

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

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 is an Ask Me Anything episode, or AMA.

This is part of our premium subscriber channel.

Our premium subscriber channel was started in order to provide support for the standard Huberman Lab Podcast, which comes out every Monday and is available at zero cost to everybody on all standard feeds, YouTube, Apple, Spotify, and elsewhere.

We also started the premium channel as a way to generate support for exciting research being done at Stanford and elsewhere, research on human beings that leads to important discoveries that assist mental health, physical health, and performance.

I'm also pleased to inform you that for every dollar the Huberman Lab Premium Channel generates for research studies, the Tiny Foundation has agreed to match that amount, so now we are able to double the total amount of funding given to studies of mental health, physical health, and human performance.

If you'd like to subscribe to the Huberman Lab Podcast Premium Channel, please go to [HubermanLab.com-Premium](https://HubermanLab.com-Premium).

It is \$10 a month to subscribe, or you can pay \$100 all at once to get an entire 12-month subscription for a year.

We also have a lifetime subscription model that is a one-time payment, and again you can find that option at [HubermanLab.com-Premium](https://HubermanLab.com-Premium).

For those of you that are already subscribers to the premium channel, please go to [HubermanLab.com-Premium](https://HubermanLab.com-Premium)

and download the premium subscription feed.

For those of you that are not Huberman Lab Podcast Premium subscribers, you can still hear the first 20 minutes of today's episode and determine whether or not becoming a premium subscriber is for you.

Without further ado, let's get to answering your questions.

The first question is about task switching, and the specific question is, is there a way to get better at task switching?

Well, task switching is an incredibly interesting topic.

It's something that plagues many people.

That is, a lot of people have challenges with task switching.

It's also a topic that people will often confuse with cognitive flexibility.

So all of us, well, unless it's been removed, have an area of our brain called the prefrontal cortex.

The word prefrontal cortex actually refers to a fairly varied real estate within the human brain.

So it's not one area of the human brain.

Prefrontal cortex actually includes a lot of different subdivisions that do different things in the context of cognition and directing action, withholding action, these kinds of things.

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

But one of the main functions of the prefrontal cortex is that when it's working well, it allows us to direct our focus and our cognition, our thinking, in a context dependent way. So one of the simplest ways to describe this is that when you took math in high school or if you're still taking math, your brain had to carry out certain types of cognitive operations that were very different than the types of cognitive operations that you need to carry out in your history class or your social studies class.

But there were some features of all three of those classes that were the same in the sense that presumably you had to sit in a chair for all of those classes.

You followed a certain set of rules that pertain to all three of those different classes, even though they're different subjects, but then there were certain rules that pertain just to mathematics, certain rules that you followed because a particular teacher was strict, not because of the topic they were covering, as well as certain rules that maybe you did not pay attention to because a different teacher was a little more lax.

For instance, maybe there was a teacher to let you put your feet up on the chair in front of you.

Maybe another teacher forbid that at all costs.

The point being that your prefrontal cortex is the area of your brain that along with other areas of your brain ensures that you engage in context specific behavior, context specific thinking and context specific understanding about what you should and should not do.

Cognitive flexibility is similar in the sense that it describes your ability to switch the types of cognitive operations, as the name suggests, depending on what sorts of things you're trying to learn or understand.

It's a lot more extensive than that.

In fact, we will probably do an entire episode all about both cognitive flexibility and perhaps even a separate episode on task switching, but task switching is somewhat distinct from cognitive flexibility.

First of all, task switching requires cognitive flexibility, but they are not the same thing.

Now, when we talk about task switching, or rather when you see task switching in the scientific literature, most often it has to do with people performing one particular type of mental or physical operation, or say they are maneuvering things with their hands or other parts of their body, or they are required to carry out one specific type of mental process, and then they are required either at random intervals or at specific intervals, maybe every 10 minutes or so to switch their attention and to do a different task entirely.

