Bret and Heather 73rd DarkHorse Podcast Livestream\_ Arroz by...

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**SPEAKERS**

Bret, Heather

**Bret** 00:10

Hey folks, welcome to the Dark Horse podcast live stream number 73. Our last one was on the, the equinox it was it was on No, no, yes, yes, yes it was that ran through my head to Equinox or Solstice Now, on the equinox we are now solidly into spring, which I am pleased to say will allow us to revive a dark horse tradition, we can now start warning people that winter's coming.

**Heather** 00:41

That's an honorable, long standing

**Bret** 00:44

tradition standing here and they're forced to abandon when winter right I should say if you are one of our southern hemisphere viewers, you may want to hit pause and return to this episode six months from now. So it all makes sense. Yes,

**Heather** 00:56

yes, I would say do that, indeed. So today, we're going to talk about diversity of things, including the fact that it is our basically our one year anniversary here for the evolutionary lens, which is these live streams that we do together. We're going to spend a little time talking about that at the top of the hour. And we're going to talk about the politics behind origins of SARS, co v. Two and a little bit about the politics of detransitioning. And about what we can blame the Amazon rainforest for Oh, yeah. Oh, yeah. That rain for that time. Yep. And let's see, oh, and whether or not saffron can bring you happiness. Yep, I feel like I've missed something there. But that seems like a good set of things. But first, just announcements. We do a once a month private q&a for people who join us at my Patreon, and it is always the last Sunday of the month at 11am. Pacific for two hours. That is tomorrow. So the questions have already been been posed for this month. But it's a it's a it's it's a lot of fun for us. It's small enough community that we can actually watch and engage the chat as it happens, and we leave those up for patrons afterwards. So I think we're on our on November 9, or 10th. At this point, eighth or ninth, maybe. And that'll be tomorrow. So yeah, awesome.

**Bret** 02:18

It's always fun. It is good to keep an eye on the chat and interact with people. It's it's different than what goes on here.

**Heather** 02:24

Yeah, it is. It is, indeed. Okay, so it is March 24. Three days ago was our one year anniversary, the one year anniversary of us beginning these live streams. We did 72 episodes. And we've been grateful for and honored by your responses or you know, most of them, the vast majority of you there's a few that we weren't grateful for honored by but

**Bret** 02:46

YouTube, I mean, frankly, it's spectacular, only to have a small number of such reactions.

**Heather** 02:51

Absolutely. And you know, including all the other media response. But why don't you start us off by just telling, how did we get here? Tell it. How did we get here again? Also, why now?

**Bret** 03:03

Oh, no. You know, things have gotten rough at the point we get to why now. But yeah, so I've just for those of you who have started paying attention to Darkhorse since the beginning of our live streams, and may not realize how we ended up here and want to know something about the relationship of the livestreams to the other stuff that goes on. What happened was we started or I should say, I started the Dark Horse podcast. As the idea. It was part of a long term project and I wanted to highlight dark horses. These are people who are difficult to predict in terms of their capacity because they've grown up in some unusual way. And they do interesting things. That was the original intent was to talk to those people. And at the point that COVID descended on the world and forced us to change everything. We found ourselves in two predicaments. One, we couldn't keep going to the place where that our chorus podcast studio was set up the office space that we had in downtown Portland. And so we had to move here and Zach and I built this set here, in basically an afternoon or an afternoon or a weekend of trips back and forth to the hardware store and nailing things to the wall and all that

**Heather** 04:20

didn't our younger son Toby also help with some of that attic work, and oh, yes,

**Bret** 04:24

well, Toby was instrumental in the wiring of the set, which is actually surprisingly complex. But in any case, we built up the the set and then tried to figure out what to do. The ability to interview people in the studio was going to go crashing to zero. And you and I were thrust into this discussion in a way as biologists watching a pandemic unfold of pandemic that have has obvious evolutionary dimensions. There was a lot to be said. And we were getting this flood of information. Coming in, and what was being discovered about the virus itself about its epidemiology, its history and all of that. And so we started doing live streams, you and me. So for those of you who are wondering why this is Brett Weinstein Star Wars podcast, and yet most of the time when you tune in, and in fact, all of the times that you tune into the live program, it's obviously symmetrically you and me. So why is my name on the door? Well, early on, before we had any idea how long we would be doing live streams, or what they would be about, you know, at first it was all COVID, or almost all we had a discussion about this was significantly different from what had been going on on dark horse previously, and should we put it on a different channel and come up with a different title? Or was it temporary? And should we leave things as they were in any way we ended up deciding to stick with the name that we had and the graphics that we had and just added in the live stream is which for those of you who are wondering why that has happened, that is the answer. And I would say I have some regret over it because obviously the live streams are distinct from the other things and you know, it would make sense for it not to be labeled that way. On the other hand, I would say a rose by any other name is still rice.

**Heather** 06:18

I knew you were going to say

**Bret** 06:21

don't be that well, you know, our Spanish speaking audience is currently laughing out loud. Yes, yes. Yes. Yes.

**Heather** 06:29

And you know, we have informally sort of branded what we're doing as the evolutionary lens like this is the evolutionary lens with with Breton, Heather, a sort of a subspecies of the Dark Horse podcast and you know, you have to re up the frequency again of the one on one conversations that you have, which is the more exactly as you just said, what you were originally expected to be doing in front of him in the last four alone I mean, I haven't heard one yet that you've done that I felt like and I kind of fell flat but if memory serves the last four in order, we're Daniel shmotkin Berger, Tristan Harris, Jordan Peterson and earshot Manji you've got another one ready to deploy in another conversation also next week, but those four alone are just extraordinary and across such a wide array of topics and you know, although you have not I think until now really conveyed publicly what what you had in mind with dark horse. I think all four of those people are May I use Toby's pluralization or darkies sarkies Starkey's in their own ways and that you know to to their credit and you know, I highly recommend all those conversations

**Bret** 07:42

as well great. Yeah, I think the they all were really fascinating and I'm enjoying doing those conversations. I'm glad they have sort of found a rhythm that works and I'm looking forward to doing more I will say it has become easier as everybody is getting effectively a master's degree in zoom, it is becoming now quite possible to do these things remotely whereas at the beginning of COVID it was pretty hit and miss as to whether or not the tech would work when we tried to have them so anyway, yes, I hope the frequency will keep up and the quality of them I'm very happy with it. And I hope that keeps going to but Okay, here we are a year in and we have now both the original Dark Horse stuff up and running at a relatively high rate and we have the live streams which have been going on for for a full year now. And I don't know where does that take

**Heather** 08:39

us? Well I wanted to, we're not going to we're not going to pretend to do a retrospective. But one one version of some of the diversity of places that we've gone in this last year can be conveyed by just mentioning just the books that I or you have read excerpts from you know, this does not include any of the essays or the journal articles the you know peer reviewed scientific literature that we have read from and analyzed of which we've done a tremendous amount but just just just the books and it provides I think an interesting cross section of some of where we've been so I just put them in an order that groups them somewhat and I'll post this either on the show notes or probably the show notes I guess if there's if there's room and definitely, definitely on the Patreon actually. Okay, so fitting in with no other category. I read a bit from Turin and Sanchez is perfumes the guide, and then a number of pieces of fiction, including Boccaccio is to Cameroon. dusty offski is crime and punishment. Heller's catch 22. Kuhn does the book of laughter and forgetting, Orwell's 1984 A Matos Donna Flora her two husband's Dickens A Christmas Carol Seuss's the Zacks Heinlein A stranger in a strange land and Abbott's flatland. So that's that's a diverse bit of fiction there. Then one of my favorite books of all time now we're into nonfiction. Sarah Blaffer heard his mother nature a truly extraordinary deep dive into, into the evolutionary nature of of motherhood and females in general. JOHN Taylor Gatto his weapons of mass instruction, the culture is the Cultural Revolution of people's history from 1962 to 1976. dynamics, nothing to envy ordinary lives in North Korea. Rogers live not by lies. It's an excellent book based The title was taken from soldier Nielsen's essay of the same name, lived out by lies, Eric offers the true believer we spent a fair bit of time deconstructing de Angelos, white fragility and somewhat less time with candies how to be an anti racist in keeping with with that, but from a rather different perspective pluck rose and Lindsay's cynical theories and lukianoff and heights coddling the American mind and the last three Michael Crawford's the world beyond your head, Sebastian, youngers tribe, and tick not Hans 2012 book fear essential wisdom for getting through the storm. So that takes us a lot of places.

