Your Questions Answered - Bret and Heather 92nd DarkHorse Po...

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**SUMMARY KEYWORDS**

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**SPEAKERS**

Bret, Heather

**Bret** 00:10

Hey folks, welcome back to the Dark Horse podcast live stream q&a number 92. Sorry for the delay on getting started, we are running into some difficulties with the new Odyssey platform and getting the second stream running. Hopefully that will solve itself quickly. But in any case, welcome back.

**Heather** 00:32

Here we are, here we are. Okay. Let's launch right in, it's already pretty late. Is there an evolutionary connection to the deja vu experience? Thank you both for your authenticity, much love to you both.

**Bret** 00:46

Yeah, I've got two little stubs of a hypothesis here, one of them not ours in any way, which has to do with the fact that the two sides of the brain process the same information. And in general, they don't understand themselves to be processing separately, because the corpus callosum unites things in some sort of synchronized way. But that a slight de synchrony could result in something arriving in a way like it had, like it was late to the party. And so the initial one, and the follow on would not match up, and it would feel like you've seen it before. I've never quite bought this one, because it was like

**Heather** 01:21

it's too much too short, a timescale, right? Because it tends to be about, you know, days, weeks, years, right down the road. So the, so that's the one that's not yours,

**Bret** 01:32

right? Yeah. My hypothesis has to do with the fact that it's also

**Heather** 01:36

a very mechanistic hypothesis.

**Bret** 01:39

Yeah, it's pretty proximate. Yeah. So what I would say is what we must be doing, what we can infer from the way life is and the way we experience it. Imagine that you're walking through a city, that, you know, somewhat, but you were walking down a street that you've never walked down before into a plaza that you've walked into, but not from that direction, you have to recognize it as the same Plaza. So you're doing some sort of interpolation, where you have some model of the plaza, and you have some idea of what it would look like from a slightly different angle. And so the point is, that thing is a detector for familiarity. And to the extent that you might walk into something that would trip the detector, but not actually be the place, you might have the sense of, I've been here before and that, something like that

**Heather** 02:23

this, this feels very much in keeping with my anecdotal addition to what you're saying is that the last two moves that we've made, which would have been 20 years ago, from Ann Arbor, Michigan, to Olympia, Washington, and then three, almost three years ago from Olympia, Washington to Portland, Oregon. Also, Ann Arbor and Olympia are kind of comparable in size, very different in feel, but both college towns and Portland is bigger. But it's also in the Pacific Northwest.

**Bret** 02:55

Portland is bigger, and Arbor is colder and hotter,

**Heather** 03:00

both colder and hotter. Culturally, Portland and Ann Arbor have more in common Olympia is kind of a backwater. But but the Pacific Northwest stuff that anyway, doesn't matter. In both cases, for quite a number of years, well after after the move to Olympia, and I'm still experiencing it. In Portland, I'll go someplace and be like, Oh, I know this place like now actually, the thing I'm remembering is very precisely Olympia. And I can I can put where it is. And I was doing that with regard to walking around Olympia and finding myself someplace, and we're like, Oh, right. I didn't remember. Oh, no, that's, you know, half a continent away. That was actually in Michigan. Yeah. So it, the question that, you know, the prediction, if that, if, if it's that sort of misplaced familiarity, is that this is a modern artifact of the fact that we move into very unfamiliar places sort of suddenly, as opposed to wandering into new spaces. And we can thus trick ourselves, our brains can imagine, oh, you're just in the place. You've always been like, No, actually, I've taken quite a big leap. Well,

**Bret** 04:06

I think what you're saying would be that if you lived in some standard way, where you tended to be in places that were actually likely to have been passed through before that the detector would even to the extent that it misfired occasionally very quickly correct where you actually are, yeah, and that having displaced yourself by 1000 miles, its tendency to fire and then not know what to do, because it can't correct to anywhere might cause something like this. Yeah. I believe there's some some likelihood that some novelty to this. So obviously, the prediction of that would be that, you know, if you interviewed Aboriginals in their ancestral habitat, and you said, Hey, what's your word for deja vu? They might not have known what you were talking about. Yeah,

**Heather** 04:57

exactly. Hi, everyone. Thank you for your open discussions. I have a question in regards to how safe blood transfusions are. So big question, because of how it pans out with regard to blood from COVID-19 patients and blood from Vax versus unboxed? I don't know the answer to this. I don't think I don't think anyone does.

**Bret** 05:22

Yep. We have the same puzzle with spike proteins that we've always had, which is, we know that spike proteins are dangerous from the virus. There is a shell game played with spike proteins from the vaccine, which are not identical to the ones from the virus because they've been modified for a purpose two purposes. In fact, they have an anchor domain that's supposed to keep them lodged in the membrane of the cell that produces them. And they've been locked open rather than changing conformation when they hit their target. And the question is, does that actually neutralize their toxicity? And let's just say there's enough damage associated that probably certainly, probably it doesn't do it perfectly. Yeah. So you wouldn't want to get spike protein for all sorts of reasons. Just because you're trying to get blood you're not trying to get spike protein. So there's some hazard. The question is how quickly does the spike protein that circulates decay from? From the blood that you would get from a blood bank? And how long is your cyst after an infection? And we don't know.

**Heather** 06:29

We don't know. Dark Horse, I find myself needing to meet vaccination requirements to attend class, fly home, participate in university sports and more is coming. isn't the case for mandating it based on Transmission laughable? My AR are by what risk reduction, my absolute risk for absolute risk reduction from the vaccine is not very high, helped me with the pros and cons to I lose everything or risk being permanently harmed with no one liable for something that will not end COVID if I get it and call bs when this doesn't work, toldja maybe that could inspire some real change.

**Bret** 07:08

Yeah, this

**Heather** 07:09

man, they're gonna, this is something that many people are living with right now. Are there going to be a lot of questions like this? And we don't have answers. But

**Bret** 07:18

yeah, I would say the absolute risk reduction issue is quite salient. And there's a reason presumably, there's a reason that we are doing relative risk reductions. Instead, which we've talked about before, the obvious hazard to your life of not being permitted to do what you need to do is large. And I would say, it's very frustrating that we can't talk about the full range of things that would allow you to get vaccinated and potentially neutralize harms. That's where we're stuck. Yep.

**Heather** 08:02

Given the evidence of corruption of the institute's institutions in regards to COVID, are you more interested in hearing out the issues of the 2020 election after all the rewards from a corrupted politics is greater than that of the academy? So you get Richard Barris for a very reasonable outlook on what went wrong. Here, there's, there's so much potential corruption out there. And I guess I don't doubt that it's in places that we haven't thought to look, I haven't thought to look and others have. And at some level, we all have to choose what battles it is that we're fighting. And although for instance, we are consciously not speaking about the continuing flow of evidence that that for instance, ivermectin, is effective and prophylaxis against COVID as much anymore because the evidence is out there. And that's, that's where we are. There's just a lot. There's just a lot to talk about. And that's probably not going to be someplace where we focus, I guess,

**Bret** 09:17

yeah, I will say more generally, I, I am increasingly frustrated at how little consideration most people especially people, sort of in charge of managing our you know, collective sense of how troubled we should be. How little attention there is paid to a generalized corruption that spreads over everything that invades every process, and it has been very frustrating in the context of COVID to effectively be continuing to talk about the corruption of the academic literature, the political apparatus, the regulatory agencies,

**Heather** 09:57

and to be treated with agencies corporations. As if we're suddenly alleging these

**Bret** 10:01

things in the context of COVID? And the answer is no, it was there before. And all indications are that it is continuing to function in this context, the amazing

**Heather** 10:09

hypothesis on the table is that it's suddenly stopped. Right? Right. Like that's, that's the unusual suggestion, which is not the one that we're making well, and it's

**Bret** 10:17

actually it's a sleight of hand, because the idea is if you weren't paying attention to the degree to which corruption had invaded the Academy, for example, and then suddenly you tune in at the point, we're talking about what the academy produces with respect to COVID. It's like they're alleging someone has gotten a hold of the Academy. And it's like, no, the academy had been gotten hold of, and it's been well documented in the fact that you may not be aware of how far that's gone. Doesn't mean it wasn't happening all along