Now, in the laboratory experiment situation, this is most typically been carried out the following way, people are going to do one cognitive task, maybe mathematics or they're going to count, for instance, from one up to infinity as high as they can go in a given amount of time in increments of, say, seven or increments of seven plus one, then seven minus one.

So these can be made increasingly difficult.

You get the idea.

And then perhaps a tone is played or they'll get a signal from the experimenter and then they need to switch their task to doing something quite different, but also cognitive.

That's the most typical arrangement, or another typical arrangement in a test switching experiment

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

is that the subject, the person in the test switching experiment will be asked to do some sort of physical manipulation of objects, maybe placement of puzzle pieces into the correct configuration.

Then at some designated interval or intervals, they will have to switch to a different manual task, fewer, not zero, but fewer experiments have examined task switching between physical and cognitive tasks.

Okay.

Now, there are these kind of outrageous examples that you can find on the internet.

By the way, I don't suggest that anyone go engage in these examples in real life of kind of extreme task switching.

One of the most notable ones would be chess boxing.

Believe it or not, this exists where two people will enter a ring and they will sit down at a table and they will play chess for a given period of time.

So they're entirely focused on playing chess.

Then a buzzer will go off, the chess table will be cleared, the chairs will be cleared and they will be expected to box literally fight for around of say a minute to three minutes and then go back to chess, then to boxing, so-called chess boxing.

Again, I'm not suggesting people chess box, but I know that many people have challenges with task switching and here I can raise my hand and say that I am one such person.

I've always had a pretty good ability to drop into deep focus after a period of time.

I like everybody else takes a little bit of time to get into a book chapter or to get into a mode of physical exercise, but once I'm doing something, I tend to be very, very focused on that and I have a much greater challenge in switching out of that focused mode to doing the next thing, which is one of the reasons why oftentimes I run tardy because I'm still mentally thinking about or physically engaged in the thing that I was doing before.

This is something I'm constantly working on.

As a consequence, I've had to seek out and implement certain tools to improve my ability to task switch.

So I'm going to share a few of those tools with you now because I know a number of people probably struggle with the same thing.

As I mentioned earlier, I'm also going to do a full length episode about task switching, both the underlying mechanisms of task switching as well as a more extensive list of tools related to task switching as a full length Huberman Lab podcast episode.

So how can we get better at task switching?

Well, short of having somebody scruff you by the neck and force you to stop whatever activity you're doing and engage in the next activity that you're doing, one of the best things that we can do to support our ability to task switch that's nicely supported both at the mechanistic level and at the practical level within the published literature is to introduce short transition gaps between the activities that we're trying to switch between.

This is something that in my opinion has not been discussed enough.

In fact, when was the last time you heard about the requirement for introducing gaps between tasks if you want to switch between them more efficiently.

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

And yet as a consequence of this not being discussed very often, I think a lot of people have placed an undue burden on themselves.

For instance, a lot of people think that when you sit down with a book and you're going to read that you should be able to immediately focus on the material that you're reading and not have your mind flitting about during the first five, maybe even 10 minutes of reading a book chapter, unless you are absolutely enthralled from the first word or you are intensely curious what the material in that book chapter is, right?

Maybe that book chapter is about you and what's going to happen to you next in your life. Maybe the news article is about something that you care so much about, but unless it's one of those specific instances, it's going to be about five or 10 minutes before the neural circuits in your brain that are required to understand and digest and commit that material to memory are going to come online at the levels of activity that are going to be required for you to experience that as intense focus or even as mild focus because the activity of the brain is always going to be in a push pull.

This is extremely important for understanding task switching.

When you go from one task and maybe the task was simply to walk over to where the book is located to focusing on the material within that book, you have to both engage activity within certain neural circuits and you need to disengage the activity of other neural circuits.

Now, sometimes this is referred to as inhibition of certain neural circuits.

Other times it's just going to be a dissipation of activity of those neural circuits.

It's just going to quiet down like a dimming of the lights in a particular room while the activity of other neural circuits increases.

