

SAM HARRIS INTERVIEW PART TWO

NOTE: This transcript was generated by the service Rev.com, and though it's quite good, it is imperfect. If you would like to quote anything from this episode you are welcome to! But please find the point in the audio where the quote originates, and verify that the transcript is accurate. If Rev's transcript is inaccurate, we ask that you only post or publish a version of the quote that you deem correct (because your ears are awesome!).

Hello again, Ars Technica listeners. This is the second installment of a four-part interview with neuroscientist, New York Times bestselling author, podcaster, and controversial public intellectual, Sam Harris. This one will be mainly about his personal background, and the road which took him to being the thinker that he is. But also, toward the end of the interview we get into some of his neuroscientific research.

Then in tomorrow's segment, and also in Friday's segment, we'll focus on his iconoclastic take on the world.

And away we go.

TRANSITION MUSIC

I'd like to consider the life trajectory that made you expert in all these topics, starting the first time our lives overlapped without either of us realizing it. We were both undergraduates at Stanford at the same time. I was a year ahead of you, young man, and I'd like to go back that far just briefly, because you embarked on an unusually bold and as it turned out, unusually long project for one of an undergraduate age, and it's a project that I think has a great deal to do with who you are now. So when you arrived at Stanford, you're on campus, you haven't yet made this bold decision to take an enormous amount of time off. What was your thinking of religion at that point? Were you an atheist already? If you were, was that a major part of your identity? A minor part?

Sam Harris: Well, I was definitely an atheist, but I wouldn't have called myself one. The term atheist was not really in my vocabulary. I was completely unaware of the history of atheism, organized atheism. I wouldn't have known who Madalyn Murray O'Hair was. I had never been given religion by my parents, so I wasn't reacting against some dogmatism that had come from the family.

Rob Reid: And your parents were from very different religious traditions, correct?

Sam Harris: Yeah, but both just-

Rob Reid: Were nonpracticing.

Sam Harris: ... just unreligious, yeah. I mean, they were ... But again, they were not atheists. They wouldn't have called themselves atheists.

Rob Reid: But you had one of your parents was raised Quaker, is that right?

Sam Harris: Yeah, Quaker and my mother's Jewish, and so this is also slightly an artifact of what it is to be surrounded by cultural Jews who are not religious. So Judaism is almost unique in that you can have people for whom their religion is still a seemingly significant part of their lives, they care that they're Jewish, but there is zero otherworldly or supernatural content to their thinking about what it means to be a Jew.

Rob Reid: I believe it probably is unique. Maybe the Parsis have something similar.

Sam Harris: Yeah, and this Jewish experience of secularism is fairly misleading to most Jews, I find, because they kind of assume that everyone else has lost their religion to the same degree. So I've debated conservative rabbis who, when push came to shove, revealed they believed almost nothing that could be classified as religious. I mean, like their notion of God was so elastic as to commit them to almost nothing. Nothing specific about what happens after death, nothing that can necessarily be prayed to or that can care about human events. And again, I'm not talking about reform Jews. I'm talking about conservatives. The ultra orthodox believe a fair number of imponderable things, but short of that, Judaism has really been denuded of its otherworldliness.

I grew up in that kind of context, where even religious people ... Again, my family wasn't, but even people who went to synagogue didn't believe anything. Right? So I was fairly sheltered from the culture wars in that respect and was just unaware of the kind of work that religious ideas were doing in the world or in the lives of even people on the coasts in different faiths. When I got to Stanford, I remember being in the Great Books seminar and the Bible was one of the books that is considered great and that we had to read, and I remember getting into debates with people who had clearly come from a Midwestern Christian background, say, or more of a Bible belt experience, and just-

Sam Harris: -Bible Belt experience. Just having absolutely no patience for their belief that this book was fundamentally different from the Iliad and the Odyssey or anything else we were reading in the seminar. The professor's way of holding that text in particular compared to the other books, I don't know if she was religious, but she seemed to be carving out a kind of different place on the bookshelf for this text to occupy.

From my point-of-view, the stuff we were reading wasn't even great. I would admit that there are great parts of the bible, but we were reading Leviticus and Deuteronomy. These are the most deranged recipes for theocracy that have ever been written. Certainly sections of them are worse than anything that's in

the Quran or any other terrible book. I was just astonished that we were wasting time reading this stuff.

