts her movement, right? Quite sadistic and horrible thing really. David Lynch, interesting mind, perhaps. But the idea was that was to question how much of the person persists in the absence of their ability to move, et cetera. Could there be love? Could there be these other affections? Anyway, a rather extreme example. But one that I that still haunts me in his wisdom thinking about still. Yeah. Well, so just to follow that point, there's a lot about us that we don't have access to unless we enact it physically. Like, if I ask you, do you still know how to ride a bike? Right. There's no place in your memory where you can inspect, but you know, just sitting in your chair that you've retained the knowledge of how to ride a bike. Like, it's a procedural memory is different from semantic or episodic memory. If I asked you, do you know, do you know your address? Yes, you can recall your address just sitting there. But if you had had a micro stroke that neatly dissected out your ability to ride a bike and left everything else intact, you know, you might think you could ride a bike, but suddenly you stand up next to one and you have no idea what to do with it. And that would be a discovery that would only happen if you were, you know, motorically engaged with that, you know, object. And I'm sure there's, you know, we could probably come up with a hundred things about us that really seem core to us. And we, and, and unnoticed parable for our, you know, from our, you know, personhood, which seemed to only cut, you know, only get invoked when we're, you know, out there moving in the world and, you know, we have the limbs, etc. But yeah, no, it's the seat of, of consciousness. I mean, the right framework to talk about all of this, from my point of view, is consciousness and its contents, right? So we have consciousness, the fact that there's something that is like to be us, right? The fact that the world and our internal experience is illuminated that it has a qualitative character. And then there's the question of what is that qualitative character? What is it, you know, what kinds of information do we have access to? What does it feel like to be us? How do, how do different states of a rousal change that? So you talked about fear? Yeah, I mean fear can change a lot of things, but and, you know, various neurological deficits or, you know, you can add drugs to the mix. You add psychedelics that you radically transform the contents of consciousness. From my point of view, consciousness itself is simply the, the cognizance, the awareness that is the, the floodlights by which any of that stuff appears, right? So consciousness doesn't change, but its contents change. And to come back to meditation for a second, many people think meditation is about changing the contents of consciousness. You know, there's some, some contents you want to get rid of, like anxiety, other contents you want to, to encourage, like, calm and, you know, unconditional love or, you know, some other, you know, classically pleasant, prosocial emotion. And that's all fine, that's all possible. But the real, you know, wisdom of, you know, the 2000 year old wisdom of meditation, it really is the, you know, the, the chewy center of the, the toasty pop is a recognition of what consciousness itself is always already like, regardless of the contents and the changes in contents. And this is why, and then what we might talk about this, but this is why they're mutually compatible, psychedelics and meditation from here somewhat orthogonal, because psychedelics is all about making wholesale changes to the contents of consciousness. And, and there's a, you know, some wonderful consequences of doing that. There can be some heroin and terrifying consequences of doing that, but generally speaking, I think, you know, you used wisely, they can be incredibly valuable and, and the therapeutic potential, there's enormous, but the crucial disjunction here is that there really is something to recognize about ordinary waking consciousness, that the consciousness that's compatible with my driving a car to get here on time, right? You know, you don't have to, you don't have to have the pyro techniques of being on LSD to see the, the, the, the, the, the, the, the, to transcend the central illusion that I'm, I'm saying is, is the thing to be transcendent, which is the sense that there is a duality between subject and object in every moment of experience. And to take it back to, to something you said about just all of our different modes in ordinary life, the interesting thing is I think people are constantly losing their sense of self, and they're not aware of it. And I mean, there, there's a, um, probably an analogy to the visual system here, which is, um, to, uh, visual saccades, which they perhaps have spoken about at some point on your podcast. Not enough. So please. Yeah. Um, so, so what happens with our, you know, every time we move our eyes, this is called a, a saccade, and we do that about, you know, three times a second or so, uh, just normally, um, there is a, you know, the, the reason a motor cortex that, that affects, that movement sends what's called an efferent copy of that motor movement, uh, which, which is used as information that propagates back to visual cortex, that suppresses, uh, the data of vision while the eyes are moving. Because otherwise, if you weren't doing that, every time you moved your eyes, it would seem like the visual scene itself was lurching around. And people can experience this for themselves. If they just, you know, touch one of their eyeballs on the side, you know, not all that hard and kind of jiggle it, you know, and then they can roll it around. You can jiggle it from side to side. You can see that a, a, um, a movement of the eyeball that's not governed by your ocular motor system delivers a jiggling of the world. Because it's not your brain is not anticipating it in the same way. And it's not, you're not producing it that same, uh, you know, predictive, uh, copy of the movement. It's a little bit like, um, uh, you have some action sports filmers on our staff here that the gimbal, you know, that holds a, an iPhone, like you see the kids with, uh, surfboards or skateboards or something, they're gonna hold a phone while moving around or the people who are the vloggers, they won't even still use that for his vlog. I'm just, uh, moving around into, it's, it's image stabilization essentially, um, that keeps the camera steady and these are more than cameras. Of course, the, for those listening to my eyes, but they do far more than just what a camera would do. But yeah, this internal system of image stabilization, yeah, I can see, uh, perhaps where you're going with this, that, that it allows us to remain in a self-referencing scheme as opposed to, um, the sort of paying attention to just how confusing it is to, to track the visual world at some level. Well, actually where I'm going is it. So people are having this suppression of vision, three times a second on average, and they're not experiencing it, right? So like, you're, like, you're literally like, you're, you're, you're effectively going blind and you're not noticing it. And, um, this is very fast. Yes, this is very fast. Now, there, there's an analogous, uh, suppression, I would say, of the sense of self that occurs every time attention gets absorbed significantly in its object, right? So like, we, we even have this concept of, you know, losing yourself in your work or, you know, losing your, I mean, the classic flow experiences have this, this quality where there's, and this, this tends to be why they're so rewarding. And, um, where there's just, if you're in, in some, you know, athletic activity or, you know, an aesthetic one, um, uh, or you could be having sex or you could be whatever it is, some peak experience, its peakness usually entails there being some brief period where there was no distance between you and the experience, right? There was, for that moment, you were no longer looking over your own shoulder or anticipating the next moment or trying to get somewhere where you weren't or, you know, micromanaging errors or, you know, like this, you know, this not, there's just the flow of unity with whatever the, you know, whatever the experience is, you know, a surfer on, on the wave, right? Um, and we love those experiences. Um, and then we are continually abstracted away from them by our thinking about them. I would think, oh my god, that, that was so good. How do I get back to that? Or, you know, you're looking at a sunset. It's the most beautiful sunset you've ever seen. And then you're continually interrupting the experience of merely seeing it with a commentary about how amazing this is and I wonder, you know, what are real estate prices are here? I mean, it's a possible actually because we could move here and like you, your, your mind is just continually narrating a conversation you're having with yourself, however paradoxically. I mean, you're telling yourself thing, you're, yourself things that you already know, uh, as though there were two of you rather often, right? Like, you know, you're just, you know, I'm looking for, um, you know, which, which is the water and I say, oh, there it is, right? But like, I'm the one seeing it. Who am I saying? Oh, the, you know, there it is too. So there's someone else who needs to be informed about the thing I already saw, right? So it's, it's, it's, there's something about our internal dialogue that is paradoxical. Is there any neurologic condition, um, close electomy or anything like that, where somehow people feel more unified with the cell phone and a continual basis, um, the observer and the actor within whether it stayed more, more, um, as a, as a complete sentence, is there any known neurological syndrome, makes it sound like a bad thing, but it could be a good thing whereby people feel that the actor and the observer within them are unified continually. There's not a pathological one. I mean, some of them, the work on the default mode networks suggests that that's at least part of the story, right? So the default mode network, um, which has been talked about a lot of late because it has come up both in the, in the meditation literature and in the psychedelic literature. Um, but its original, uh, discovery was that, you know, and the reason why it was called the default mode was, was that in virtually every neuroimaging experiment ever run, they found that between tasks when the brain was just in its default state, these, these midline structures would, would, would increase their activity. Uh, and then they would, then they would reliably diminish whenever the person in the scanner was, was on task. And usually that meant some kind of outward looking, um, you know, visual discrimination task. I mean, but it could be, it could be, you know, it could be visual, it could be semantic, it could be, but there, it tends to be their eyes are open and their pain attention to something that's being broadcast to them through, you know, monitor goggles, um, or, you know, they're looking at a mirror that's showing them a computer monitor. Um, but the, so the, the general insight was, there are these midline structures in the brain that seem to be, uh, increasing their activity when the brain is just kind of idling between tasks, waiting for something to happen. Um, and then further experiments found tasks that actually upregulated, um, uh, activity there, you know, beyond baseline. And those tasks seem to be self-referential so that when you ask people, you know, you give them a list of words and you say, would do these, any, any of these apply to you, right? You know, and so people are, or, or you ask people to think about, um, uh, you know, actually one experiment I did when you, you know, when you're challenging people's beliefs, uh, when you're challenging beliefs that, that have more of a personal significance like political or religious beliefs, you get an upregulation in these regions as opposed to just generic beliefs about, you know, you're in Los Angeles, this is a table, you know, there's something to which, you know, people are not, you know, uh, holding fast as a matter of identity. Um, so anyway, both meditation and psychedelics seem to suppress activity in these, in these regions, which we know are associated with both self-talk, mind-wondering, and, and explicit acts of self-representation, right? So, could we say that they are somewhat autobiographical, because they access memory systems and in the way you're describing them and in the way that a colleague of mine who's been a guest on this podcast, I don't know if you've interacted with him before, but I think you'd very much enjoy whatever interaction you do, would have his, um, David Spiegel, he's our associate chair of psychiatry, he's, uh, he and his father actually, his father, then he founded, um, hypnosis as a valid clinical practice in psychiatry, and hypnosis, which is, obviously, a heightened sense of attention with deep relaxation is known to dramatically suppress the the default mode network. Uh, he talks about this a lot, and I, I always wonder as we, um, take down activity within the default mode network, what surfaces it in its place, and is what surfaces in its place, um, does that somehow reflect that the two are normally in a push pull, because that's not necessarily the case, right? When I fall asleep, I can hallucinate, but that doesn't mean that during the day, my, uh, the fact that I'm looking at objects is, is what's preventing me from hallucinating. If I close my eyes, I can get imagery, but, you know, there's this kind of, uh, uh, a different illusion, the illusion of antagonistic circuitry sometimes. Um, I don't want to take us off course, but the default mode network seems to, um, want to be there. Quite a quote. It seems, it seems to be fighting for, for our attention, um, unless we give ourselves a visual target at an auditory target or some salient experience of some kind, it sounds like. And then if, um, I'm surprised to hear that meditation reduces activity in the default mode network at some level, because meditation to me oftentimes involves, um, paying attention to a some sort of perceptual target. Yeah. Maybe you could, um, eventually explain us to, uh, how it might do that or why it might. Yeah. And I don't, I don't think it's the whole story, because obviously, outward going attention is not, um, even if you're having the kind of egoic saccade that I'm talking about where you're like, you're actually not clearly aware of, of yourself, you're not clearly defining yourself as separate from experience, um, for the moment of paying attention. So you are sort of losing yourself in your work. That's not the same thing as having the clear meditative insight of selflessness that I'm, that I'm claiming is the goal of meditation. Um, but there is a, you know, to, to wind back to the original point I was making and the reason why I drew the, the analogy to visual saccades, I do think there's a continuous interruption in our sense of self that goes unrecognized. And, um, but, but, but the conscious acquisition of, of the understanding that the self is an illusion is a different experience. And it's, I mean, because you're, you're then, you're then focusing on this absence. Actually, there's another analogy to the visual system that applies here, which is to the, the optic blind spot. I mean, it's like so, um, which is a good analogy for me because it cuts through a, a bunch of false assumption as to where we kind of have where that you would look for this or how this relates to ordinary experience. So as many people know that we have, you know, in both eyes, we have, um, what's called the blind spot, which is a consequence of the optic nerve transiting through the retina. I mean, unlike, uh, cephalopods, I think, I mean, I think cephalopods, uh, have their optic nerve, you know, as, you know, a, a, an omniscient being would have engineered it, connecting the retina from the back. And therefore there is no blind, the area of, a blindness associated with its transit back through the retina, but our photo receptors on the outside. Exactly. Yeah. Humans, whatever reason, uh, put photos, well, I always say I wasn't consoled the design phase. Something, uh, put a photo receptors, um, combination of things, but photo receptors in the back. And so you, you actually have to send the high wave information through through the pixel center of the, of the eye. Yeah, cephalopods and, uh, Drosophila, uh, basically, um, uh, invertebrates. Right. Uh, the design is more at its face logical mammals, very illogical design, at least as far as our judgments. Yeah. But it, it gives, it gives me a good analogy. So I'll, I'll take it. I'd like to take a brief break and acknowledge our sponsor, athletic greens, athletic greens is an all in one vitamin mineral, probiotic drink that also contains digestive enzymes and adaptogens. I started taking athletic greens way back in 2012. So that's 10 years now of taking athletic greens every single day. So I'm delighted that they're sponsoring this podcast. The reason I started taking athletic greens and the reason I still take athletic greens is that it covers all of my foundational nutritional needs. So whether or not I'm eating well or enough or not, I'm sure that I'm covering all of my needs for vitamins, minerals, probiotics, adaptogens to combat stress and the digestive enzymes really help my digestion. I just feel much better when I'm drinking athletic greens. If you'd like to try athletic greens, you can go to athletic greens dot com slash huberman. And for the month of January, they have a special offer where they'll give you 10 free travel packs plus a year supply of vitamin D3 K2 vitamin D3 and K2 are vital for immune function metabolic function hormone health, but also calcium regulation and heart health. Again, that's athletic greens dot com slash huberman to claim their special offer in the month of January of 10 free travel packs plus a year supply of vitamin D3 K2. So in any case, we have this blind spot which you can, I think most people learn this in school, although my daughters had not been taught this in school. I just showed them this for the first time like a month ago, which and they were briefly fascinated and then want to return to their screen time. But anyway, you can take a piece of paper and you make two marks on it and then you cover one eye and you fixate on one mark. I mean, you can look this up online if you need details about how to do this. And you, while staring at one fixation point, you move the paper back and forth and you can get it to a place where the other mark disappears and that and you can run this experiment long enough to satisfy yourself that there is in fact a blind spot in your visual field, which with one eye closed, you don't normally notice. The reason why you have to cover one eye is because each eye compensates for the blind spot of the other. So, but what just to say that if you close one eye and survey the visual scene, something really is missing, whatever you're looking at. If you're looking at a crowd of people, somebody is missing ahead and you're not noticing it and it's not it's not easy to notice because you know, the brain doesn't tend to vividly represent the absence of information. I mean, it's just like this is part of the game that's not being rendered. It's not it's not showing up as a a break in your in the visual field. It's just not there and you're, I mean, the people have argued that there's a kind of filling in phenomenon that happens, but I think that can be, you know, misunderstood or exaggerated. But the eye movements themselves that you described before, I guess I should say that the the the saccade analogy of about transiently and repetitively erasing the self works perfectly here because indeed, micro sacades, smaller saccades occur all the time also prevent our eyes from fixating it one location long enough to observe our blind spot even if one eye is closed. So, if we the the experiment is done with paralytics to essentially lock eyes at one location, basically things just start disappearing. Yeah, it just makes all of the thing that we start losing, but actually we start going blind. And those experiments have been done and on humans that I hear they're quite terrifying. Yeah, yeah. But I mean, you can do that for yourself. It just, you know, begins to just all melt away and an and a warm glow, no psychedelics required. But the the interesting point there is that when you ask yourself, okay, so this because of as a consequence of the eyes anatomy, there's this this thing you can see that is absent from your experience. But the question is, where is that in relationship to the rest of you, to your mind, or at least that deep within or is that in some sense right on the surface of experience? And there's there's expectation that people have, again, I think conflating meditation with with a search for changes in the contents of consciousness, they're looking for, you know, much more subtle things to to notice about the mind or much, you know, vaster things to notice. Psychedelics sets up this this expectation that you do, you know, a massive dose of mushrooms or LSD and everything changes. I mean, you just get this full, you know, de-atific vision. And, you know, you get, you know, not only visual changes, but, you know, emotional changes and you get synesthesia where like you're just, you have much more mind in so many ways. So they begin to, you have in these experiences, or reading the mystical literature, you begin to think, okay, well then freedom is, is really elsewhere, or is it really it's deep within. It's like it's not, it's not coincident with the ordinary awareness that can, can see this coffee cup clearly and that can just transition attention to, you know, reading an email, you know, with the full sobriety of just, you know, ordinary waking consciousness. But the truth is this insight into selflessness, this insight into the non-duality of subject and object is as close to ordinary consciousness as this insight into the optic blind spot. Like, where do you have to go to have this insight into the blind spot? No, you just have to, if you're going anywhere, you just have to set up the the experiment correctly, such that, you know, you, you can see the data, but the data is right on the surface. It's like, it's, it's almost too close to you to notice. I mean, if it's at all hard to notice, it's because it's so close rather than it's, you know, deep within or far away. And there are other analogies like, I don't remember those minds, I, pieces of artwork that were the random dot stereo grounds where you have an image that pops out. I always find it very difficult to see those because I have, you know, very dominant eye, you know, but some people can't see those. These are these images that used to be at the kind of like touristy shops of a, but people say, oh, there it is, the whale, I don't think I don't see it. You know, kids that swim a lot when they're younger and they tend to breathe just to one side. I don't know if this was you. This is definitely the tend to, will keep one eye close. You set up a pretty strong, an ocular dominance. Bicing your vision to one or the other eye early in life, whether you're learning how to be a bow hunter or you're learning how to throw darts or shoot billiards or anything involves selectively viewing the world through one eye for even a couple of hours can set up a permanent asymmetry in the weighting of visual flow, flow of visual information from the eye to the brain. It's reversible, but only through the reverse gymnastics of covering up the other eye intentionally. So I actually, I had to be reverse patched for a while because I was seeing double because I lost binocular vision. I don't stand a chance in hell of seeing an image pop out of a random poster. It was kind of ironic because I did my PhD on binocular circuitry. But nonetheless, if people can see these, or if they can't, I think they provide a really terrific example of what you're talking about as a larger theme, which is that perceptually you see a bunch of dots and then all of a sudden right what you thought wasn't there or suddenly there, but can disappear again or there are certain visual illusions if we were to include others that once you see them, you cannot unsee them. Right. So there's the faces, faces, you know, figure ground type stuff. Yeah, it's a bit bicepable percepts. Yeah, bicepable percepts. And then there's sort of ocular competition. You show two different images to the eyes that each of the two eyes. It is near impossible for people to perceive them both simultaneously. Yeah. So it's a little bit of what you're describing. I mean, these seem to be fundamental features about the way the neural circuits are organized that they don't want to stably, they don't want to stay fixated on any one thing for very long to do so either takes training, intense interest, intense fear, intense excitement. And I say intense, I guess I come back to this idea that the autonomic nervous system is somehow governing our ability to spotlight at any one location for very long. Does that is that a useful framework or is that going to take us down a different path? Well, it's sort of a different path for this. I mean, for the only point I was making is that the seemingly paradoxical claim that something can be right on the surface and yet hard to see. Right. So like there are things that are because it's and again, this this this seems to justify the expectation held by I would think you know the vast majority of people who get interested in these, you know, spiritual things, relax for a better word. That the truth must somehow be deep within, right. Like there's really like there's some distance between where you're between the one who is looking and the thing that has to be found, right. And you have to go through this this long evolution of changes. I mean, the many metaphors that set this up is like you're at the base of a mountain and you have to climb to the top. And so you have to find the path however secure secured us to get you there. But there really is a distance between where you're between your starting point and the goal. And what I'm arguing at you know, and this is a kind of a non dual to use a term of jargon. This is a non dual approach to meditation as opposed to a dualistic one that there really is a the path and the goal are coincident, right. That there's a that you have to unravel the logic by which you would seek something that's outside of the present moment's experience. You know, IE not available really not available to you now. Because so many things worth having. So many so many skills worth acquiring really are not available to you now. It's like it's like, you know, if you want to be a pianist or if you want to speak Chinese or if you want like like the you there's something you don't know. And then you want to learn that thing. And there's a whole process, right. And you might not be capable of doing it, right. You might and and real mastery is far away, right. If you if you've never hit a golf ball and you want to hit a golf ball 300 yards straight. Right. You know, I can pretty much guarantee you're not going to do that initially and you're not going to do it, you know, on day two and you're not going to do it reliably for the longest time. And there's real training, you know, in front of you to to be able to do that reliably. An insight into and really the core insight. I mean, the the insight that is the core of, you know, the Buddha's teaching to take one one historical example of this. Really is available now. And it is not I mean, you know, granted, it can be very hard one for people. I mean, I had probably spent a year on silent