**Bret** 11:25

Yeah, that's a that's a very eclectic lift but as I'm saying, you know, you're bringing me back to all of the episodes in which those things arose and that is it's a cohesive list to it tells you something about the style of thinking that we have been I don't know I don't want to say deploying because you know, in part this is sort of a campfire phenomenon itself and and so anyway, we're building this perspective right here together and and with the audience in any way I think it's a great list of things and even if the only packet of information that made it to people was hey, here's a list of things that are worth engaging you know, you you could construct pretty good foundation for a worldview out of those those texts. Absolutely. Would I regret now using

**Heather** 12:15

immediately texts? Yes. It's it's, it's been abused.

**Bret** 12:18

It's a academically abused.

**Heather** 12:22

Indeed. Okay. Well, that's, that's maybe all we have to say about the fact of this being our one year anniversary episode. And then you wanted to segue into talking about the Suez Canal, I think,

**Bret** 12:34

yeah, I mean, not the Suez Canal itself so much, I mean, although there are things to be said about it, but I will say I don't know about you, I am getting a tremendous amount of correspondence from people that we know who would like us to comment on the fact that there is a large vessel with the diet letters, saying the word evergreen stuck in the Suez Canal blocking world trade blocking, blocking progress sucking progress, and somehow a great many people who follow us and know us are eager to hear our take on this which I think you and I have spent a lot of the last three days avoiding deploying a take on this ship in its progress to a point that it has made so anyway, I think it is now time that we that we comment on it, okay, you you do you mean, I'm gonna I'm gonna do my best I will say the people who have been contacting us, I'm beginning to suspect that they suffer from PTSD post dramatic situation disorder Oh, in which they would like to see disasters and spectacular catastrophes analogize together ad nauseum

**Heather** 13:49

and would make for perhaps, a more parsimonious world. Oh, yeah. Yeah, at least it looks like we got okay. It's in that category. It's in

**Bret** 13:57

that yes, big things called evergreen that have failed in an amazing way. Yeah. Okay. So anyway, there, there are obviously some similarities between what has happened in the Suez Canal and what took place at at Evergreen State College and some differences. You know, here we have a ship that has become wedged in a canal, whereas at the college, the institution kept getting stuck under bridges. That's, you know, similar, but not exactly the same. I will say that if the events are in fact, really alike, then we can make some predictions about what's coming next. We should expect to see students issue a long list of demands, then we should expect to see the fleet the ship never to return and we should expect to see the state of Washington infuse the ship with a large amount of cash to keep it afloat

**Heather** 14:49

at the state of Washington even well.

**Bret** 14:52

If history repeats itself, in this case, that's that's what you would expect,

**Heather** 14:56

while doing nothing with the state of Washington will infuse it with resources. While doing nothing to correct its path and allow it to free,

**Bret** 15:04

they will double down on its current path, they will. I don't know exactly how you do that in this case, but yes, something, something along those lines. But I will say that the whole event really can be viewed in a couple of different ways, right? There's the classical view in which this is very bad for the world to have this ship. I mean, it seems strange that one ship can create such a tangle. But when you realize why the Suez Canal was put there, and what journey it avoids, you know, around the southern tip of Africa, in order to get from, you know, Asia to Europe, for example, wow, one ship really creates a huge amount of trouble. And so, you know, from that classical view, I would say, you know, this is what happens at a canal when there's no entrance exam, right? I mean, when the ship can just bog

**Heather** 15:58

ugly man. I think so.

**Bret** 16:02

How would you rate that joke?

**Heather** 16:03

How would I rate it? Yeah. What's my scale? Three to 17? Three to 17? Which one is high? 1717?

**Bret** 16:10

That's a perfectly straightforward scale.

**Heather** 16:11

Yeah, I'm keeping that a five.

**Bret** 16:14

All right. Sort of better than I thought it was. Yeah, I'll take five Sure. Okay, so

**Heather** 16:21

also very, very in keeping with the current theme of how do we analogize things to evergreen to invent a scale that will be meaningless outside of the context in which we are currently discussing

**Bret** 16:32

on interpretable uninterrupted interpretable? Yes, no, that's Yeah, I'm very much of the moment. People say. No, they really don't. But okay, so that's the classical view is that this is very bad. But not the only way to look at this. There's also a much more modern sort of a Silicon Valley DNC mainstream media view in which this isn't maybe so terrible. You know, the New York Times points out that this ship had it and coming given the historical connection between shipping and slavery.

**Heather** 17:04

Hmm, that's a really that's a it's it's a classic

**Bret** 17:07

New York Times point. Yeah. The ACLU pointed out that this ship has as much right to block the canal as other ships have to transit the canal, which I also thought was pretty insightful.

**Heather** 17:23

You're just wondering if we're going to get called out for libel?

**Bret** 17:29

No, it's satire. So for those of you who are not good with satire, this is satire, which is why it is not like

**Heather** 17:39

so this is you said this is the traditional take is it's bad. This is like this is the anti bad take

**Bret** 17:43

your act. This is the maybe it's not so bad. It's anti bad. Oh, it's anti bad, isn't it? Yeah. Yeah, you are. Okay. You are intuiting my direction here. Okay. Okay. Not surprising. I've been married a long time. Yeah, you know, intuitive way. But Alright, so plan parenthood points out that there's no wrong way to be a ship. I wonder about I wonder if they have anyone on staff who knows anything at all about ships?

**Heather** 18:09

I know the answer to that. Do you know, they do not know, right? Yeah.

**Bret** 18:14

And even max Kennedy has argued that this is a triumph of critical maritime theory over traditional colonial meritocratic navigation.

**Heather** 18:24

True that? Yes, yeah, absolutely. Yes.

**Bret** 18:28

And if we extend his rubric, he didn't say this, of course, but, you know, the day to day transit of the canal is clearly racist, and therefore, this incident can only be you can fill in the blank at home. Yeah. All right. And you know, I will say, Okay, so that's the, the more modern take, but even I am forced to admit that this transit was mostly peaceful. Oh, indeed. Yeah. Yeah. Yeah. That's not bad. Although, yes,

**Heather** 18:57

you know, as as the clock continues to tick and it continues to be jammed up. Doesn't it become less and less peaceful? As it goes on? If I if we take earlier,

**Bret** 19:08

I would say that the canal is more peaceful than it has perhaps been Since when was the bill 18

**Heather** 19:15

so this is a nine herring very clever sleight of hand exactly in keeping with the kinds of satirical quotations you are, you are now employing you were talking about the ship being most of the paratransit being mostly peaceful. And you have you have swapped the argument as I suggested that the transit actually has become more and more bogged down, the longer it sits there. And you have said, well, the cow though Well, the canal has in fact become more peaceful. The longer the ships, that's their

**Bret** 19:42

need. I point out that you are deploying now discredited styles of logic, which one statement follows from the prior statement? You see what I'm saying? I

**Heather** 19:52

do and I am not going to apologize. Yeah, that's no,

**Bret** 19:56

ultimately you will, but you know, we apologize

**Heather** 19:58

here we uphold dies when we are wrong, and when we have wronged someone, but we did not apologize for imagined fictions over in unicorn space.

**Bret** 20:08

Right unicorn space you've now confused every VC who watches us? Yeah. Alright, so alright, that's the situation we've got the two views of what has happened and then there's a question about what might be done about it. Okay, there is and we're gonna start. I have an idea for what to do about the of course you do. Well, of course I do. I'm a solution guy. No, you are Yeah. All right. So my my suggestion is that we get a ship full of cabbage.