The only argument for reading it, in my view then and it's certainly my view now, is to understand how influential the book has been elsewhere. You want to be able to understand the allusions in Shakespeare, you have to be conversant with the bible, but the idea that this is somehow a great flowering of human wisdom, again, specifically books like Deuteronomy and Leviticus-

Rob Reid: Those are books in which the grim punishments for people who step out of line, among other things, are detailed in kind of gory detail.

Sam Harris: Yeah, and they're not allegories for anything. It's just these are the reasons why you need to kill not only your neighbors, but members of your own family for thought crimes. Here's how you should be living. It's just you almost couldn't invent a worse worldview. The corollary to that is anyone, any neurologically intact person in five minutes can improve these book spiritually and ethically and politically and in every other way, scientifically, economically. There's just nothing that this is the best for or even good for, apart from creation conditions of Taliban-level intolerance in a society, that is if people actually believe this stuff. Very few Jews now believe that you should be paying any significant attention to Leviticus or Deuteronomy, and Christians have their own reasons for ignoring it.

But what we're witnessing in the Muslim world is that there are analogous texts, parts of the Quran being one and the Hadif and the biography of Muhammad being the rest of the canon, which detail very similar levels of intolerance and a commitment to prosecuting thought crime, and many, many millions of people take them very, very seriously.

Rob Reid: So you were in a state of outrage at the fact that these texts were being held up as great. You were certainly not a believer in any manner. Atheism may not have been a word you would have applied to yourself, but it was something that you essentially, from what you're describing, that's kind of what you were on the inside.

Sam Harris: Yeah.

Rob Reid: If you look at the DSM, 10-year journeys of spiritual discovery are generally not considered to be symptoms of atheism, yet from that point of defacto atheism, you essentially did take off on, is it fair to say, a 10-year journey of spiritual discovery and near full-time exploration of consciousness?

Sam Harris: Yeah, so what happened was I took MDMA for the first time. I had taken other drugs, other psychedelics as a teenager, really just mushrooms a few times.

Rob Reid: I will add that Stanford in the late '80s was awash in MDMA long before it entered the club scene in the UK.

Sam Harris: Oh, interesting.

Rob Reid: Yeah, it was all over campus.

Sam Harris: I didn't know that actually. I'd never encountered it.

Rob Reid: Yeah, yeah. No, it was all over the place. We called it X in the United States, and then the Brits, who kind of discovered it a few years later called it E. It was something that was just so part of just sort of the fabric that I mistakenly thought it was a very wide-spread drug. It didn't become wide-spread until much, much later. Now I wasn't as bold as you. I actually was fearful of the stuff, but it was everywhere. It was definitely everywhere in the '80s. Yeah.

Sam Harris: You were in hipper circles than I was, because-

Rob Reid: Well, you were hipper than I was, because you actually tried it.

Sam Harris: Yeah. No, maybe it was everywhere because I had taken it, and that was proselytizing-

Rob Reid: It was like, "Oh, Sam's on it."

Sam Harris: Yeah, I was evangelizing pretty hard, at least to three captive friends when I got back to campus, because it really did blow my mind. It just changed everything about what I thought was possible in life.

Rob Reid: So that was the pivoting incident.

Sam Harris: Yeah.

Rob Reid: That was what caused you to ... I didn't realize that. So that was the thing that caused you to say, "I'm out of here, at least for now?"

Sam Harris: Its connection to my dropping out was a little less direct than that. It took a little more time, but it just too a quarter, but 10 weeks later, I was not enrolling again. But I guess I took it during spring break or something. I wasn't at Stanford. I was back home when I took it. This is something I write about in the beginning of my book "Waking Up". It was the first experience I had where the implications of that change in my consciousness, they were far more global, and they suggested something about the possibility of changing one's consciousness in a more durable way. I wasn't left thinking, "Wow, ecstasy is amazing, or that was a very interesting drug experience." It seemed to unmask something about the nature of my own mind that was more true than what I was tending to experience.

The experience of coming down from it was the experience of having my actual true self, in a way, occluded by neurotic layers of my personality that were being rebuilt, that had been suppressed by the drug. The experience was briefly of just feeling all self-concern drop away. I was sitting there. I was talking to one of my best friends. He still is one of my closest friends. He had never taken it before either. We both took this, and again, we took it ... This is before anyone had a rave. We took it very much in the spirit of trying to find out something interesting about our minds. We weren't partying. This was-

Rob Reid: More of a Timothy Leary than a Ken Kesey type of experience.