retreat in in, you know, one week to three month increments before I sort of got the point I'm making now, right. So like I, you know, it's quite, it's I mean, literally and this is these are, you know, is a retreats where he's been, you know, 12 to 18 hours a day, just meditating, trying to unpack the kinds of claims I'm, you know, making now. So there is it's possible to rigorously overlook this as possible to stand in front of the mind's eye image and stare in a way that is guaranteed not to give you pop out, right. And to be to be adept at, you know, staring in that way. So it's possible to be misled. And so what I'm what I'm trying to argue here is that there's a fair amount of leverage you can get with with better information, which can kind of cut the time course of you are searching for this thing and, and kind of cancel your false expectations about just where this is in relation to your ordinary waking consciousness. And it's possible to get bad information and to have a bunch of experiences, you know, you go, you go and do an ayahuasca trip and you have it's incredibly valuable and is valuable for all the ways in which it changed the contents of your consciousness in, you know, startling ways. And you had insights into your past and into your relationships and into why you're not as loving as you might be and there's lots to think about. And you're like, yeah, that's all great. That's all something that, you know, you can talk about. But there is, it truly is orthogonal. I mean, if it makes a point of contact to what I'm talking about, it's really interesting. One point, you know, and it's at the point where this sense of subject object division in consciousness is illusory and vulnerable to investigation. And if you investigate it, that's sort of the right plane of focus. You know, you pick the analogy you want from, you know, whether it's, you know, setting up the, the, um, the optic blind spot experiment in just the right way so that you can see that, you know, it's actually not, the data is not there. Or, um, I mean, the by-stable percept is great because, you know, when you see one of these images, like the the vase, face, um, diagram or, you know, the Dalmatian, you know, that it looks like it's just a mess of dots. And then you see the image of a Dalmatian dog pop out. Once you see it, you really can't unsee it. I mean, well, like, once you have the requisite conceptual, you know, anchor to it, then every time you look, you're going to find it again and eventually becomes effortless. And that's what ultimately meditation is. I mean, this kind of meditation, you ultimately learn to recognize that there's no separation from you between you and your experience, right? There's not the experience on the one hand and the self on the other. There's just experience, right? There's just seen hearing smelling, tasting, touching, thinking, feeling, you know, proprioception, ad, ad, whatever channels of information you want to that. But there's just the, there's just the totality of the energy of consciousness and its contents. And there's no, it's not that you're on the river bank. And this is, this is how it can seem in the beginning, even when you're practicing meditation fairly diligently. It can seem like you're on the river bank watching the contents of consciousness flow by. And then and meditation is the act of doing that more and more dispassionately. So you're no longer grabbing at the pleasant or pushing the unpleasant away. You're just kind of relaxing and in the most non-judgmental frame of mind, just witnessing the flow, right? But if you're doing that dualistically, you feel like the meditator, you feel like the subject aiming attention. And so now you're on the river bank watching everything go go pass. But the truth is you are the river, right? Experience itself is there is just experience itself. You're not, you're not on the edge of experience. And everything you can notice is part of the flow, right? And there's no point from which to abstract your self away from the flow to stand outside it and to say, okay, this is, this is my life, this is my experience. This is my body. Yes, you can do that. I mean, those are all just thoughts, but that's more of the flow, right? And so there is a there's a process by which you would eventually, eventually recognize that there's no distance between you and your experience. And again, you can, you can wait for those moments in life where experience gets so good or so terrifying, you know, it's just so salient, right? Your amygdala is driving so hard. I mean, so you're in in a war and you can't think about anything because the you know, the enemy is shooting at you. And this is the most thrilling video game you've ever played in your life. And your life is on the line or your your you know, at the peak of of some, you know, athletic event where there's just, you don't know how you're doing the things you're doing, but it's all happening automatically, right? But you know, those are those are, you know, one one hundredth of one percent of one's life, you know, and you know, what I'm calling meditation is a way of simply understanding the mechanics of attention whereby you are denying yourself that unity of experience so much at the time and recognizing that that's, you know, it's based on a misperception of the way consciousness always already is. Well, if there wasn't an incentive to learn how to meditate properly, um, that was one. And I've been meditating for a fair amount since I was in my teens, but more along the lines of just paying attention to breath and, you know, recognize thoughts sort of observer, open observer type meditation or focused attention. I would suppose more of the focused attention type will get into these a little bit later. But I have a number of questions related to what you just said. Sure. I love the idea that this thing that we would all do well to understand to observe consciousness itself as opposed to trying to alter the contents of consciousness may sit much closer to us than one might think that it, and that because it sits so close to us that that might be one of the reasons why we miss it. I go right to a visual system example. I mean, if you don't, you're wearing corrective lenses and there's a spec on your lens, you know, typically you're looking out through the lens and so you wouldn't observe that spec. Any number of different analogies could work here. The fact that there are states however few positive and negative, X to C8, extreme X to C and extreme fear being the two, I think most obvious ones that seems like we agree on that allow us to capture the sense of completeness of self or the unity of the observer and the actor. The fact that those are seldom for the non-trained, for the non-meditator suggests to me two things. I think one perhaps worth exploring more than the other, but one is that what's really being revealed in the states where we can feel the unity of the observer and the actor is understanding something fundamental about the algorithm, not the online algorithm, but the algorithm that is our nervous system. Just as you mentioned, cephalopods, I mean, mantis shrimp, sea, and enormous array of color hues that we don't. Right? Their maps and representations of the world are fundamentally different, pitvipers, sea and the infrared. We're restricted to some of a limited range within the color spectrum, but still more vast than that of dogs or cats. Okay. So understanding that for seeing what a pitviper can see for moments would be informative, perhaps sensing heat emissions as a human might be invasive. That maybe that's why we don't do it. So the question is to just make it straightforward is why would the system be designed this way? Again, neither of us were consulted the design phase, but that brings me to perhaps the more tractable question was, which is about development. I mean, I'm a great believer that the neural circuits that encouraged healthy parent-child relations or unhealthy parent-child relations, as the case may be, in childhood stem from the initial demands of internal versus external states, which is exactly that we're talking about, which is that a young child feels anxious because it needs its diaper change. This doesn't really know it needs its diaper change or it's cold, where it's uncomfortable, or it's hungry, where it's overly full. And so it vocalizes, and then some external source comes to us and relieves that, hopefully. And so the fundamental rule that we first learn is not that we have a cell for that things fall down, not up, but is that when uncomfortable, externalize that discomfort, and it will be relieved by an outside player. And then, of course, there's a repurposing of that circuitry for adult romantic attachments. I don't think anyone doubts that, and that can explain a lot, indeed, about attachment and so forth. So something about our developmental wiring and the algorithms that these neural circuits run tend to bias most people, the non-practice meditators, to live a somewhat functional life, at least, without this awareness of actor and observer. And so what you're really talking about is a deliberate intervention to understand and resolve that gap in the algorithm. Is that, do I have that right? I'm more or less restating what you said in a way that I'm hoping will serve as a jumping off point is to, you know, why questions are always very dangerous in biology or any, you know, and in relationship. Or in relationship. Or in relationship. Right, exactly. Although I think it all does really harken back to this early developmental wiring, which of course is modifiable. That's the beauty of the nervous system, is it's the one organ that seems to be able to change itself, at least to some degree. So what are your thoughts about the organization of the circuitry to essentially under normal conditions to not reveal? It's what seems to be one of its more important and profound. And for, you know, dare I say enlightening features, right? It's almost as if we are potentially like mantis shrimp. We can see so many more colors than we actually see. And yet we don't. We sort of, most people opt not to. And I would argue that one of the great strengths of the waking up app, for instance, that it essentially walks you through the process of being able to arrive at these things without having to go to one year or three year long silent meditation retreats. So if you just elaborate from home before we move on about, you know, what are your thoughts about how the circuitry is arranged by default versus that the and what that means for there to be an an intervention that we have to intervene in the self in order to reveal the self. Well, so the two big questions there, one about evolution, one about development. So with respect to evolution, I mean, it's important to recognize that evolution doesn't see our deepest concerns about human flourishing and human well-being, you know. It's all about the else. It's just, you know, you we are set up to spawn and to survive long enough to to help our progeny spawn if we can do that. And that's it, right? And so anything that was good for that, including, you know, tribalism and xenophobia and, you know, all kinds of hardware and software flaws that are that are reveal themselves to be flaws in the present time when we're trying to build a viable global civilization. But, you know, they they were down to the advantage of our ancestors somehow or they just there's there's things about as that were simply not selected for. They just kind of came along for the ride, you know, the, you know, what Stephen Jake will call a spandrel, you know. So we are not set up by evolution to be as happy as we possibly can be. And certainly and to do almost anything that interests us well. I mean, we're not set up by evolution to be mathematicians or musicians or to to create democracies that are healthy. I mean, evolution can see none of this. And we're doing these things based on cognitive and emotional hardware that we are leveraging in new directions, right? And we have we are primates. And we are, you know, we're communicating with, you know, small mouth noises. I mean, we're language using primates and all of that is clearly evolved. And we're doing these amazing things, including science, you know, however, improbably, we're actually able to, you know, almost entirely with language, understand reality that at a scale that exceeds us in both directions. I mean, the very, the very vast and the very small and, you know, also temporarily, the very old. We have, you know, visions of the far future. We can figure out, you know, where an asteroid is going to, you know, cross Earth's orbit a thousand years from now. If we just do the math and it's amazing that we can do all of those things, but evolution is blind to all of that, right? And so we have, in terms of what we care about and certainly in terms of what we, what's going to ensure our survival as a species, we have flown the perch that was created for us by evolution. I mean, we're just not, it's not just the primate things. And so it is with learning how to regulate our emotions and, and, you know, punch through to a self-concept or beyond a self-concept that is more normative psychologically, that allows us to, you know, not be terrorized by our apish genes as fully as we seem to be, even in the presence of more and more destructive technology that I mean, like, you know, we're, we're still practically chimpanzees armed with nuclear weapons, right? And that is, you know, increasingly dysfunctional. And very soon we're going to be in the presence of minds or apparent minds that we have built, you know, that are as intelligent as we are, or and very quickly, you know, probably 15 minutes after that, far more intelligent than we are. And so what we do with all of that is, again, something that we have to figure out based on the minds we have, the minds we can build, the minds we can change, you know, we can, we can metal with our own genomes now. And, and that will produce its own consequences, you know, in ourselves and in future generations, if we've metal with the germ line. And again, all of that is just, you know, you know, evolution is just sort of the womb we came out of, but it's not, it didn't anticipate any of that, right? So, so the, you know, mother nature has simply not had our best interests at heart, right? And it's, we might die off and, and from the point of view of mother nature, that's, that's fine because 99% of every species dies off, you know. So there's that, but when you're talking about the individual developmentally, so, you know, we all come into this world again as a, as a fairly hairless primate that needs a tremendous amount of care by others. And the logic of that is that, you know, you know, the reason why we're not a gazelle that can, you know, run, you know, 45 minutes later, and then basically do all the gazelle things perfectly soon thereafter. The reason why we have, you know, we have this, this time of, of immaturity. And that becomes, has become functional for us is that it's just we, we're far more flexible and we can learn based on the needs of, of an environment to do, you know, so much more than a gazelle can and language is a part of that. And, you know, in the last 10,000 years or so culture increasingly has been more and more a part of that. And there's a probably a layer at which we can plausibly talk about cultural evolution, you know, and cultural evolution interacting with biological evolution to, to changes. But when you're talking about the development of an individual, each of us comes into this world, I think, not recognizing ourselves in any, in any sense that, would make sense to, to reify. I mean, it's not that there's nothing there. I mean, there could be some kind of proto-self differentiation. But I think it's, it takes a, it takes a long while and there is very likely a coincidence between really recognizing, recognizing others, we recognize others first and we're in certainly in relationship immediately and we orient to human faces and, and we, you know, even detect other humans as good and bad moral actors very early. I mean, certainly long before we recognize ourselves in a mirror, we, the experiments run, again, this is Paul Bloom and, and colleagues experiments run on kind of the moral hardware and software of developing toddlers. But I think at this point, they push it down all the way to like six months of age where you'll get these infants staring at kind of a puppet show and they'll, they'll show a, and a, a greater interest in, you know, in a classically good actors versus bad actors, you know, cooperators versus, you know, defectors in various, you know, puppet show games. So there's, it's not that we have no mind and no, um, proto awareness of others and, and of self, but what eventually happens, certainly as we become at all facile with, with languages, is that we become aware that, that not only are we in relationship to others, but we are an object in the world for them, right? So that like, we have enough people pointing at us in our cribs, right? And impinging upon our experience, right? You know, you, you're, you're being physically moved and prodded and touched and consoled or not consoled. And just imagine what all of these, you're on the receiving end of 10,000 interventions, right? And you're completely helpless for the longest time. Um, and all of that attention, you have all of these people coming up, you know, to the crib and, and making faces at you cheering, you know, and, yeah, and, and it's all pointed at you, right? So there's a, you know, there's a, you know, a classic magical narcissism that, that gets constructed there. If you, if you take the psychological literature, you know, you know, at least a certain strand of it, seriously. Um, and I think it's, it's largely apt to, to think of a child at that age as a kind of, um, uh, there's a kind of narcissistic structure there where it's, it's, it's all kind of going inward. And at a certain point, you realize, okay, I'm, I'm the center of all of this, right? Like it's not just, it's not just a, a movie that you're, that you're, you're, you know, what you're, that you're completely absorbed in and you've lost your sense of self. I mean, this is to talk about, to, to get another example of, um, of what it's like as a grown-up to lose our sense of self. And one of the things I think we find so fascinating by, you know, about television and, and film is that when we get totally absorbed in it, we're in this very unusual circumstance where we're, you know, our brain is basically reading it as we're in a, in the classic social circumstance, we're presented with, with, you know, the, the facial displays of other people. In fact, with, you know, we can get, some of the, sometimes these people are 10 feet tall, right? Or their faces are 10 feet tall, you really, but close up in a movie theater. So it's like this super stimulus in terms of, of evolution. And they could make it, they could be making direct eye contact with the camera, right? So you have this gigantic face staring at you and yet you're totally unimplicated socially. You can't be seen and you, and something about that, you know you can't be seen. And so you're completely, you completely lose self-consciousness and yet you're, you're, able to examine with completely free attention again, because you're totally unimplicated. Um, the, the, the, the facial minutia and the mimetic facial play of people, uh, from, at a very close range. I mean, you're seeing people close, I mean, you have to be, you know, physically just, you know, about to kiss your, your, your spouse, like that's what a close-up is in a film, right? Like that, you never get that close to people, right? Um, and yet hear you're in a situation where you're unobserved and you know that. And so, I mean, this is a bit of a tangent, but the, it's, it's the other side of what's happening developmentally for a kid. Um, when you're in a movie theater watching a movie, you are truly invisible. And yet you're right there seeing, you know, the, however harrowing the human drama is, you're seeing it play out and you're seeing it, you're, you're seeing it up close. And it is a, it is an, in principle, a social encounter that your genes are ready for, but they're not ready for you to be invisible, right? And so that's what's so, um, magical about it. But what happens developmentally for a kid is that you're not invisible. You are an object that is constantly being, being, um, overrun, the boundaries of your, you know, your, your sensory engagement with the world are constantly being impinged upon by others. And at a certain point, you recognize, okay, I'm at the center of this. And the, and the way this gets enshrined as a self, um, I think it's probably coincident with our learning the language game we, we learn to play with others. Where we're talking to others, people are talking to us. And at a certain point, we're talking to ourselves, even when the other people leave the room, right? So, and you can hear, if you ever have been with a toddler when they're, when they're, when they're externalizing their self-talk, you know, you hear them talking to themselves, they're playing and they're, and they're, they're having a conversation, they, they were talking to you, the parent, but then you left the room and they're still talking. You come back in and they're still, they're still talking, right? And what happens to us strangely, um, and this comes back to the logic of evolution, um, um, we never stop because evolution never thought to build us an off switch for this, right? I mean, the language is so useful and it gets tuned up so strongly for us. And there was never a reason to shut it off, right? There was never a reason to give you this ability to say, I, it wouldn't be nice if four hours of quiet now, like no self-talk. Um, and so for most of us, I mean, I think there are people who, for whatever neurological reason or, you know, it is aocratic reason. Undoubtedly, there's, there'd be a neurological reason for it. Don't have any self-talk, but for the, for most of us, um, we are covertly talking basically all the time and, and there's an imagistic component of this for many people, you're, you're visualizing things as well, but there's just a lot of, a ton of white noise in the mind that feels a certain way. And, you know, what I, what you discover in meditation ultimately is that the self is what it feels like to be thinking without knowing that you're thinking, right? A thought arises, uninspected, and seems to just become you. Right? So like, you and I are talking now and you know, you're, you know, people are listening to us. They're, they're struggling to follow the train of this conversation because it is competing with the conversation that's happening in their heads, right? So they'll be saying something and a person listening will say, well, what does that mean? Or like, oh boy, he just contradicted himself or like, you're, and there's a voice in your head that is also vying for your attention much of the time. And, um, so it's, you know, the first discovery people make in meditation is that it's just so hard to pay attention to anything, the breath or mantra or the sound, whatever it is, because you're thinking every, you're thinking about the thing you need to do in an hour and oh, it's so good that I downloaded this app. I'm like, this is really good. This is going to be good for me. But, and you're, but you're, that, that chatter isn't showing up. You're not far back enough in the, in the kind of the theater of consciousness. So as to see it emerge, it is just sneaking up behind you and it feels like me again, right? It feels like when someone is thinking the thought, what the hell does that mean, right? They're not seeing it as an emerging object in consciousness. It just feels like me. It just feels that that's, it is, it is the, you know, subjectively, it's like the mind contracts around this appearance in consciousness. And it really is just, it is just a, you know, it's just a sound with the voice of the mind. If you actually can inspect it, it is, it is deeply inscrutable that we ever feel identified with our thoughts. I mean, how is it that we could be a thought? These thoughts, the thought just arises and passes away. And when you inspect it, when you go to inspect it, it's, it, you know, it unravels. It's, it's, it's, it's, the least substantial possible thing. And it could, but yet it could be a thought of self-hatred, you know, it could be a thought that, that unrecognized totally defines your, your mood, you know, it's like, I mean, just again, this, this all can seem kind of abstract, but, well, no, but I, but I think it, it's extremely concrete from the perspective of the neural circuits that we'll return to in maybe a few minutes. I'd like to take a brief break and thank our sponsor inside tracker. Inside tracker is a personalized nutrition platform that analyzes data from your blood and DNA to help you better understand your body and help you reach your health goals. I've long been a believer in getting regular blood work done for the simple reason that many of the factors that impact your immediate and long term health can only be analyzed from a quality blood test. The problem with a lot of blood and DNA tests out there, however, is that you get data back about metabolic factors, lipids and hormones and so forth, but you don't know what to do with those data. Inside tracker solves that problem and makes it very easy for you to understand what sorts of nutritional, behavioral, maybe even supplementation-based interventions you might want to take on in order to adjust the numbers of those metabolic factors, hormones, lipids, and other things that impact your immediate and long term health to bring those numbers into the ranges that are appropriate and indeed optimal for you. If you'd like to try inside tracker, you can visit inside tracker.com slash huberman and get 20% off any of inside tracker's plans. That's inside tracker.com slash huberman to get 20% off. If you could elaborate a bit on this notion of internal chatter and external stimuli and the bridge between them because that's I think that for some people that might be intuitive, I think for others, it's not so obvious that language is ongoing in the backdrop. Because sometimes I think some people are more tuned into that language for some people. It's louder volume. For some people, it's more structured. I have a colleague at Stanford who's been on this podcast called Dicer Auth. He's like one of the freemen, like Bioengineers. He's also a psychiatrist and he doesn't call it a meditative practice. He has a practice where each evening after five kids are put down asleep. They're older now. In the quiet of the late hours of the night, early morning, he sits and forces himself to think in complete sentences with punctuation for an hour. This is the way that he has taught himself to structure his thinking because of the very fact that you're describing, which is that ordinarily there is an underlying structure to what's internal, but it's disrupted by external events. These are typically it's not coherent enough to really make meaning from. It's almost like somebody sitting down to write in complete sentences, but for some self to do it in his head. But for many people including myself, that's a foreign experience. We only experience structure through our interactions with the world and other people. If I've taken the time to try and explore ideas with eyes closed and I've been able to do that, there are certain pharmacologic states that we could talk about that facilitate that and know those are not amphetamines. Those do exactly the opposite by the way. But I think people exist in