**Heather** 20:41

Sounds good so far. cabbage and dried. Let's see, let me guess it's going to be

**Heather** 20:49

Yeah, I know. I was just trying to come up with another word that began for but I offered cake. Now it's just for cabbage and dried fruit and fruit cake would work today. But dried fruit solutions I see in large font on your computer garbage and dried fruit. That's all I see those so you're gonna have to fill it in for me. That's all you need. All right. Diane, so I just met that I actually don't know.

**Bret** 21:18

The obvious how that would help. cabbage and dried fruit. Yes, the canal is blocked. Cabbage cabbage. Really? Okay. Okay. Alright, so. Okay. I'm with you.

**Heather** 21:43

That's good. So um, yeah, I don't know. You've got more to go. Yeah. Do you hear

**Bret** 21:50

that solution of mine? Right, actually does suggest that this this could possibly be. You've got Yeah, I was just going to point out that at evergreen, the failures there, arguably we're also the result of a lack of moral fiber. Sea connection. All right, good. Now let's move on to people who have maybe more technical expertise and would be better positioned therefore to suggest a more useful solution to this problem. Ilan Musk has proposed tunneling under the ship. Jeez, I thought I thought you were gonna laugh at that. You're just trying to resist the giggles aren't you? Because I think that was pretty good.

**Heather** 22:33

I know. I'm I'm no, I maybe I don't get it. Like, I get gone.

**Bret** 22:39

Alright. Ilan has a plan to solve traffic in LA, for example. Putting tunnels under the blocked streets anyway. Yeah, I thought that's pretty

**Heather** 22:47

good. he famously had a plan with the miners in No, not the miners the draft. Baseball soccer team. Yeah,

**Bret** 22:56

yeah. Yeah, the plan was actually pretty good. Was it? Yeah, wasn't it? He made a little submarine. It was not the one that ended up. It wasn't necessary. They got them out. The divers got them out amazingly, without harming anybody.

**Heather** 23:09

Okay. I remember that differently. I thought I thought his plan was discredited and mocked.

**Bret** 23:15

Oh, he was mocked. I'm not sure why. Okay. Okay. glad he was on the case. Okay. All right. So we got Ilan in our solution tunnel under. And then if all else fails, we could treat this disaster like COVID do nothing useful. And eventually global warming will float the ship up and dislodge it to allow us to get it through the canal.

**Heather** 23:37

Rising virus floats all ships, something.

**Bret** 23:41

Yeah, something in that neighborhood. All right. Well, we have avoided having to shut down this episode of Dark Horse live stream over the giggles which I fear will one day happen. But in this case, we almost had it happen. But we're still here.

**Heather** 23:57

So I don't want to be the straight man here. But you were also going to say something about part of why we're avoiding even engaging this at all is that you said you spent a long time on the Panama Canal 18 months back

**Bret** 24:12

now literally in the Panama Canal,

**Heather** 24:15

that island. And I was with you there for four or five of those months. So I had a Panama Canal being license the Panama,

**Bret** 24:24

go for it. So I had a Panama Canal license, which does not mean that I was licensed to navigate large ships through the canal. In fact, nobody is in the Panama Canal. The ships are turned over to remember what they're called canal pilots, I think. So there's an elite canal Pilots Association, you have to have a great deal of expertise. And actually it does tell us something we're now in serious mode.

**Heather** 24:47

This will hold on saying I actually didn't know this. So the power of the Suez Canal, which I know almost nothing is just just a narrow canal right level. Whereas the Panama Canal is to say Have locks then with basically what used to be terra firma this was the Isthmus of Panama that has been flooded and so now the island on what you spent time bar color Ireland for instance that used to be in a dry hilltop and so you've got Lake a tune in the middle of these two locks and you've also got the situation of the Atlantic the Pacific are actually at different levels they're like sea level is a different level for the Atlantic, the Pacific between the two ends of the Panama Canal so unlike the Suez the Panama Canal, you have to go through locks and then you have to navigate this lake and then you have to go through locks again.

**Bret** 25:33

Yeah, so the Panama Canal is freshwater the Suez Canal will be saltwater and tidal Suez Canal has no locks. The Panama Canal has two sections you've alluded to Lake gut tune, which is a giant artificial lake that was made by flooding this valley that the traverse river used to flow through but it has another section, the Culebra cut colibra, meaning snake, the snake cut looks like what everybody imagines the Panama Canal will look like except it's not concrete line. It's a dirt trench, but it's very narrow. And in any case, through the entire transit the ships you know, we folks who drive cars and ride bikes don't Intuit how hard it is to navigate these things. These are vessels designed for the open ocean and navigating them in tight quarters is not at all easy because they have so much momentum. And so they have to be effectively pivoted with with tugboats. And the captains have to know exactly you know, basically their full time job is Captain of large ships in the Panama Canal so that they learn how to do it properly in any way. It's an amazing operation when you actually see it. I can only assume that the Suez Canal has the same issue of navigation. It is I think a straight line at least. So apparently it also has a group of pilots trained to do it that does not surprise me at all because of course one schmo who you know drinks too much and runs the thing aground obviously can grind a huge fraction of the world's you know, freight to a halt which has potentially huge impacts on things like prices and you know how you predict this I don't even know we've got a lot of goods detained that were presumably going to Europe will goods that have not yet been bogged down in this situation, be redirected and create a glut in parts of the world that don't require this canal? Who knows?

**Heather** 27:35

Yeah, I don't know. But one of the things about you being on BCI this Smithsonian run island in the middle of Lake khatoun in the middle of the Panama Canal is that from one of the sort of terraces at the field station at night after well you had opposite schedule for most people because you're working on bats but I remember sitting sometimes sort of at dusk looking out over the canal and seeing seeing the the boats and it felt like I'm just making up numbers here but like one in four one in five boats said evergrande across the side like it's just a just a massive shipping company that is on like so many of the boats a substantial fraction minority fraction of the boats that are out there yeah it's at least it's a huge line and you know I read this and this boat is actually called ever given

**Bret** 28:21

apparently there yeah Their names are all variations on a theme Yeah, so you know when somebody writes the iconic song about this you know, like the the wreck of the Edmund Fitzgerald, it should be something like you know, the wedging of the ever loving ever given Evergreen Line something that's good Yeah. But okay, yeah, so that's that's the confusion here is the ship is part of the Evergreen Line. The ship is the ever given. The title issue changes everything here because the buoyancy of the ship type

**Heather** 29:02

T Ida L, the tides

**Bret** 29:05

high is actually affected by global warming joke would not make any sense at all in the Panama Canal. Right? Right. Because it's not in title and global warming would have to rise above the locks to even touch it. But in this case, the tides actually do affect it. I will say knowing nothing about what the right solution is here. I do wonder if we're not going to see them unload this boat, which will be a bizarre operation. That's

**Heather** 29:31

that's what I was thinking early. You know, a couple days ago like Well, yeah, tried that. Well, again, it

**Bret** 29:37

was not easy. Yeah. You know, the cranes at the dock are made to lift these containers, right? Very simple operation, from the point of view of everything is where it needs to be. You need to float something here and then put these containers on some ship that's waiting and the cash ships coming, you know, aren't supposed to be you know, you don't even think about it this way. You've got ships that are designed to go one direction. Right? It's not like a train wreck, just turn it around. And if you pull them into the canal to take containers off the thing, you can't turn it around to go back out. Yeah. So I mean, maybe that's not a big deal. Maybe they can pull it out with tugs, and it's not, you know, it's all doable. But anyway, yeah, that boat needs to be lighter. Yeah, clearly, yeah. All right. Are we are we there? With respect?

**Heather** 30:29

I think we're done with the Suez Canal done with it now, for now

**Bret** 30:33

merely avoiding third disaster involving evergreen, and in this case, a unresolvable case of the giggle.

**Heather** 30:41

Yes. Okay. Next up, the former head of the CDC says, Hey, I actually think SARS Coby two came from a lab.

**Bret** 30:52

Yeah. Wow. Wild Robert Redfield,

**Heather** 30:55

former CDC director in this video interview with CNN. We were going to have Zack show a couple minutes of this for people who aren't already aware of it. Yeah, unfortunately, we can't hear it while it's showing. So we have to remember what's in this so Zack? You want to show the first 2.0 through 2.05? And then we'll say something that will jump to the next little section

**Bret** 31:35

due to circumstances beyond our control. Alright, we're giving it a second. Yeah.