Sam Harris: Yes. Yeah. This was given to us as ... It had been kind of an export from the psychotherapeutic community. This is a drug that shows you something about the nature of spirituality, the nature of love ultimately. We were just curious about what was there to be discovered. I just remember talking to him, and there was nothing psychedelic about it at all. There were just no visual distortions, no sense of coming onto a drug. Just this increasing sense of moral and emotional clarity where I just have more and more free attention to just talk to my friend.

I'm getting less and less at every moment as I'm coming onto this, and it took a while for me to recognize what had happened, but I'm becoming less and less encumbered by the concern about what he's thinking about me. I'm looking into his eyes, and I'm no longer ... There's changes in his facial expression in response to what I'm saying. I'm no longer reading that as a message about me. It's like I'm no longer behind my face looking at him, no longer tacking in the wind of somebody else's attention on me. It was just a sense of total zero self-concern. My attention was not on myself at all. I was simply paying attention to my best friend.

That pure granting of attention was love. It was just like what I was experiencing more and more as the minutes ticked on was just a total commitment to his happiness and his wellbeing, just wanting everything good that could possibly happen for someone to happen to him. That was just a ... There was nothing transactional about that. That was just a pure state of being. The state of being fully attentive to another person as just the locust of a moral concern.

Rob Reid: This led you to decide that you wanted to significantly alter your curriculum, I guess.

Sam Harris: Yeah.

Rob Reid: You were at that point taking ... You were a sophomore at this point?

Sam Harris: Yeah.

Rob Reid: So not a notoriously delightful year for anybody, but you were taking a lot of things, preparing to declare your major, if you hadn't yet already. I assume that this made you realize that there was a different curriculum you wanted to pursue, in a sense?

Sam Harris: Ironically it led me to realize that all of the otherwise incoherent and offensive noises that religious people had been making for millennia actually were inspired, must have been inspired-

Rob Reid: By this.

Sam Harris: ... by experiences like this.

Rob Reid: Like this.

Sam Harris: Whatever you want to think about Christianity and the bible, Jesus was probably talking about this or something like this. The one thing that just bore in upon me like a freight train in that experience was the recognition that millions of people had had experiences like this, and many not through drugs, but through prayer and fasting and other contemplative exercises, yoga, meditation. There was a path. Your mind could be more and more like this than mine had tended to be.

Rob Reid: And without chemicals.

Sam Harris: Yes. Yeah, because it's all just chemicals.

Rob Reid: It is, yeah. It's all ... Yeah.

Sam Harris: Drugs are mimicking neurotransmitters or inspiring neurotransmitters to behave differently. You only have a few levers to pull in there, but I didn't have a background in neuroscience at that point, and I had been an English major. When I went back to school, there was nothing in school that I could connect with that immediately seemed like this is the most rational use of your time, given what you just experienced.

I also was writing, I was planning to write fiction, and I wanted to write-

Rob Reid: I know you were working on a novel, weren't you?

Sam Harris: Yeah, so I had kind of a dual agenda when I dropped out. I was going to write novel and study meditation. I started going on meditation retreats.

Rob Reid: So the novel was a big part of your agenda then at that point.

Sam Harris: Yeah.

Rob Reid: What was it about? I'm dying to know.

Sam Harris: I wound up writing a couple of novellas that I never attempted to publish. I would get to the end of one and just think, "Okay, I can't totally stand behind this," and I also didn't have a connection to other novelists. I didn't have an agent. I didn't really understand how to proceed, but it was more important that I would get to the end of a project and feel like it just wasn't going to work.

One was actually very much on this topic. It was kind of dealing with a spiritual teacher and just very fraught with the philosophy of eastern mysticism at that point. I wrote another one that it was called "Letters to God". It was purported to be ... It was kind of like a pail fire exercise in footnotery and it was was purported to be a found manuscript.

I was writing fiction and then going on meditation retreats that were getting longer and longer. Then I was going to India and studying meditation with various teachers and going to Nepal. It was mostly in a Buddhist context.

Rob Reid: Did you buy into the religiosity of Buddhism? Because often there's extraordinarily powerful spiritual practice that is embedded in Buddhism, but in other contexts you've said you can access that and leave the religiosity behind if you wish. You're coming in as a young person, as a novice of sorts into this community. Was it easy for you to take sort of almost the neuro-scientific wisdom that was being transferred and leave out the religious wrapping that imagine it often came in, if you were going on retreat and going to monasteries and things like that.