**Heather** 10:41

our analysis and analytical tools didn't change here. Yeah. Yeah. Yeah. And that's really, that's part of part of the lesson of the book that we've been reading excerpts from chapter by chapter and will continue to through through the publication date in September is that using an evolutionary lens to understand the landscape in which you live, both physically and socially, can arrive you at an understanding that is impervious to the social machinations of those around you. And the you know, that doesn't mean it's comfortable. And that doesn't mean you won't lose friends. That doesn't mean that you're going to be able to extract yourself from some societal expectations, even when it really feels like they're not appropriate for you. But having a set of analytical tools that you can use in order to make sense of your world, and that you can share with other people so that they can use them so that people need rely on authority as little as possible, and need take other people's words for things as little as possible and do their own assessment for themselves. That's the goal here. Possible vaccines? lots of lots of these questions. Except this is written in sort of a telegraphic style. Is it possible that vaccines increase the catching or spreading of COVID-19? Given these pieces of evidence that this person is saying spikes in high vaccination rate countries, and anecdotally, his parents had COVID in October, got the Pfizer vaccine in March and have COVID again now. And they gave it to his sister's family who were not vaccinated. And something big, I'm not sure well, brother in law are now in hospitals. So that's just some anecdotal stuff along with an observation of their spikes in highly vaccinated countries. Maybe,

**Bret** 12:52

no, let's just put it this way. It is possible, right? There is a mechanism, it has a name, it's called antibody dependent enhancement. And when it has different ways that it can work, but essentially, antibodies are molecules that stick to things, they stick to things for which they are matched, to the extent that vaccines create antibodies that are matched to pathogen, they are supposed to block the functioning of the pathogen also that it cannot bind to the things that it would typically bind to. But they can do the opposite. They can change the conformation of the spike protein, or they can augment it by sticking in a particular place. That's suboptimal, and it can cause an increase in transmission. Do we know that that's happening? We do not know that it's happening. But is it possible? Absolutely. And we should absolutely be looking for it.

**Heather** 13:39

Yeah, absolutely. So I, there are a couple of other ad questions here that I thought I would just try to get to, since they're in keeping, why doesn't the flu shot? Cause ad cause antibody dependent enhancement? How is it different than the COVID? vaccines?

**Bret** 13:55

Good question. I don't feel well positioned to answer it. I think there are lots of I mean, well,

**Heather** 14:00

but the second question is, it's not an it's not using an mRNA platform. It's using a traditional platform,

**Bret** 14:07

right? But that's just one way let's put it this way. If the answer is that it is functioning through T cells primarily rather than antibodies, then that would explain it. But my guess is their antibodies created in general to the flu shot, I don't know. And so in principle, could it do that in principle, probably it could unless their antibody unless the antibodies are excluded, but just don't know enough about the flu shot to answer the question. Yep. Okay.

**Heather** 14:38

What do you know? So the answer to this is going to be nothing really. What do you know about the compound? I don't I don't know how to pronounce this kind of kind of cannabidiol cannabidiol CBD? What do you know about CBD from the cannabis plant, a study found to be effective against COVID. And I what I did, look at the study. You can just show our screen here for a minute, Zach It's preprint CBD inhibits SARS COVID replication and promotes the host innate immune response. But

**Bret** 15:08

I have no idea inhibits replication

**Heather** 15:11

inhibits Didn't I say that inhibits SARS COVID to replication promotes the host innate immune response. But I have not had time to look at this paper yet.

**Bret** 15:24

Well, that's interesting. Yeah. If it prevents replication that's highly useful. It's not just a reduction in harm to the individual, but presumably a reduction in transmission to others. So

**Heather** 15:35

yeah, and then of course, you know, there's there's lots of separate out CBD available on the on the market now that a lot of people are using, and of course, there are a lot of pot smokers as well, and that, you know, it, it, it paves the way for some sort of, you know, going back and, you know, natural experiments looking at looking at whether or not pot smokers have lower rates of

**Bret** 15:56

true. I know, it's just a preprint but did you was there any indication of how effective and what kinds of dosages

**Heather** 16:07

I really I honestly just got the link out but I have not looked it cohort of human patients previously taking CBD had significantly lower SARS could be to infection incidence of up to an order of magnitude relative to matched pairs or the general population.

**Bret** 16:24

Or we should say,

**Heather** 16:27

I'll leave I'll leave this tab open. That's fine with the promise

**Bret** 16:29

the morning caught this routing

**Heather** 16:31

and stuff. This

**Bret** 16:32

is a paper that somebody has pointed us to Yeah, it's not like we've been through it. And of course, our enemies will like to hold us responsible for it. But anyway,

**Heather** 16:41

interesting, well and okay. everyone on the planet should want effective prevention of end treatment of COVID-19. That should not be a controversial point, you would think everyone on the planet should want as many possible avenues to prevent and treat this disease as possible, regardless of where you fall on. Any other question. Right? Right. So does CBD work? We don't know there's a paper and preprint that suggests it bite cool. You know, does giraffe pee work? I don't know. No one's tested that one yet. If someone says it does, cool, be glad to see it. You know, do does sitting on lunar rocks work cool, like anything really? Like let's get everything possible out

**Bret** 17:27

there. Whatever, whatever actually works, whatever. Right? It can be demonstrated.

**Heather** 17:32

Yes, yes. For those of you who weren't paying close attention, or who are eager to misconstrue No, I do not have any evidence that drinking giraffe pee or sitting on rocks is actually effective in the transmission of in preventing the transmission of COVID-19. Not

**Bret** 17:45

that there aren't other valid reasons to do it.

**Heather** 17:47

There are a lot yeah, I'd say. Yeah, I seem to every time that I'm looking into the right camera now, Zachary cleverly switches which camera I'm on. So that right, I'm always looking at sort of off screen like a confused cat. Okay. Is it? Is it possible that a dino of axes can assist? Kind of? I don't even know how to interpret this question, honestly. Something about HIV, and AIDS, you know, backs and I've heard murmurs of this, but I don't know anything about it. I just don't know anything about it. Okay. Yeah. And silver, silver as a antiviral? Again, we we've we've said before someone thinks, you know, a few people seem to think something like Colloidal Silver, I know nothing about it. Okay, I feel like we already talked about ADA. I'm going to try finding something that's not about Here we go. Oh, this is? This is not a fun question at all. It has nothing to do with COVID. You ready? It's genocide instead. Wonderful. Yes. In the context of lineage selection and ecological dominance, I see a logic natural law behind for example, genocide, whereas the threshold for that outcome in the modern world there was a global scale genocide inevitable. Well, global, you can do this.

**Bret** 19:25

Yeah. So first of all, depends what you mean by global, the global scale. Yeah, that's what he says. So lineage selection, predicts that some lineage will target other lineages. Obviously, we are all one lineage at one level. And you don't really expect that you would expect maybe very large lineages to go after other very large lineages. The threshold is presumably a cost benefit analysis. of the degree to which the size of one lineages pie grows, at the cost of eliminating another lineage. In the modern era, the algorithm is liable to be the algorithm that individuals are driven to this kind of demonization of others, which is presumably the mechanism through which this goes, will be very poor, because you won't anticipate things like what happens if some population has nuclear reactors collapses, and those nuclear reactors, you know, melt down and explode. Right? We want into it that. So there's that, on the other hand, countries have intelligence agencies who presumably can do explicit calculations about things, which might change things, but I see no reason that if we don't get in the road of the instincts that cause linear selection to trigger people to do this, that a won't happen again, ever greater scale.

**Heather** 20:59

Yeah. And I mean, I guess that's, that's it is that the way that we talk about and invite and encourage others to talk about the evolutionary toolkit is how can you best understand what the forces are that created who you are today, such that you can override those forces that do not actually have your and your friends and the world's best interests at heart? Yes. And so linear selection is true and real. And yes, absent any other forces, it it could well lead to complete obliteration of the species. But we're humans, and we can and must be better than that we can we can override our basest instincts. And we need to,

**Bret** 21:43

and we do it all the time. Every time you know, if you live in a cosmopolitan country, which presumably almost everybody who's watching this podcast does. The point is, you you go to the theater, you go to the market, you hang out in the square with people who don't look like you and are so closely related to you. And you're not constantly looking at the other people in the square who do look like you and thinking, hey, maybe the folks that who don't look like us can't defend themselves and we can take their stuff, right? I mean, we don't do that right when we get over it. And frankly, we actually like it. Right? It was a you know, I've made this point before it's your life, the United colors of Benetton. And I'd like to buy the world of coke, we're bullshit. But that was advertisers tapping into the fact that people actually like it. When they have camaraderie across these. These lines of difference. They feel good about themselves, and they feel good about other people. So it's not like this is some Herculean effort to get over these instincts. It's like, if in a world where it is profitable to put racism aside, people will do it. Right. Yeah, that's what we should be creating as a world where it makes sense to do it. And then people will because frankly, it's just better.