**Heather** 31:42

Yes, we were apparently giving it a second. So for those listening, this is just dead dead time. So let us say well, Zach is working on getting the tech to work.

31:58

former director of the CDC is speaking out on when and where he thinks the coronavirus pandemic originated. Here is Dr. Robert Redfield, when he sat down with Sanjay Gupta.

32:12

If I was to guess this virus started transmitting somewhere in September, October and one September, October. That's my own view. It's only opinion I'm allowed to have opinions. Now, you know, I am of the point of view that I still think the most likely etiology of this pathogen and Wuhan was from a laboratory, you know, escaped out. Other people don't believe that that's fine science will eventually figure it out. It's not unusual for respiratory pathogens that are being worked on in a laboratory to infect a laboratory worker.

32:45

It is also not unusual for that type of research to be occurring in Wuhan. The city is the widely known center for viral studies in China, including the Wuhan Institute of virology, which has experimented extensively with bat coronaviruses. It is a remarkable conversation. I feel like we're having here because you are the former CDC director, and you were the director at the time this was all happening. For the first time, the former CDC director is stating publicly that he believes this pandemic started months earlier than we knew and that it originated not at a wet market, but inside a lab in China. These are two significant things to say Dr. Redfield

33:28

that's not implying any intentionality. You know, it's my opinion, right. But I am a virologist, I have spent my life in virology. I do not believe this somehow came from a bad to a human. And at that moment in time, the virus that came to the human became one of the most infectious viruses that we know in humanity, for human to human transmission. Normally, when a pathogen goes from a zoonotic to human, it takes a while for it to figure out how to become more and more efficient in humans human transmission. I just don't think this makes biological sense.

34:04

So in the lab, do you think that that process of becoming more efficient was happening? Is that what you're suggesting? Let's

34:10

just say I have Coronavirus that I'm working on most of us that all right.

**Heather** 34:14

So for those who are just listening on screen throughout most of that interview with CDC, former CDC director Redfield, it says CNN, CNN has written former CDC director says he thinks COVID-19 originated in a Chinese lab but has no evidence.

**Bret** 34:32

Yeah, I hear this claim a lot. There's no evidence for this hypothesis. Well, of course, everybody says theory which they shouldn't. But there's no evidence which is preposterous. There's just tremendous evidence. There's a tremendous amount of evidence. What I would say is, there is no evidence of a natural origin. There is evidence it is not direct evidence of a laboratory origin. And so that is striking. And the idea Yeah, I mean, I'm troubled by the journalism that surrounds this in this case, I think this, this cnn report effectively doesn't go anywhere new. The only news here is that somebody who was in a position in a position to know what was being said on the inside, has come to this conclusion.

**Heather** 35:19

Right? And you know what, we'll link to the whole to this whole little little piece in the show notes, but you then have the the interviewer being somewhat dismayed with the CNN people. Whereas he does not appear dismayed here with with Redfield. And maybe Now, before we say anything more, we should jump to the next little bit of this sec, starting at 340. That we wanted to show where we have 214.

35:53

Yep. Expressing is that there certainly are possibilities, as I mentioned just a few moments ago, of how a virus adapt itself to a efficient spread among humans, you know, one of them is in the lab. And one of them, which is the more likely which most public health officials agree with is that it likely was below the radar screen, spreading in the community in China for several weeks, if not a month or more, which allowed it when it first got recognized clinically, to be pretty well adapted.

**Heather** 36:37

So so that was Fauci. For those who were only listening rather than watching, and it doesn't look like science, it looks like politics.

**Bret** 36:54

Yeah, this is clearly politics. And but

**Heather** 36:57

it's, but it's failed as science. It's veiled as this, you know, the foremost authority that we are supposed to be listening to scientifically on this topic and being beaten back on his heels. doesn't feel good. And so the it's sort of more clearly a political response.

**Bret** 37:16

So I, I would say, I think it goes one step beyond that, that, in essence, what we are now watching is many mainstream publications and broadcasts that have taken up a very clear position, you know, under the false banner, follow the science, scientific consensus, whatever it is, that's being deployed, right, they have gotten themselves in a bind, because one would expect that if this indeed were of natural origin, evidence for that would emerge. And evidence that was inconsistent with the laboratory or action would also emerge. And they would find themselves relieved to have taken up that position. Instead, what we're seeing is the opposite. And they are now figuring out how to live in a new world where this hypothesis that they did not want to survive, has become unstoppable by virtue of how well it matches the evidence in question. So I think what you're watching is a sort of jockeying for position. So Fox News, for example, has done some actually quite credible reporting on this topic. And CNN has been on the wrong side of it. That's not to say that we know what happened. But it is to say that dismissing the idea of a lab leak has never been reasonable. And

**Heather** 38:38

any journalistic outfit that has said there is only one possible explanation for the origin of this virus, at any point, up until now, is not doing good journalism.

**Bret** 38:49

Right? They're doing something else or answered the question is, what are they doing at some, is it a business thing? Right? Is it a are they doing? Are they carrying water for somebody with a an interest in where the science goes? And so of course, if you're not really paying attention to the lab leak question, if you are if you have been going along with the New York Times and CNN and these other publications, and now suddenly this shows up on CNN, it seems like news Oh, you know, this former head of CDC is taking this hypothesis seriously. Of course what he says in that clip isn't anything that hasn't been discussed here that we you know, we discussed it on Maher it has been widely discussed on Twitter. It has been discussed in the Wall Street Journal, Matt Ridley has covered it. So the point is, there's nothing new here. All he's saying is that he's convinced and that is interesting because it means that the nothing was said behind the scenes that actually tells us this lab we did not have

**Heather** 39:49

that mean that but that is new, right that like this. This is new because this is someone with both the background to understand what is potentially going on, and someone who had access to potentially more information than any of the rest of us have. And you know it No, he is not laying out all the reasons that he thinks this in this very brief interview clip, we don't know, we don't know all of what he thinks or why he thinks it. The idea that he has no evidence is not true. What we know is that he has not presented the evidence here in this interview in this little tiny interview. That's all.

**Bret** 40:27

Well, what he says is the pattern of emergence that this virus showing up and being very good at transmitting between people immediately with no evidence of it, having learned that trick, either in people or in an intermediate host. Is is the evidence and the point is that that isn't now I have of course seen lots of people say, Well, this is a discredited CDC, head on the basis of having botched the initial reaction to COVID. Which is obviously irrelevant. This is not this is not an accurate challenge. And then we have on the other side, we have Fauci, who is also highly placed, arguably, more expert in viruses and the challenges of pandemics. However, what they don't say here, as far as I know, is that Fauci is compromised having been in the, the chain of influence that resulted in the gain of function research taking place, in spite of very serious objections, create pre COVID praise Oh, right years ago, but the point is, okay, if Fauci called it wrong thought gain of function research was a great idea. And in fact, I think if you look at his reasoning, assuming that his reasoning is what he said publicly, he wanted to have a very rapid pathway to generating vaccines so that a pandemic couldn't get ahead of you. Right, that's a noble and that's a good idea. On the other hand, if that led him to advance gain of function research which resulted in the lab leak which then you know, crashed the world economy and killed millions of people, then that's a major error and covering his ass is not valid we need to know what happened. So there's a lot of levels of what's going on here but at some level, what you're watching is the main stream trying to figure out how to pivot to what those of us who have been paying attention to the evidence itself have recognized was a very viable hypothesis and much more viable than the traditional explanation You know, we've known that for you know, since March of last year so anyway interesting to watch the big players pivot but it's also frustrating because the big players are in some sense, you know, suddenly people are now going to feel licensed to think about this as a possibility as if it just dawned on the scientific community that it is one and that's not the case

**Heather** 42:58

i'm not i'm not plagued by that. I mean, that will always be how things are you know, you don't you don't if a hypothesis is being subverted or not taken seriously for any reason. Those few people who insist on talking about it are not going to be recognized Bye. Bye. Everyone is talking about the important thing until something else happens but so the fact is there is a it's I don't know if there is a paper trail there are several papers Yeah, and there are also there's also now like a pixel trail is like a video trail You know, there are many of us even who haven't written papers on this who have been talking about this so you know, the fact that this may be the thing like I'm grateful I thought I was hoping that was it was it Ridley's article in the was it like the New York Post Intelligencer in December of last year? Was that really? I can't remember. Oh, no, no,

**Bret** 43:55

you're talking about why am I blanking?