varying degrees of structured and unstructured internal dialogue and in varying depths of recognition of that internal dialogue. And so the question I suppose is, is just the recognition that there's a dialogue ongoing internally? Is that itself valuable? Yeah, and that also can take some time. So, here's a claim I would make that some people might find surprising, but I think this is an objectively true claim about the subjectivity of most people, which is that unless you have a fair amount of training, let's just happen to be some kind of savant in this area, which most people by definition aren't, or you have a remarkable amount of training in what's called concentration practice and meditation. I believe this is a true claim that if we just put a stopwatch on this table and people could just watch the 30 seconds elaps and I set all of our listeners or your viewers the task. For the next 30 seconds, just pay attention to anything, your breath, or the sight of your hand or the sight of the clock or any object without getting lost in thought, without getting momentarily distracted by this conversation you're having with yourself. This, a couple things would happen. One is no one would be able to do it, right? And not just, this is not just a superficial inability. I mean, if your life's dependent on it, you wouldn't be able to do it. I mean, if the fate of civilization depended on it, none of our listeners would be able to do this. And yet, some percentage of them are so distracted by thought that they would think that they will actually try this experiment and think they succeeded, right? And for these people, what happens is you put them on a meditation retreat and you have them spend 12 hours a day in silence doing nothing but this, right? So the practice is just pay attention to the breath when they're sitting and then eventually you incorporate everything sounds and other sensations. And then you interleave that with walking meditation with their pain attention just at the sensations of lifting and moving and placing their feet. And then, once the practice is going, you incorporate sounds and sights and everything. But so you can pay attention to everything, but the goal is for every moment, you are going to cultivate this faculty of mind, which increasingly is known as mindfulness, right? So and mindfulness is nothing other than this very careful attention to the contents of consciousness. But the crucial pieces, it is not a moment of being lost in thought, right? You're not blocking thoughts. Thoughts themselves can arise, but in those moments of being truly mindful, you're noticing thoughts as thoughts, whether they're, whether it's language in the mind or images, you're noticing those two as spontaneous appearances in consciousness. So most people, certainly anyone who thinks they can pay attention to, they can do the experiment successfully that I just suggested pay attention to something for 30 seconds without being lost in thought. You put those people on a meditation retreat, what they're going to experience is, on the first day, they're going to feel like, oh, yeah, I was with the breath or I was walking, I was with the sensations of walking. And I'd be there for like five minutes, solid and then I would get lost in thought and then I'd come back, and you know, five more minutes, it'd be lost in thought and I think it'd be, but as the days progressed, even 10 days in to a silent meditation retreat, they're going to experience more and more distraction. It's going to seem like, okay, wait a minute. Now I can't pay attention to anything for more than five seconds. That is progress, because what they're discovering is just how distractible they are. For some people, that will be immediately obvious, for some people, it'll actually take a lot of practice to realize just how distracted they are. What you just said, which was that, at some point, we couldn't start noticing our thoughts. I can notice my thoughts, but what you're talking about is, as a goal state, is not being distracted by thoughts, but actually seeing the relationship between thoughts itself and other types of perceptions. And here, I think recognizing and seeing thoughts is a form of perception. It's just an internally directed perception. This raises a topic that I'm also obsessed by, which I think neuroscience can somewhat explain, but still incomplete, incompletely, that the circuits and mechanics, etc, are not yet known, which is about time perception. And a simple analogy would be that there are a lot of small objects flying around in the space that we happen to be having this discussion, but they're moving so fast that I can't perceive them, or they're entirely stationary, so I can't perceive them, because of the reasons we talked about before in the visual system. My eyes are moving in perfect concert with these small object movements, and therefore they are blind to them. A slight shift in time perception, think of this, perhaps as a change in the frame rate. Camera frame rate, faster frame rate, you can capture slow motion, slower frame rate, you're going to get more of a strobe type effect if the frame rate is low enough. Could it be that our time perception is not one thing, but we have one rate of perceiving time for external objects at a given distance, which we know is true. Another frame rate for objects that are up close, we know this to be true, even if those objects are moving at the exact same speed. This would be the sitting on a train, the rungs on the fence seem to be going by very, very fast, but the ones in the distance seem to be moving slowly. This is the way the visual system in time perception interconnect at some level. You're up on a skyscraper, the little ants of cars and people down below. You know they're moving much faster than you perceive them to move, but it's a distance effect. You see a plane, it's going to be going 300 miles an hour. Exactly. It's not because of the lack of resolution. The lack of resolution is incidental. We know this because in animals such as hawks that have twice the degree of acuity, as far as we know, they have the same distance associated shifts in time perception. Could it be that we are running multiple streams of time perception, multiple cones of attention that include cones of attention to our thoughts, and that somehow through meditation we start to align the frame rate for these different streams of attention so that they all fall into the same movie, if you will, although it's not just a movie with visual content. What I'm doing here is clearly I'm becoming a lumper rather than a splitter. I'm sure this violates certain rules of time perception and neural circuitry, but I'm not sure that it's entirely untrue either. Does it survive at all as a possible model for what you're describing? If the answer is no, I'm perfectly comfortable with that. Well, it's dependent on what you mean by meditation. This is where the particularities of what one is doing with one's attention under the frame of meditation really matter because there are ways to practice mindfulness in particular where the frame rate really does seem to go way, way up. There's actually been some research done on this where you take people before and after a three month silent meditation retreat and you give them some kind of visual discrimination task where they have to detect, I think they used it to kiss the scope. Is that the tool for there's some, some of them presents, you know, like very quick pulses of light. In any case, you can you can discriminate just in any, in any sensory channel I would imagine you can make finer grain discriminations if you're practicing mindfulness in a very specific way, which is to be making these fine grain discriminations more and more and do nothing else for three months, which is a way of practicing. So you're, so the classic mindfulness practice in what's called the Vipastana meditation is to pay scrupulous attention to seeing hearing, smelling, tasting, touching in a way that breaks everything down into the, it's kind of microscopic sensory moments. So, you know, you're rather than feel your, you know, your hands pressing together, what you're trying to feel with your attention and you're feeling more and more is all of the micro sensations of pressure and temperature and movement such that the feeling of hands completely disappears. You realize that the hand is a concept and all you have is this cloud of, of punctate and, and very brief sensations. And so, so anything you think you, you, you have as a data of experience, as you, as you bore into it with your attention, it, it resolves into a, a, this kind of di, di, di, di, a, and this cloud of changing sensation. And that can be even, even something as, as captivating as like a, you know, a serious pain in your body. I mean, you have like a, you know, you could have injured your neck, you know, and so you have some excruciating pain in your neck. If you just are willing to pay attention to it, you know, and just pay a hundred percent attention to it, your, a couple of things happen. One is your resistance to feeling it goes away by definition, because you're, now your goal is to just pay attention to it. And, and you recognize that so much of the suffering associated with the pain was born of a, of the resistance to feeling it. You're kind of, you're bracing against it and all of your thinking about it, you know, you're thinking like, well, well, you know, why did I do this to myself or when, and should I see a North of Peter's or why, how long is this going to last? And, and you're, you know, maybe I herniated a disc, like all of that self-talk is producing an anxiety. And, you know, I'm not saying there's never anything to think about there, but, you know, either you can do something about it in the moment or you can't. And so much of our suffering in the, in the presence of pain is the result of resisting it, worrying about it. Think it's just all of the, everything we're doing with our minds, but just, just feeling it, right? So, when you just feel it, again, it, it breaks apart into this, this ever change, ever shifting collection of different sensations. And it's not one thing and it never stays the same. And it's, and so there's two things happen there. One is there can be a tremendous, a tremendous amount of relief that happens there where you, you, you can achieve a level of equanimity even in the presence of really unpleasant, you know, physical sensation. And this is true of mental sensation as well, so it's true of emotions, you know, the classically negative emotions like anger, depression, or, you know, fear. The moment you become willing to just feel them in all of their, you know, punctate, uh, and changeable qualities, they cease to be what they, they wore a moment ago. They're just, they're, and they, when you're talking about emotional states, they cease to map back onto you and your self concept as meaningful in the same way. So that suddenly, you know, the anxiety, you feel, let's say before going out on stage to give a talk, you know, a moment ago, it, it was, it had psychological meaning. It felt like, you know, okay, I'm anxious. How do I get rid of this, you know, why am I this sort of person? What, you know, should I have taken a beta block or, you know, this is the, the conversation you're having with yourself, the moment you just become willing to feel it as the pure energy of, you know, the physiology of, you know, of cortisol release, it, cease to have any meaning. It just, it, it, it, it, it, it, it, it, it, it, it, it, it, it, cease to be a problem in that moment because it, it's no more, it no more maps onto the kind of person you are than a feeling of indigestion or a pain in your, in your knee maps onto the kind of person you are. It's just, it's, it's just sensation. Anyway, but back to the main point here, which is that if you train your attention in this way to notice the particularities of, of sensory experience and emotional experience, like you're looking for the atoms of experience, you know, you get better and better at that and certain things happen. But one thing that, one thing that I really do, do think happens is there's a kind of frame rate change in, in the, the data stream, where you really are just, you're just noticing much, much more. All of that is a very interesting way of training. It's not what I tend to recommend now. I mean, it's, it's a great preliminary practice for what I do recommend because it gives you, it really, it really teaches you the difference between being lost and thought and not. It really teaches you what mindfulness is. But it tends to be done, you know, by, you know, 99.9% of, of people in a dualistic way, which you're, again, you're, you're set up to think, okay, I'm over here as the locus of attention, you know, and I'm continually getting distracted by thought. And the project is to not do that anymore and actually pay attention to the breath and sounds and sensations. And, and every time I get lost in thought, I'm going to go back here. But this whole dance of, of lost in thought, now I'm, now I'm strategically directing my attention again. All of this seems to ramify this sense of self, the sense of, of, there, there's one to be doing this. There's, there's somebody holding the spotlight of attention and getting better at coming back to the object of meditation. Again, it's inevitable that 99.9% of people are going to start there and stay there for some considerable period of time. But the thing I like to do when I talk about all of this is undercut the false assumptions that are anchoring all of that as early as possible. Because where, where, where I think you want to be, is recognizing that there is no place from which to aim attention, right? This whole dualistic setup of subject and object is the thing that is already not there. And it's not that you, it's not that it's there and you meditate it out of existence successfully. It's really not there. And if you, if you learn how to look for it, you can see that it's not there and feel that it's not there. And it no longer seems to be there, right? It's like it's, it's not, and it becomes like, again, like a by stable percept you looked at it long enough and you thought, okay, now I see the vase and the face and I can't unsee it. And every time I look, it's, it's there again, right? And so yeah, that means that so to come back to the example you gave with your, your colleague at Stanford, whose book I know I have, I haven't read it. This is the, he wrote a book of projections, right? Deseratia. So it's on my stack to read. But it's the opposite, what I'm recommending essentially the opposite end of the continuum of the sort of internal exercise he was, he was, he was doing. So rather than, so you know, he's doing something very deliberate and controlled and he's, you know, he is deliberately thinking in complete sentences and kind of common daring, the, you know, the, the, the machinery of thought and attention in a way that I would imagine, I mean, I'd be interested to talk to him about it, but I would imagine he really feels like he's doing that, right? And there's, there's an engineer. It's, you know, it's as you describe it in this way, it reminds me, he's, he's a physician, but he's also an engineer. So it's really about taking the, the raw materials of thought and engineering something structured from it. Right. Right. You know, I haven't been in Carl's mind. Yeah, but if we got him talking on that, we would, I'm sure we would get a set of what it is. We'll do that conversation at some point. But it's exactly what the opposite would be. Exactly. The opposite would be to recognize that the sense of control is a total illusion, right? It could, because you don't know what you're going to think next, right? And even he in the most laborious way, I mean, he could, he could just get as muscular as he wants with it. He still doesn't know what he's going to think next, right? Thought, because thought simply arrives, right? Like, you know, you can run this experiment for yourself and this connects up to the topic of free will, which we might want to touch. But I mean, just think of any category of thing. You know, if I asked you to think of, you know, the names of cities or, you know, friends you have or of famous people, you, you can, you know, remember exist or think of nouns or, you know, you know, anything. And just watch what comes percolating into consciousness, right? Now, there's, there are things you can't think of, right? There are things you don't know the name of, you know, their languages you don't speak. There's there are famous people you've never seen or never heard of, right? So like, so you have no control over that part. Like those, those names and, and faces are not going to suddenly come streaming into consciousness. But of the, the totality of facts and figures and faces and names that you do know, right? Only some will come vying for inclusion, right? And they're not, and there's, there's a sort of, you know, we could make guess that we know something about the neurology of this, but we, you know, depending on what channel your, your, your waiting for thoughts in, I mean, it's going to be different if it's visual or semantic or, or episodic memory and all of these things are different. Wherever you kind of point your inner gaze of attention and wait for the next face or name, certain things are going to come and certain, certain things aren't going to come. And how you land on one, right? There'll be this process. If you're paying attention, you might think, we'll say, we go with names of cities, right? You just, you'll, you'll think of Paris, you'll think of London, you'll think of Rome, you'll think of Sedona, you'll think, so these, these names will come. And if I ask you to just say one, right? So just, Minneapolis is what came to mind. For me, it was very straightforward. It was Minneapolis, the famous person was Joe Strummer and they just, like, I can give you reasons why I think they, those came to mind, recent conversations. Okay. So, so, so whatever. So we know, we know a fair bit about, fair bit about much of this. So one, we know that your reasons, you know, obviously could be right or wrong. They're very likely to be wrong because we have this sort of confabulatory storytelling mechanism even in an intact brain where we just, you know, we all seem to never lack for the reasons why something came to mind. And we know, we can know, we can manipulate people in ways that prove that people are just reliably wrong and confident, you know, confidently so about the reasons why they thought of things or did things. But leaving that aside, even if you're completely accurate, right? There are, there are people's names who you know and city's names that you know that inexplicably just didn't come to mind. And if we ran this experiment again and again and again, they wouldn't come to mind if your brain was in precisely the state it was in a moment ago. If we could return your brain to the state it was in a moment ago, correcting for, you know, all the deterministic changes and all the random changes that would have to, you know, be corrected for it, just get all the synapses and the synaptic weights and, you know, everything in the state it was in to produce Joe Strummer and Minneapolis, right? You're going to, if we rewind that movie, that, you know, that part of the movie of your life, you are going to say Joe Strummer and Minneapolis a trillion times in a row, right? So this is why in my view, the notion of free will makes absolutely no sense, right? And you can add as much randomness to that process as you want. It still doesn't get you the freedom people think they have. There's another conversation to have about, you know, why none of that matters and why things only get better once you admit to yourself that free will is an illusion. And yes, you can get in shape and you can die and you can do all the things you want to do and you don't have to think about free will. But the, from a, from a contemplative, meditative point of view, the thing to notice is that everything is just springing into view, right? You're like, there's no place from which you are authoring your next thought because you would have to think it before you think it, right? Like, like, there is just, there is just this fundamental mystery at our backs that is discouraging everything that we experience. What if I'm speaking? So if I'm talking about something and I have some command of that information, I can often sense what I'm going to say next and then find myself saying it. Hopefully that's what I'm saying, not something else. I certainly said things I didn't intend to say or never thought I would say in life. But when engaged in speech or action, it at least gives us the illusion, I think, that we somehow have more command over our thoughts. Yeah. Well, you have a script. I mean, it's like, there are things you know a lot about. And you've talked about them a lot. And you know you have the things you want to say about those things and the things you don't want to say or you wouldn't want to say. And you know, you can, it still is a bit of a high-wire act because you can misspeak or you can fail to get to the end of a sentence in a grammatically correct way. And again, all of this, subjectively, this whole process is mysterious to you. You don't know how you follow the rules of English grammar. Right? Like you're just, your tongue is doing it somehow. And you know, and when it fails, it fails. And you're just as surprised as the next guy that it failed. And you know, you mispronounce a word and okay, I don't know what happened there. But it's, if it keeps happening, I'm going to worry I had a stroke and you know, it stops. I'm going to, you know, I'm not going to worry about it. So it's still mysterious even when you're doing it in a very wrote, deliberative and repetitive way. But when you're talking about something, you've talked about a lot and you know, you sort of know where you're going to go, right? Like, and this is, you know, we have many conversations like this. It is somewhat analogous to like a golf swing where it's like, you know how you want to do it. There's going to be all kinds of errors that are going to creep into your execution of it in real time. But there's like, you basically have a pattern. And so you have certain linguistic patterns, which you're following. Again, none of this is a proof of free will, but I will grant you that, you know, phenomenologically, it feels different than just waiting for the next thought to come. But my point is that even if you're, I mean, you can trim it down to the simplest possible thing. And like you take two things you like to drink, right? You like coffee and you like tea and you're deciding which to have, right? Both are on offer. You've got two cups in front of you. And the question is, you know, which, you know, or here I've got water and I've got coffee. Which am I going to drink next? It's incredibly, it's the simplest possible decision. And no matter how long I make this decision process, I could literally sit for an hour, trying to figure out which to reach for next. And I could have my reasons why and I could have my all myself talk. There's going to be a final change in me that's going to be the proximate cause of me deciding one over the other. And that no matter how laborious I can make it seem in terms of my reasoning about it, it is going to be fundamentally mysterious as to why I went with one rather than the other, right? Whatever story I have, because it's like, it's still going to be as mysterious as you thinking of Joe Strummer when you absolutely like you know of the existence of Marilyn Monroe just as much. And yet she simply didn't occur to you, right? It's like it's fundamentally mysterious. Like there are people who are even more famous than Joe Strummer to you, right? Who, I mean, I'm sure you, you know, you, you, you, maybe somebody who you have thought a lot about, but, but they're, they're people who like if we could just inventory, you know, your conscious life going back the last 10 years, they're people who you've thought about more than Joe Strummer, yet they didn't appear, right? So, and that's, that is mysterious, right? And they could have, but they didn't. And so, and what, what I'm saying is that this mystery never gets banished in our experience. Whatever stories we have to tell about it. Like because if the story is, oh, well, I went for the water because I, you know, I think I've been drinking too much coffee, you know, I listened to Andrew Hubertman's podcast and he was talking about caffeine and I think I probably, it's good for us, but you don't want to over. Yeah. Yeah. Okay. So let's say that is actually the causal chain. Like I listened to your podcast. You said something about caffeine. Now I'm, now I'm self conscious about my coffee intake, right? But that's just, just adding a couple of links to the chain. There's still this fundamental mystery of, well, why did I find that persuasive? And why, why did I find it persuasive now? And not five minutes ago when I was drinking the coffee, right? Like why did I just remember it now? Or why was it effective now? Like what? Like you, you only have your experience in every moment is precisely what it is and not one bit more. Like, and this subsumes even moments of real resolve and effort and, you know, picking yourself up by your bootstraps and changing everything. It's like you're on a diet and you're tempted to eat chocolate and you think you're about to reach, you say, no, I'm not, I'm not breaking this diet. This diet is actually going to stick, right? Okay, why did that arise in that moment and not at this analogous moment on your last diet, right? And why did it arise now to precisely the degree that it did? Why, why will it be as effective as it will be and have the half-life that it will have and not, you know, 10% more or less? Like all of those are always mysterious to you. Well, could we give a, as we did before, an evolutionary and a developmental explanation and evolutionary explanation might be that directed attention and action is metabolically demanding. It would be inefficient or impossible for us to be in constant, you know, deliberate action and with access to all the relevant information as to why we would do anything. So our ideas literally spring to the surface at the last possible moment in order to offset the metabolic, the great metabolic requirements of having ideas that are related to goal-directed action or that goal-directed action is expensive. That's one idea. The other idea would be, and we know this as a fact, which is that initially the brain is fairly crudely wired. That's not true within the neural circuits, the control breathing, heart rate, etc. But within the neural circuits of sensory perception, thought, etc., they're fairly crudely wired. And then across development, there's a progressive pruning back and also in parallel to that, a strengthening of the connections that underlie directed action and thought. And here I don't mean directed as in free will. I mean, just that I can decide to imagine an apple and imagine that apple, for instance. Well, your decision is to be some maintenance of the random fine random wiring in systems. I mean, we've seen this even in worms in flies, in so-called lower invertebrates. And lower invertebrates, and we see this in humans. And it seems to be that there's a lot of background spontaneous activity. I mean, now some electrodes into the brains of humans, and macaques, carnivores, and mice. And in every case, most of what you hear is called hash. And it has nothing to do with hash issues, which is a modio monitor, which is picking up a bunch of action potentials. You're listening to a chorus