**Heather** 22:53

Yeah. Good. The wife and I are planning some old fashioned American road trips, plans to visit or plans visit a bit of east and west coast. Do you have any point of interest recommendations for two nature lovers while visiting Portland, Oregon? There's so much here. Yeah, there's the whole Pacific Northwest is just just extraordinary. And you know, we're only fairly recently in Portland and a considerable amount of that time has been during COVID. But you know, depending on when, to some degree depending on what time of year you're here, you know, it's kind of probably don't bother in February. It's just not a easy to get around moment. It never gets bitterly cold the way it does say in the upper Midwest, but it almost never does. But it's just it's unpleasant to be to be out, although, you know, here like many places with a lot of wet or wet or bad weather. The saying is there's no bad weather, there's only bad clothes. But you know, the coast and there are a lot of towns with different, different cultures and ethos is along the coast and Mount Hood, and just a number of parks along the Willamette River. And, you know, within Portland itself, we have Forest Park, which is like 5000 acres or something insane. And then Washington Park which is an order of magnitude smaller, but still 500 acres and Tryon Creek State Park, which is 700 plus acres. These are just giant parks. within the city. I think Forest Park is within the city limits but it certainly abuts the city, if not within the city limits. So you know in terms of in terms of nature, you've got those three giant parks and you've got the Willamette running through the city and the Columbia hugging the northern edge between Oregon and Washington. Mount Hood, just a hour and a half to the east northeast and the coast is an hour and a half to two to the west. So you know just then, you know that's, that's not all by any means. Yeah, I

**Bret** 24:58

would say one, one Sometimes the big parks in Portland are a little disappointing wildlife wise because they're so full of English ivy which for whatever reason has a bad impact on the animal life that you're likely to see. The Willamette is pretty healthy for the river. Yeah, yeah,

**Heather** 25:18

it's amazing.

**Bret** 25:19

We see a lot of bald eagles I've seen I saw mink last week again. I've seen two Osprey carrying fish overhead in the last two weeks

**Heather** 25:29

Yeah, I have to actually and also I saw I saw a turkey vulture depend defending a fish from a crow

**Bret** 25:40

finding a fish from a crow not far from here we saw some pretty good stuff up at near Catherine Creek on in the gorge the gorgeous

**Heather** 25:50

Columbia River Gorge is amazing

**Bret** 25:53

we talked a little bit about Dr. falls which obviously is not right he's not in Portland yeah so this is the question is specifically about Portland

**Heather** 26:02

well yeah but I mean Pacific Northwest see a bigger you know, you got any of the volcanoes are amazing. And you know, Adams, hood, Rainier, Helens. Baker farther north, you know, if you're going farther north to San Juan Islands.

**Bret** 26:14

Yeah. reynier is particularly dramatic. Yeah, man has a very good population have a lot of a lot of wildlife. What else? Oh, I we haven't spent much time since we've been here. But I had a local photographer recommend the Coast Range in terms of wildlife.

**Heather** 26:32

Yeah, you know, we we went swimming in a river in the Coast Range last summer. Yep. US and the boys and the dog. But otherwise, I've really just gone through over to get to the coast a couple of times, but yeah, no, I think it's

**Bret** 26:46

it's everybody liked that except a dog. Oh, yeah. The

**Heather** 26:49

dog hates going swimming in the river.

**Bret** 26:52

Terrible. Yeah. It makes her to ecstatic. That's what.

**Heather** 26:55

That's right. That's right. I guess. You know, right here in Portland, as well as the Willamette, which really is right here in the parks. The Japanese garden is glorious. Totally glorious. I'd like to take ivermectin preventatively. But here's my hesitation. The safety record is based on annual on twice annual treatments. However, the flcc is recommending twice weekly doses for prevention. Is there any data showing that it is safe to take ivermectin that frequently for months on end? Nope. Nope. There is a there is not and we've talked about this before, I think when we in and our clips got clipped yet when we were asked to steal man the case against ivermectin, we specifically. And like the concern that I have specifically is on gut microbiota. Yep. Because it's so broad spectrum. Yeah. But that's it's really it's, it's like the concern that I haven't and the problem is we don't have the data.

**Bret** 28:00

Yeah, I don't think it's a minor concern. But I think, you know, what we have is a lot of bad options. And yeah, the higher the dose required, the worse the option is.

**Heather** 28:13

Exactly. Okay, so I'm just remembering because we're doing this new thing now that I also have a question from the discord server this week. So I'm going to ask the one next question here and I'm gonna go find that next I forgot it again. I think I forgot it last week to gender ID disorder, I think is what this stands for gender ID disorder says the mind is the issue and the solution is therapy. Well, gender dysphoria says the mind is fine. It's the body that's the problem. That's an interesting framing. That

**Bret** 28:43

is an interesting frame. Yeah.

**Heather** 28:46

This shift doesn't seem scientific, but ontological. also true. If the issue concerns the essence of a right mind, wouldn't compelling pronouns be imposing religious beliefs on people? That's interesting. I'd never thought to frame either and this doesn't represent all sides but either of these particular sort of philosophical approaches this way and if someone thinks that that's not an accurate framing, I'd be very interested to hear it but

**Bret** 29:22

I think it's a it's a framing definitely worth spending some time

**Heather** 29:26

Yeah, I mean, I think the way that I've talked about it and the way I I'm actually in the middle of writing something about issues around this is that they're you know, it's a it's a mismatch right that that you know, under in those very rare cases where there really does seem to be a you know, a dysphoria i don't know i don't say the mind is fine. The body is a problem, but that there is you know, there's a underlying, and putting aside those rare cases that are actually intersects those slightly more common cases of trans Without being intersex. It's not that the you know that either one is fine, and the other one isn't good. It's that there is a mismatch that somehow during development, the complexity of development after the binary of sex caused the caused. I mean, I guess I was just gonna say like how I guess I do say it as the brain understands a different reality than what the body reveals.

**Bret** 30:27

Okay, but mind, yeah, I'm just riffing here. I think this is a useful exploration. Yeah. But here's the place it goes, it seems to me. Let's put adults aside for a second. Right? The problem goes back to what we were talking about in the main part of the program, which was the highly software based nature of being a human. And the point is, if the, the body is fine, the mind is the problem version is what one takes seriously, then the point is, for somebody who's very young, the ability to change the software is actually part of what they're involved in. It is the upgrading of your software that childhood is about. And so the idea that we are suddenly going to start altering the bodies of children. Yeah, right. Makes no sense. And let me suggest is that if you were to choose between these two models, right, this suggests that the mind is the thing to change is actually liable to be better in most cases, because the mind is built to be changed?

**Heather** 31:47

Yes, Ah, no, I Oh, I see where you're going. That's very good. Yes. And that, you know, that that prevent that presents a conundrum that potentially can be solved. I guess that the objection I was going to have is, if we're talking about doing anything to children, I'm sorry, I'm out. Like I don't I'm, I'm, I'm not interested in talking about reconciling the stated beliefs of children with their, you know, obvious phenotype, because children childhood is that time of exploration and but so let's talk about adults. So let's talk about a 20 year old Oh,

**Bret** 32:25

well, hold on. So what I would say what I get out of this, if you apply this model, the basic point is, in the case of children, I'm not necessarily saying that there's anything to do. But the basic point is because the mind is coming to discover who you are and who it wants to be. And it's writing that program, that the and you know, this fits with the fact that lots of people who have gender dysphoria, just have it go away, they don't end up as gender dysphoric adults. So allowing that process to play out is the best thing to do for the person.

**Heather** 32:55

Right? And that sounds more like it's not gender dysphoria. It's gender exploratory.

**Bret** 33:00

Yep. And maybe those two things need to be separate. And so the point is, if you arrive in adulthood, and you remain gender dysphoric, then whatever options are on the table are really yours to choose from within reason. But the idea that because adults should have the right to choose these things to reconcile a mismatch doesn't imply anything about what should be going on with children. And and that's the really disturbing, disturbing thing.

**Heather** 33:28

That is absolutely true. Yes, so I don't know where the error is, but I cannot find the discord question, I think because it's been coming in from another account and I don't have that saved yet. So if, if the mod can text me if that's possible, the the discord question for this week such that I will just turn off airplane mode and I will see it then if when it comes in, that would be useful. And I will add to that when, when it does come in. Okay. Does jealousy serve a useful purpose? Should we strive to rid ourselves of this emotional response? Or does it have some utility?

**Bret** 34:07

utility is all too obvious in some ways. So think, think about let's take the simplest, simplest version of this male sexual jealousy. Right? So males who are prone to fear and scenario build around the infidelity of their mates are clearly involved in an exercise designed to discourage coquetry. Right and evolution, whether you should care about coupled or not, evolution cares about it very deeply, because of course, what could possibly be more expensive than taking what limited child rearing time any adult has and directing it at the raising of someone else's child who vanished and is unknown to you, and especially when it happens as the result of the deception of one's most intimate partner? You know, there's certainly lots of reasons Just

**Heather** 35:00

look at me up. Like I just like to point out that this is not what we were fighting about this week.