**Heather** 43:59

Oh, Nicholas Baker. Nicholson. Yeah, yeah, yeah. I was hoping that that might be the thing that actually broke this sort of this loose that there have been a number of these like, Oh, it's getting out you know, they've been a couple of Wall Street Journal op eds, as you say, and you know, any one of them that manages to get the the monolithic media representation of anyone who talks about this as a as a right wing conspiracy theorist. I'm in favor of

**Bret** 44:24

Well, of course, but I'm deeply troubled by the pattern here. A if history is any guide, those who talked about this early will not be vindicated by the system, right? The pretense will be Oh, they were cracks. And then it just happened that this, that science discovered this thing, isn't it nifty that we've discovered it rather than actually they weren't cranks. And you portrayed them as that falsely. So I'm troubled. I'm also troubled, that the pattern is a narrative pattern, right? In other words, the truth here is what People are convinced they need to discuss rather than what the evidence says. And the problem is that the evidence as I keep saying the evidence is not conclusive. And there's no direct evidence of a lab like, there is lots of evidence that points to a lab like that should have resulted in absolutely everybody who is capable of interpreting that evidence, saying, regretfully, this is a possibility that needs not, you know, what they've effectively said, is sure, formally, we need to leave that on the list, but it's very, very unlikely, rather than it is deeply troubling how likely that is and how all of the evidence remains consistent with that hypothesis. So I would much rather see the spectrum of what we discuss, move naturally, with the evidence. And that put us in whatever awkward position it puts us in because we've lost a tremendous amount of time here, fighting a narrative battle over whether responsible people think this way. And even in this set of clips. what Fauci says is nonsense. Yeah. And I have no doubt that he's smart enough to know that what he is saying is nonsense. But his point is, oh, the solution to the problem that Redfield is pointing out, right? A problem that I think Redfield is just reading into what the rest of us have been saying, there's something very anomalous about this highly effective virus, reaching Wuhan, and already being ready to go right? In humans, right? And what Fauci says is, oh, that, that logically is not a terrible problem, because in fact, it was probably circulating much earlier. And so the period of time in which it's bumbling along is just one you haven't discovered yet. But that is inconsistent with the evidence that we have about the phylogeny of this thing where we appear to have effectively a point source, right? So somehow, the discussion is moving too slowly. And this is progress in one regard. But it's maddening. If you've been following the actual evidence, it

**Heather** 46:53

is moving too slowly. I agree with you about that I do. I think I disagree with you, or at least, I'm gonna push back against your framing of the problem is that it's narrative? Both because I believe that we can win with narrative rather than continuing to lose with narrative. Like, I do think that's possible. And I'm a fan of narrative as you are, too. But I think, you know, I think it is sort of embedded even more deeply in how I how I go about viewing the world. But I also think, and maybe it's just because of that bias that I understand about myself. I think it is innate to what humans are and how we do things and try it, you're arguing for a non narrative approach to this sort of thing will not work because some people will always be using narrative. And if their narrative is at all compelling as somehow apparently this if you're talking lab, like your conspiracy theorist narrative has been compelling to many, many, many people, then those people using narrative will beat out those people who don't. And I feel like this is a very analogous argument to having religion is a more adaptive position than not having.

**Bret** 48:07

Okay, but I am not arguing against the importance of narrative. What I'm arguing is that it is necessary in a scientific milieu you that the narrative follows from, I don't want to say the evidence itself, because the evidence itself doesn't speak to a narrative. But the hypothetical deductive method, in light of the evidence does point to various possible explanations. And the journalists, I mean, I don't even understand how this is possible. We are over producing PhDs at an incredible rate because of things we don't need to talk about. But the university produces PhDs to get its work done cheaply, because graduate students are cheap labor. So we produce a huge number of people who are never going to get a job in the fields in which they train.

**Heather** 48:52

That means including in legit fields, including in scientific fields, right,

**Bret** 48:56

exactly. I mean, it's especially true in scientific fields, because the work is expensive. You need people who actually understand the science to teach the undergraduates and so

**Heather** 49:04

asterisk I would say it's especially true in fields that don't have any business existing at all. I would say all of those PhDs are overproduced,

**Bret** 49:11

yes. But from the point of view of the university needing the labor and then conspiring to get it by pretending that there are more jobs than there are inducing people to work for less than a living wage, in pursuit of a degree. We produce all of these experts, right? Those people should many of them end up in journalism. And frankly, the things that get said in journalistic outlets are just completely unforgivable in light of how much spare expertise there is produced by the system. There's no way that this narrative needs to be driving the story, because you could have people who are, you know, educated enough to get it tracking this and saying, Hey, boss, I hate to tell you this, but the lab leak hypothesis is absolutely viable.

**Heather** 49:59

Yeah. Guess I hope, I feel like there may be a piece missing in the story you just told. And you know, maybe it's made maybe the overproduction of PhDs is really of people who really are skillful and creative. Think like original thinkers who are able to also assess a whole bunch of technical information. What we have seen, is that a tremendous number, and I think it's a tremendous majority of PhD programs, at least that we have had access to do not involve people actually even doing their own research from beginning to end. Right. So you know, if you've got a whole bunch of people ending up with PhDs in sciences, who walk into someone else's lab with someone else's grants, who are already asking, how do you have a research program? And you say, Okay, well, you're going to do this part? And yeah, they maybe figure out an experiment design, and maybe they figure out how to do the analysis or whatever. But it's, you know, it's, it's actually somewhat rare for for in some departments, and I don't know how widespread that is. But I think it's pretty widespread, for people who end up with PhDs to actually have even done a complete piece of their own research. And that's, I mean, that's terrible. But that doesn't that does mean if that's true, that you may have a whole lot of people with PhDs who wouldn't actually be able to go do journalism, because they wouldn't necessarily be able to see what is true. But I think what it would do it implied on what you said is that would free them from the perverse incentives, that being in a situation where peer reviewed depends on your peers respecting you and you not having overturned the status quo by saying, actually, I think that was a lab leak. Like, you know, outside of academia, there are some perverse incentives, they're hidden to most people. And in journalism, I'm sure there are two but they're going to be different ones.

**Bret** 51:46

I think that's well said. And this actually, I don't have it queued up here. But what the President said in response to this is indicative of exactly the problem you're pointing to the president basically,

**Heather** 51:58

talking about bide your time right now. Yeah.

**Bret** 52:00

He said something words to the effect of he, of course, misused the word theory, something like I have my own theories as to what happened, but I'm going to wait until the scientific community resolves this, which is, like, understandable, but wrong, six different ways. Right? A that's not how science works. The scientific community is perfectly capable of being entirely wrong, right? The science itself points to an answer, and the scientific community can get it wrong. And the point you're making, can I fully agree with the perverse incentives inside of the system make that all too likely. So if what Biden means by this is let's wait and see what mainstream virology thinks about this, mainstream biology has now two big problems. One, it allowed work to go on that whether or not it did create this pandemic could have created this pandemic. And then to it double down and double down isn't human right? It did it 100 times it told us. This is not viable. The evidence does not support lab like, right, and it kept telling us that and so the point is now in order to not have to explain why it told us something wasn't possible. That clearly is it's just continuing to cover. So you can't say that science is a process. It's awesome. You should follow it. Yeah, I agree with that much, right. And then it's like, well, how do we know what the process said? Oh, ask the experts. And they all have the same conflict of interest. Goddamnit, right. Wouldn't it be great if a bunch of people who were trained by the system then left the conflict of interest zone, and we're in a position to comment on it, right? That would be really useful. And yet instead, what we get is journalism, that if you understand the basics of what's being described, you're just constantly like, did I read what I you know, this is insane how low level the errors are?