of action potentials. But it's rare to find a neuron that faithfully gaw fires to represent some sensory stimulus in the world. And you can arrange that marriage experimentally, so that you can arrive at those strong signal-to-noise events. But I was always struck by how much noise there is in the system all around all the time. And people argue is the noise really noise, et cetera. And there's still a lot to debate about that. But I can imagine that some of the spontaneous nature of thoughts just relates to the fact that there's a lot of background spontaneous activity in the brain. Now, why that is is a whole other discussion. But if I were to sort of set up two constraints, that there's a lot of spontaneous activity that's going to generate random thoughts. Thankfully, not much random action, although there's a little bit of random action in our daily lives. And then against that, say, well, any deliberate thought or motion is going to be expensive, right? It's a metabolically expensive organ to begin with. And so you just have to, evolution has arrived at a place where spontaneous geysering up of things upon which like deliberate thoughts and action are superimposed is the best arrangement overall for this very metabolically demanding organ. Is that a, I mean, what I basically gave was just kind of a biological description of one, just one narrow aspect of it. But can we get comfortable with that? And the reason I say get comfortable is that, you know, I'm here, I'm admittedly I'm forcing a little bit of a strip T's towards what I think I and everyone else wants to know, which is how to meditate and why in particular meditation convinces us that something doesn't necessarily have to be eliminated, but that was actually never there. I feel like we're, we're now set up of sort of a almost like a, you're not contradicting yourself by any means. But in my mind, there's a contradiction. And here's the contradiction. I love this statement that meditation over time or done properly reveals to us that we're actually not trying to make the gap between actor and observer go away. It was actually never there. To me, that's one of the more important statements that I've perhaps have ever heard. And it inspires me to go further down this path of meditation because I've never experienced that. Not deliberately and certainly not through meditation. If I ever experienced it, it was transient enough that I, you know, I'm intrigued to experience it more. So on the one hand, you're telling me something was never there and there's a profound experience to be had by anyone that's willing to do the work to arrive at that experience of the loss of that illusion. On the other hand, I'm hearing that there's a profound gap that really does exist, which is that, you know, we believe that our thoughts are somehow from us. And indeed, they're from in the cranial vault someplace, maybe in the body a bit as well. But that we over attribute the degree to which we are that and that is us in a way that's volitional, that we control. And so at once, I'm hearing that there's something, there's an illusion that we can eliminate. And on the other hand, I'm hearing that there's an illusion that we can't eliminate. And maybe these are unrelated and I'm bridging them in an unimportant way that seems only important to me. But somehow, I can't resolve these two. And maybe the thing to do then is, can we separate them in terms of a practice to witness them? That would allow us to resolve them separately. Right. So I think I'm hearing the problem. There's this, well, let me kind of brag at the whole free will discussion because it's, it really is the flip side of this coin that I'm, you know, the the the obverse of which is the illusion of the cell. So at least I might be on the right track. They are the opposite sides of a corner. Yeah. Okay. Because to me, they seem very different in essence. No, because because what I'm calling the sense of cell and what people, what I think most people feel as their core sense of cell is the this feeling of, I mean, it's the feeling of being the locus of attention. But it's also the feeling of being the locus of agency. Like I can do the next thing. I like, who's doing this? Who's reaching for the cup? I am. Right. I intended this and now I'm doing the thing. My, and my intent, my conscious intention is the proximate cause of my reaching. Right. So I'm the author and so I'm the author of my thoughts and actions essentially and I'm and my and my specific uses of attention. Right. So I can I can pay attention to the breath. I get lost in thought. I come back to the breath. But, um, you know, the law that the in some level, the thoughts themselves are more of my doing something with, with almost, you know, a authorial intent. Right. Like I'm thinking like, what the hell is this guy talking about? I'm, I know I'm, you know, I know who's thinking these thoughts I am. Right. Like that's, that's, the person who really doesn't get what I'm saying is thinking something like that. Right. It's like, what the fuck is this guy talking about? Like I like, I know I'm here. I'm a cell. I'm, you know, I'm a body. I'm a mind. I can reach for things that these, these intentional actions are different from things that happen to me. Right. A voluntary action is different from an involuntary one, you know, so having a tremor is different from consciously deciding to pick up a glass. So obviously everything I'm saying about meditation and the cell up and free will in order to be a sane picture of a human mind and of reality has to conserve the data of experience such that, yes, I can acknowledge the difference between a tremor and a, a deliberative, you know, voluntary motor action. And, you know, and the things you do volitionally are different, not just psychologically and behaviorally, but they just have different implications for like a different, in a court of law, you know, you accidentally hit someone with your car or you did it on purpose. That's still a distinction that matters, right. It's, you know, importantly, it tells us a lot about the global properties of your mind such that, you know, we have a sense of what you're likely to do in the future. If you're someone who likes running over people with your car, you know, you're a psychopath who we need to worry about. If you're someone who did it by accident, well, then, you know, you may be culpable for the level of negligence that allowed that to happen, but you're, you're a very different person and we treat you differently and we're wise to. So anyway, we can, those are, let's bracket all of that. There's this, I mean, there's some fundamental, there's some false assumptions about the underlying logic of this process, which I think it's worth addressing. And it is actually, there's a kind of found object in the news that I talk about at one point, I forget where it is in the waking up app, but there's a story that I stumbled on on the internet. I think it's about 12 or 13 years old of a tourist bus in, I think it was Norway, it was somewhere in northern Europe. And it had about 30 people on it. And one person was described as an Asian woman and they all, they went to a rest stop and everyone got off the bus and they, you know, shopped and had lunch and this Asian woman changed her clothing for whatever reason. And they all got back on the bus. I think the relevance of it being an Asian woman is, you know, there were language barriers that explained what later happened. So everyone gets back on the bus, the Asian woman has changed her clothing and the bus is about to leave. But then someone notices, hey, there's, there was an Asian woman who got off the bus who hasn't, hasn't come back yet and they tell the driver this and this poses a problem. So now everyone's waiting for this person to return. But in fact, everyone was on the bus that this woman had just changed her clothing and it was not recognized by her fellow travelers. So everyone gets concerned as this, this, this, Taurus doesn't, you know, show up and they start looking for her, right? And they can't find her and so a search party is formed and the Asian woman, because of the whatever language barrier, thought it heard that there was a missing Taurus. So she joins the search party, which in fact is looking for her, right? And this goes on into the night and they're readying helicopters at, you know, for a dawn patrol to find the missing, missing Taurus. Now at some point along the way, I think it was at like three in the morning, this Taurus realizes that she is the object of this search, right? And obviously the whole thing unravels. She, you know, she confesses that she changed her clothes and, you know, the problem has solved, but the problem is not solved by the, the logic that the seeker is expected, right? So it's like, it's not true to say that the missing Taurus was found in the way that was expected, right? Because the missing Taurus was never lost. The missing Taurus was part of the search party, right? And so when you think about it from her point of view, like what happened, she's part of the search party, she's looking for the missing Taurus, not knowing that she in fact is the missing Taurus. So what happens at the moment she realizes that everyone's looking for her, right? Like what is the search isn't consummated in the way that is implied by the logic of everyone's use of attention? And yet the problem evaporates. And there's something deeply analogous about the structure of that. And the the meditative journey, precisely in again, not talking about all the changes and the possible changes and the contents of consciousness that could be good, which again, they come along for the right anyway when you when you do the thing I'm talking about. It's on this point of looking for the self and not finding it. And there is this sense that okay, the self is here and it's a problem. It is the the string upon which all of my conscious states, mostly unhappy ones, are strong, right? It's the thing that is at the center of my anxiety. It's the it's the it's the it's the thing that I don't feel good about. It's the thing that when criticized, I sort of let implode. It's the center of my problem. And now I'm trying to feel better and meditation has been handed to me as a as a possible, you know, remedy for my situation. And it and it's built as a remedy. And in fact, it's it's it's I'm hearing from this guy that this is the thing that is going to cause me to realize that myself isn't where, you know, or as I thought it was. So now I'm going to look, right? And so again, your your the sense is I start out far away from the goal here. I start out with a problem. I'm now meditating on the evidence of my unenlightenment, right? I can feel my problem. I feel that I'm distracted and distractable. And I feel as this sort of cramp at the center of my life that it's me. And I'm not as happy as I want to be. I'm not as confident as I want to be. I'm more distractable than I want to be. And now I'm paying attention to the breath, right? This is what the search party feels like. This is what the the confused tourist feels like in her own search party. And she's she's looking she's looking for the missing person. And so the the sort of the angle of you know, the inclination of all of this is and the logic of it is all wrong, you know, understandably so given how we we all get into this situation. But you know, it's useful to continually try to undercut it and recognize that the the thing that's being looked for is is actually right on the surface, which is you know, the there is no one looking. There is no place from which you are paying if you're paying attention to the breath or to sounds or noticing the next thought arise. This sense that you are over here doing that thing is actually what it's like to be thinking and not knowing that you're thinking. You're not there's a there's a thought there's an undercurrent of thought that's going unexpected in that moment. And so there is just a there's a continually looking for the mind, a looking for the center of experience, a looking for the one who is looking which again, which is the kind of the the the orienting practice here. And there's a lot more I say about this obviously over waking up. But it's it's the experiment you have to perform in order to get ready to recognize that this whole the the search party, you know, was formed in in error essentially. And the the problem that you're trying to solve with this practice does evaporate in in a similar way, which is like you don't actually get there. In the way that you're hoping for right it's like you like you drop out the bottom of this thing in an unexpected way. It's not there's actually another kind of a similar parable or or anecdote that I don't remember if it's Zen or Sufi or I'm sure it's been reappropriated in many different ways, but or by many different traditions. But there's this you know the the case of somebody who's lost in a town and they're asking for directions, you know, you could put this in in manhat and you could let's say you're wondering manhat and then you're a tourist you don't know where anything is and you stop and ask someone you know where is Central Park and the person thinks for a second they says oh yeah unfortunately you can't get to Central Park from here right. And that is a very strange I mean we would you think about that for a second you realize okay that's a that's an absurd I mean there is no place that you can't get to from the place you're starting you know on earth right. That's the failure to describe the physical relationships between anything in the world. Yeah that's just not the world we live in right. So but it's a funny thing but on some level that is true of meditation it's like you can't get there from here like the sense of you the sense of you as subject isn't brought along to this thing you're looking for right like you're like you're you know it's almost like it's almost like you're you're making a fist and you're trying to get to an open hand the fist doesn't get to take that journey as a fist right like you don't the fist doesn't go along for the ride the fist comes apart right and and on some level that our subjectivity is a kind of an intentional fist you know it's it is a contraction of energy again it's it's so much bound up in thought for for most of us most of the time that is and it get when when properly inspected there's just this you know evaporation of the starting point but there's not this there's not this fulfillment of I'm going to get this fist is going to just going to if I you know if life gets good enough if I get concentrated enough focused enough you know if I austere enough of I renounced enough if I desire less if I you know you know enough with enough good intentions this fist is going to move into some sort of sublime condition right that's not the logic of the the process I really appreciate these models and analogies for conscious experience both as most people experience them and harbor them and it's as a way to frame what's possible through a through a proper meditation practice I do want to talk about what a proper meditation practice looks like a bit but at some point um I do want to raise a model of maybe even just perceptual awareness to see if it survives the filters that you've provided but first just even if briefly and then we can return to it you know what does this meditation practice or set of practices look like obviously the app is a wonderful tool I've started using it as I mentioned the beginning my father's been using it for a while and many people have drive great benefit from it but if we were to break it down meditation into some basic component parts as we have broken down normal perceptual experience and some of its component parts yeah um I can just throw out some things that I associate with meditation and maybe you can elaborate on on how these may or may not be applied for instance um there is almost always a ceasing of motor robust motor movement I know they're walking meditations and so forth but seems like sitting or lying down and perhaps not always but often limiting our visual perception closing the eyes right um directing a mind's eye someplace um is there a dedicated effort toward generating imagery um what are the component parts and where I'm really going with this is why would those component parts eventually allow for this dissolution of the fist or the um the realization that there is no distinction between actor and observer and so on yeah yeah also to answer that second question first ultimately meditation is not a practice that you're adding to your life it's not it's not doing more of anything it's actually ceasing to do something it's ultimately non-distraction I mean it's ultimately you're recognizing what consciousness is like when you're no longer distracted by the the automatic arising of thought it's not the thoughts don't arise it's not that you can't use them it's not that you've become irrational or or um uh you know unintelligent I mean all of that you still have all of your tools but there everything everything is in plain view I mean there's an analogy in Tibetan Buddhism which I love which is um you know kind of in the final stage of meditation uh thoughts are like thieves entering an empty house you know there's nothing for them to steal right so you you know in the usual case thoughts are there really is something in jeopardy the every time a thought comes I'm not meditating anymore and not only that I feel terrible because of what I'm thinking about most of the time right um and so it's totally understandable the thoughts seem like a problem in the beginning and for certain types of meditation they are explicitly thought of as a problem because you're trying to focus on one thing to the exclusion of everything else including thought and that is a kind of what I called concentration practice earlier and that is a you know it's a that's a training that can be good to do it becomes a tool that you can use for the other kinds of of of insight but it's a very specific and it's kind of brittle skill in the end I mean it's it is it's a skill just like I'm going to pay attention to one thing and I'm going to do that so well that everything else is going to fade out and it's somewhat analogous to what you described in the visual system if you if you you know if it lays or focus to one fixation point everything else in your visual field begins to to fade out but meditatively if you have a laser focus on any one thing what whether it's the breath or or you know a candle flame or whatever it is not only does I mean let's let's use the breath for you know for a second because your eyes are can be closed I mean you can lose all sense of everything I mean you can lose all sense of hearing and your physical body can disappear I mean like literally can become incredibly subtle and vast and drug-like and many people approach meditation thinking kind of climbing the ladder of those changes into subtlety and vastness that's the whole that's the whole game right and it can be a deeply rewarding game to play and it also does come with all kinds of ancillary benefits I mean all the focus and the calm and the and the the kind of smoothness of emotional states I mean all that comes with greater concentration and it can be quite wonderful but again at best that's a tool to aim in the direction that I'm talking about now with with respect to meditation which relates to more what I would call you know mindfulness generically and ultimately kind of non-dual mindfulness so mindfulness generically and for most people certainly in the beginning dualistically is just the practice of pain careful attention to whatever is arising on a zone right now in the beginning it's it's natural to take a single object like the breath as a starting point it's kind of an anchor but you know very very quickly you know over the course of even you know your first week of doing this people you know teachers and you know various sources of information will recommend that you know once you get some facility once you want to know the difference between being lost and thought and actually paying attention to the breath well then you can open it up to everything you know put up to sounds and other sensations in the body and and moods and emotions and even ultimately thoughts themselves and so very quickly you can recognize that thoughts are not intrinsically the enemy to this practice they are also just spontaneous appearances in consciousness that can be observed but for some considerable period of time people will feel that there is a place from which that observation is happening right there's just you know I'm now the one who's being mindful and however attenuated that sense of self can be and again it can get very expansive I mean you can you know you can lose you know as you get anything just a monochrome of concentration you know it becomes very drug-like and you get you know your the boundaries of your body dissolve and you're feeling of having a body can disappear and and you know if your eyes are closed you know your visual field I mean most people when they close their eyes initially they just forget about their visual field but you know it's if you close your eyes right now you notice your visual field is fully present and you know it's you we call it dark but it's not quite dark there is this sort of scintillating some field of of color and shadow that's there in the darkness of your closed eyes and that can become a sky-like domain of kind of vast you know visual expression that opens up as you as you get more concentrated with you know with your eyes closed right so you're so you can very much be aware of seeing with your eyes closed in in a meditative practice but from the point of view of mindfulness the logic is not to care about any of the interesting changes and experience that come as a result of practicing in this way because what you're what the the underlying goal is is to be more and more Aquanimous with changes so it's not to grasp at what's pleasant or interesting and not to push what's unpleasant or you know boring or you know otherwise not engaging away what you want is just a kind of a sky-like mind that just allows everything to appear and you're not clinging to anything or or reacting to anything could I ask you what your thoughts are about the differences between nouns adjectives and verbs in the context of what we're talking about and you're describing and the reason for this is that as you know I know everything in biology is a process you know we we would never ever say oh you know the perception of that red line on a painting is is a noun right I mean it's an event in the visual system you're you're abstracting some understanding about that thing in the outside world and I think it's very useful in thinking about the brain and people notice I notice I excuse me actively avoid the use of the word mind because I figure out especially with you sitting across from me that I'll I'll step in it if I if I do but the brain generates a series of perceptions or what have you by through processes not nouns and so when thinking about biology I think of development is a is an arc of processes aging as an arc of perception as an arc of process they just exist on different time scales and so a little bit of what I am hearing is that inside of an effective meditation practice there's a little bit of a of a certainly non-judgment but discarding of the the noun and the adjective modes of language like red apple okay it's a red apple but then you sort of need to eliminate some other adjectives about it's a rotten apple it's a you know ripe apple and instead view the appearance and disappearance of that apple as a it's just a thing a process as opposed to an event and now events could we could really get into the language aspect of the that just reveals how diminished languages to describe the workings of the brain at some level I don't know if any of this resonates but it but it seems to me the goal or one of the goals is to start to understand the algorithm that is the fleeting nature of perception but to not focus on any one single perception and then to not even focus on one single algorithm but to at some level there's a what is revealed to the meditator over time is some sort of macroscopic principle about the way perceptions work at a deeper level right that they're said that there's sort of a deeper principle there that sits below are certainly are normal everyday awareness but that in paying attention to the mechanics of all this stuff and not judging those mechanics not naming those mechanics or just naming them and let them pass by that there's some action function some verb is revealed and that maybe that verb maybe the word to describe that verb is mindfulness maybe mindfulness is is really just a verb to describe that I don't know but is there anything here am I creating my yeah I don't know if I'm creating just like useless straw or if there's if there's actually a seed here of something real but to me any time I want to understand something in biology or psychology I train broad in the time domain and think in terms of verbs not nouns or adjectives yeah yeah no that's very useful and that's somewhat adjacent to this distinction I'm making between dualistic and non-dualistic ways of experiencing the world so even dualistically everything is still a process right and we're misled by the the reification that noun talk gives us so and this this applies not just to something like mindfulness but even to something like the self right so the sense of self is also a process I mean it's it's a verb it's not it's a work we're selfing more than we are selves right and and there you know I even even appropriate uses of of the term self that don't go away even when you when you recognize that the this the core subject self is an illusion there there are states of self right where you you can recognize in your life that you inhabit very different modes of being depending on the context so like there are moments where you just by walking into a certain building you suddenly transition into a different state of self like like suddenly you pass through a door and now you're a customer in a store right so we know what that customer feeling is like you're now the person who's getting the attention it's a very kind of formalized type of attention from the person who's running the store and you know or a restaurant you're a customer and a restaurant right that's a just I just remember something that's kind of funny that it was born of a mismatch of this so I'll come back to that in a second but so there are so we would go through you can be you know you can be a student in the presence of a teacher you can be a parent in the presence of a son or a daughter you can be a spouse and presence in presence of your spouse and all of those shading of like the change in context really does usher in some fundamental psychological changes in just the states of consciousness that are available to you I mean and it's and some of this is really I mean I'm sure we can understand a lot about this you know personally and you know generically but it is pretty mysterious I mean I mean there are people who I know who I you know I'm with them in a certain way and like based on something I'm getting off of them like I can't be that I'm effortlessly one way with them and there's no way I could be that way with somebody else right like it's just I don't know if it's the pheromones or they're you know they're facial they're just the way they are they're facial expression but I mean they're people with whom I'm really kind of effortlessly funny and they're people with whom you know I couldn't even it would never occur to me to be funny no matter what happened you know