**Bret** 35:04

Absolutely. But the point is, you don't have to, you don't have to know very much about evolution to see why selection would have programmed men to be very troubled by this possibility. And that this is a issue built into being a mammal. And the reason it's built into being a mammal, is because for mammals, copulation, and birth are widely separated in time, which makes it much harder to know for certain so certainty of paternity drops. And you get the evolution of behaviors in which men follow. Males follow females around in order to be more certain. So anyway, the point is, yeah, Kelsey is an adaptive emotion. male sexual jealousy is the easiest one to understand the reason that males and females feel differently about sexual infidelity versus emotional infidelity should be pretty clear, too, because the risks that males experience versus the risks that females experience are predictably different, is why females tend to fear things like abandonment, males tend to fear sexual infidelity. All of this stuff falls so naturally out of just simply tracking what an individual's genes probably should care about. If they're trying to get into the future. That you know, it. It's a it's a pretty, it's a pretty simple puzzle to sort.

**Heather** 36:24

Yeah, I mean, I do think there there are modern instantiations of jealousy, which are harder to interpret. But of course, that's basically the hallmark of maternity, right? So I'm thinking, I read, I don't know an article or short story or something this week in some magazine, about a woman who was unable to get pregnant who really desperately wanted a kid. And this is sort of story that most moderns have heard tell of before, but the the woman who's trying and cannot conceive when she sees pregnant women, when she sees her with babies, when a friend tells her that she's pregnant, she see this, rather than, you know, especially when it's a friend, she's just so mad at herself for not being happy for her friend, but she can't muster it. And you know, that I can't, we're off all familiar with this, even if we've never experienced it ourselves. But I think I think most people will recognize that as a framing that some people experience as, as being common enough to almost seem like the that's a kind of a human response, right? Like no one blames the woman in this case. But it does seem a little mysterious to me.

**Bret** 37:39

I don't think it's so mysterious. I mean, we got to paint the scenario a little more cleanly to know whether it makes any sense in this case, but if a woman wants a child that's obviously easy to explain evolutionarily, and if he doesn't have one, but wants one, then there are a bunch of things that might be true that she could do something about and that her jealousy or at least her dismay, might cause

**Heather** 38:05

her some of what's envy rather than jealousy maybe or I don't know it's a little bit of a distinction

**Bret** 38:10

but right but nonetheless let's say there's some negative emotion that causes the woman to focus on this and instead of feeling joy on behalf of her friend she feels troubled Yeah, and can't let it go

**Heather** 38:24

right well that's gonna be the crux isn't it? It's the can't let it go

**Bret** 38:28

it's I can't let it go so let's say for example, that she has no partner right?

**Heather** 38:35

Yeah, it might you know, now you're making it now you're making it too easy to

**Bret** 38:39

know I'm just gonna say there's a list of things okay. In the case of no partner, she might be motivated by the negative emotion that comes with not having a child to lower standards frankly, right so it may be that and that could change

**Heather** 38:55

I mean, the specific situation I was talking about as someone who's made it and trying to get pregnant and can't get pregnant and so there's some like there's some appears to be it but I thought this is where you were going and like I mean, I guess we can do this all over the place we can all do you know, play out all the different lines. But I thought where you were going to go just stand with the can't let it go is trying can't likely to be one or the other of the people who are trying to make a kins responsibility, even though they have no you know, they have no ability to change that thing. And so dwelling and really figuring out okay, I really, really, really want this kid and it's me. What do I do? Or it's not me, right? If it's not her, right, not me.

**Bret** 39:40

That's exactly what do

**Heather** 39:41

I do then? How much do I want a kid? And how much do I want the guy I'm with who doesn't seem to be able to give me again,

**Bret** 39:48

right, which, again, fits with the change in standards. It may be that she's happy with the guy but it doesn't end up with a kid and if it's him, then replacing him might result in a lower quality guy. Good. So, basic point is, you know you got a problem if you can't figure out some way in which the negative emotion could possibly lead to a change in behavior that then potentially augments

**Heather** 40:14

fitness but I do think that the the crux there in in what what you've began to explain and then we're talking about is the is negative emotion causes you to slow down and focus and I can feel it can go pathological like you can just dwell on dwelling dwelling dwell and not escape from it and be learning nothing. But in general modality including several branches of psychology would have us immediately flee from any sense of negativity, you know, any discomfort is bad, any you know, reminder of anything that's ever bad ever bad has happened to us is bad. And actually, this is this is backwards, right? And so no, we don't want to swing the pendulum all the way to the other side. And you know, find ourselves in the pits of despair and consideration of everything that's wrong with us or our lives or whatever all the time. But spending long enough there that you can't escape from your own self defense mechanisms, and can figure out what that negative emotion actually might have to offer you. As a way out of the conundrum you find yourself in is presumably the adaptive advantage. Yeah.

**Bret** 41:21

And even if it doesn't cause you to consciously recognize something it could cause you to get antsy in a relationship. That

**Heather** 41:27

Yeah, it doesn't need to be a conscious recognition. Yeah. Can you be fat and fit? Studies conflict?

**Bret** 41:36

I'm gonna define fat for one.

**Heather** 41:39

Yeah, I would say that's exactly right.

**Bret** 41:41

You can definitely be bulky, but

**Heather** 41:45

and different, you know, people from different lineages will have different typical body types, too. Yep. Right? And so you know, fat. Fat for MSI is going to look very different than fat for an intimate, and

**Bret** 42:01

yeah, I've ever seen a fat mess I but

**Heather** 42:04

well, exactly right. And like that's, that's taking too obvious and easy an example. Because, you know, if, if your people, whomever they be hearken from a land where radiating heat was the most important thing, then having a bit more fat may actually interfere more quickly, with other physiological and anatomical functioning. Yep, actually. Whereas if your people are coming from a place where for many, many, many generations, what has been needed is to conserve heat, then having you know, certainly having some fat on your frame is likely to be easier to accommodate anatomically and physiologically, then, then if you're from closer to the equator,

**Heather** 42:45

yep. There are a lot of links that I haven't had time and it's hard in this mechanism here that we have to, to click on them. So I'm not I'm not able to click on this. What is your take? On evolution where humans are taking risks via the nuclear chain reaction? Think manhattan project or AGI AGI

**Bret** 43:20

artificial general intelligence?

**Heather** 43:22

Okay, what's your take on evolution where humans are taking risks via nuclear chain reaction think manhattan project or AGI that may cause mass extinction? How does that fit into self interest? I say I was punctuating the sentence wrong. Okay, well, there

**Bret** 43:35

are two things to say one, we are bound not to Intuit very well the out scale risks that come from things like nuclear chain reactions, let's say in a reactor right a reactor may be pretty they're not as clean as people say they put out radioactive materials a matter of course, but in terms of the really heavy stuff, they don't release it until they release it catastrophic Lee and so they seem clean, short term, if you don't live right downwind of them. That you know the net cleanness is not intuited because you pretty much assume that they're going to work rather than assume a natural rate of failure. So we don't Intuit things like reactors or what will happen if I build a bunch of these bombs because that enemy is scary to me. Right? We don't Intuit what could happen. And then there's another what was the other part of this? Yeah. Oh, no, it wasn't it wasn't the AGI thing. It was, then there's the perverse incentive aspect. That's nice. All right, we got it. It's the perverse incentive aspect, which is let's say that nuclear reactors are a bad deal net, because the cost to humanity is actually greater once you realize that the all the isotopes they put Reduce have to go somewhere, and that the likelihood of failure is going to spill some into the environment and that it will have these costs. Right? So let's say that they're net bad. But let's say that you are running a corporation that profits from the production of power using these reactors. And that because a lot of the harm is externalized, you do not pay that price. And it's profitable, right? So evolution may correctly cause a person in the position to govern such a corporation to see the production of more reactors as positive, even if the net impact of those reactors is negative. And evolutionarily, that person should probably favor that behavior. So anyway, those two things.

**Heather** 45:47

Very good. Okay, there's so many questions. sunscreen is an artificial compound made by the petrochemical industry? Should I let this product interfere with my natural interaction with the sun, even if it results in sunburn? So we've talked about some sunscreen and sunburn a fair bit, and it's in our book, and I think we even may read an excerpt from it, regardless of where it's from, and if I mean, they're like the zinc, zinc sunscreens aren't, aren't using petrochemicals and apparently not physical, it's just a physical barrier. So nobody uses

**Bret** 46:25

those anymore. But really, I don't think so. I don't see people with zinc noses so often

**Heather** 46:30

Yeah, I guess not. Yeah, I feel like some people must. But it used to be sort of a badge of it's like war paint for surfers. But in scares, I wouldn't avoid it because it's from the petrochemical industry, I would avoid it because it's bad for you. And, and we've talked about, we've talked about this, lots of other places, but I'm moderating your sun exposure behaviorally insofar as possible and with clothing, rather than by applying. applying sunscreen on that may well do damage to you, not only because of what it's made of, but also because it's actually limiting the value of getting sun on your skin, including what that can do for you with regard to producing vitamin D is going to be going to pose long term health costs. And actually, not enough sun exposure is a very large health risk to large

**Bret** 47:29

health risk and very likely and people who live sufficiently far north or south. So you've got prevents natural exposure to the sun, which can create vitamin D and vitamin D is very protective against things like COVID and flu. chemicals in sunscreen can cross into the blood and have unknown consequences. And behavioral alterations, even very slight behavioral alterations can prevent sunburn, as we've talked about very short breaks in the shade seem to reset. Yeah, the skin sun exposure. So yeah, I would say there's lots of reasons to worry about the seemingly elegant solution of sunscreen.