Sam Harris: Yeah, not entirely. I never became a religious Buddhist or much less a religious Hindu, though I was studying with teachers in both traditions. But I was not yet a scientist. I was not yet really scientifically literate. My background, I'd been studying English at Stanford and hadn't taken many science courses at that point. I became very interested in the philosophy of mind and the conversation that was happening between philosophers and scientists about the nature of consciousness. I was getting some brain science in reading what philosophers were saying. I was reading some stuff at the margins of neuroscience.

Then I was also reading a fair amount of popular physics, because a lot of the popular physics was being marketed as a way of cashing out people in new age mysticism. The people were hurling books at me on quantum mechanics.

Rob Reid: Quantum mechanics.

Sam Harris: Right.

Rob Reid: Yeah, yeah.

Sam Harris: The scientific and philosophical confusion there was not yet obvious to me. At a certain point undoubtedly when I'm up to my eyeballs in Krishna Murti and reading patently magical books like "Autobiography of a Yogi", Paramahansa

Yogananda, and then I'm also reading Ken Wilbur and people who are wrapping up eastern wisdom with basically the spookiest exports from physics. If you had asked me what I thought the universe was like at that moment, undoubtedly some new age gobbledygook could have come out, which I now view as quasi-religious. There's a fair amount of confusion there. I've debated people like Deepak Chopra, who still promulgate that kind of confusion.

I was always interested in just in the experiential component of meditation in any of these paths of practice, but when you go far enough into the experiential component and begin to confirm some of the very surprising things, some very surprising claims about the nature of the mind that only seemed to get made by people in the east, for the most part, who are also making claims about the magic powers that come with attaining very high states of meditation and the miraculous feats of various yogis and gurus.

Then you're surrounded by people who believe, for instance, that their favorite yoga teacher can read their minds. I was always somewhat skeptical of these stories. I don't think I had the phrase confirmation bias in my head, but I could see the disposition among these people to believe, the desire to believe these stories to be true.

Rob Reid: It's fervent. Yeah.

Sam Harris: Yeah, there was very little resistance in the system to just accepting everything uncritically. I think I was on the skeptical end there, but I was not spending any time trying to debunk claims about magic. I was simply just trying to get to the most qualified teachers and learn whatever they had to teach.

Rob Reid: It was roughly a 10-year period, correct?

Sam Harris: Yeah.

Rob Reid: Which you were going on to retreats, coming back. How many of those 10 years were you in silent meditation? Would it total to a year or more?

Sam Harris: Yeah, it totaled to about two years.

Rob Reid: If you strung them all together, the various silent retreats.

Sam Harris: Yeah. I never did a silent retreat longer than three months, but I did a couple of three months, a couple of two months.

Rob Reid: Three months sounds like a doozy to me.

Sam Harris: Yeah. It's long. It's just an amazing experience. There's something paradoxically you can experience the same thing in a moment off retreat. It's not that there's in principle the necessity of being in silence, but for most people, it's amazingly

powerful to go into silence. It's an experience unlike any you tend to have, even when you're spending much of your day alone and out in the world. For those who don't have an experience with meditation, I guess some explanation is in order.

Whatever practice of meditation you're doing, you're really in two conditions while doing it. You're either lost in thought, you're just distracted by kind of the automaticity of discursive thought, and you've just forgotten that you were supposed to be meditating, or you're paying attention to the thing you're trying to pay attention to, and that is your practice of meditation. We spend so much time in our lives lost in thought, having a conversation with ourselves that we're not aware of having. So much of this conversation is neurotic. So much of it is producing unhappiness. You're thinking about the things you regret having done. You're thinking about the things that didn't go well moments before, hours before, days or even years before. You're thinking about what you want, what you're anxious about, what you're hoping will happen [inaudible 00:52:36] or at some point in the future. You're spending almost no time truly connecting with the present moment in a way that is deeply fulfilling.

To take my experience on MDMA, one of its features was just full immersion in the present moment. There was just zero past and future going on. Part of the ecstasy of that experience is attributable just to that. This is an experience you really can't have in meditation. Focusing on anything to a sufficient degree produces an ecstatic state of mind. There's bliss to be found just in being concentrated, just being sufficiently concentrated on the breath or a light or anything. It doesn't matter what it is. But you can also be additionally concentrated in specific states of mind, like loving kindness, which is very much the emotion that went off in experiences on ecstasy.