it's like and and I have like long standing relationships with with these people you know so like it's just very you know all that's very mysterious but anyway the difference there is is not in this core sense of subject in relationship to all the objects it's in kind of the states of self and but and all of that is just is very verbi right like all this is the pattern of changes it's a pattern of what's available and what's not available the capacities that are you know that are they come online or not in those various contexts but no the the memory I just had which I hadn't had had a long time but it was one of these these moments where I realized the power of these shifts in context for states of self so I once I was a a young man I think was I was probably 22 or so and single and like you just like trying to figure out how how how do you how do you meet women and like how does how does one get confident to do this well and I um I walked into a restaurant and a kind of a woman was walking toward me at you know you know toward the front door of the restaurant but she was walking toward me in a way where I just by default assumed she was the hostess in the restaurant but she wasn't the hostess she was just a you know someone who just eaten there I guess so I walked through and she comes out so it's a fundamental misunderstanding in me that's set up by literally just this change in architecture and I and so I just said hi to her in a way that I would I presumably I would say hi to any hostess who was coming up to ask me whether where I wanted to sit um but what it actually happened is I had said hi to a total stranger in a way that I tended at that point never to say hi to total strangers because I was shy and you know just like um but apparently I gave her like a 10,000 watt you know high of like all of the confidence you would have if you if you were that sort of person and it just ushered in a complete like you know this is so I went to my table and this woman I came back into the restaurant like gave me her phone number right which was something that was just completely foreign experience to me you know and it was based completely on my misunderstanding of the situation I wasn't right and and so anyway that among the understanding uh I asked among the misunderstandings that one can have and then action and gauge in life I would say that that was a somewhat of a doubtful one yeah yeah but but then you realize that okay but then there are certain people who recognize this machinery to whatever degree or have net kind of natural aptitudes for bringing certain things online or not such that okay they can make these state they can consciously make these states of self you know this kind of this level of gregariousness say available to them in different you know in the circumstances where it's actually useful to them so like if you if you're single and you want to meet people well it's it's actually very helpful to to feel confident enough to just say hi to strangers now somehow they're doing and to and to be to be you know online you know in that way where at that point in my life in that circumstance you know by you know by default I was going to ignore this stranger who I was passing by in the doorway of a restaurant but thinking she was the hostess I was engaging her you know fully so anyway you can consciously again this does not invoke free will at all but yes you can consciously decide to play with this with these mechanisms such that you can decide you what state states of self would be more normative to have given what you want in life and and you can become increasingly you know attentive to the ways in which you get played by the world you know you're a kind of instrument your mind is a kind of instrument your brain is a kind of instrument that is continually getting played by the situations you're in and you can become more of it an intelligent curator of your conscious states and your conscious capacities just by noticing the changes in you like I in graduate school is somebody to talk about I think at some point in waking up this became very stark for me because I had um you know I was a you know an old graduate student I had taken 11 years off at Stanford you between my sophomore and junior year right so I like I when I went back to school talk about a leave of absence yeah no it was yeah yeah but I mean so Stanford had this you know you might know this um they have this stopout policy where you never really drop out you just stop out so you're like you can always go back you don't have to write letters saying that you still exist every you know two years as you do in other schools so anyway I showed up after 11 years and but you know so I was really on a deadline and I felt late for everything so I'm kind of you know finishing my degree you know as quickly as I can as an undergraduate and then I jump into graduate school and I'm an old graduate student and I'm you know there's a real sense of kind of urgency like I'm late I want I should have done this earlier I want to get the stuff done but then 9-11 happened and I as just as I had finished my coursework you know getting my PhD I was just getting into my research but 9-11 intersected with my life in such a way that I just had to drop everything and write my first book and I did that and then I just had to drop everything and write my second book because of the response to the first book and so essentially I had like four years where I was AWOL doing my PhD but I was still had a tow in the lab and I was still showing up occasionally but I was becoming this kind of cautionary tale from the point of view of grad school but I was also becoming kind of a famous you know or send my famous writer because my first book had been a New York Times bestseller and I just I was you know so I was getting some notoriety as a writer and so I was doing things like you know I was giving a TED talk but I still hadn't finished graduate school right so like it was just it was some I think that time is right maybe I had just finished graduate school when I gave the TED talk but anyway so I was in rowing in two boats and one boat was sinking or you know showing every sign of being damaged and I was literally like you know getting letters from the head of the department saying you know I work in turn to bat you but on the other hand I was like becoming as you know a quasi celebrity in that world too you know with at least in a world that was overlapping so I was having the experience of like going in I mean the the moment where this crystallized would form me in a you know fairly peculiar way was I had a meeting at like three o'clock with my advisor who was just this guy Mark Cohen and the Brain Mapping Center and at UCLA was a fantastic guy great advisor I did not extract as much wisdom from him as I should have brilliant scientist and you know he's for him I'm late right at least in my head like he is not that he was right in me so hard but like in my head I'm very self-conscious about how I'm not living up to his expectations at this point so I have a meeting with him at like three o'clock and I'm just kind of wilting you know under my you know you know his gaze in my own imagined you know inner gaze of his you know but that two hours later I have a meeting with his boss you know a dinner meeting with his boss who wants to meet with me to get advice on launching his book we have the same publisher but I'm like the much bigger author at you know at Norton you know and he's he's coming to me for advice and so I'm ricocheting between two diametrically opposite self-states that are again this comes down to architecture is literally like the state I was in walking into one building and then leaving and walking into another building on the same campus and they were completely opposite self-concepts like in one in one context I am a fuck up in another context I'm a celebrity and you have mastery and virtuosity and yeah and we're developing it very quickly yeah and but so again this is kind of a stark version of that but everyone has some version of this just in bouncing between talking to their mom and then talking to their best friend and then talking to a stranger than and talking to someone who's who's very successful talking to someone who's not very sick like all you notice your vulnerability to all of this stuff and ultimately what you want is a level of psychological integrity that that is truly divorceable from that now that you I'm not I'm not saying you're ever going to get it perfect you know this there's always going to be some I mean yeah I can't I can't talk about the ultimate fulfillment of this process like I'm not I'm not you know I'm not a Buddha I'm not saying I've finished the project but I think there's more and more you you know as you become become sensitive to these changes and you become sensitive to what it's like to actually not be psychologically reactive and not be defiantable by your own self-concept your own I mean you're not identifying with anything you're not hanging your hat on anything you're not thinking about yourself in terms in in in the in the kind of terms that you would export to others and then care about what they think about you right like you're there's a kind of invulnerability uh that that arises that's not born of being well defended it's born of of being evaporated right so you're no longer keeping score in those ways once again we're at the I really appreciate that description because I these days I'm I'm really intrigued by um something we've known for a long time that I'm you're certainly familiar with is prefrontal cortex is ability to establish context dependent rule sets you know a strup task will be you know basic example of you know reading numbers or letters on on cards and then switching to having to report the colors that the letters of numbers are written in it's a basic task but prefrontal cortex obviously important for setting context dependent thought and behavior and directed action in it and but within the context of all these different um variations of the self depending on graduate school or you know relationship or sitting alone in one's room yeah they're different rules sets arise but and somehow we we are able to have a sense a coherent sense of self that encompasses all of those um functional people can um toggle between them as needed and not overlap them inappropriately at least not the extent that it's um career failing or life failing although there are sad examples of that um many of which exist in uh the twitter space I know several colleagues not directly a mind but people who um through mistakes made with their thumbs where they forgot context right um or forgot to realize that the context on social media is near infinite but the context that existed in their head might not be clear in the way that they communicated something and they lost their jobs right by saying what were perceived as insensitive things in some cases were in fact offensive insensitive things in some cases is debatable right um in any case I think that the the image that now comes to mind uh relates to something you said several times that um it's not about eliminating something it's about revealing that something was never actually there and then in terms of sensory experience and this these different aspects of the self I have this image in my mind of um I'm not an experienced scuba diver but I've done enough of it you know born a wetsuit you wear a complete wetsuit with the hood and this idea you know if you were born into that wetsuit you might think that yeah you you know nudge up or lean up against a wall and you experience it one way right and um but were you to shed that wetsuit you know wow there's this incredible landscape of some out of sensory experience that I had no idea no there goes way beyond levels of sensitivity right now you're talking about fine two point discrimination and light strokes and this could be positive or negative pain in other ways too but what you're describing is essentially that the wetsuit was never really there um it but was created through a series of action steps and what I think what we're migrating towards here is a set of um for most non-intuitive or non-reflexive action steps that reveal to us that in fact we're not wearing this wetsuit now you raised one um topic which I think is analogous to this wetsuit which is this notion of distraction the normally distraction is masking what would otherwise be a better experience of life um I can think of distraction as falling into two different bins one would be the kind of distraction that is internally generated like the fact that thoughts arise and pull me down different alleyways and avenues of my of my brain and my thoughts and my experience and then the other would be um and and that that would compete with my ability to really focus on something and then another form of distraction which captures my ability to focus intensely but has me focusing on the wrong things and here I think the judgment of wrong is is reasonable to include if for instance I'm being impulsively yanked to something on social media I'm being impulsively yanked to someone else's pain and experience and somehow confusing that with my own experience this is an empathy but just yanked around my attention as a spotlight is kind of like over here over there I'm not feeling as if I'm the one standing behind that spotlight controlling or I'm not the spotlight right just to keep with the what we've been building up here so could you tell us a little bit about distraction and tell me whether or not these two forms are in any way accurate or inaccurate I'd be happy for them to to be inaccurate and whether or not there are other forms of distraction that we need to be on the lookout for and again I think what most people are seeking is what is the way to not just enhance our ability to focus but to shed this wetsuit like cloak that limits our experience that I'm calling and that you've called distraction yeah I get well this my distraction is is one component of it the other aspect of it is identification with thought and identification the feeling of self is bound up in the sense that that I'm the I'm the thinker I'm the one attending I'm the one vulnerable I'm the inner kind of the inner homunculus that's vulnerable to experience and then it can be gratified by it or not and it's constantly trying to improve it or mitigate negative aspects of it it's the sense that there's kind of a rider on the horse of consciousness as opposed to just consciousness and its contents so it's again it rides the top this illusion of control etc so to go all the way back to the question you asked about just what is in it you know what I recommend as a starting point for meditation some of your assumptions are in fact true yes it's it's you know I often recommend to beginning people close their eyes and you you do a sitting practice and that's different from a walking practice I mean you can do both but people tend to start you know sitting with their eyes closed but again ultimately where this is going is it's not an art of meditation properly recognized is not an artifice that you're adding to your life it's not it's not even a practice it is it is less rather than more you know it and and therefore it is also co-incident with you know potentially every waking moment there's nothing there's nothing that you can do with your attention once you know how to meditate that in principle excludes meditation because meditation is just a recognition of an intrinsic character of consciousness in each moment and all you have in each moment is consciousness and its contents whatever you're doing so so in the beginning you know you'll you'll be very deliberate and precious about deciding to practice meditation and you'll set aside 10 minutes in the morning and you'll do that and then and it'll seem very different from the next 10 minutes when you're you know spilling out onto your to to do list and you're trying to figure out you know what the day looks like right but ultimately you want to erase this boundary between formal practice and the rest of life such that there's it's just not remotely findable and and and that that's that's achievable and I think even from the very beginning you can relax this conceptual distinction between meditation and its antithesis because it's not it's not at the level of anything you're doing it's the level it's at the level of what's happening in your relationship to thought you know like what what can you notice when when you know like it's the transition from you know the by the by stable percept you know you're looking at the at the um the image and you see nothing let's say this you know the Dalmatian you know it's just the spots on the paper and you just you don't see you don't see anything and then all of a sudden the Dalmatian or the face of Jesus or whatever the the images pops out and then you see it it's the transition from nothing to something right that you the practice becomes the transition from being lost in thought and then waking up and break you know it's very much like we're breaking the spell of thought identification with thought is very much like waking up from a dream and having it's like that that transition the whole like you're having a dream and there's a couple of things are true there I mean it it really is a kind of it's a it's a psychosis that is just not we don't problematize because you're safely in bed and you're not moving or even unless you've got some kind of you know sleep disorder you're not walking around harming yourself or anybody else so but to be in bed and to not know it and to think you're you know running along a beach or you know you're you know you're you know getting tried for murder in a court of law or whatever the thing is that you're completely delusional about right that is psychosis right and it's like you're fundamentally unaware of your circumstance and then you the two things can happen there you can either become lucid within the dream right which is interesting and that's a whole there's a whole phenomenology of that which can be practiced but more commonly you can just wake up from the dream and all of a sudden the problem you thought you had is no longer there and and you have a completely different context for your conscious life like now you know you're in bed you're safely in bed all all the while there really is something analogous when you break this identification with thought right you're just you're having a thought that seems to be some kind of you know moral or psychological emergency and and yet you can you can the moment you see daylight around it the moment you see that that the mind is larger than then this mere appearance right then you have it suddenly you have a degree of freedom that that a moment ago was just unthinkable right and you're also you recognize you sort of come to in a way you recognize your circumstance in a way that you weren't a moment ago when you were just talking to yourself when you were just identical to that conversation um so this is all all to say that that ultimately meditation I mean so again there's another apparent paradox here many people don't know much about meditation we'll say things like you know what you know for me running is my meditation or skiing or rock climbing or playing the guitar we use something they like to do that gives them an experience of flow that's what that's what they go to to feel better and that's that's the opposite of all the you know the chaos of their lives or the the you know their time on Twitter or whatever it is and virtually every case it's it's not true to say that that is effectively meditation you're not going to by learning to play the guitar you're not going to learn what I'm calling meditation and you're not going to learn it by you know cycling or getting getting you know no matter how good you get at any of those things you're not going to learn it by doing those things but paradoxically yeah not really but it can seem like a paradox once you know how to meditate then you can meditate doing all of those things right meditation is totally compatible with playing the guitar or skiing or you know doing any ordinary thing you like to do right so once you know how to meditate and again it's totally natural in the beginning to formalize it and to set aside time each day to do it because it is a it is a training I mean it is something that in the beginning you have to get used to but once you have once you're getting used to it then there is no good reason not to be experiencing this thing I'm calling meditation this this insight into the the centrallessness of consciousness the the non-selfhood of consciousness you should experience it when you're playing your favorite sport or when you're having a conversation with somebody and then the reason then to come back to your initial assumption about eyes closed a lot of practice even formal practice can be done eyes open and it's important to do it eyes open because so much of our anchoring of our sense of self is is based on visual cues I mean we just we we know that you can if you give people the right visual cues you can translocate their sense of self you can give them an out of body experience you know with a with a video display where you you can literally make them feel like you go there's a body swapping illusion you can make them you can make them feel that they're in another person's body looking back at their body if you if you run the cameras the right way I've done this in VR seeing an image of of you they create an avatar for you and then your bodily movements generate the movements of the avatar and you start gaining presence as they call it in the car lingo very quickly and then pretty soon you lose sense of your own bodily representation and yeah and it's a little eerie what's eerie is to me is I'm going back into of course never left but back into your actual body when the VR goggles pop off the world seems almost overwhelming the number of sensory stimuli that are in a like a laboratory room which is actually quite sparse right so exactly what you describe this translocation of notions of self through visual experience and but conversely when you lose the sense of self the sense of self I'm talking about it can be especially vivid and salient with eyes open because it because so much so many of your reference points to selfhood are delivered visually right especially in a social situation so like you know I'm talking to you you're looking back at me right so you're the implication of your gaze is that I'm over here behind my face implicated by your gaze like so the sense that you're looking at something is the sense of self in that social context right and so and if you're if your facial expression changes like I'm saying something and if you kind of throw your brow like what the hell you know and I can read into that facial change some interstate of yours that is you know salient to me all of a sudden we've got this sort of dance of like I'm noticing you reacting to me and I'm that's that's changing the way I'm feeling about what I'm that that's that's the you know the the purview of you know every neurosis everyone didn't want right and every relationship I had a girlfriend when I was a postdoc who is it who is very very she was brilliant really still is and she always said that every relationship is it is there four arrows she's just a neuroscientist still is and said you know there's the arrow of you know she was talking to me so she said you know me to you and kind of what you perceive coming from me and then there's you to me and then there's an arrow from the middle going right back at each one of us right which is our own perception of what the other person is thinking about us and it's feeding back on the other arrow and she gave me this very clear but model of basically relationships and the relationship failed but it was good while it lasted I should say and but the four arrow model of relationships actually shows up in every type of one one on one of relationships and it's probably an under description of the total number of arrows but as I think it's exactly what you're describing is that perception of self through the eyes of other whether or not we're empathic or not strongly shapes the way that we access different context dependent rule sets about what we're going to say and not going to say it's a very dynamic right yeah so but the the freedom that I think we want and people can sometimes experience this just haphazardly but the the thing that the center of the bullseye from the meditative point of view is to get off that ride entirely and to so so the losing the sense of self in this context of of a social encounter is to is to give up your face essentially like your like so and and what what that entails is or what that gives you is the free attention to actually just pay attention to the other person right and the other person is now no longer quite an object in the world for you there's really just a kind of a totality of which that person is a part and and and actually you know Martin Boober the the kind of mystical Jewish philosopher talked about the kind of the i-thal relationship and then this I think is you know it's been long times and I've read Boober but and I don't know if he goes you know far enough to be truly non-dualistic but this distinction between I I and now the kind of the the the vow part of it is is I think potentially this or I mean again it's been several decades since I read read him but there's a there's a there's a way of beholding another person where you have the free attention to simply behold them right like you're no longer you're no longer care what they think about you you don't feel ironically implicated by their gaze you don't feel you you're you're simply the space in which they're appearing right and so you're free you're like it's like there's just there's no and and people can feel and so you're you're by definition you're no longer self-conscious right and when it's and this phrase self-consciousness really does get at this what I'm calling the self the the elucary self as a kind of contraction and and you can you can notice this for yourself just imagine what it's like to go from not being self-conscious to suddenly being self-conscious and the the the the the the proximate cause of this you know very almost invariably is suddenly recognizing that somebody's looking at you right so like you're in a Starbucks and you're you know you're alone and you're reading the newspaper or whatever it is and this is now sounds highly anachronistic it's been three years since I've held a physical newspaper I think in a Starbucks but you know you're you're you're just mind your own business and you look up and you're just you're seeing you know a room full of strangers but then you notice that someone is just looking at you you know and so like that moment of eye contact right suddenly that throws you back on yourself as a kind of suddenly you're the object in in the world for that other person that recognition is a the tightening there the kind of contraction there is a is a a a further ramification of this this feeling most of us have most of the time of being the center of experience like the the place you feel like like it's it's like you know we're all walking around with a fist and in moments of self-consciousness the fist gets really tight you know and that's and that's some that's the thing that gets fully relaxed when you discover this this what I'm you know in various points called the nature of mind or the the the non-dual nature of consciousness is just that there is no center to this experience and when you recognize no center then even when your gaze is aimed at another person's gaze there is no implication going back to