**Heather** 48:13

And then given the importance of viral load, can we install ventilation systems to exchange fresh air at a sufficient rate to flush viral particles outside where they'll die from militant moderate? Yeah, yeah, we should be working on h vac systems that do this, they both catch and, and and do this. And in fact, the third, I think, post of mine on natural selections, specifically gets into this talking about how, you know, respiratory infections at hospitals went up at the point that we started in closing them and using mechanical ventilation as opposed to fresh air that is being able to have in Windows, large rooms that had opened up I mean, yeah, large volume rooms. with large windows that open opening windows opening doors have an airflow is the thing that reduces respiratory infections, and it's going to work on COVID. And, and we should be doing this.

**Bret** 49:06

Yes. On the other hand, there's also especially in the winter and the summer, the problem is such a system will counteract whatever climate control is happening. So there are downsides that will drive up the price of medical care, it will make it harder to maintain good temperature in these buildings. And there are other solutions that will work potentially to write like an H vac system that simply sterilizes the air that passes through it, either through drying or through ultraviolet light exposure. So there are lots of things we all do

**Heather** 49:39

that so that would work in term that would protect that has the potential to work to kill the virus. There are presumably unknown benefits, many benefits that we do not yet understand of having actual fresh air flow through a space.

**Bret** 49:55

Well, I think that's true. I mean, even just things like reducing the cost consequence of the off gassing of all of this stuff in the hospital or whatever,

**Heather** 50:04

exactly. I mean, it's just like just anecdotally, right, like we have the experience of having been in this heatwave for a few days and this morning I woke up like I was actually cool. And for two nights now we'd slept with the AC on which we all hate. And I threw open all the windows right away and just you know, the air quality in the house seemed to improve dramatically and we have kind of high quality h fac we got an air filter all Hell's air filter, like it's, you know, we're not we're not breathing in spores when the AC is on, but it just dries out the air and it makes your throat sore. And it's just, it's just not as good for him. Yep. Just nice, good, creepy possibility of the algorithm. It wasn't listening to your fight and inferred something about your current mindset from your recent browsing habits.

**Bret** 50:50

I don't know I'm pretty much always just looking at what could go wrong.

**Heather** 50:54

But I wasn't looking for pool boys.

**Bret** 50:56

Oh, no. Terrible. Well,

**Heather** 50:59

ah, and it knows we don't have a pool. There's that pool down slope. Wow, this is just catastrophic, is it? I think I think you've been through worse. today.

**Bret** 51:10

That's Yeah, today. Yeah, it's got to go on Twitter.

**Heather** 51:16

Oh, okay. Here we go. Have you read or seen David Fuller's latest pieces about his concerns about you being in a confirmation bubble about COVID-19? much love from a concerned listener? Yeah. That'll

**Bret** 51:32

What more is there to say?

**Heather** 51:39

I've been there. There's a lot more to say. But basically, there's been very little careful scientific pushback, there's been a lot of social post pushback. And what we have said privately to people is this feels very postmodern, it feels very familiar. It feels very much like there's a social universe and a set of social conclusions that people insist that we must come to, and trying to figure out what is actually true, should not interfere with that social universe, nor does social pressure change what is actually true. And so we have made a conscious decision to not be talking about it as much anymore absent big changes and what we understand to be true, we are not going to play defense, we are not going to respond to critiques that don't have new information in them, and the people making them know what, what that means. And there's just a lot of evidence that continues to grow. That suggests that the position that we have laid out both in what we wrote and what we have said on many previous episodes, holds and if that changes, if anything about that reverses, we will absolutely come to, to you our listeners.

**Bret** 53:01

Well, now we're stuck in a bind, right? Because people will say

**Heather** 53:05

the there's lots of little things here and

**Bret** 53:09

little things. There's a great big study just been released that together trial, which says ivermectin has no effect on COVID whatsoever. Except that's not what it says. Even the study says it has an effect, but it's not significant. But if you look at the way the study was done, it was absolutely designed to fail. It was given on an empty stomach. It was recruited people late in the disease that recruited people who were either old or had come comorbidities.

**Heather** 53:37

Yep. And then you and then you see the way it's reported. Right? You know, the LA Times reports the study with the picture of who Donald Trump Donald Trump, Donald Trump has to do with ivermectin absolutely nothing. So you know, it's just one social play after another

**Bret** 53:50

and we don't even have the study, what we have is the punchline, the supposed punchline of the study from a slide deck, the study hasn't even been reported in a preprint. Right. So this is, this is clearly a political ploy.

**Heather** 54:07

And we're not going to respond to those things. And we're also not going to point out but as much, you know, or perhaps at all, when, you know, further evidence continues to support the efficacy of prophylaxis, for instance. Right, right. It's not it, you know, we're not, we're just not going to continue beating this drum. And I feel like so many people have been in this position, we're not caving, and we're not playing defense, and we hope that we're wrong about some of the things that we are seeing in the adverse events signal. But it doesn't seem that we are.

**Bret** 54:45

Yeah, I guess one last point I would make as long as we're going to talk about this. I am deeply frustrated with David David. Amplified, the better skeptics project. He came to me privately and talked it up. He apparently suggested one of the referees for the project. So he had an important role in how it unfolded. And then at the point that it went through our stuff meticulously something like 44 claims that we had misrepresented. They found three in which there was some indication, one of them, we should probably come back to at least. But nonetheless, the point is, he amplified the process, right? I thought this is a dangerous way to do this, it's prone to several different kinds of bias that I don't see protect against in it. And I was very concerned about, you know, a process that, you know, incentivize instead of people having skin in the game and incentivize them to go nitpicking and, and all of this, but anyway, in the end, it gave us not a totally clean bill of health, but a remarkably clean bill of health in light of how much landscape and how many complaints certain people had made. So given that that process concluded, and that that process does say something about the quality of what we've been doing here on Darkhorse, didn't David have some obligation to say, Well, you know, here's the process that I suggested might evaluate this. And here's the conclusion, which is not what he did. He actually circumvented it. And, frankly, I resented which David knows, because I've said it to him.

**Heather** 56:24

Alright, the discord question. The question from the discord server this week is, what can evolutionary lens teach us about ADHD? Is it an adaptation, a mismatch having been died, the person asks the person continues, haven't been diagnosed at an early age, I am now looking for solutions outside of medication. And yet So just to be clear, I'll pose the question again and let you riff on this. People on either of our patrons can join the Dark Horse Discord server, and then each week, some group of them vote on which question that has been posed they most want us to answer so we answer one of the questions that comes off the Dark Horse Discord server every week and again, this one this week is what can an evolutionary lens teach us about ADHD is an adaptation or mismatch or what?

**Bret** 57:11

Alright, so as always, we need to be as careful as possible because we're talking about a diagnosis of something. And I must say I am. I don't remember the specifics. But I am certain that I was diagnosed with ADHD at some late point as people were grasping for explanations for by odd interaction with school is so problematic. So probably I have a feeling that my odd interactions with school had a lot to do with the fact that school really, really sucked it traumatized me a little bit. And it took me a while to get past it. But

**Heather** 57:39

yes, school should be diagnosed with borderline personality disorder. Yeah, it was,

**Bret** 57:43

it was not a learning disorder, as my brother says it was a teaching disorder. But okay, so the point is this, do I believe this, I believe in ADHD, I think at the end of the day, I believe that there are some small percentage of the people who have been brought under that diagnosis that probably do have an actual disorder, and that the rest are probably suffering from a mismatch between a very, very stupidly constructed environment, and their particular predilections, right, you're not designed to be sitting in a chair, you're not designed to be sitting in a room with a bunch of other people facing the cave wall has some authority, scratches, abstractions on it, it's not the way this is supposed to work. And so the fact that it works for some people, cool, the fact that it doesn't work for some other people is not necessarily an indication that those other people are badly structured, right. And I could say the same thing about dyslexia, right? Do I have dyslexia? Well, if there is such a thing, I definitely have it. But given that reading is so brand new, how can we say that there's a defect that comes from the fact that a certain number of people aren't as good they're not good enough at getting the symbols from the page into their mind in the correct ordering, right? That's, you know, that could just be a bell curve of signal processing in which the price of ink and paper has caused us to choose a font size that puts some fraction of us in a category where we're just not above some threshold of acuity, right? Like That doesn't sound like a disorder to me, right? That sounds like very variation. So