The first thing that you really need to understand if you want to get better at task switching is that you cannot and you should not expect yourself to immediately drop into a narrow trench of focus or a narrow trench of ability for anything that you're not already extremely skilled at or extremely interested in knowing.

One of the reasons why this is often overlooked is that, for instance, if we receive a text message from somebody and we are very interested in what's contained in that text message, maybe even eagerly anticipating the dot dot dot, you know, in that little window where the text message is going to arrive, like here it comes, here it comes, here it comes.

It's an example of where you are able to immediately pay attention and absorb information.

For instance, if you're trying to meet somebody in a big city and you need to know exactly where to meet them and you've arrived at the place where you thought you need to be and then you can't find them and you're waiting, waiting, where are you, where are you?

And you know, you're going to commit that information to memory and you're going to act on it.

But when you sit down to read a book of unknown content or where you have just a general sense of what the content is or when you sit down to do something like work on a spreadsheet or your taxes or engage in a conversation with somebody, expect a five to 10 minute transition period.

I can't emphasize this enough because I think a lot of people mistakenly think that they have issues with attention and perhaps indeed they have clinically diagnosable attention

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

deficit hyperactivity disorder or some other form of attention deficit disorder.

Certainly can't rule that out based on this conversation alone.

But a lot of people place this unfair burden on themselves to immediately be able to focus on a given task.

And this is also true for physical tasks, right?

If you go to the gym to work out or you're heading out on a run or a cycling expedition, the idea that you would immediately be able to cycle at your peak performance or that you could perform sets and reps in the gym and as best as you possibly could without any warm up, without any transition period that you could forget about the difficult or maybe even great conversation that you were having on the way in or that you could forget about other activities that you need to do in the rest of your day.

I mean, that's just completely unfair and it doesn't match at all the way that your neural circuits work.

So you really need to match your expectation of your ability to focus on and perform a given task whether or not it's cognitive or physical to the actual underlying biology.

Okay.

So that's the first point.

The second point is that we know that if you want to switch from one task to another task that you are making it more difficult to drop into full task engagement or rather engagement with task B, following task A, if you try and go immediately from task A to task B, that even the introduction, I find this so cool, even the introduction of an arbitrary but very short transition period of say 15 seconds where you know that you're introducing 15 seconds of transition and you designate it as transition will allow you to engage in a more efficient and more complete level of task execution on task B if you introduce even a brief transition period.

Now this I find fascinating because what this means is that there are top down influences.

There are literally things that we can tell ourselves based on an understanding of the underlying mechanisms that allow us to task switch better and this certainly doesn't involve taking any kind of prescription drug or supplement or doing anything differently except as you go from task A to task B, knowing and designating that a transition period, even a very brief one where you are not trying to perform task B and that you've designated this as a transition period.

I'm not trying to focus on the next thing that I need to do.

I might focus on it inadvertently, but I'm not deliberately trying to focus on it.

Rather, I'm going to think about what I just did and the fact that I'm no longer doing that kind of leaving it like a fog behind, right?

You're trying to move from this deep trench of attention, hopefully on task A or maybe you didn't achieve a deep trench of attention and you're now done with task A and you're not placing this unfair expectation on your neural circuits to just flip to task B and you're also acknowledging that task B is going to take five to 10 minutes to drop into fully.

We already talked about that, but you're going to shorten that five to 10 minutes by deliberately introducing a transition period and what comes in that transition period and its duration is important.

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

So first let's deal with the duration.

How long should the transition period be?

Well, that is going to scale directly with how long you were in a deep trench of focus for task A, but let's assume task A was something that was kind of light for you.

Maybe you're just handling some email.

Maybe you're talking to a coworker.

Maybe you were at a board meeting and it was kind of light.

The stuff was just, okay, you're used to this stuff.

This is stuff that you do all the time.

Now you're headed back to your desk or you're headed to your next class or perhaps you did a workout that morning and now you're going to head to your workplace of work or maybe you're leaving work and you're going to engage with family and you know you need to switch all these cognitive operations.