the center because there is no center right and and and rather than that being an experience of weird detachment or confusion or or it's it's actually an experience of greater relationship because you're no longer you're no longer defended you're not you're not defending anything over here like you're not you're not braced against anything you're just the space in which that person is showing up and so it's a it's a it's a an experience of being much more comfortable in in the presence of another person well you know whatever your relationship because you're not contracting right and then when you do when you have that again and this is meditation right this is meditation that is totally compatible with having a conversation with somebody and then when you notice yourself contracting like when you notice you're not doing you're not meditating anymore you're just you're actually reacting like they just said something or looked a certain way and now your cast back upon yourself in relationship to them that becomes a kind of mindfulness alarm right then you know that that that that it becomes like the the the unsatisfactoriness of that psychologically becomes more and more salient right and it's um because that's not one that's not the way you want to be and that's like it's the antithesis of being as comfortable as you were a moment ago but to it's it's something you're doing unnecessarily right like it's like you're you're like again you're making a fist when you don't have to make a fist right and it's um again we can leave aside all those circumstances where it's appropriate to react to someone and you know um you know I'm into martial arts and self-defense and yes you're not supposed to be just this puddle of goo out in the world who can be just mistreated by people and you know never put up you know resistance but it's um psychologically you know even even if a state like anger or contraction is sometimes normative and appropriate the question is how long is it normative and appropriate for like how how long do you want to stay angry for um in my experience these you know it's kind of classically negative emotions like anger and fear are appropriate as salience cues you know they they orient you to you know an emergency or a potential emergency but then in dealing with the emergency they're almost never the state you want to be in you know it's like you don't you know you don't you like it's it's better to actually become in an emergency you know so well absolutely I think that um and again the language is is insufficient to describe what um what you're telling us but I think what comes to mind for me is this distinction between situational awareness and self-awareness and we we need both but under conditions of emergency true emergency or motivated desire we need to um dial down the amount of self-awareness in order to be more effective within the situational awareness um but you said something very important in my lab has been working on uh fear like states for a long time so I'm gonna I confess I'm gonna um rob this from you but I'll credit you every time I describe is that that the that the the fear of the threat detection state or set of events uh acts as a as a flag but is not meant to persist in the way that uh the flag went up right if one is to be in their most adaptive state actually jocke o'willink and I were talking about this he has it talks a lot about detachment and open gaze things at my lab it's interested in visual system and autonomic interaction so white broadening the gaze literally brought us the time domain of thinking you've come up with new solutions to complex problems in real time and so on and um and you're describing every day set of interactions where that could be very useful and yet there seems to be something that about the way you describe meditation and what you've managed to arrive at and what practitioners of meditation can arrive at which is something more than that uh like it it's not just about being effective or optimizing all the language we see thrown around a lot in the space that I live in these days but um but something fundamentally more important about how to experience life and the self this this realization that what you thought was there was never really there there but that there are constraints that limit that and so to try and fracture those just constraints one by one would you say that meditation as a practice done for a few minutes each day or with the app that it's a um kind of a step function is a very non-linear in terms of people's progress um you know I'm certainly going to go um start doing more meditation based on this discussion truly um because anytime someone describes that um that there's kind of a myth that we've been living in I I become obsessed with the idea of dissolving that myth right that's a very seductive so thank you for using that one there is no better marketing tool which is I realize what you're not trying to do here but that's for me to capture my my um efforts you tell me that there's a myth that I'm living in and that it can be dissolved and that opens up a better landscape um yeah what is the process like is it do some people make progress very quickly do some people um experience kind of step functions towards progress what does that meditation practice look like over time do you still meditate or do you have you just threaded it through your jiu jitsu you're writing your daily life your coffee your time with your wife etc yeah also just to come back to just to talk about the myth for a second so they they're really what you just denunciated was a kind of a second doorway into this whole project so like the the usual door is through the door of suffering for lack of a better word I mean people feel unhappy in a variety of ways and they get more sensitized to the mechanics of their own unhappiness and meditation is one of the things on the menu the scene that is explicitly built as a remedy for for unhappiness and uh and it is and that's you know I think that's probably the most common path to this but another path is just intellectual interest I mean just wanting to know what's real so about the mind subjectively you know in a first person way and and there's no contradiction between those two things I'm I'm motivated by both of them but um you know it's a totally valid doorway into this um there are definitely step functions I mean I would say they're they're at least two I mean the the and they really are articulated along the lines of of um the framework I've been describing of of dualistic and non dualistic mindfulness right so in the beginning you're going to start out you know 99.9 percent people will start out dualistically paying attention and and noticing the difference between being distracted by thought and then being on the object of attention whether it's the breath or sounds or whatever and eventually that you know that opens up to all possible objects of attention including thoughts and the and there's still this fluctuation between being distracted and then being mindful of whatever and the fact that it's opened all possible objects differentiates this type of practice from anything that is narrowly focused on one object like a mantra or a visualization or suicide you know those are other paths of practice that are more concentration based um and interesting but the the benefit of mindfulness is that very quickly you realize it's by definition compatible with all possible experience because you're not artificially contracting your attention down to something you're you're just being aware of the next thing a site a sound a taste a thought um so the first step function is to very clearly experience the difference between being lost in thought and being clearly aware of any part of experience including thought and to notice the freedom that compared a psychological freedom that gives you right so you can like your something's made you angry and now you're thinking about all the reasons why you should be angry and have every right to be angry and what you're going to tell that person when you see them and and then you notice your thinking right and you notice the connection between the thought and the anger right you like like the the minute spent lost in thought about what's making you angry is the thing that dragged through the physiology of anger right and the moment you notice that once you're mindful once you can be mindful you can notice thought as thought and how quickly that dissipates that's just the language and the imagery just you couldn't hold on to it if you wanted to and then you notice the physiology of the anger is just this you kind of meaningless uh you know kind of inner in-can-desense that has its own half life and degrades very very quickly when you're no longer thinking about the reasons why you should be angry you can't hold on to the anger the anger itself dissipates right and from some from the point of view of the one who's being mindful this is tremendous relief I mean and at minimum it's a degree of freedom you can at that point decide well how long do I want to be angry for right is it useful to stay angry do I want to be angry for one minute two minutes five minutes ten minutes or because and before you have that capacity to be mindful you're going to helplessly be as angry as you're going to be for as long as you're going to be that way just based on the kind of the time course of your thinking about it brooding about it telling your wife about it you know like it just the you know it's just going to be this conversation based misadventure in you know negative uh states of mind uh and you are you are going to be the hostage of that for as long as you'll be the hostage of that you have nothing you can do apart from just deciding to you know check out and watch game of thrones again for the third time right like like it's just you can divert your attention to something else which is you know sometimes a good thing to do but mindfulness even dualistic mindfulness gives you this capacity to just observe the mechanics of this and then get off the ride when you when you whenever you want so that really is a step function like first there was a time when there's a time before you could do that and then there's a time after what you can do that the other step function is noticing that there is no one who is doing that I mean this is the non duality the selflessness the centralness of awareness right the fact that there's no place from which the mindfulness is being aimed but the fact that there's just this open condition and which everything is appearing you know thoughts included to have you as at that point your mindfulness no longer becomes it's no longer this this dualistic effort to strategically pay attention to anything as opposed to being lost and thought it's just what's left when thoughts when when when the present recognized thought unravels even before it unravels what's recognized is you are simply identical to the condition in which everything is appearing again this is not a I'm not making a a a depock trochochopro like metaphysical claim about the mind you know this is not I'm not saying the mind isn't what the brain is doing I'm not saying that you're recognizing the consciousness that gave birth to the universe and I'm not making any broad claims about metaphysics I'm just talking about as a matter of experience there is just this condition in which everything is appearing right and what you're calling your body again as a matter of experience I'm not saying that we can't have third person conversations about you know physical bodies in a physical world but as a matter of experience the only body you're ever going to directly encounter as your own is an appearance in consciousness right so consciousness is not in your body what you're calling your body is in consciousness you know visually appropriately it's like everything is just appearing in this condition and again you're not aiming that you're not this is not a spotlight that you're aiming at the body or at you know there's just this condition in which everything including anything you could call yourself as appearing and so yeah so that's the second step function is to recognize that this is all this is already true consciousness is already without this thing you've been calling your ego hoping and you know hoping to to unravel it through meditation consciousness is not going to get any more selfless any more central is any freer than it all always already is recognized as such and so that's that's the that the step function at that point is your mindfulness at that point the thing you come back to when you're no longer distracted is that that recognition again and again and then it becomes yeah it becomes compatible with anything you would do and so they answer your question yes I still practice you know formally you know sometimes you know frequently but not you know I definitely miss days and I don't do it for I mean I you know I don't rule out the the possibility that I will go back on retreat at various times just to you know check in with that and see if that makes a difference but um you know I you know I tend to sit for um I mean I tend to I've designed my life so that I can spend a lot of time meditating without having to be formally meditating like so you know I'll you know I'll go for a hike for two hours right and what I'm doing when I'm hiking is identical to what I'm doing when I'm quote meditating you know sitting in a chair you know doing nothing but meditate um so it's um yeah I mean I just I'm gonna get the I'm very I'm very interested in erasing the boundary between what people are calling meditation and the rest of life and that so that's in teaching these things I tend to emphasize that from the beginning because I think it's it's very easy to set up um to take it take it gold by a bunch of assumptions that caused you to be very um split in your sense of what your life is about and like I'm sort of banking my meditation over here because I'm I'm meditating two hours a day diligently and you know this is gonna be really good for me and then over here is the rest of my life which is not nearly as wise or as useful or as like this is the stuff that is still the area of my problems and um I think it's useful to recognize you've got one you've got one life you know and you've got this this this single condition of consciousness and its contents in every mode of life and there's something to recognize about it and you're always free to recognize that and you know you're truly even in your dreams right I mean it's just not this it never stops so that's that's what I tend to emphasize so earlier you told us that meditation is not about changing the content of conscious experience and in a different podcast that you were on heard you say something to the effect of that normally we are in our daily experience and unless we are trained in meditation unless we dissolve this illusion of the gap between actor and self and observer that we require certain sensory events to create collisions within us and with the natural world that sort of you know blast us into a different mode of being I want to use that as a way to frame up this idea that some things such as psychedelics but also a very long hike a very long fast um you know who knows a banquet you know different types of life experiences do exactly the opposite of what you're describing meditation does which is that they actively change the content of our conscious experience so much so that we often remember those for the rest of our lives yeah could you tell us why psychedelics can be useful and here I give the caveats that maybe you'll feel obligated to give as well but this we're talking about you safely and responsibly age appropriate context appropriate ideally with some clinical or other type of guidance legality issues obeyed etc all that stated it was psychedelics to me are an experience of altered perception internal and external perception altered space time relationship somewhat dreamlike I think it was Alan Hobson at Harvard for a long time talked about the relationship between psychedelic like states and dreamlike states um because of this distortion of space time dimensionality um and I haven't uh experimented with them much um I've been part of a clinical trial three doses of MDMA which certainly altered my the the quality of my conscious experience in ways that led to a lot of lasting and at least for me valuable learning yeah yeah so what are your what are your thoughts about psychedelics in terms of how they intersect with the discussion that we've been having and um what utility do they play and recognition of the cell for in other sorts of brain changes well so uh yeah let's just price in all those caveats that people can anticipate um these drugs are not without their risks and it's it's one problem is that we have this single term drugs or psychedelics which names many different types of substances and they're not all the same and they're not so like MDMA is not even technically a psychedelic I think it has immense therapeutic value and it actually was my gateway drug to this this whole area of concern um infetamine pathogen right it's a sort of an infetamine nanopathogen yeah yeah I mean it's often called pathogens yeah an empathogen yeah not pathogen yeah no pathogen yeah an empathogen or an entactogen it's it's been called um but it doesn't tend to change perception in the way that classic psychedelics do and it's it's it's also serotonergic but it's it's not um it has to be in some part differently so then me even LSD and psilocybin which are much more similar in classic psychedelics both are also serotonergic but they're not merely so and they're they're also different um and the and the higher dose you take of these drugs the more you at lower doses everything can kind of seem the same at higher doses they they they they begin to diverge um and we can talk about the the pharmacology if you wanted to but um the uh I would just say that for many of us and certainly for me psychedelics were indispensable in the beginning in proving to me that this was uh the the the the first person interrogation of the mind was worth doing you know because you know I was somebody who at you know age 17 or 18 before I had any real experience with with MDMA or LSD or psilocybin um if you had taught me how to meditate at that point I think I would have just bounced off the whole project I think my mind was I was just I was so um cerebral in my just my engagement with anything I was so skeptical of any of the the spiritual the religious and spiritual traditions that that have given us most of our meditation talk you know um that I think I just would have um and I know many of these people like I you know I have I have tried to teach you know Richard Dawkins to meditate and Daniel Dennett to meditate I've ambushed them with meditation and very you know both both in a group setting and and one on one uh not not Dan but uh but Richard I I I ambushed on my own podcast with a guided meditation and he just you know from his he you know he closes his eyes he looks inside and and there's nothing of interest to see right like it's just it's like it's not he doesn't have the the um the conceptual interest in him that would that would cause him to persist long enough to find out that there's a there there right now this is not a problem with LSD or psilocybin or MDMA and I know that if I gave him 100 micrograms of LSD or five grams of of mushrooms or you know 20 you know 25 milligrams of psilocybin um that's probably not the analogous dosage to the five grams of mushrooms five grams of mushrooms would be more than that um uh I forget what it is of of MDMA maybe 120 milligrams of I think the map dose is uh which is the one that's under clinical trials is 125 milligrams with an option of a 75 milligram bruster right right right funny I remember the fact the facts that come to hands but there's not there's just no possibility that nothing's going to happen right now something with with a psychedelic with MDMA most people tend to have a certainly under any kind of guidance tend to have a very positive you know pro social experience um but you know with a psychedelic you might have a a a a somewhat you know terrifying experience if you have quote a bad trip you know you know and I certainly had those experiences on on LSD and and to some degree in psilocybin but um um the prospect that nothing is going to happen is just in you know a million you know nearly a million cases out of a million just not in the cards I mean just just neurophysiologically something's going to happen with the requisite dose of uh of one of these drugs and if if that thing that happens is is psychologically at all normative and you know pleasant and interesting and valuable which it is so much of the time and certainly under the appropriate you know set and setting and and guidance um it can be you know a lot of the time for you know virtually everybody again there are caveats if you if you're prone if you think you have you know a perclivity for schizophrenia or you know bipolar disorder this is almost certainly not for you you know and anyone doing a we the the the studies at like Johns Hopkins for for um therapeutic effects of of any of these drugs they're they're ruling out people with you know first degree relatives with with any of these clinical conditions um but so for somebody like me at 18 who didn't know that this was an area of of not only interest but would have been that you know the the center of gravity for the rest of his life if only he could pay attention clearly enough to see that it could be right um I was someone who very likely again I don't know I don't have the counterfactual in hand I don't know what would have happened if if someone had you know forced me to meditate for an hour at that point but I know I wasn't interested in it until I took MDMA um I know I wasn't having these kinds of experiences spontaneously that get that showed me that there was an inner landscape that was worth exploring um I was a very hard headed skeptic who was very interested in lots of things but there was no alternative to me just thinking more about those things right I mean the idea that there's some other way of grasping cognitively at the interesting parts of the world beyond thinking about the world right I just I that just wouldn't have computed for me at all right and if you had so I just I and I literally have I had no one ever gave me a book to read or I never had I don't know if you the noun meditation very likely meant absolutely nothing to me before before I took my first dose of in this case it was MDMA um so what the drug experience did for me is it just proved I mean so the one of the limitations of a drug is that you know obviously no matter how good the experience the drug wears off and then you're back to you know more in more or less your usual form and now you have a memory of the experience and it can be a fairly dim memory I mean some of these experiences are so discontinuous with normal waking consciousness that it can be like trying to remember a dream you know that just disappear that degrades you know of the course of seconds and then it could have been the most intense dream you've ever had and for whatever reason you can barely get a purchase on you know what it was about and um you know there's some psychedelic experiences that are analogous to that but for most people most of the time there's a residue of this experience and with something like MDMA they can be quite a quite vivid um where you recognize okay there there was a way of being that is quite different than what I'm tend to access by default and it is different in in ways that are just uh you know obviously better and and psychologically more healthy I mean it's possible to be healthy psychologically in a way that I I never imagined right and that then when you then when you link it up to the traditional literature around any of this stuff again so much of it is shot through with with superstition and other worldliness of of religion and you know as you know and I think your listeners probably know I've spent a lot of time criticizing all that but there is a baby in the bath water to all of that right so I guess it's not that somebody like Jesus or the Buddha or any of the matriarchs and patriarchs of the world's religions it's not that they are we're all conscious frauds or you know temporal lobe epileptics or I would like there's there's a there's a pathological lens that you can put on top of all that but once you have one of these experiences on psychedelics or on a drug like MDMA you know that there's a there there you know that unconditional love is is a possibility right you know that that uh feeling truly one with nature right I mean just so one with nature that you're you could spend 10 hours in front of a tree and find that to be the most rewarding experience of your of your life right that's a possible state of consciousness now it may it may not be the state of consciousness you want all the time you know you don't want to be the crazy guy by the tree you know who can't have a conversation about anything else but uh once you have one of these experiences you recognize okay there's there's some reason why I'm not having the beatific vision right now and I can't even figure out how to aim my attention so as to have anything like it and that's a problem right because it's it's available right and it's it's the best you know it is among the best things that's has ever happened to me right and now I can just only dimly remember what that was like um so how do I get back there on some level and that's so that invites again a logic of changes a logic of seeking changes in the contents of consciousness which sets someone up for this this um um protracted or seemingly protracted and and you know fairly frustrating search to you know game their nervous system so as to have those kinds of experiences more and more um um and again it's not that that's in principle fruitless but it is from the point of view of the kind of the core insight of you know the core wisdom of you know what I would take from a tradition like Buddhism which is not you know it's not the only tradition that has given voice to this but it's I would argue it's given it you voice to it the most in the most articulate way again leaving aside any of the superstition and and other worldliness and miracles that you know we don't have to talk about at the moment and you certainly don't need to endorse in order to be interested in this stuff um and so that's the the bifurcation between the all of the utility of psychedelics and what I'm talking about uh under the rubric of meditation is at this point of okay once you realize there's a there there what do you do and what's the logic by which you're led to do it and it's possible with like if if your only framework is the good experiences the good feels you had on on a whatever drug it was and a further discussion of of like what that path of changes you know can look like and that can come in a religious context it can come in just a purely psychedelic context or you know some combination of the two um I think you can be misled to you can just be you can be misled to just seek lots of peak experiences you're just trying to string together a lot of peak experiences hoping they're going to change you every one of which by by definition is going to be impermanent right I mean it's first it wasn't there then it's there and then it's no longer there and then you've got a memory of it right the what I think it's what everyone really wants whether they know it or not and they're right to want is a type of freedom that is compatible with even ordinary states of consciousness which which can ride along with them into