**Heather** 59:18

it sounds to me like you've got a serious case of Fanta anger

**Bret** 59:23

Yes, I've got a font of anger over the ironic diagnosis of dyslexia which I frankly don't believe in and it's not just I'm not against having defects I've definitely got a color deficiency that's a defect right? I don't mind but but I do think that there's something awfully opaque about the way medicine goes around. wagging its diagnosis hammer it stuff, right it diagnosis pain as a malady in and of itself like that. Definitely should have stopped at the point that Darwin explained how natural selection works. And you know, ADHD, do you have it You might, it's also possible that the pharmaceutical industry decided they would like you to have it because they have a solution for it. And that solution is speed or something. And if you're in that category where you've been brought under a diagnosis so that somebody can justify writing a prescription that somebody would like you to have, because it's profitable for them to sell it, then by all means, get away from those people, right? figure something else out and involve rearranging the way your life works, just so that your environment is a better match for your mental structures. Right? That's, that's the thing. Yep. And I guess, final point, it is amazing. It is amazing. If you just pay attention if you vary one thing at a time, and you pay attention to the inputs in your world, and what the result is, with the consequences for your body and your mind and your psychological well being. It's amazing, what you can find is actually affecting you, and cure just by virtue of changing that parameter when you identify it. So anyway, don't give up hope and don't listen too much to people, you know, who are too eager to write you a prescription because a lot of those people have ulterior motives.

**Heather** 1:01:07

Good, nice ramp. Thank you. I like that. I enjoyed that. Let's go. few questions people have written in asking about the whitetail deer. And we want to do that.

**Bret** 1:01:21

We could talk a little bit about why so this

**Heather** 1:01:22

this version of the question is, is it true that COVID cannot be driven extinct due to animal reservoirs? Which is a excuse me a reference to this finding that came out sometime this week? That some crazy huge number, like 30 to 40% of whitetail deer in the US, said, Well, it was from certain sample populations, but they extrapolated to the US that they not.

**Bret** 1:01:44

There's definitely an implication but but let's just have

**Heather** 1:01:49

tested positive for

**Bret** 1:01:50

for antibodies.

**Heather** 1:01:51

There it is.

**Bret** 1:01:53

Well, so let's let's talk about this. First of all, there is a lot of panic over the fact that lots of creatures have tested positive for SARS. COVID. I wouldn't worry about monster. Okay, so we've had been we've had it transmitted to big cats, we've had a transmitted to both cats and dogs, domestic cats, and we've had it transmitted to apes in the zoo. Basically, zoo animals and domesticated creatures have caught it. But there is a big difference between catching it and being able to transmit it to another creature like within your species. And then another difference between that and being able to transmit it back to a human, which that last step is actually the most likely in some sense of it caught it from a human, I would say so yes. But that said, we really not guaranteed we really only have two species in which we have seen something that looks like human disease, right, the ability to transmit it readily, etc. And those are minks, and ferrets, right. And one instance literally a single individual mink that has been found in the wild with the disease, I believe, with the virus itself, not just the antibody, so I'm not 100% sure of that. But in any case, otherwise, it's farms, right, and pet swarms, and the mink photos and pet ferrets and the mink that was found with it was near a farm. So it's not an independent thing. So is SARS COBie two out there in some way in animal reservoirs that prevents us from driving it extinct. Yeah, maybe. Right. We got minks, and ferrets, which we can deal with because they're in farms. We've got lots of individual cases where an animal has picked it up and it hasn't circulated in the population. Those aren't serious yet. They could certainly become serious, but they aren't. And then

**Heather** 1:03:35

continues to evolve. Right? The virus continues to evolve and manifest differently,

**Bret** 1:03:39

right. And I should point out that the mink ferret thing is very likely related to the very probable lab leak, right. And the point is, ferrets would likely have been a study subject in Ghana function research, it may have been passage through ferrets, because their h2 receptor is very much like ours. So in any case, yes.

**Heather** 1:04:01

And make some fair to close relatives, yes, and there. So the h2 receptors of the mustelids are mixed most of that whole that clade of mammals is all very similar to humans. That's why they are model organisms used in things like unit function experiments.

**Bret** 1:04:16

Yep. And we should be looking at other closely related critters. skunks are a possibility.

**Heather** 1:04:22

But they're not my cells, are they? They're

**Bret** 1:04:25

just outside. So it's an arbitrary distinction. They used to be mustelids. But

**Heather** 1:04:29

they haven't gotten it's the stripes, isn't it? They're excluded on basis of the stripes.

**Bret** 1:04:33

I couldn't say no.

**Heather** 1:04:35

That's not how systems work.

**Bret** 1:04:36

But okay, let's get back to the deal. When I first heard about the study on it there, I thought, Oh, this is the worst conceivable news because this really does look like a widespread epidemic within whitetail deer

**Heather** 1:04:53

in which case there's there is no chance of eradicating the virus

**Bret** 1:04:56

wouldn't play. I wouldn't say that but I would say at Makes it just got much harder. That said, so my first thought was worst possible. My second thought was, I'm not even sure I believe that this is true. And I thought maybe this was the result of a Coronavirus that circulates in deer that has resulted in antibodies that are triggering the test. But it's not really a new thing. The study was better than that. It definitely tested samples from after the COVID pandemic and before the COVID pandemic, and with a couple of exceptions that are likely to be false positives, the triggering is all post pandemic. So it does look like something now, is the antibody test detecting animals that are or have been infected and have not had disease? There's still something strange about this did was there a non symptomatic or so lightly symptomatic pandemic in deer that got a foothold so quickly from human infection? Something is not entirely seems not entirely likely about this, but possible. Is it possible the antibodies are reacting to something COVID like in the environment without the infection? That seems unlikely that so many would trigger a test. So anyway, let's just say, worst case scenario, is that this actually represents SARS kobie to infecting populations of deer and that the deer are giving it to each other enough that we can detect it in a large fraction. It was something like 40% of samples in the population. Does that mean we're stuck with SARS Coby to forever? It could mean that. On the other hand, I would say we are stuck with rabies. Right? Yeah. But we have rabies well under control in the Western world. Right?

**Heather** 1:06:57

Yeah, it is both well under control. And for those of us who do work that puts us at risk of a high risk of exposure, there are vaccines,

**Bret** 1:07:05

there are vaccines, and we have a program for dealing with the human interface with animals that can carry rabies. Yeah. And so anyway, every so often somebody dies of rabies, right? But if every so often, somebody died of COVID that would be a very tiny harm compared to a uncontrolled circulating pandemic. So So I do think we need to start drawing a cleaner line between can we drive it absolutely extinct, which would be wonderful. I'm not convinced that if it's in whitetail deer circulating that it's beyond the possibility, right, in fact, there are a lot of ways that could go but but anyway, even even if we found if we dry it, if you drove it out of the human population, and it remained in the deer population, there are various things that are various levels of commitment that we could put to the problem and address it. But even if we didn't, if the point was, well, we're kind of stuck with it because it's permanently in the deer and we decide we can't do anything about that. Then the answer is, well, maybe this could be so well managed, like rabies, that it is effectively not in the human population. right that the interactions with are so rare that it's effectively not not circulating.

**Heather** 1:08:18

I see that's interesting. Yeah, because rabies remains much more of a problem for some other species than it does for us. Yeah,

**Bret** 1:08:25

yeah. So anyway, I would say look, I still I still have seen nothing that says it can't be driven extinct extinct if the deer study sounds

**Heather** 1:08:33

like you You're still agnostic but you're leaning towards that dear study seems to likely be

**Bret** 1:08:41

my first thought was it's going to be flawed and the flaw will be easy to spot and that's not what I saw. Yeah, your study looks well done. Okay. That's so I'm more likely but there's still something odd about the story. So this thing came to North America in early 2020 must have leapt to deer very quickly evolved enough capacity to move between them and without

**Heather** 1:09:07

a higher percentage of deer than humans have been exposed

**Bret** 1:09:11

right it's it I still will not be surprised if there's something wrong here but i don't i There is. There is nothing in the paper that indicates a poorly done study.

**Heather** 1:09:22

Fair enough. All right. Cats are known to produce a parasite that causes humans to become addicted to them. Is this how crazy cat ladies are formed? Yeah, I don't think this is true. Cats are known to sometimes be afflicted with a parasite. That that that what it guys can cause some mental Oh yeah, mental some loss of mental acuity. I can't find my words. I must. I

**Bret** 1:09:51

think it's actually a disinhibition thing.

**Heather** 1:09:55

That's not just in the cast. You think it's in the people?

**Bret** 1:09:59

Yeah.