That is a specific meditation practice within the Buddhist tradition. In other traditions, there's devotion to the guru. In the western tradition, there's love of Jesus. There's no question that you can be one pointedly fixated on the object of your devotion and get that emotion so intensely realized in your mind that it obliterates everything else. Incredibly expansive experiences await someone who can get that concentrated. Again, it need not even be in the positive emotion of love or devotion. It could just be the breath.

I started training in various types of meditation for periods up to three months or so. That was punctuating the decade of my 20s.

Rob Reid: Where were you based and how were you supporting yourself through all this? You were in Palo Alto still for a lot of that, right?

Sam Harris: Yeah, for some of it. Yeah, and I was also in New Mexico for a lot of it. For all these retreats, I would have to go to a retreat center somewhere.

Rob Reid: Most of them in Asia, or were some of them in the US as well?

Sam Harris: No, most at the Insight Meditation Society in western Massachusetts, which is a place I often recommend to people who do intensive practice [crosstalk 00:54:45].

Rob Reid: Is that related to Jon Kabat Zinn, because I know he's Boston based?

Sam Harris: Jon is someone who has done a fair amount of mindfulness practice there, and he and I know many of the same people. But Joseph Goldstein is one of the founding teachers there. He's been on my podcast a couple of times. Joseph is really a fantastic meditation teacher. Often if when people want to sit at a week-long or a 10-day or longer meditation retreat, I recommend that they go to the Insight Meditation Society, often abbreviated as IMS, or Spirit Rock, which is in Marin, which is the same philosophy. It's Vipassana meditation, which is otherwise known as mindfulness.

Rob Reid: So you were based in Palo Alto in Santa Fe, and then would you do stints at Starbucks? How would you keep the lights on?

Sam Harris: Well, I was, for better or worse, in some ways worse, but I was in a conventionally very fortunate situation of having a family who was just happy to support this project. It was incredibly helpful at one point, and then at another point it was actually not helpful, because for some years there, I was writing, and I switched to writing non-fiction. I was writing about consciousness and the nature of mind and the contemplative life. I really wanted to form a link with the world and publish what I was writing, but I had no ... Because I was actually financially free, the wolf was not at the door.

Rob Reid: You weren't compelled.

Sam Harris: I wasn't compelled to make a connection. I wasn't compelled to figure out how to publish an article in Harper's and get a track record as a writer. It was very fruitful until it wasn't. It was kind of like a Ted Kaczynski level intellectual isolation, right?

Rob Reid: Right, yeah. Sometimes it leads to bad things.

Sam Harris: Yeah, and it took me a while to realize that I had to go back to school.

Rob Reid: Did you come back to English at that point? Because you were studying English at Stanford previously.

Sam Harris: No, I came back to philosophy, because I had been reading philosophy and essentially writing philosophy nonstop throughout this period for 10 years. Very much with the attitude of someone who's going to go to graduate school in philosophy, I went back to finish my undergraduate in philosophy.

Rob Reid: With an idea that this is a segue into graduate work, but then you ended up pivoting to neuroscience, of all things, which is vastly much more of a hard science.

Sam Harris: Yeah.

Rob Reid: How did that pivot come about? It makes imminent sense, looking at who you are now and regarding it with the benefit of hindsight. How did that come about in the moment?

Sam Harris: The fact that I had dropped out of Stanford was also just sheer good luck, because Stanford, as you probably know, is like the one school, certainly the one good school that has this policy where you basically can never drop out. You just get-

Rob Reid: Well they call it stopping out.

Sam Harris: Yeah, yeah.

Rob Reid: They don't even call it dropping out. You've stopped out, and there's a presumption that at some point in your life, you may wish to come back. If you do, the door is essentially always open, right?

Sam Harris: Yeah, yeah. Tiger Woods can go back to Stanford today. I don't know how long it's been. It's been 20 years or something, but he can just walk back in, and the registrar will just have his name in the computer.

Rob Reid: Take his check for sure.

Sam Harris: Yeah, yeah. I guess it's the way it should be. I'm sure there's a reason why Harvard and Princeton and other good schools don't do it this way, and they don't want you back unless you've been writing them letters every year.

Rob Reid: Yeah, yeah.

Sam Harris: At a certain point, I think you have to reapply. You have to give some accounting for what your years in the wilderness have done to you.

Rob Reid: I think you're probably an object lesson in that perhaps that's not such a great idea, because Stanford did get you back, and it was to their benefit and yours, and I'd argue to the world's that you were able to slide back into that and make this pivot to neuroscience.