extraordinary states of consciousness I mean so what I hadn't done psychedelics for 25 years because I mean again they were super useful for me in the beginning then I discovered meditation on the basis of those experiences got really into meditation and realized okay this is a much more this really is the you know conceptually this makes much more sense to me this is delivering the goods you know in terms of my experience there's no need to keep having these you know seeking these peak experiences with with with drugs but it had been you know 25 years since I had done that and there was this resurgence in research on psychedelics and I was being asked about psychedelics and I was talking about their utility for me but again these were distant memories and so I and there was also one type of psychedelic experience I was I was aware that I had never had I had never done a high dose of mushrooms blindfolded you know like every every mushroom trip I'd ever had I'd been out in nature and interacting with you know you know it's just been a very transformed sensory experience of the world and of other people but I'd never done it alone blindfolded just purely you know inwardly directed and at a high dosage I'd done high doses of LSD but but not mushrooms so I did that you know and it was very useful and I spoke about it on my podcast and there's actually there's I think if you search Sam Harris mushroom trip on YouTube you get the the 19 minute version of that you know my describing that trip it was incredibly useful and but it was what was doubly useful was my mindfulness training in the context of that explosion of the synesthesia I mean it was it was it was such an overwhelmingly strong experience and there were so many moments where it could have gone one way or the other based on my sense of just okay I'm gonna try to resist this you know it was like it was it was it was in truth irresistible because it was just so much but um there were moments where I was aware of okay this is like letting go of self you know in this context is is the thing that is going to you know turn to make the difference between heaven and hell here you know and because there's there's experiences that are so extreme that you can't even tell if it's agony or ecstasy it's just it's just everything has turned up to 11 right and the difference between the two is like you know the tipping point it's just it's not it really is kind of a high wire act in some sense you know you could just fall to one side or the other and um yeah so what I think people want is um they certainly want to be able to extract from the psychedelic experience wisdom that is applicable to ordinary states of consciousness it's like what is the thing you can realize in a moment of having a conversation with your child that isn't distracting you from that relationship it's not a memory of when the world dissolved or you know when you were indistinguishable from the sky but it's just a way of way of being having free attention and unconditional love in this you know totally ordinary and potentially chaotic human experience you know which can be psychologically fraught and you can meet you know iterations of yourself that you don't like that are that are not equipping you to be the best possible person in that relationship and what we want to do is cut through all of that and actually you know be in love with our lives and with the people in our lives more and more of the time yeah and um that's there's I'm not saying that's the psyche you know that repeated psychedelic journeys aren't can't be integral to that project but but you know that it can't the project can't be being high all the time right so whatever is extractable from that the the the occasional you know psychedelic trip has got to be mapable into ordinary waking consciousness and the point of the real point of contact does kind of run through this you know what I've been calling the illusion of the self and again it is that part is discoverable without any changes in contents right so you don't have to suddenly feel the energy of your body be rush out and be continuous with the you know the ocean of energy that is not your body right like that's an experience that's there to be had right means there's no doubt but this the truth is I mean just looking at this cup is just as formless and as mysterious as that right when it's seen in the right way and that's and that's that's what you know meditation encourages to you know want to recognize why share the experience that MDMA significantly altered my perception of what's possible in terms of an emotional stance towards self and others yeah including animals right something that runs very deep for me and that I had been kind of actively suppressing in anticipation of having put my dog down but also I you know I'm not I don't know how to frame it except to say you know my lab did animal research for years and I was always very conflicted about it yeah yeah because I love animals and yet I wanted to understand the brain and we need to work on animal brains and we rodents or yeah I'll be very direct about this my lab work I've worked on many species I've worked on mice and rats I've worked on admittedly I've worked on I've done some cat experiments I've worked on large non-human primates including including macaques I no longer work on any of those species I've worked on cuddlefish saffelopods a discussion for another time brilliant little creatures maybe maybe as smart as us or who knows maybe smarter and now I work on humans because I couldn't reconcile the challenge inside me which was my love of animals and working on them I just couldn't do it any longer yeah and and MDMA didn't set that transition that transition actually had been set a lot earlier you know something I really grappled with it didn't keep me up at night but it was always in the back of my mind right in any event I hope what we discovered was was worthwhile but this is a that's a bigger debate and I have strong feelings about this and maybe it's a topic for another podcast but I'm very happy that now I work on humans and they can tell me if they want to be part of the experiment or not and I trust them and I trust their answers I think that MDMA in its role as an empathogen I think really did set an understanding of what's real and true so think truths like that become they don't I felt that they didn't hit me square in the face I just could the feeling behind the conflict made itself evident and what to do about it made itself evident so I suppose MDMA did I did assist the transition to purely human research as opposed to animal research the other thing that I noticed it is it it made it not scary to confront things that were scary to confront in my conscious life and I could think about things in my conscious life but it made you know it brought them close in a way that I could get closer and closer to the flame and then gain some understanding I've still amazed at how answers arrive both during the session and then the weeks and months that follow if one puts the attention to it I think that's why it's important to have a guide of some sort or to have some some pseudo structure because otherwise you can one can get attached to the sounds in the room and just and there's probably meaning there but I wanted to do some deeper work I have not had experience with psilocybin at least not since my youth and I don't recommend young people do it I regret doing LSD in psilocybin as a young person I don't say that for politically correct reasons or liability reasons I just think my mind was not developed and but I'm intrigued by something so here's the question how is it that psilocybin in particular and high dose psilocybin and the ego dissolution that people talk about on psilocybin how do you think that lines up with some of the experiences that you've been describing for a adequate meditation practice because that's something that I did not experience on MDMA in fact if anything I experienced for the first time what really feeling like a isolated container was and the difference in how empathy and being bounded having in other words good boundaries and empathy could be symbiotic I experienced that for the first time there and I I do think that there is learning inside of these states that translates into everyday life when one is not on these states and the last thing I'll say is no I don't feel the impulse to go and do 20 more MDMA sessions I think that the three as part of this study were very effective for me and you know as they say if you hear the calling again you might do it but I'm very curious about psilocybin in particular and this notion of ego dissolution because we've been talking about the self well so there are different ways in which the sense of self can be eroded or expanded or there's lots of experiences that can still have a kind of center to them but be you know very novel and transformational and one can reify those as a kind of goal state right and it's sort of the there's a concept in Buddhism that I think is useful it doesn't translate well to English or it can set up kind of false associations in English that are unfortunate but so there's a concept of emptiness in Buddhism which sounds again kind of gray and disparate in English but it's what it's it's sort of a cognate terms are things like unconditioned unconstrained open centralists right so it's it's there's a and that is so when I'm talking about non-duality when I'm talking about the loss of a sense of subject and then what's left in Buddhism they would often describe what's left as emptiness but it emptiness is not a something it's not a it's and it's important it's not the same thing as unity right so it's not it's not a oneness right because it's it's what's what's let when the center drops out of experience it's not like you are suddenly merged with the cup right it's but now granted that you know this is where psilocybin and other psychedelics can give a false impression of I think what the goal is you can have kind you seeming merging experience you can have unity experiences on psychedelics which can be quite powerful especially with nature with other people and with nature where you can just feel like you know the the the energy of your body becomes incredibly vivid and powerful it's just like like you're just you know everything is just you know buzzing with you know life energy and then when you you know touch another person's hand or you touch a tree there can be this sort of continuity of energy which can be this overwhelming experience of again this is a a just a 20 megaton change in the contents of consciousness right this like this is a non-ordinary state of consciousness but like this is a give some indication of what of how this happens I well when I back in the day when I was in my 20s and I was experimenting with with this was LSD but some friends and I decided we had this brilliant idea we would we would camp above mere woods and then take some some LSD had dawn and then walk down you know like a mile I think from the campsite into the into the actual proper grove of trees and you know commune with a giant redwoods the tallest trees on earth and so we dropped the acid at dawn and we start walking but the acid came on you know almost immediately and we didn't get I mean we got nowhere near the woods and we got stopped by a tree that was just like an ordinary you know 20 foot oak tree like the most boring tree in the world and that tree absorbed like the next six hours of our of our conscious attention because it was just you know it was the tree of life I mean it was just could you could be no better tree so these are we're talking about non-ordinary states of consciousness wherein a emerging with life and with with the world is possible and that is a so I'm not saying that kind of experience isn't possible but there's a sort of expanded self reification it is it is a kind of ego dissolution but there's a there's a kind of egoity that sort of goes along for the ride as well or can go along for the ride and the real insight into emptiness the real sort of centralist you know center of the bullseye is a recognition that that in some ways equalizes all experiences and again it's it's it's just as available now in the this ordinary you know podcasting experience as it is when you're merging hands on with an oak tree and you know on you know 400 micrograms of acid and this is you know the this is the whole universe um and so it's it's the it's the equality of those two experiences that this concept of emptiness captures which a concept of oneness doesn't quite capture because oneness is really this this peak experience of being dragged out of your you know your somethingness into a much bigger somethingness right emptiness is just no center right and then everything is in its own place right there's still sights and sounds and sensations and thoughts and feelings but there's just there's no there's no center and there's no clinging to anything there's no clinging to identity there's no clinging to the good stuff there's no there's no resistance to the bad stuff there's no this is so pleasant and unpleasant get sort of strangely equalized and there's this very it's it's very expansive and and most importantly it doesn't block anything so yeah if for whatever reason if your nervous system is set up to have the oh my god i'm now merging with the tree experience that's that's possible from the state of no center right and and and on my you know that my reason now not so reason three years ago is right before covid but my last you know big psychedelic experience you know there was i was very much experiencing that whereas you know insofar as i you know you know at the peak there was no me to remember any of any of this stuff but you know insofar as I could experiment with is this really different from anything else you know there is a kind of equalizing to the emptiness recognition even in the in the presence of a completely transformed neurophysiology and and so that's um again there's there's a point of contact i mean the the real point of contact between psychedelics and meditation for me is but for my experiences on psychedelics there's i think there's just no way i would have had the free attention to be interested in in the in the project at all um and there are other aspects of the project it's not just having this insight into selflessness it's it's all of the ethical ramifications of that it's just like what kind of person do you want to be what are your values what's what what is a good life altogether when you are talking about relationships and you know political engagement and the changes you can make in the world or not make or it's just you know what kind of person do you want to be there's there's there's a much larger consideration and i mean as you discovered you know an experience on mdma can really both both expand your model of what is possible and what is desirable what is normative i mean just what kind of you know what kind of self do you want to be in the world and it can also help you cut through things that are inhibiting you you're actualizing any of those possibilities in ordinary waking consciousness i've certainly found that to be the case i mean you raise a really important point which is that um once these learnings take place these understanding take place inside of psychedelic journeys and um i do believe they translate to neuroplasticity i do want to highlight the point for people oftentimes people say you know this uh mushroom or this psychedelic um it opens plasticity but of course plasticity has to be directed some place plasticity is just a process like like walking or anything else underlying neural process and i i think um it's impossible for me to understand what compartments of my life have been impacted by um these three mdma sessions but i um in some ways i wonder whether or not not just the transition away from animal research but also a um a deeper realization of the love for learning and sharing information uh you know i won't go so far as to say this podcast is happening because of that particular session but these things um they split out into multiple domains of the self and i do think that um the key features that feel most important to me to mention are that um it really identified uh true loves things that i truly love and made me less um less cautious about feeling the how intense those loves really are and then also uh lower the inhibition point of exploring like well what that what what would that mean right you know and the one of the reasons i bring this up and why i think it's so important that you mentioned you know uh some issues around politics and ethics and many things have displayed out from your exploration of psychedelic meditation neuroscience philosophy you know all the things that are you and of course that's only a subset is that so much of what i hear and see so much of what i hear and see in the kind of self-help space contradicts itself and leads back to the the origin without a lot of um progress and and for instance we hear you know absence makes the heart grow fond of but then out of sight out of mind you hear about radical acceptance but then what if it's radical acceptance of non-acceptance right i mean there are some experiences in people for which i radically accept the fact i want nothing to do with them yeah and does that some am i supposed to transcend that so these are the questions i think that keep a lot of people from exploring things like meditation because they feel like well is the idea to just be okay with everything is radical acceptance just like we'll just you know bulldoze me with it with with things even if they're you know and my goal is to somehow surpass the idea that they're harmful and i don't think that's actually the way any of this stuff is supposed to work although i don't claim to be the authority on it either i you know i think notions of radical acceptance and radical honesty and and any number of different sayings that one can find out there are really the the most salient beacons and guides that most people have in order to try and navigate tough areas in their life including the relationship to self but others and political orientations and so i feel like almost all those things can be used to anchor down in a stance that may or may not be informed or to open up to ideas and so i think the none of this can really be solved in a single practice it sounds like but it does seem to me that based on what you've told us today is that only through a deep understanding of the self as it really is as opposed to the solution that you framed up could we actually arrive at some answers about like what's actually right for each and every one of us yeah i mean there's one generic answer that i think can be extracted both from psychedelic psychedelics and from meditation and just from just thinking more clearly about the nature of of our lives and it's it's to become more process oriented and to and to continue to be more and more sensitive to the the maro the maro the maroge like character of of achieving our goals right now i'm not i'm not against achieving goals i have a lot of goals i've you know i'm you know i'm very busy there are lots of things i want to get done and and i you know i i'm a satisfied as anyone to finish a project and but if you look at the time course of all of that you know fulfillment and you you just there are a few lessons that everyone I think has to draw one is most of your life is spent in the process right like the call like the moment at which the goal is you know fully conquered that is just i mean that has a you know it's a tiny duration and it has a very short half life and you're it the moment you arrive at it it begins to recede because in the meantime you have all these other goals that have appeared on the horizon you've got people asking what you're going to do next and you you in some sense if you're if you're focused on goals you really you can never arrive right and i think what we're what we're looking we're all looking for in life you know whether we're ever thinking about taking psychedelics or or practicing something like meditation we're looking for good enough reasons to let our attention fully rest in the present right now like it's hope i mean that that is the logic of success like the sense like i've got all these things i want to do if i could just get rich enough or fit enough or you know dial in my sleep well enough or you know improve my life in all these ways get the right relationship wouldn't be great to be married or maybe you know i want to start a family i want all of these these things why do i want these things right i want these things because i'm telling myself this isn't it's not that all of those things are wonderful right i'm not i'm not discounting those relative forms of happiness or sources of happiness because it's all completely valid to it's completely valid to want those things but in the present it's for one thing is absolutely clear it's possible to be miserable in the presence of all of those things right it's and you can add you can add great wealth and fame and everything on top of that it's possible it's possible to be absolutely miserable having everything anyone could seemingly want right i just have to open a newspaper to see people living out that predicament right you know that's spectacularly wealthy famous healthy successful people who could do anything they want in their in life apparently and yet they're doing this thing that is completely dysfunctional and making them needlessly miserable i won't name names but there are enough of them some people come to mind at the moment um so so there is a there is a a clear dissociation between having everything and happiness that's possible and it's also possible to have very little you know and almost nothing and to be quite happy i mean you you might not have met these people but you know i have met people who have spent you know 10 years alone in a cave right you know and they come out of that cave not floridly neurotic or psychotic they come out of that cave beaming with compassion and joy and i mean it's like they've been taking MDMA for 10 years essentially and they come out of the cave and that now they're going to talk about it right um so and i'm not necessarily recommending that project anyone but i'm just saying that is that is a psychological possibility so you have a double dissociation here whether you can have everything and be miserable you can have nothing and be beaming with with happiness um so what is it that we actually want in all of our seeking to arrange the props in our lives and our and our and the story to have a a convincing enough story to tell about ourselves that we're doing the right thing what are what is all of that effort predicated on is predicated on this desire and this expectation that if we could get all of this stuff in the right place and not have anything terrifying to worry about right everyone we love is healthy for the moment right and we're healthy and that's you we've got something to look forward to on the weekend and there's not some there's not a you know a plumbing leak in the house that we have to immediately respond to and we like our house and you know our career is going fine and there's something good to watch on Netflix and we have all of it right now can we just actually give up the war right can we can we can we can we fully locate our our sense of well-being in the present moment is it can we relax the impulse to brood about the past or think anxiously about the future well for long enough to discover that all of this here is enough right because our life our our life is we have this finite resource of I mean we absolutely have the finite resource of time but within this the finite resource the continuum of time we have the even more precious resource of free attention that is that that can find our our our our our fulfillment in the present right and because even if we're even if we're guarding our time to do the things that are most important to us we can spend all of that time regretting the past or you know anxiously expecting the future and telling it to just balancing between past and future in our thinking about ourselves and our lives and basically just dancing over the present and never making contact with it right so what we I think what we want is a circumstance where attention can be located in the present in a way that's truly fulfilling and unless you have had some kind of radical insight that allows you to do that on demand you are in some sense hostage to the circumstances of your life to do that for you you're you're constantly trying to to engineer a state of the world that will propagate back on a state of self that will make the present moment good enough and what meditation does and psychedelics to some degree does this but meditation very directly does this it reverses the causality and and and lets you actually change change states such that you can be fulfilled before anything happens right nothing you're happiness is no longer predicated on the next good thing happening you can be in the presence of the next good or bad thing already being fulfilled and already being at peace you know I mean there's a there's a I think they're misleading nouns we can we can throw it at what is left there but it is you know you know tranquility peace freedom lack of contraction lack of conflict I mean like all of that is they can be more and more of a default and all of that is also compatible with deciding you know yeah why not get in shape why not engage this project why not you know change your career I mean it's not it's not that you need to be somebody who who accept me to to your point you can notice all of these non optimal things because no matter how much you meditate you know you're you're very likely very likely going to spend a lot of your time still lost in thought still identified with it and still wanting still caring about the difference between dysfunction and normativity in your life right and and the question is what can you what can you locate when the question it's really it's like how much can you puncture that seeking happiness project with the recognition that you're already free right that I mean that that is that's what that's what meditation makes possible you can keep just a thousand times a day letting some daylight into this search space and so it's it but it is still compatible like you can I mean working out as a great frame in which to look at this because I mean we're working out when you when you when you really work out you know I'm thinking you know mostly I mean it's really anything but it's in resistance training or cardio or something like your jitsu you're you're you're intentionally putting yourself in classically unpleasant circumstances physiologically I mean so if you if you were you know if you imagine what it's like to do anything to failure right well if you just check in and what the on what that is like at the level of sensation I mean that is is it's basically a matter it feels like a medical emergency right I'm like that if you were having that experience for some other reason like if you woke up in the middle of the night and felt what it feels like to be deadlifting you know on your 10th rep on a set where you're going to you know you would fail at 11 right like that is just you know that's an emergency but because you understand what you're doing in the gym and you've sought it out and like it's actually it's actually something you like doing right and you can you can get a real dopamine you know hit from from doing it um that what what you're doing when you're doing that is you're you're owning a kind of a like you're you're actually transforming a classically negative experience