You need to dump the stuff that you were just doing cognitively and you now need to do a bunch of other things.

Context is switching.

Task is switching.

Well, just ask yourself how deeply was I entrenched in that other activity?

Was my mind flitting to other things or if I was in a deep trench of attention for that given thing, well then you should give yourself slightly longer for this transition period.

Maybe five or even 10 minutes if you have that time, but even if you give yourself a short as 60 to 90 seconds of transition and you just designate it as transition, you're going to benefit in terms of your ability to do the next task.

So to be very clear, if you were in kind of a light task or something that didn't have much cognitive demand, well then the transition period can be fairly short.

It can be just a couple of minutes.

Rather, if you were in a deep trench of attention, you're really engaged in that first task.

I suggest giving yourself a couple of minutes or more, maybe as much as five to 10 minutes, but you might not have that much time in which case, give yourself any kind of transition even if it's 10 seconds.

I certainly have had times in my life in particular when I was a new assistant professor, meaning before I got tenure, where I remember sitting down to work on a grant, I'd get two lines out, someone would knock on the door, Hey, where are the whatever the 30 mil syringes?

Where do we keep the buffers?

Or, you know, where's the, you know, did we get this thing and then I'd have to shift my attention.

They go back to writing and then be distracted by something else again, which is not to say that people were distracting me unfairly.

It was simply the case that at that time, my life required being involved in a lot more things than it did as my career progressed, at least in the short term.

So the point being that if you are deeply engaged in activity, give yourself a little bit longer in the transition period between them.

If you are sort of superficially involved in activity, you need less of a transition

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

period, but you need a transition period.

What should come during that transition period?

The most important thing to arrive in that transition period is a relative lack of attention to anything new.

This is what's so destructive about the phone.

And keep in mind, I am not one of these people that thinks that smartphones are terrible.

In fact, I use mine plural very often, all day, often, not necessarily during deep cognitive focus, but in between those bouts of focus, I have to text message people, I do work on there, I'm on social media, so certainly not demonizing the smartphone.

However, if you finish a given activity, whether or not it's cognitive or physical activity, and you are headed to something else that requires you do a new task and that that task requires significant amounts of attention and focus, well, then you would do very well to allow yourself a period of anywhere from two minutes to maybe as long as 10 minutes. I know this is going to be very hard for people, but two minutes to as long as 10 minutes, where you are not looking at your phone, you're not texting, you're not on social media, you're not foraging for anything.

In fact, you're trying to limit the total amount of information that you're bringing into your nervous system.

Now, you don't have to walk around with eyes closed and try and not hear and not see, let's be practical folks, that's impossible to do anyway.

You can't shut down your brain while awake, you can go into states of deeper relaxation.

There's a non-sleep deep rest, which we'll talk about in a little bit, but you can't shut off your brain deliberately, not in any healthy way that is, but by introducing these transition zones or transition periods, as we'll call them, of two to 10 minutes between different tasks and making sure that within those transition periods, you are not bringing in new information, again, another context than what are you really doing?

Well, you're ensuring that you're not going from task A to task B to task C, right?

What we're talking about here is trying to limit your task switching between task A and task B and not introducing another task in between, and you might think that looking at your phone is not a task, right?

It's so easy, it's so reflexive, but it is.

It's bringing in a lot of new context, in particular pictures and movies, which are tremendous stimulus for the nervous system and anchoring your attention.

It's bringing in new ideas, new thoughts that no matter how hard you try are going to intrude into your ability to perform task B.

So when people say, how do I get better at task switching?

I immediately want to say, please don't introduce yet more tasks, right?

Switching from one task to another is hard enough already.

Don't introduce another task in between.

Now, some of you might take this to mean that you shouldn't have a conversation with a co-worker after a meeting while walking down the hall.

I'm not saying that.

I still encourage people to be social, I encourage people to engage in workplace environments.