**Heather** 53:52

Yeah, well, and I mean, you've just described the like, wouldn't it be great if people who knows stuff, we're able to leave the zone with the conflict of interest, and in some ways, this is what we have done? But we are also not virologist, not vaccinology is not public health experts, not epidemiologists, but the, like, Uber generalist framing of evolutionary theory, which you can apply to everything outside of like rocks and corks, allows a person to walk in if they have a bit of a bit of background, and are able to look at facts dispassionately and have the humility and in demand of themselves that they come back and say when they're wrong, that they were wrong. You can walk into any number of complex systems and say, okay, nope, not my expertise. I haven't published here, but let's see what this means. What's the evolutionary what can we predict about what's going to happen evolutionarily, based on what information we do know? And you know, that's that's what we're doing?

**Bret** 54:53

Yeah, I agree. And I I want to be increasingly clear about this. We are not epidemiologists, we are not even molecular biologists. But I don't think evolution is somehow secondary in this story at all.

**Heather** 55:13

As you have already pointed out, it's exactly the thing that red field names always was both of them are well, because Fauci has responded to Redfield. Yeah, but they're they're exactly talking about, I don't know, basically Redfield saying, which I believe you said on Mars, we've both said here on dark horse, many times a virus that has just made the jump from, you know, from another species to humans, would take some time to figure out how to go human to human very fast. Yep. And this is, you know, that that's in a nutshell, and there was apparently no time,

**Bret** 55:50

right? And so it's their explanations that could fit Fauci has landed on one that doesn't, right, so the point is interesting now that at least the English speaking world is now juggling something central to the COVID story, and what does it hinge on? Wouldn't you know it? It hinges on a question of evolutionary dynamics right? And of course this has been true all along the fundamental questions here are not more molecular than they are evolutionary they are both molecular and evolutionary and epidemiological right? That's the nature of these stories and so the question is what's your road in and if the idea is the biologists are going to pull rank on the evolutionary biologists well on what basis are you doing that other than power?

**Heather** 56:32

I have that's not science stay in my lane the highways evolutionary right

**Bret** 56:35

but yeah, very well said the highway is entirely evolutionary whether it's understood to be or not All right, now are we where you wanted to go on that topic? Yeah. Okay. Because it connects what we've just discussed connects with one of the things that was on my list and I don't know if it's next on your list

**Heather** 56:55

I was gonna talk about saffron next

**Bret** 56:59

is there Can I slot in the question of the Amazon I suppose

**Heather** 57:02

you want to go after after that for for reasons but you can you can go for it.

**Bret** 57:07

Okay, so I want to do this because it's relevant Zach Could you put up the RT boy Can you put that on a screen I can actually see it Alright, so here we have a story from I think it's a couple of weeks back actually. Amazon Rainforest now most likely warming Earth's atmosphere not cooling it scientists warn don't fuck sake. Yeah, for fuck sakes. This guy can you scroll down a little bit too. I want to see if the Yeah, and then also on RT in the middle of this article. Pollution cools the planet, pandemic induce lockdowns raise global temperatures in 2020. Now, that second thing is actually not far fetched. Right? It is true and it is actually pretty well known and pretty well studied that industrial pollutants do block a certain amount of UV radiation reflected back into space, basically increasing albedo. And so the shutdown of some fraction of our industrial capacity is capable of doing that. But you start to put these things together. So scroll back up to the title. And it's painting a picture here. By the way, I'm a little bit tickled that's a picture of the Amazon and I believe those yellow trees are going to be taboola flowering, which is a tropical phenomenon. And when these flowers fall to the ground, it's a little bit like, like, fall colors and

**Heather** 58:38

yeah, I'm not I don't remember the range of type of buya and that doesn't look like the same yellow is terrible yet to me, but I I'm a big fan of that tree. So yes, I'm just not gonna sign on to that being that tree

**Bret** 58:51

All right, well, we'll see okay, but I do think they would be against that stuff. But anyway, the point here is this article if you actually read it, and I'm not going to bother going through it, but I did start to read it to figure out what the hell this was saying. Because that title doesn't make any sense. No, it doesn't. What the article describes is not that the Amazon is contributing and you know, mind you, the title says the Amazon forest is contributing, how is the Amazon forest contributing to global warming according to this article by being cut down and burned?

**Heather** 59:27

Right. Yeah, that's that's quite a sleight of hand.

**Bret** 59:30

It's quite a sleight of hand. It's you know, I struggled to even figure out what the

**Heather** 59:36

President de stabilizes country by dying. Exactly. Or,

**Bret** 59:39

you know, Franz Ferdinand triggers World War Right. I mean, you know, it's, it's insane. Now, here's the problem. You don't have to have a PhD. You don't. You don't need a bachelor's degree. You just need to have paid attention in high school. science to know that the Amazon forest itself probably isn't really capable of contributing one way or the other to global warming by virtue of equilibrium. Right? The Amazon Rainforest is made out of molecules. Those molecules overwhelmingly are the result of photosynthesis that has taken the sun's light and taken co2 from the atmosphere. And it has linked those co2 molecules together into sugars and into cellulose, which is basically sugar molecule reflected strings of sugar molecules. That's an amazing process. But the point is, a certain amount of the co2 that might be in the atmosphere is stuck in trees and other plants and animals and everything else in the Amazon. And no shit. If you burn that stuff, it releases it back into the atmosphere, right very quickly. If you just cut it down and leave it sitting it will do so more slowly. But nonetheless, this

**Heather** 1:00:54

was like this is the observation of the first ecologist,

**Bret** 1:00:57

right? It's this is really basic, it's it's the most basic understanding of what this thing is now the Amazon could overtime, pick up some biomass, you know, if you leave the Amazon B, there are processes that could result in it getting heavier and take a little bit of co2 out of the atmosphere, but ultimately, it's got to stabilize somewhere, right? And at that point, if you cut it down or burn it, yep, you're gonna return a bunch of that stuff to the air. And if

**Heather** 1:01:21

it's expanding in scope, it will be taking up more and if it is being burned down or, or otherwise receding as, as the forests that, you know, apparently, once were in Northern Africa, where we now have vast desertification, then the opposite will happen,

**Bret** 1:01:39

right? And there are other factors that are not involved in this equilibrium. So can you put the article backup Zack. So if you look at the Amazon rainforest from above, you will notice that it is quite dark. So that has an albedo impact. The fact of the Amazon rain forest will capture a certain amount of heat because it's dark, and so it will absorb sun's energy, whereas if it was light, it would reflect it like the poles do. So that's not an equilibrium question. But that's not what the article is about.

**Heather** 1:02:15

Just Just to be clear, though, with regard to albedo, cut down an acre of tropical rain forest and what tends to be exposed is darker. You tend the albedo effect actually goes in the opposite direction at least upon first pass with regard to the cutting that the the bare soil tends to be dark, and I have I did not pull it up well, Beto chart here somewhere from an old,

**Bret** 1:02:39

this is not always the case. But in any case, my only point is it's not that every effect on global climate of the forest is subject to this equilibrium. But the topic of this article is about carbon, and it is about the title and the article. Effectively, the underlying science appears viable here. I can't say it's right or wrong. But I can say there's nothing in the science that's being reported. That is incorrect. But from the point of view of journalism is absolutely insane. And anybody with a basic understanding of equilibrium dynamics, and even just the most superficial understanding of what photosynthesis is, and what it produces, would know that it's not right. And yet here it is being broadcast. And I saw Not a single complaint about it. Right. So you know, to the point about, for some reason, though, we are producing a great many people who are at least ostensibly should be leaving the Acme Academy with a great deal of expertise. Our journalism does not reflect an excess of expertise, it reflects all of these insane conclusions being spread around as if they make scientific sense. And the rest of us behaving as if that's normal.

**Heather** 1:03:52

Yeah. And unfortunately, true understatement. Our journalism does not reflect in excess of expertise. No, it does. Neither. Neither though, does academia at the moment.

**Bret** 1:04:05

Right? Well, or expertise doesn't mean what we would like it to mean it mean, right. Something else some kind of technical competence that does not involve apparently the ability to extrapolate.