into something that's almost intrinsically positive right certainly the net on it is positive um you can do that and and when being able to do that is more and more the experience of being actually at peace even while exerting a really intense effort in in one direction so you can be straining and I'm sure physiologically showing a lot of stress and I'm sure the you know cortisol is up and like you know you know blood pressure is up heart rate is certainly up um so it's like it's as far as the body is concerned is this stress as far as the eye can see but you really can be deeply equanimous in at peace because again because of the frame around it because of the concepts attached to it because you know what you're doing you know why it's happening and you want it um you so that that that's an attitude you can bring into other stressful things that take effort to accomplish and so it's not it's not that you just need to be a pushover when you learn how to meditate or when you take mdma or you do any you work on yourself in any of these ways but what I think you I think you want to find is you want to find your point of rest in the midst of of any struggle. I would say that the certainly mdma but and again I've less experience with meditation and um but they really I think put us ultimately in positions of what can only refer to as real strength is to make what before seem like impossible decisions or even um concepts or emotional states to even think about for any period of time without deliberately distracting or avoiding in some other way and be able to lean into those with with open eyes and I think that's um to me that's my definition of strength I don't know what other people consider but yeah um there's it there's definitely something real they are in each case this may seem like a divergence but I and many other people are very curious about a recent decision that you made which was to close your account on twitter um you still have an instagram account I noticed but uh well I never I mean my team manages that I've never I've loved friendly or over it in instagram I've been there a lot longer than seeing it so it's pretty good actually considering imagine what would happen if you did uh deep-faited they're doing a good job with it um but your decision to close your account on twitter um I think grabbed a lot of eyes and ears and um there's a lot of questions about why it was a very large account you know um it correlated with a number of things that for the outsider people might be wondering about um you know new leadership uh new you know people who had been booted off brought back on or at least invited back on right and so on uh you are certainly not obligated to explain your behavior to me uh or anybody else um for that matter but I'm curious if you might share with us um what the motivation was um for taking the account down and and uh how you feel in the absence of uh I mean your thumbs presumably are freed up to do either yeah I was getting like an arthritic right thumb I think and I think if you don't mind sharing I think there's a there's a lot of curiosity about you and your your routines you've been very generous in sharing that your knowledge um and but also kind of like what what makes what makes you tick what motivates um pretty big decisions like that it wasn't a major platform for you right yeah so it was it was the it was the only social media platform I've ever engaged and I like he said we I have an Instagram I have a Facebook account but I never never use those as platforms right I've never on them I never thought I've never followed people and I've never and all the posting has just come from it's just marketing you know from my team um but Twitter was me I mean I you know for better or worse and um I began to feel more and more for worse and it was um it was interesting because it was very you know I've you know I've talked about it a lot of my podcasts about just my my love hate relationship with Twitter over the years many good things came to me from Twitter and I was you know I was following a lot of smart people and it it become my newsfeed and my first point of contact with with information each day and I was really attached to it just for that reason just as a consumer of of content um and then it was also a place where I was I genuinely wanted to communicate with people and react to things and and you know you know I would see some article that I thought was great and I would signal boost it you know to to my people following me on Twitter and that was rewarding and I was I could literally help people on Twitter like I mean there was a there were you know there are people who I've raised lots of money for on Twitter just by you know signal boosting there go fund me's and and so I was engaged in a way that seemed productive um but I was always worried that it was producing needless conflict for me and was was giving me a signal in my life that I was being lured into respond into and taking seriously that was out of proportion to its its representation of any opinion or set of opinions that I should be taking seriously so I was noticing that that again this evolved over years I mean this this long before long long long predated recent changes to Twitter um but I was noticing that many of the worst things that had happened for me professionally were first born on Twitter I mean just like you know some some conflict I got into with somebody or something that I felt like I needed to podcast about in response to on Twitter um it's just so much of it it's either it's Genesis was Twitter or it's the the the uh the further spin of it that became truly unpleasant and dysfunctional happened on Twitter like it was just Twitter was part of the story when it was got really bad and I've I've had you know vacations that have gone sideways just because I got on Twitter and said something and then I had to produce a controversy that I had to respond to and then I had to do a podcast about that and but and just and it was just okay this is a mess right and so at that point you know I you know I have friends who you know also had big Twitter platforms who would who would say you know why are you you know why are you responding to anything on Twitter just tweet and ghost you know just due to having and there's like Joe Rogan sat me down and tried to get you know give me a talk into it I stood Bill Moore um and both of them engaged Twitter in that way I mean they I think they basically never look at their at-mentions they never see what's coming back at them they just you know they use it effectively the way I use or don't even use Instagram or Facebook I don't even see what's going out there in in my name um and so I I could essentially do that for myself on Twitter presumably and I did that for some periods of time but then I would continually decide okay now it's all balanced again maybe I can just communicate here because it was very tempting for me to communicate with people because I would see somebody you know clearly misunderstanding something I had said on my podcast and I think oh it's like why not clarify this misunderstanding right and and my efforts to do that almost invariably produced a um this I mean sometimes it was a kind of a meandering uh process of discovery but often it was just kind of a stark confrontation with what appeared to me to be just lunacy and malevolence on a scale that I never encounter elsewhere in my life like I never meet these people in life right and yet I was meeting these people by the tens of thousands on Twitter and so the the thing that began to worry me about it and again this I understand that people have the opposite experience I'm talking about depending on what you're putting out and what you're you know the kinds of topics you're touching you could have just nothing but love coming back at you on Twitter right but because I'm very essentially in the center politically and because I you know I'm this is now on my podcast this is not in the waking up app I'm often criticizing the far left and criticizing the far right I'm basically pissing off everyone some of the time right so and it's very different if you're only criticizing the left you hate I'm you know that you get hate from the left but you have all the people on the right who just reflexively and tribally are expressing their solidarity for you right and who are who are dunking on your enemies for you and you know when when your enemies come out of the woodwork and if you're only criticizing the right I'm sure you get a lot of pain from the right but you've got the people on the left who are tribally identified with the left who are who are just going to reflexively defend you if you're in the center criticizing the left has hard as anyone on the right ever criticized the left criticizes the left and you're also criticizing the right as hard as anyone on the left criticizes the right you're getting hate from both sides all the time and no one is reflexively and tribally defending you because you pissed them off last time you're like you might be getting hate from the left now and the people on the right agree with you but they can't forget the thing you said about Trump on that podcast you know two podcasts ago so they're not going to defend you and so what I basically created hell for myself on Twitter because it was um I just you know it was just a theater of it was just pure cacophony most of the time and what I was seeing was I mean there's no way there's this many psychopaths in the world but I was seeing psychopaths everywhere I was seeing like the most malicious dishonesty and you know just goalposts moving and hypocrisy and and I mean it was just I mean some of this trolling and some of its real confusion and some of it is psychopathy but it's like it was so dark that um I worried that he was actually giving me a very negative and sticky uh view of humanity that was I mean one it was you know I think it isn't an inaccurate but two I it was it was something I was returning to so much because again I was checking Twitter you know at least a dozen times a day and I'm sure there was some days where I checked at a hundred times a day I mean it was it was again it was my main source of information as constantly reading articles and and then putting my own stuff out um that it became this kind of fun house mirror in which I was looking at the the most grotesque side of humanity and feeling you know implicated in in in ways that were important important because it was just it was reputationally important or seemed to be important um I know a lot of these people it's not these weren't just faceless trolls these are these are people with whom I have had relationships and in some cases friendships who because of what you know largely Trump and COVID did to our political landscape in the last you know half a dozen years um we're beginning to act in ways that that seemed you know starkly dishonest and you know crazy making to me so I was just noticing that I was forming a view of people who I actually have had dinner with that was way more negative based on their Twitter behavior than I think would ever be justified by any way they would behave in life with me you know I mean that's like it's never I was never going to have a face-to-face encounter with any of these people that was this malicious and dishonest and gaslighting and weird right as as was what was happening hourly on Twitter right and so I just began to become more sensitive to what this was you know just the residue of all of this in my life and how and just how often the worst thing that the worst thing about me in my relationship with the people in my life you know they just talking to my wife or my kids was just the fact that I had been on Twitter at some point in the you know previously in the the previous hour and there was some residue of that you know if you know in my interaction with them you know it's like what you know what he's stressed out about what do you annoyed about what do you pissed off about you know what can't you get out of your head um what is the thing that you now feel like you need to spend the next week of your life focused on because it went so sideways for you all of that was Twitter you know a little I mean literally a hundred percent of that was Twitter and and so I just at one point it was actually on Thanksgiving day I just looked at this and I just just I mean it was very little thought went into it I mean literally I mean you know it was more thought in involved in you you know whether I wanted coffee when you asked me when I showed up here I mean it's just like a certain point I just I just saw it and I just I just ripped the bandaid off and yeah so um and to answer your other question it's been almost wholly positive as you might expect given the the litany of pain and discomfort I just ran through but um I mean it's also it's it's it's surprising to recognize how much of a presence it was in my life given the sense of what is now missing I mean it's like there there's it was there's no question there was there's kind of an addictive component to it and when you see I'm like when I look at what Elon's doing on Twitter forget about his ownership of it and I'm not you know I have got a lot to say about you know the choices he's making for the platform but just his personal use of it is just so obviously an expression of I mean I don't know if addiction is the you know clinically appropriate um term but you know his dysfunctional attachment to tweet to using the platform forget it again forget forget about changing it and owning it but just the just the degree to which it is pointlessly disrupting the life of one of the most productive people in any generation um uh I that was also instructive to me because I know Elon and I just you know um he's from you know kind of a friend's eye view of the situation it's so obviously not good for him that he's spending this much time on Twitter um that uh I just brought that back to me it's like well it is not if this is what is doing to Elon and he's got all these other things he could be doing with his attention how much of my use of Twitter is actually you know a good idea and you know optimize to my well-being and the well-being of the people around me um so anyway it was there was an addictive component to it I think and so when that got stripped off I you know I do notice that there's I mean there's some there's times I pick up my phone and I realize this is like the old me picking it up my phone for for a reason that no longer exists because there's not that much you know I you know I have a slack channel with my team and I've got email obviously but it's like that is not much of what I was doing with my phone really in the end and so like it's just my phone is much less of a presence in my life and and so it's it's almost wholly good but um yeah I it's for you know there's I think there is some danger in uh or some some some possible danger in losing touch with certain aspects of culture which again I'm not even sure I mean there's this question of you know how much is Twitter real life and how much is it just a mass delusion uh I don't know but in so far as it actually matters what happens on Twitter um or in so far as I was actually getting a news diet which I'm not going to be able to recapitulate for myself or I'm just not in fact want to recapitulate for myself even if I could um if any of that matters I haven't discovered that yet but it's yeah I mean there's it was taking up an immense amount of bandwidth and it's it's impressive I mean I think I said I you know it's like I amputated a a phantom limb right it like it was not a real limb but it was it was a this continuous presence in my life that um that uh it is it's weirded it actually relates to the concept of self in in surprising ways because I felt there was a part of myself that existed on Twitter and I you know I I just performed a suicide of that itself rather like that's this is ending right now and you know there's no residue there's nothing to go back and check there's just it's gone I and I didn't even I didn't go back and look at my like what's interesting to consider is that you know I've been on Twitter for 12 years I don't keep a journal I mean Twitter what in my timeline would have been a kind of journal I could have gone back to a specific hour in a specific day and looked at what I was paying attention to I mean that could have been an interesting record of just who I've been for a decade and I and I'm probably a pretty humbling record of who I've been for a decade um in terms of the kinds of things that captivated my attention but I didn't even you know it didn't even think to go in the state you know nostalgicly just look at any of that or see if any of it was worth saving or archiving or thinking I just just delete you know and it was um uh and so my my actual sense of who I am and my engagement with with my audience my you know the the world of people who could potentially know me like what does it mean to be to have a platform you know where do I exist digitally my sense of of all of that got truncated in a in a way that um is much less noisy I mean it's amazing how much can't get fucked up now in my life like it's like with Twitter almost anything could happen right like like the next tweet was always an opportunity to massively complicate my life there is no analogous space for me now and you know this is what I'm going to say on your podcast what I'm going to say on my own podcast what I'm going to write next that's much more um you know deliberative and uh the opportunities to take my foot out of my mouth or to reconsider all you know whether anything any of this is worth it is it worth is this the hill I really want to die on now it's much more um can be much more considered and I mean I think all of that's to the good um but even more important than that is there's not I'm not getting this continuous signal that is always inviting a response whether on Twitter or on my own podcast or you know anywhere else um and it's just much less noisy I mean life is much less noisy and and cluttered and that's you know that that is it definitely feels better right just that's a hundred percent better I'm happy to hear that I know a number of people miss you there but um you sound happy I sense the genuine happiness in it um several things come to mind uh first of all thank you for sharing your your rationale there and how it went I think for a lot of people I think oh you must have like walked around in circles for hours talking about it was as many good decisions are executed right yeah um you know I'm a big fan of Cal Newport's work deep work in many ways Cal's I've never met him but um we know each other through the the internet space he um really ahead of his time with this notion of deep work and limiting distractions I think he's even got a book about a world without email or something really extremely so he had I mean he deserved some credit because he had been somewhat approximate cost of this he had been on my podcast and he had encouraged me to delete to the Twitter because I had been I had been sort of in the in reaching some kind of uh you know crisis point with it uh prior to that podcast and so we've talked about it and I had I had recorded that podcast but hadn't released I actually recorded the podcast the day before I wound up deleting Twitter but hadn't yet released it so you know my podcast with him you know in the intro to it I then give a post mortem on my to deleting it but he was he was one of the last people who was in my head around these issues and I actually you know it was that was not by accent I had invited him on the podcast because I increasingly wanted to think about you know whether this was totally dysfunctional well I'm a big fan of Cal Newport's and I I am on social media I'm on Twitter I had some you know high friction interactions there and I have a process for dealing with those I tend to avoid high friction confrontations online but Instagram is a much friendlier place by the way if you want to come over to where like the nice kids like the the cool kids actually hang out strangely I'm not looking for a substitute okay well you know that's uh I didn't I don't let me entice you over there you do but I think that this notion of of really being able to access what Cal calls deep work what Rick Rubin talks about you know being able to touch the source of create creativity and focus and on a regular base does require that one have certain types of and in some cases zero interaction with certain platforms that merely being on a platform and blocking people that would just won't provide I think a lot of energy opens up and I'm fascinated by this concept of energy and we only have so much energy yeah neural energy to devote um and in many ways what you described um there's really I think striking parallels to what I'm talking about all along these last hours which is that sometimes the thing that feels so um so powerful that has such a gravitational pull and that we think this is experience this is life this is just the way it is actually is an illusion and when you step away from it you realize that there's this whole other dimension of interactions that that was available all along for that we uh for whatever reason we're intervening in by way of our reflexive distracted behavior so I think there's a there's a there's a there's a poetry there I was a hard case but uh yeah I got religion on this point it's uh it's a good change we'll say I want to say a couple of things first of all um every time you talk I learn so much and that's you know in the dimensions of neuroscience even hardcore neural circuitry type stuff which I'm you know it's sort of my home um when you talk about philosophy or uh or meditation or psychedelics and even politics some a topic that I'm you know uh woefully undereducated in but um you have this amazing ability to to blend and and synergize across things and I think today what what occurs to me is that um not only is that no accident because of your training and your the rigor and the depth that which you explore these different topics but also your openness to it but I think at least for me above all is because I think you are able to encapsulate this idea of the self and and the different ways in which we each and all can potentially interact with the environment and our inner landscape um your description of meditation I have to say is now has forever changed the way I think about meditation I would no longer just think of it as a perceptual exercise I on the podcast I've been talking about is something to to do for these various benefits the benefit set of more focus at stress etc of which certainly exists but what you described today has a um as such in a lure and a and a um holds such a promise that um as I mentioned I'm certainly going to change my behavior and and I know I'm speaking on behalf of many many people I just want to extend my thanks for your coming here today to teach us even more because of course you have your podcast and the the app and the waking up app um and the fact that regardless of the political landscapes regardless of the what neuroscience feels about psychedelics or the where things are at any point in time you strike me as somebody who is very committed to sharing knowledge and thoughtful deep discourse so that people can benefit and there are very few people like you um in fact there's probably only just one and so I feel very grateful to be sitting across the table from them for these last hours nice nice why I really enjoyed this and uh I want to congratulate you on what you built here because your podcast is is everywhere I just come you know I'm a fan and uh even more than that I've continually seen the evidence of you reaching people and and benefiting people and it's just it's really I mean like this is the one of the best examples of you know new media just carving out of space that you know that people didn't really know existed you know because like this is not television it's not radio it's not and and all of a sudden people have time to hear a conversation of great length that goes into you know nitty gritty scientific detail on you know hormones I mean like who would have thought that was even possible and so um yeah I was just congratulations is fantastic to see and I'm just very happy for the opportunity to talk to you and and your people thank you it's very gratifying to hear and um I feel very blessed um in no small part because of our conversation today thank you so much to be continued to be continued we'll do it again yeah and again and again thank you for joining me today for my discussion with dr sam Harris I hope you found it to be as enlightening as I did and be sure to check out the waking up app the dr sam Harris has made free to any huberman lab listeners for 30 days by going to waking up calm slash huberman please also check out his incredible podcast the making sense podcast and you can find any number of sam Harris's different books on meditation consciousness philosophy neuroscience politics and more you can find links to those books by going to samherris.org if you're learning from and or enjoying this podcast please subscribe to our youtube channel that's the best zero cost way to support us in addition please subscribe to the podcast on spotify and apple and on both spotify and apple you can leave us up to a five star review if you have questions for us or comments or topics that you'd like me to cover or guess you'd like me to invite onto the huberman lab podcast please put those in the comment section on youtube I do read all the comments please also check out the sponsors mentioned at the beginning and throughout today's episode that's the best way to support this podcast not so much during today's episode but on many episodes of the huberman lab podcast we discuss supplements while supplements aren't necessary for everybody many people derive tremendous benefit from them for things like enhancing the depth and quality of sleep for enhancing focus and for hormone support and many other aspects of mental health physical health and performance. The huberman lab podcast is proud to announce that we are now partnered with momentous supplements because momentous supplements are of the very highest quality they ship internationally and they have single ingredient formulations which turns out to be important if you're going to develop the most cost effective and biologically effective supplementation regimen if you'd like to access the supplements discussed on the huberman lab podcast you can go to live momentous spelled o us so live momentous dot com slash huberman if you're not already following us on social media we are huberman lab on instagram twitter linkedin and facebook and all of those places i talk about science and science related tools some of which overlap with the content of the huberman lab podcast but much of which is distinct from the content of the huberman lab podcast again it's huberman lab on all social media handles all platforms instagram twitter facebook and linkedin if you haven't already subscribed to our neural network newsletter that's a monthly newsletter it's completely zero cost and includes summaries of podcast episodes as well as toolkits for things like enhancing your sleep enhancing your focus and ability to learn hormone support fitness and on and on you simply go to huberman lab dot com go to the menu click on the menu and scroll down to newsletter provide your email and you can start receiving our monthly neural network newsletter thank you once again for joining me for today's discussion with dr. sam Harris all about meditation consciousness free will psychedelics social media and much much more and as always thank you for your interest in science