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

However, I will say, after many years of working in laboratories that at times were quite large and you walk into the lab and there are a lot of different things going on, one of the things that you learn how to do if you're going to get good at your craft is to not pay attention to what's going on with everyone crowded around a computer looking at like who's winning at the World Cup.

I'm not trying to insult soccer players here.

I enjoy soccer, both playing it and observing it.

But one has to sort of scruff themselves a little bit in trying to limit their attention to a number of different things in the environment and really go from task A to task B in a really dedicated way.

Short list benefits certain people.

I know a lot of people are list makers out there.

They like to put two or three things or maybe 20 things that they're going to accomplish each day.

One of the best tools that I ever learned both for sake of task switching but also for sake of just getting things done on a consistent basis.

I picked up while I was a master's student at Berkeley, a very accomplished professor at that time told me that he writes down every day three things that he's going to accomplish and only three things, never more than three.

Now he also included other activities.

In fact, he was quite active in his physical life.

So he wrote his bike to campus.

He also was a runner.

He also went to the gym.

He did not include those on his list of three things, but he would write down no more than three critical things to do each day.

So he had three critical tasks.

So I've employed that method as well.

I'll write down one, sometimes two, most often three, but if I can just one or two tasks that I need to complete each day.

And everything else is considered part of the, let's just say automaticity function of my day.

Things that I already know how to do.

They don't require a ton of cognitive focus, but I limited the things that require a lot of cognitive focus to three things per day.

However, those three things per day can take up many, many hours each and certainly on the whole.

Okay.

Now there are additional things that one can do to improve your ability to task switch and one of the things that I found particularly beneficial is not a meditation, but rather is a perceptual exercise.

And this is a perceptual exercise that I learned about when I was a graduate student, but in a totally different context.



## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

And it has to do with the way that your visual system and the parts of your brain that parse time are related to one another and influence one another.

Now the reason this tool makes sense for improving your ability to task switch is because it turns out that where you focus your visual attention strongly influences the way that your brain parses time.

So I'll describe the tool first and then I'll get a little bit into the underlying mechanisms.

But again, I'll get deep into the underlying mechanisms as well as the tool, as well as additional tools in a future episode about task switching on the Huberman Lab podcast.

So if you were to, for instance, close your eyes and not look at anything in your external environment and just concentrate, for instance, on your breathing or the feeling on the surface of your skin.

I know this is starting to sound like meditation, but trust me, it's not meditation.

Your perception of time, that is how finely you are slicing time would be distinctly different than if you were to open your eyes and focus on a far away location, say way off in the horizon and not focus on your bodily sensations.

Similarly, if you were to focus your attention on some intermediate location, maybe let's say 20 feet away and simultaneously focus on your internal bodily sensations or the surface of your skin, your perception of time, how quickly time was passing would also be different than if you closed your eyes or if you were looking at some distant location.

So the perceptual tool for task switching is a very simple one.

And it's one that frankly I do every morning and have for many years now, at least for me has really enhanced my ability to task switch.

And that is to just take a couple of minutes and this really only takes about two or three minutes.

And typically what I will do is I'll start by closing my eyes.

Oh, I should mention I typically do this in an environment where ideally I can see off into the distance, perhaps from a balcony, if I'm in an apartment or a house, ideally outdoors. But if I'm indoors, I'll still do this.

I'll just look as far off into the distance as I can when that step is required.

So but I start off by closing my eyes and essentially not looking at anything, but directing my brain's focus to either the surface of my body, just what it feels like, what it's in contact with or not in contact with, maybe my breathing.

Then I'll open my eyes and I will focus on some location on my body, but my bodily surface like my hand at some distance.

And I'll focus my attention there, maybe for just five to 15 seconds.

I should mention that the first station, as I call them, where my eyes were closed and I was focusing my bodily sensations, I also just do that for about five to 15 seconds.

And I don't count specifically, I'm just kind of rough, roughly five to 15 seconds.

Okay.

So second station, you're looking at the surface of your hand.

And if you like, you can also concentrate on your breathing, but typically people just focus on some specific location on their hand.