**Heather** 1:09:59

I thought it had some mental stuff.

**Bret** 1:10:01

No, it does, but it's like a disinhibition thing.

**Heather** 1:10:04

So it's like alcohol.

**Bret** 1:10:07

Yeah, I mean alcohol without without the impact on, you know, perception or reaction time as far as I know. But yeah, I this is me working from memory Yeah, years ago but about toxoplasmosis

**Heather** 1:10:19

in a while. Yeah, so this is just a funny? Yes, they do seem to become addictive. cats do but we have noticed it's a parasite.

**Bret** 1:10:35

Alright, we have evidence that the cats are a parasite. It's just lovely. parison.

**Heather** 1:10:40

Yeah. The American Academy of Pediatrics put out an article suggesting the masking of child caregivers won't have an impact on children's speech and language development because there's no known study unmasking impacting a child's speech and language development. Wow. Capture or am I missing something? Yeah, I saw this. This is quite a feat of linguistic verbal acrobatics.

**Bret** 1:11:07

But it's also prescriptive. How can we put that because it suggests that if we can prevent anyone from doing a study that demonstrates harm to children from the masking of their caregivers disposable, there won't be any harm

**Heather** 1:11:20

exactly the same thing over and over and over again. Yeah, no evidence. No evidence yet exists means there can be no evidence of harm means no evidence means no harm.

**Bret** 1:11:32

I think the way to put it is this

**Heather** 1:11:35

absence over and over and over again, the same

**Bret** 1:11:38

evidence means Hey, look over there.

**Heather** 1:11:43

Yeah, no, but absence of evidence doesn't mean hey, look over there absence of evidence means Hey, we were planting a flag on this. Yeah, we now know for sure that this thing that we're telling you to do is 100%. Safe, like really to you? Well, there aren't any studies saying otherwise, are there? And we're not going to let these studies happen. And like you wouldn't in this case, you know, you wouldn't, why? Because you don't intentionally put children through that. Hell, yeah. Yeah. I mean, how could a professional group of pediatricians and you know, it was probably an intern who wrote that article, whatever. But how can people whose professional life is based on growing children into functional adults with this by maximizing health? conclude, but not seeing other people's faces? Early in childhood is fine. And there won't be any harm. And it's not even like the proposal is, well, you know, what if kidney function isn't parents, like yeah, I don't I can't imagine an effect on kidney function, but language development. All of us read lips, like even those of us with no hearing impairment whatsoever. We all read lips yesterday, in Oregon, or at least in Multnomah County, I think all of Oregon, we went back to mandatory mask mandates inside. So yesterday for the first time in a couple of months, I was yelling at the butcher behind the meat counter, and he was yelling back at me, because we could not understand that what I actually said was, I want to try tip and he was like, do we have tried to like now I just want to try to please. And you know, we're laughing about it. And you could tell we were laughing because we were actually laughing. She could see it in our eyes. But we're like, yeah, we're back here where we can't communicate where miscommunication is rife, when we better be gentle with one another because suddenly we're back to where we cannot, in any way. Just read the bottom half of a person's face and know what they mean. So yeah, blocking that information from children as they're learning how to be humans that won't have any costs. Yeah, that won't have any costs. This makes me so fucking angry.

**Bret** 1:13:54

Don't trust anyone over a man.

**Heather** 1:13:57

Maybe do it again. He wasn't on you yet.

**Bret** 1:14:00

Don't trust anyone over nine.

**Heather** 1:14:05

All right, yeah. Yeah. Yeah, a compelling response. Yeah, I mean, I think anger is not a compelling response. But these people these people Mmm hmm.

**Bret** 1:14:21

I have I have a perfect, a perfect way of describing them that I am saving for my next rap battle.

**Heather** 1:14:33

Your first one? Yeah,

**Bret** 1:14:35

yeah. So my first will possibly quite possibly my last 150

**Heather** 1:14:39

minutes. Okay, I've got four more that I've that I've pinned or did I labeled here that we're going to do? One of them is just a comment. We will. We'll get to these for one of us just to comment. Brett wasn't like that's not it? No, no, Brett, what is the difference between intelligence And consciousness.

**Bret** 1:15:02

So much difference, no, so much difference. Let's put it this way. You probably in your travels somewhere in your social group know people who are clearly very smart, and not necessarily articulate about what they know, and maybe not even necessarily inherently aware of what they know. But the their cleverness is evident in what they do, right. So we've all seen people who can innovate in some space, but not necessarily describe what they're up to. So I would just say, our definition of consciousness in our book is that fraction of cognition that is packaged for exchange. And the idea is that the conscious mind is built for parallel processing is built for two minds, or more minds to be plugged into each other, rather directly to exchange abstractions, so that the emergent cognition is actually capable of more than the sum of the individual cognitions in question would be capable of, right? That's a very particular process, and works great for certain stuff. And it has a personal manifestation, the fact that we have a consciousness that can do that parallel processing trick means that we also have that consciousness on board when we're alone. And we can kind of have an argument with ourselves. And that works, too. But a lot of what we do, most of what we do, is not in earshot of that part of our minds. And that does, I think, you know, those of us who have turned out to be good at what the conscious mind does at the abstractions, and the, you know, debating ideas back and forth, and the emergent cognition, and all of that tend to see it as the pinnacle of intelligence. And it's actually not right, in fact, in many ways, it is the lesser, right, you generate new stuff there, you innovate there. But then once you've got it, you drive it into the layer that doesn't have to think in this explicit kind of terminology in order to get stuff done. And that's the place where all of the glorious stuff that we marvel at on Reddit or Twitter or whatever we see, you know, cool little snippets of people doing amazing stuff, right? They're not thinking about it at that point. They're, they're doing it in some even more amazing way. And so anyway, yes, intelligence has a conscious dimension for humans, but most of it is not conscious. And those of us who default to the, because those of us who default to the conscious also dominate the discussion space, because that is inherently about consciousness. I think we have shifted the definition in a self serving way. And it makes sense to, to recognize, you know, there's, in some ways I'm recapping something that is maybe even cliche at this point. But there's all kinds of other genius, and we tend to discount it, because it's harder to explain by its very nature, but, but it's evident to us when we see it, and we all appreciate it. So

**Heather** 1:18:06

indeed, why are so few concerned with the obvious slide into tyranny?

**Bret** 1:18:15

Well,

**Heather** 1:18:16

I think more people are concerned that are letting on. Like, that's one thing. I mentioned last week that I'm overheard three, three liberal women talking about what they were seeing a park. And I was heartened by their observations and by knowing that other people were saying things and you know, it's hard to calibrate how much what we're hearing what that means about how many other people are out there thinking, thinking, some of the thoughts that we're thinking. But we hear from a lot of people. We're just grateful for the conversation about the pointing out of some of the inconsistencies and, and the tyranny.

**Bret** 1:19:07

I'm going to go slightly more mechanistic. Yeah, I'm going to borrow what I think is Rama manuales. Famous, unfortunate gaff, never let a good crisis go to waste. Maybe that's not even rahm emanuel. But

**Heather** 1:19:21

I don't remember. In

**Bret** 1:19:22

any case, I think there's a cognitive defect that people have, if you're not used to thinking of many dimensional complex systems kinds of problems, then you may have commitments that are good ones, but they're too strong, right? So the idea that there's a conflict between, let's say, public health and private health, and then in order for the public health to be well served, one has to accept coercion. Let's say in The private health realm, right? So you may have to take a vaccine in order to drive a pathogen to extinction or to get it controlled for the good of everybody. And if everybody treats their own health individually, we don't reach a number that's useful and people will die. Right, right. Okay. So once you say, Well, the good people are the ones that are willing to modify their own behavior in favor of the game theoretic of beating the free rider problem. Okay. But now if you say, well, that's just simply true. The good people are the people who don't cause a free rider problem by prioritizing their own health over the public health. All right, now you've just set up a mechanism whereby you can be gamed, if somebody recognizes that you have that as a sacred value, then they may hand you something in the guise of this is what the good people will do in order to serve the public health that may have nothing to do with the public health.

**Heather** 1:20:53

I mean, this is an exact match for what I've said repeatedly on here, that, you know, you say, this is a terrible thing. personajes, this is a terrible thing. Person B says it sure is, it's a really terrible thing. Person A says therefore the solution is x. Person B says no, it's a terrible thing, but I don't think your solution is going to do it. Person A says if you don't believe in solution x then you don't believe this is a terrible thing. So it's exactly that same setup. And you know, it's anonymizing recognition of big problem with solution can only be one thing is the way that it is gamed and that it's a tyrannical move. It's it is quite literally a tyrannical move. Yeah, it is one of the mechanisms of tyranny.