Sam Harris: Yeah, and I don't know what would have happened. It's interesting to look back on that, because in my 20s, I remember at one point I think I was probably 25 and first had the thought, "I should really go back to school to do this right," but the psychological barrier, I felt so old at 25. I felt so neurotic around, "Wait a

minute. I can't go back and be a junior in college at 25." It's flabbergasting for me to glimpse who I was at that moment, because I went back at 30 or 31, very close to 31, and that's a much more neurosis producing bit of algebra or arithmetic.

It was psychologically hard to do, because you just picture it, I'm going back, and again, I've spent now a decade reading and writing on my own. I'm now having to just do a full philosophy major taking all the courses, and I'm doing this as fast as I can, because I want to get this done with as quickly as possible.

Rob Reid: Right, because you started in English, so you're in sophomore seminars. You're with freshmen.

Sam Harris: Yeah, I'm not getting any breaks. I don't have credit for what I've already read, and I'm taking a massive course load to do this quickly, but I'm also getting my papers graded by 20-year-old TAs. It was brutal.

Rob Reid: Because I don't think you need to mature as a writer.

Sam Harris: Yeah, yeah.

Rob Reid: Maybe when you were a junior.

Sam Harris: It was an extraordinary experience, but it was ultimately a good one, because at a certain point, it was not about saving face. It was just you just have to use this as a crucible to get the tools to be able to speak clearly, write clearly. You just have to get out of your own way. I was spending all of my time focused on overcoming the hallucinatory properties of the ego. It's like I want to wake up from this hallucination where it seems to matter what another person thinks about me and conditions how I feel about myself in that moment.

Rob Reid: If 10 years of meditation aren't going to get you there, I guess it's just time to go back to school [inaudible 01:00:25].

Sam Harris: Exactly, yeah, yeah. What meditation gets you, at least at my level, is not a permanent inoculation against all of these unpleasant states of mind. The half-life of psychological suffering gets massively reduced.

Rob Reid: Right. You regain balance rapidly.

Sam Harris: Yes. It's sort of up to you how rapidly. At a certain point, you can just decide, "All right, I'm going to stop suffering over this thing." Absent an ability to really meditate, you're a victim of whatever half-life it's going to be in your case. If you get suddenly angry now about something that happens, you could be angry for an hour. You could be angry for a day. You could be angry for a week. Over that period, you could do all the life deranging things that angry people do to screw up their relationships.

Rob Reid: Because you've got plenty of time to do them.

Sam Harris: Yeah, exactly.

Rob Reid: If you're angry over a week or month or whatever.

Sam Harris: Yes. The difference between being angry for 30 seconds and being angry for an hour is the different ... It's just it's impossible to exaggerate how important that is.

Rob Reid: It's a massive quality of life.

Sam Harris: Yeah, yeah.

Rob Reid: Impact, yeah.

Sam Harris: And so it is with embarrassment and everything else.

Rob Reid: So you got through, and then neuroscience beckons.

Sam Harris: Yeah, so then I was going to do a PhD in philosophy, but again, my interest was in the philosophy of mind. I thought I would do a PhD in philosophy, but it was just so obvious that the philosophers were either having to become amateur neuroscientists to actually interact with what we were finding out about the brain, or they were just having a conversation that was completely uncoupled to-

Rob Reid: The science, what was known.

Sam Harris: ... what was known about the brain. I just decided I needed to know more about the brain, but I went into neuroscience very much as a philosopher and with philosophical interests. I never went in thinking, "Maybe I'm going to work on a flies."

Rob Reid: Did you have to take pre-med courses or anything? Because I think of neuroscience as obviously it's a deeply biological subject. You're going to need to understand metabolic pathways, neurological pathways. Did you have to take a whole pile of classes, having finally finished this philosophy degree to qualify?

Sam Harris: As I was finishing my degree at Stanford and my interest in the brain was starting to come online, I took a few courses that were proper neuroscience courses, and then when I applied, I got provisionally accepted ... They wanted me to take a genetics course at UCLA. I had about nine months between when I finished at Stanford and started at UCLA. I needed to take a genetics course just to kind of show them how I would function in a proper science class. I've always been a bit of a drudge and a good student. There was no problem doing that.