Then I'll typically lower my hand, then I'll look off into the distance, maybe five to

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

10 feet.

Doesn't really matter.

I'll focus my visual attention there, try and hold that focus for five to 15 seconds.

Then I'll look further off in the distance, maybe further still off into the distance.

Ultimately what I try and do is look at a location as far off into the distance, into that distance, excuse me, as I possibly can.

And I'm also trying to pay attention to my breathing at the same time, just as a way of calibrating my location to the location that I'm looking at and how great that is.

Then typically I'll close my eyes and return my attention to my immediate environment and my breathing just in the location I'm in.

Okay.

So the entire thing only takes about two minutes, again, starting with eyes closed, focusing on self five to 15 seconds, then eyes open, focusing on surface of one's body.

That is focusing one's visual attention, five to 15 seconds, maybe 10 feet away, then maybe 50 feet away, if you're in the metric system, okay, meters, folks, works just as well.

These distances do not have to be precise.

And then off to the horizon and then back to one's immediate location by closing one's eyes.

Now, what is happening when one does this perceptual exercise?

And again, it's a perceptual exercise, it's a visual perceptual exercise.

Well, what's happening is you are shifting your visual focus, obviously, but you're also shifting the way in which you find slice or thick slice time.

Now your ability to recognize consciously whether or not you're thin slicing or thick slicing time is much harder to get a grasp of than it is to get a grasp of whether or not you're looking at your hand or often the distance.

That's kind of obvious.

But what we know for sure is that as you shift your attention from your immediate environment out to different designated locations in your environment and your time perception shifts accordingly, you're essentially training your brain to shift visual focus and the way in which you process in the time domain.

This is important in the context of task switching because so much of task switching is not just to understand, okay, I'm going from reading to running or from running to reading and the different types of operations that are required in one case versus the other, but also a shift in the neural circuits that underlie your perception of time.

And again, this is a topic that deserves a much more elaborate discussion, but so much of our ability to execute a task with high proficiency has to do with getting our thinking and our actions into the correct time domain.

Now when I say time domain, I know a number of people can get confused because time is time, right?

People think, what do you mean by time domain?

Space domain makes sense.

Here I'm not talking about outer space, whether or not you're looking in one location or another close to your body or far away from your body or different domains of space.

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

But the time domain is a little trickier for most people to understand, so just think of it this way.

When you see a slow motion movie, what you're seeing is a movie that was shot at a high frame rate, many frames per second, okay?

The typical smartphone shoots movies at about 60 frames per second, some older ones, 30 frames per second.

The slow-mo function on your smartphone is actually a high frame rate function.

You took the same movie, but you took it at higher frame rate, so you've got a lot more images, therefore you can generate slow motion.

So with your visual system, when you focus very close in to your body or you're focused on bodily sensations in your immediate environment, you are fine slicing in the time domain more so than when you are looking further off in the distance.

Similarly, when you engage in one type of task, like a board meeting or a Zoom meeting or a conversation with friends, you are in a very different set of neural circuit functions than when you sit down to read or learn math or lift weights or go to therapy or go for a walk with your dog, for instance.

Now it should be clear why when you move from task A to task B, you want to, A, introduce a transition period.

It can be very brief.

Maybe you don't even have time for the two-minute transition period.

You just say, okay, I'm in a transition period between task A and task B. I'm moving from this thing to that thing.

I just need like 10 seconds.

I'm going to recognize, I'm going to count down 10 to 1 or 1 up to 10, doesn't matter.

This is transition time, but this is not a time to look at my phone or to be in lots of different time domains.

Now you might say, well, does that mean I shouldn't look at the horizon while I'm walking from my meeting back to my desk?

No, no, no, no.

That's not the way that your brain works.

It doesn't anchor to things that just happen to be in your environment unless they're of particular interest.

What I'm saying is set a transition period between tasks, ideally two, maybe as long as 10 minutes.

I'm also saying that when you switch between tasks or when you initiate your first major task of the day, please expect, do expect a period in which it's hard to get into the groove, so to speak.