**Heather** 1:04:16

Right? Right, right. Exactly. Okay. could talk about saffron? Yeah, let's do this. Talk about saffron. Why are we talking about saffron I'm not gonna tell you why we're talking about saffron. At first I'm going to read you a little bit first just a paragraph. From this amazing book, on food and cooking by Harold McGee, Second Edition 2004. Really, if you're at all interested in what your ingredients are, and how how cooking works and and various traditions throughout throughout the world. This is

**Bret** 1:04:47

this is fair to say in I promoted the book a little bit a narrative approach to cooking both at the level of why things transition when you do certain stuff to them and where the ingredients to some

**Heather** 1:04:59

degree, I mean, I guess it really appeals to both my scientific and my narrative side so he's got for instance here this is a survey he's got a survey of temperate spices followed by a survey of tropical spices. And he spends a page and a half on saffron

**Bret** 1:05:11

I must say some of the intemperate spices are my favorites

**Heather** 1:05:13

yeah you know they're the best but a little

**Bret** 1:05:15

bit angry they're a little a little hot Yeah,

**Heather** 1:05:18

yes as a whole whole page whole thing on chilies and capsaicin. So you know he goes chemistry goes molecular biology. He goes culinary history. He goes narrative because cultural anthropology it's, it's great. So again, on food and cooking by Harold McGee, just the first paragraph on saffron. Before we go into why we're talking about saffron. saffron is the world's most expensive spice. A testament Not only is the labor required to produce it, but to its unique ability to impart both an unusual flavor and intense yellow color to foods. It is a part of the flower of a kind of crocus crocus sativus, which is probably domesticated in or near Greece during the Bronze Age. The saffron crocus was carried eastward to Kashmir before 500 BCE, and medieval times the Arabs took it westward to Spain and the Crusaders to France and England. The name comes from the Arabic for thread. Today, Iran and Spain are the major producers and exporters, they use saffron in their respective rice dishes peel off and Paya the French and their fish stew and boy base on the French in their French stew, comma, which is called poly base. And the Italians in risotto. Melanie is the Indians in biryanis, and milk sweets. So there's a whole lot more about the biology and such of saffron. But that's it in a and nutshell, he says it's probably Greek, some people think it's Iranian in origin, it's not totally clear, it's several 1000 years old, we've been apparently domesticated for several 1000 years, which is remarkable. So it's either a human creation entirely or the result of you know, through artificial selection, where we were actively putting stuff together or discovery. For reasons that I'll talk about a little bit of what was surely a mutation that wouldn't have persisted that we then acted to help propagate and have I'd have moved forward by several 1000 years. So we've been using it for pigment. It's in some parietal art, some some wall art in from, from older humans, medicine for various elements, which is what we're going to talk about here. And of course, spice, although the description of it Yeah, I admit that I think I've never had fresh enough saffron to be able to it's so expensive that it's very quickly I've never really been able to determine a flavor but it's said to have a Hey, like, aroma, and taste, which when said that why one wonders why it's, you know, so remarkably coveted in in at least particular parts of the world. So, there's this paper. That's unfortunate. Let's see, hold on, I can pull it up this way. Hopefully this paper sacrae in a minute here you can show that just came out in the Journal of physiology and behavior called impact of saffron crocus sativus Lin supplementation and resistance training on markers implicated in depression and happiness levels and untrained young males. So I was just pleased enough with that title to end up reading this paper. It's written by it's it's a bunch of people, bunch of researchers out of Iran, and one person in some franssen us but this is the untrained young males being talked about here are Iranian, young Iranian men who were in the air, they started with 36. And it went down to I think 28. So they had 14 men in one category and 14 men another these are all men who, you know, weren't smoking or drinking or engaged in any resistance training, any resistance training in advance of this. And to half the young men, they gave them a series of resistance trainings for I think it was six weeks. And after the resistance training every day, they gave them a saffron supplement. But at the same time, every day, when they weren't engaged in their resistance training, they give them a saffron supplement. And the other the other half the men, same exact resistance training. And they gave the placebo at the same moment. So the only thing that was different was the saffron, but they were effectively trying to control for the well known phenomenon that resistance training also deals with depression. Right? That resistance training itself is effectively an antidepressant. And so what you know, is there going to be a discernible difference for men who aren't always already engaged in resistance training. If you start them on it, will they get will they get better? Turns out Yes. Will they get more better? If you give if you have them engage in resistance training and take relatively small amounts of saffron? The answer is yes. fascinatingly, and so they looked at a number of metal drex here you can take my screen off sec cuz this is just but let me just see what the the things that they looked at that increased were

**Heather** 1:10:13

an amide Oh, I can't even pronounce this next one I don't know what it is T to a record Donal glycerol also knows to AG, serotonin, excuse me, serotonin, dopamine and beta endorphin all increased, as did in just questionnaires reported levels of happiness in the resistance training plus Safran group more than they did in the resistance training without saffron grip. I think I have that right, there's a little bit there was, there are a lot of things they were looking at. So I may have put one of those things in there, wrong column, but all of those things definitely increased in both groups. Or the first did in the first group. It seemed like you had something to say, Well, I can say,

**Bret** 1:11:00

I have recently come to the conclusion that If you're happy and you know it, you're not paying attention, but some of those people may just be on saffron.

**Heather** 1:11:10

Yeah, yeah. I don't like this formula. If you don't mind, just formulate, if you're happy, and you're not you're not paying attention. Well,

**Bret** 1:11:14

I mean, it's only 21 Yeah, but temporary condition.

**Heather** 1:11:18

I sure. I hope so. Okay, so um, one of the things that saffron seems to do actually, and this is not from this paper, there's apparently I did not know. So I just went down the saffron rabbit hole today. There's a wealth of literature, most of which is not immediately available, you have to ask for it through interlibrary loan and such. So I'm not going to show you any of the other papers, but on all of the actual known antidepressant effects of saffron, and it appears to have a very similar actual mechanism to fluoxetine, which is Prozac if memory serves, which is that inhibits the re uptake of serotonin into synapses.

**Bret** 1:11:59

Okay, so this may be where you're headed. But the interesting thing here we have a synthetic molecule that blocks the re uptake of serotonin, for which you could make all of the usual observations about the hazard of not knowing what the consequences of this will be. And then you have 1000s of years of use of a natural molecule that does this, in which we are safe to make the assumption that at least in the ancestral circumstance, this was not bad for the individuals and that there's reason to think that in fact, it was positive by virtue of the fact that it is not free to cultivate saffron. In fact, it's labor intensive, and yet it persisted and spread from one culture to the next. So

**Heather** 1:12:49

it provides no caloric benefit. And it's self limiting in terms of the MSO it is it is toxic in large amounts, but it's really hard to get enough saffron in any but a modern and incredibly wealthy environment to hurt yourself with it.

**Bret** 1:13:02

Yeah. Colors things yellow, so it has a caloric value but not calorie. Absolutely. I mean, I think that's worth noting in pass I approve of that jar. Feel free to borrow that joke. That one has been approved. Yeah. Yeah.

**Heather** 1:13:20

All right. So yeah, the part part of part of the places to think about here are exactly what you just said that finding a similar mechanism in a molecule that is in a plant that has had been in basically co evolutionary relationship with humans for 1000s of years, is knowing nothing else very much likely to be a lot safer than creating synthesizing a lab a molecule that has the same mechanism of action, but is also you know, the additional reason why that might not be as safe so aside from not knowing what the titration level should you know how much you should be taking and all of this is you know, what else is in the saffron? it's it's a it's a complex it's, you know, it's pollen from a plant.

**Bret** 1:14:10

Yeah, yeah. And ribs a little. What do you call them?

**Heather** 1:14:14

pistols or demons? I remember. We're not botanist. I wasn't gonna

**Bret** 1:14:20

I wasn't gonna hide behind that, but I probably should. Yeah. Yeah, I'm to remember the things on the top of the corner. But anyway, the threads. Okay, I think they're anthers. But anyway, go ahead.