**Bret** 1:21:35

Yeah, people who oppose acts are free riders. Yeah. And it's like, some of them are, but it is certainly not inherent to that category. And in fact, that category is multivariate. And so in some sense, I think, in part people are not as moved by the evident advance of tyrannical coercion, because it has been tightly bound to things that cause them not to be able to see it for what it is, right?

**Heather** 1:22:09

Yes. And that's right.

**Bret** 1:22:12

When they do see it, it's liable to be too late.

**Heather** 1:22:15

Yeah, it's a it's a societal level situational blindness. It's like it's the it's the gorilla on the basketball court. But on a population level.

**Bret** 1:22:25

Right. And you know, the gorilla is invisible on the basketball court for a good reason, right? In that case, it seems like oh, some deadly thing could be hiding in plain sight. But the point is, if you are aware of everything that could hide some deadly thing, you'd never get anything done. Because you're constantly checking under no

**Heather** 1:22:45

problem. You don't see the forest for the trees, if you see all the gorillas on every basketball

**Bret** 1:22:48

court, right. And so you know, it's a trade off that on the average day, pays handsomely and occasionally causes you to miss something really important. And somebody, some entities, some emergent property has figured out how to exploit this to get people to act against their own interests while thinking that they are right.

**Heather** 1:23:09

And you know, here comes the totally expected straw man argument. You don't think gorillas are bad, right? Like I said, I want to recognize the gorillas but I can't recognize all the gorillas without failing to see bigger themes, then you don't believe in gorillas? It's a complete failure to think in terms of trade offs.

**Bret** 1:23:29

Actually, it's a complete failure not to think in terms of trade offs. You

**Heather** 1:23:32

mean it's complete failure to to think in terms of trade offs? Oh, it's

**Bret** 1:23:36

a failure to think out. Okay. Sorry. I missed the comma. By the way, I don't think gorillas are bad.

**Heather** 1:23:45

Any of them ever.

**Bret** 1:23:47

What do you not I mostly think gorillas are pretty, pretty innocent.

**Heather** 1:23:53

Okay. It's your funeral, I guess. Okay, one more question. And then we'll wrap up with a very nice comment here. an ex friend yelled out at me wear a mask at the cafe while I was sitting outdoors safely. Please help.

**Bret** 1:24:12

This is easy. What you do is

**Heather** 1:24:19

you're about not to get help. I'm no this is.

**Bret** 1:24:21

We'll see. We'll see if you are about to get the best advice of your life or no advice. Have you seen these really realistic masks, there's actually a very good video circulating recently of these very lifelike masks that you can put on a young man can be an old woman in a matter of seconds. It's it's amazing how high quality these things are. So I'm going to advise you. It's pretty amazing. Okay. What I'm going to advise you is that you look into these things and that you get one made to look exactly like you. Okay, you put it on you go out with this friend. And when they say it's an ex

**Heather** 1:25:01

friend, no makeup, go

**Bret** 1:25:04

out with this person. And when they say wear a mask, you reach down and you pull this thing off. I guarantee you, you will give them nightmares for the rest of their life.

**Heather** 1:25:17

I was wearing a mask. Now look what you've made me do.

**Bret** 1:25:21

That was that good advice? I think that it was.

**Heather** 1:25:26

Yeah, you know, there's this, there's this paper that we talked about very early on, like April of 2020. Couldn't have been that early. Maybe it was it was it was early on last year. But that was based on like, I feel like hundreds of 1000s at least 10s of 1000s of cases of COVID. And it was looking to see how and under what circumstances had been transmitted, it was all out of China. And there was literally one case that could be attributed to outdoor transmission. And we end that has that remains. No one has rebutted this and I actually so I don't have the paper in my head right now I do cite it in this hospital, she let the outside NPS on my substack on natural selection, so you can find it there. But there's only more and more and more evidence that so far, so far, this virus is not transmitting effectively outside. Now, the one thing that didn't come up when we're talking about the whitetail deer is, you know, presumably these deer are hanging out inside. Right. So the deer seemed to be if, if that's what he is, what it appears, then is it is transmitted between the deer outside presumably. But that doesn't mean that it's doing so in humans. There's been no rebuttal to that paper, there's been no retraction. There's been just more and more evidence in the same in the same direction that actually being outside is itself protective. Just as

**Bret** 1:26:56

Yeah. Now we have we said at the beginning, and I think we need to reiterate each time we talk about this that doesn't transmit outside. As far as we know. There is weird evidence. The Portsmouth situation was largely outside, but it can't have been perfectly outside. I don't know what this is. It's a super spreader event. Portsmouth Yeah. I'm sure yeah. Okay. In any case, it won't have been perfectly outside, there will have been things like bathrooms and places. And I know that there were previous cases where an outdoor wedding was a super spreader event, but it turned out that there was an indoor bathroom, etc. So we have to be very careful with these things. But what we would expect as evolutionary biologists is that if we don't treat this thing carefully outside, that it's going to evolve this trick, and we are going to lose the best asset we have, which we are at the moment taking for granted.

**Heather** 1:27:48

But I mean, I'm actually I'm shocked. I mean, we're now over a year and a half into this thing. And it doesn't seem to have figured out this track, we hope and you know, as I as I said in that article on on hospitals and outside air, you know, last summer it was it was really easy to to point accusatory and appropriately accusatory fingers at health professionals for claiming that the real pandemic was racism. And that's what justified all of these mass protests, when, you know, the day before, when people with the opposite political bent, were protesting masked mandates and things like that, well, then that was them, you know, putting their lives at risk. And the obviously COVID was the pandemic because that is what the pandemic is. And yet, there don't seem to have been super spreader events as a result of all of those crazy protests. No, and in fact, right, nor nor have there been a lot of problems within the homeless community, right? Interestingly, right. So both of those things are not, you know, not bomb proof evidence. But both of those go in the direction of suggesting that, at least at that point, and still, we haven't seen anything to to go against this. This virus just isn't effective. Even you know, those protests were some of those were those were massive, and people weren't very close proximity. And like the couple of times we went down to the courthouse, downtown Portland to see what was going on. And you know, we were trying to get, you know, out of, you know, down straight down wind of people yelling, right? We were trying to get up wind up people. Yeah, we're trying to get out of downwind of people yelling, and it was hard. Like it was there was it was there was a crush of people. And it was hard. It didn't feel particularly safe for me respiratory virus perspective. And yet, you know, I imagine, I imagine that some people got sick, but we never heard of any super spreader events from these things, right? And

**Bret** 1:29:38

we actually, when this was happening, we said, you know, people were leaping to the conclusion that these BLM protests, were going to cause super spreader events and he said multiple times on dark horse that's not so clear, because as much as you know, there are two strikes here, right? These are people closely packed together, actually three strikes in a way which makes The metaphor bad but closely packed together, chanting, singing sort of and and largely at night, so the UV value of being outside wasn't there. But nonetheless

**Heather** 1:30:15

Well, the you know, at least in Portland the thing are the protests reliably turned into riots that night. But you know most of the mass protests, most of which were not riots across the country and indeed the world were daytime,

**Bret** 1:30:29

actually. And they were evening as soon as pretty loud. But anyway, the point is, there were there was only one thing that was protective in those cases. And that was an outside environment, which is effectively infinite volume, right? But we said hey, it's not clear that these are going to be super spreader as much as we're not in favor of these protests. They aren't what they appear to be. And they're dangerous, especially here in Portland, it's not clear that they're, you know, a COVID danger because they're outside. Yep,

**Heather** 1:30:55

yep. And they don't seem to have fun. So finally, someone from New Zealand says, You're my Sunday morning sermon. Love it. Thank you. Wow. So thank you. Yeah, thank you for that. And thank you, everyone, for all of your support, and all of your questions. And I'm sorry, there's so many that we didn't get to. We had. We had some issues these last couple of times. And so the question period was left open, and we didn't see it. And so there were even more questions this time that we didn't get to, because we tried to feed in the ones from last time and they were all sort of jumbled in together. But we as usual, as always, really appreciate all of your support. And I guess we encourage you to, to share this video and when. If there are any particular clips out of this that you were interested in, put them in the comments, or send them to darcars moderator@gmail.com and our moderator will send them on to our clips guide to make clips to put on the Dark Horse podcast clips channel. Subscribe to those channels, both Brett Weinstein and Dockers podcast clips on YouTube and an odyssey. consider joining us at our Patreon where there's on mine a two hour private q&a once a month from the last Sunday of the month. And Brett has conversations for a couple of hours, a couple times a month for some of his patrons as well. You can find us you can find our book at a hunter gatherers guide.com I think I got that right. And me at natural selections dot substack calm and we'll be back next week with Episode 93. We'll be talking about school.

**Bret** 1:32:36

Yeah. Be the vitamin D that you want to see in the world.

**Heather** 1:32:41

That doesn't make any sense despite that. Be good to the ones you love, even when they don't make sense. eat good food and get outside. Let's get outside.