And in addition to that, I recommend having some sort of practice, and I describe the practice that I've used for some period of time now, at least for me, to great success, where you are deliberately shifting your visual attention between different locations close to you and far away, and you're doing that as a perceptual practice.

Again, the whole thing only takes about two minutes, maybe three minutes, and you don't even need to do it every day.

## [Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog

I happen to do it every day, but I miss the occasional day here and there. And even if you were to do this perceptual practice once a week or three times a week, I'm certain that you'll benefit because in doing that perceptual practice, there's also an immediate recognition of the sorts of shifts that your brain is required to engage in any time you move from task A to task B or from task B to task C. And you start to see and feel, literally see and feel the way that that transition occurs and that it takes a little bit of time, but that you can accelerate that transition if you understand that, oh, and I'm looking here and engaging in this type of behavior or sets of tasks, and then I'm now going to be expected to do another task in a completely different type of environment that the brain is going to be required to shift over the neural circuits that are active and less active in order to do that, but that you can accelerate that process by practicing it using that perceptual tool that I described.

So there I covered some specific tools that one can use to enhance one's ability to task switch, touching on a bit of the underlying neurobiology and why transition periods are useful, if not required.

If you think about, there's always a transition period when task switching, but here you're taking conscious control over that transition period.

There are additional tools for enhancing one's ability to task switch.

They tend to be somewhat specific for the certain kinds of cognitive or physical tasks that one needs to do.

The example of chest boxing that I gave earlier, great example of task switching at its extreme terrible example of a practice space time bridging, very safe.

I can't think of any way in which it might be dangerous, although please don't do it while driving or while operating in any other machinery, but by all accounts, very safe, zero cost.

And we talked about some of the other tools for task switching as well.

Thank you for joining for the beginning of this Ask Me Anything episode, to hear the full episode and to hear future episodes of these Ask Me Anything sessions, plus to receive transcripts of them and transcripts of the Huberman Lab Podcast Standard Channel and premium tools not released anywhere else, please go to [HubermanLab.com](https://HubermanLab.com).

Just to remind you why we launched the Huberman Lab Podcast Premium Channel, it's really two-fold.

First of all, it's to raise support for the Standard Huberman Lab Podcast Channel, which of course will still be continued to be released every Monday in full length.

We are not going to change the format or anything about the Standard Huberman Lab Podcast and it's to fund research, in particular research done on human beings, so not animal models, but on human beings, which I think we all agree is a species that we are most interested in.

And we are going to specifically fund research that is aimed toward developing further protocols for mental health, physical health and performance.

And those protocols will be distributed through all channels, not just the premium channel, but through all channels, Huberman Lab Podcast and other media channels.

So the idea here is to give you information to your burning questions in depth and allow

## **[Transcript] Huberman Lab / AMA #11: Improve Task Switching & Productivity and Reduce Brain Fog**

you the opportunity to support the kind of research that provides those kinds of answers in the first place.

Now, an especially exciting feature of the premium channel is that the tiny foundation has generously offered to do a dollar-for-dollar match on all funds raised for research through the premium channel.

So this is a terrific way that they're going to amplify whatever funds come in through the premium channel to further support research for science and science-related tools for mental health, physical health and performance.

If you'd like to sign up for the Huberman Lab Premium Channel, again, there's a cost of \$10 per month, or you can pay \$100 upfront for the entire year.

That will give you access to all the AMAs.

You can ask questions and get answers to your questions.

And you'll, of course, get answers to all the questions that other people ask as well.

There will also be some premium content, such as transcripts of the AMAs and various transcripts and protocols of Huberman Lab Podcast episodes, not found elsewhere.

And again, you'll be supporting research for mental health, physical health and performance.

You can sign up for the premium channel by going to [hubermanlab.com slash premium](https://hubermanlab.com/premium).

Again, that's [hubermanlab.com slash premium](https://hubermanlab.com/premium).

And as always, thank you for your interest in science.