Happily what happens when you go into ... I don't know if this is true in every neuroscience program, but at UCLA, whatever you've come from, you have to take everything all over again. I'm surrounded by people who did their undergraduate degrees in neuroscience or in molecular biology, but we have to take all these fairly basic courses, molecular neuroscience and cellular neuroscience and systems neuroscience. You just have to take it all again if you've done that as an undergraduate.

Rob Reid: So it's review for them and arguably a little bit easier, maybe a lot easier, but you're all going through it. You're getting put to the same level. That's good.

Sam Harris: Yeah. On some level, all of that is just a vast memorization feat. Certainly neuro-anatomy is just this memorization exercise unlike any other, and you're just learning how to play a language game. You're just learning the concepts and the parts and how to talk about them, and how we currently understand them to be interrelated. Looking back on it, it would be daunting for me to have to do it again now, but it was totally fine. Then you get into your research, and then you get into having to use the methods and answer the kinds of questions you specifically want to ask.

Again, there my interests were very high level and fairly philosophical. I was studying belief with functional magnetic resonance imaging, fMRI. Putting people in the scanner and having them evaluate propositions on various topics, propositions that were either clearly true or clearly false or clearly undecidable, and so I was comparing believe and disbelief and uncertainty. Just looking at what it means neuro-physiologically to be in a state of accepting some propositional claim or rejecting it.

Rob Reid: So what brain regions were lighting up?

Sam Harris: Yeah, and just what the difference is. I was interested to know if it was reasonable to speak about a kind of final common pathway or a content neutral property of just belief. It's granting credence to a statement about the world. Is that a unified thing in the brain? Is rejecting something as false a unified thing that is, in some basic sense, the same whether you're talking about the virgin birth of Jesus or $2+2$ makes 4, we're recording a podcast right now, or you're a man, or you went to Stanford? To evaluate any of those claims as true or false obviously invokes very different kinds of processing in the brain, because math is one thing, and your autobiography is another. One is dependent on semantic memory. The other you actually have to solve an equation. There's no expectation that those would be the same. The truth testing wouldn't be the same there, but the granting of ascent, and crucially for me, becoming emotionally and behaviorally susceptible to the implications, really the imperatives of accepting something to be true or rejecting it as false.

If someone comes in and says, "I hate to tell you, but your wife is cheating on you. I just saw her. You think she's on a business trip, but I just saw her at a restaurant with this Lothario who I know." Is that true or false? Everything

depends on whether that is true or false. Your evaluation of it, given the right evidence, it's instantaneous. It's like your world changes in a moment, this propositional claim, which is just language. It's just noises coming out of someone's mouth, or it's just an email. It's just a bit of language becomes your world the moment you grant it credence. That shift-

Rob Reid: You almost made a belief detector, it sounds like.

Sam Harris: Yeah. We did, in fact, make a belief detector, which under the right conditions would also be a lie detector. If you know whether someone is representing their beliefs accurately, you know whether or not they're telling the truth, and that's an interesting topic. The future of mind reading machines I think undoubtedly will be a future in which we will be increasingly confident whether or not someone is telling the truth.

Rob Reid: Yeah, because current lie detector technology is from, what, the 1920s and is notoriously easy to trick.

Sam Harris: Yeah, it's not even a valid science, even if you were not tricking it.

Rob Reid: You can inadvertently trick it.

Sam Harris: Yeah, it's just measuring physiological changes that are correlated with anxiety, but if you're not an anxious liar, then-

Rob Reid: You're going to pass with flying colors, and if you're an anxious truth-teller, as some people are. In the middle of all this research, 9/11 happens.

Sam Harris: Right.

Rob Reid: Was that a direct trigger to the book "End of Faith"?

Sam Harris: Yeah.

END INTERVIEW ELEMENT OF PART TWO

TRANSITION MUSIC

As some of you may know, *End of Faith* is the first book that really put Sam on the map as thinker and as a writer. In the next two episodes of this series we'll really dig into his thoughts about both politics, history, philosophy, and quite a bit more.

If you can't wait to hear all of that – or, if you'd just like to browse my other 36 episodes, you can just head on over to my site, at after-on.com. Or, type the words *After On* into your favorite podcast player. Either way, you'll then see my full archive in reverse chronological order - with

Sam' interview slotted in at September 12th of last year. You'll also find tons of stuff about life sciences genomics and synthetic biology. Conversations about robotics, privacy and government hacking, cryptocurrency, astrophysics, drones, and a whole lot more.

Otherwise, I hope you join me and Sam here again tomorrow on Ars.

OUTRO MUSIC