**Heather** 1:14:34

I don't remember where I was going. Um, you're talking about the

**Bret** 1:14:37

advantage of a natural molecule as compared to the synthetic moment.

**Heather** 1:14:42

So there's so much else also that you're getting when you're eating saffron, right? It's not just the lab synthesize molecule, which is what you were saying as well. But one of the pieces of the story that is not that I haven't mentioned yet, and there are many about the one that I do want to mention before we move on is That the crocus species itself on its saffron is from is triploid. And it cannot reproduce sexually as a result, it is entirely a sexually reproducing. And basically humans produce it by separating it anyone has ever planted bulbs knows yesterday that's bulbs who knows it's corn. So it's just there's a botanical distinction between the two, but they seem similar to Well,

**Bret** 1:15:25

in this case, it's going to matter. Okay, this is more like garlic than it is like an onion. And because it's like garlic, you can take a what's called a tooth one. Garlic, and you can Yeah, I garlic plan.

**Heather** 1:15:41

I believe that's right for for this species of crocus. I'm not 100% sure is why I paused.

**Bret** 1:15:47

Well, I think I think it's implied in the fact that it's a quarter to quarter mountable Yeah.

**Heather** 1:15:52

So it's, it's dependent on us, which means, you know, it's not, it's not really changing. It's it's benefiting from its association with us in which we take its take its pollen and eat it and paint walls with it and use it medicinally. But it is it is never reproducing socially. And so there's a question, of course, again, of where did it originate? Was it a mutation that would have been a complete dead end, but for the lucky discovery by, you know, presumably a single human several 1000 years ago that that was actually, you know, that when they when they rubbed up against it, and then wipe their hands on their mouth? They felt better afterwards? I mean, that seems like an unlikely series events. Yeah. Especially for them to then be like, maybe it was the orange stuff on my lips, right? Although it being so highly colored, may have made it easier to trace.

**Bret** 1:16:38

Yes, it also suggests a Yeah, easier to trace. But it also suggests a reason that it might have been introduced into cuisine. Right? And so just as a colorant, right, and then has this other effect? Yeah,

**Heather** 1:16:51

absolutely. So I'm, in trying to figure out some of what was going on with this. With this species that is entirely dependent on humans, I ended up at this really confused website. And so this is my segue to the last thing we're going to talk about

**Bret** 1:17:09

before you segue, though. Yeah, one other point about this, which is, there are really two things, at least two things that make saffron even if saffron is doing effectively the same thing as SSRIs that are synthetically made are doing. There are two reasons that the natural version is probably much better. One is the one we've already pointed to that. It comes in a context that is that has stood the test of time. But the other thing is it may come in a tradition that titrated properly. In other words, yes, you are hacking a physiological system, there are reasons that you might want to hack a physiological system. Rather than go with your endogenous programming, for example, this won't be the case, probably in Iran or Greece. But if you change latitudes, for example, and your serotonin system was not calibrated to your new situation, you might be able to use saffron to modulate it for, let's say, winter or something like that. But were that the case? You would imagine that it would, you know, the world has not evolved with supermarket like foods where you can source a strawberry, you know, in in February, right? The world functions where foods become available at different times. And so traditions have built into them a kind of, you know, a calendar of foods as it were. And you might imagine prediction of the hypothesis that actually this does travel with humans because of its SSRI. Like effect, you might imagine that foods that accompany the part of the year that you want to recalibrate would be high in saffron, and that other parts of the year might be low in it or something like that.

**Heather** 1:18:53

Well interesting to actually that you know, seasonal depression is something that afflicts many people and that would likely have been the case even pre industrial lights and such and this crocus unlike most although like some others, is autumn blooming. Whoa, so this you know, this is the saffron is becoming available and it you know, it doesn't save particularly well unless you've got deep freeze basically it freezes okay. And it's you can you basically heat dry it. And then it preserves a little bit, but it's going to it's, it's going to be the most abundant and the freshest, exactly as the days are getting darker,

**Bret** 1:19:33

as perfect blooms at an odd time, and yet cannot be preserved. Therefore, the prediction of the hypothesis is that it is properly targeted to a place where physiology is desirably hacked and that you can't screw up because it's very hard to have it at the wrong moment. That would be fascinating. Of course, that would require you to know which pop nations have an ancestral it sounds like Iran and Greece would be too. But, you know, in order to figure out where the plant picked up that trick, you know, assuming that that trick is calibrated to a population, which population? Was it?

**Heather** 1:20:13

Exactly? Interesting. Iran and Greece aren't exactly adjacent, you know, interesting, right? Those are the two possible source populations. Yeah.

**Bret** 1:20:20

But also that sort of fits in the story too. Because the the nature so to get people out, because it's non sexual, it doesn't produce a viable seed, right. Which is fine. In this case, because it produces a form, the form can be broken apart. And therefore one plant can produce many plants by planting the corns and supplementing them. And so you get many plants, but it also makes it highly transportable. Right? That's true. So it may, you know, you can take the items, and by keeping them in root cellar like conditions, they are dormant, and you can travel over long distances. And so maybe not so surprising that non adjacent populations both have a very ancient relationship with it, because it only takes one person to carry it over a mountain range for it to show up somewhere.

**Heather** 1:21:10

Yeah, that's good. I like that. Okay, so while I was trying to figure out some some of that I came across this website, which I'm trying to make bigger here, which you should pay no attention to at all because it's truly confused and confusing. And I'll just read the bottom half of the second paragraph here. The crocus sativus is an asexual plant, meaning that this plant does not reproduce asexually. In order to reproduce itself, the croco citybus must undergo reproduction with the help of tubers. So you know, I read that and what, there's nothing on this site that could possibly be a value because it's that confusing. Of course, I did go looking a little bit more on the site is deeply confused across a lot of things. But this, Zach, if I may, thank you. The fact that that is out there on an official looking site about all the information you ever need to know about saffron struck me as another piece of the puzzle as to why we are such a confused people now. And this to this point, specifically, this site can't even tell the difference between asexual and sexual reproduction when it's trying to make a point about exactly that thing, right? That's right. Central is the central issue and it's confused it twice in two sentences. Yeah. And it seems to me so this in thinking about confusion about sex and gender and sexuality, we are not going to spend a ton of time talking about D transitioning right now. So but but there is a there is a new thing that is happening that is worth saying some some things about. I don't like to rely on Twitter as a source. But there's a story that's breaking that seems to be almost entirely on Twitter, there are a few just medium articles. But to the degree that they're talking about they're citing the Twitter stuff, so we're gonna we're gonna go to Twitter here, basically 60 minutes, we are told the long running CBS, I think, news, our show has been planning a segment on D transitioners. That is people who have transitioned to the other sex or gender depending on who you're talking to you and who have decided after some time that it was mistaken, that they're going to D transition back into their Natal sex, the sex that they were born as. And as a result of a lot of activist hubbub about this, it seems that CBS may be actually rethinking, rethinking whether or not to do this, and that, that I find yet another piece of dangerous evidence that our journalism is being run by narrative and by politics rather than by, you know, by actually trying to discover what's true. So let's just show a couple of the the tweets in question before talking about this. We have Jennifer, I will show this in just a second sec. Jennifer Finney Boylan, who is a trans woman and also a Barnard professor and a contributing opinion writer for The New York Times who had 28 pieces in the New York Times in 2020. alone. So this is not an infrequent contributor first introduced this to the world here. Okay. sacri. Tweet from March 20. There's going to be a 16 minutes on D transitioners. She writes, they asked me to be a talking head and I said I prefer not to be part of the story. They said please. I said you ought to talk to Tory Peters, or at least someone afab since that's the focus. They said we'd really like you, Jennifer Philip Finney Boylan. I said I'm honored but I think this is a terrible idea for a story. Why focus on this small group of outliers, when you could focus on the struggles and triumphs of so many other trans folks. So just stepping out of this for a moment, trans is itself an outlier group. And trans has gotten a ton of press in the last five, five or 10 years, like really more than any group of that size, warrants by the numbers. And so for people in a tiny group of outliers who have been getting much more pressing their numbers represent to be complaining about people within their group, who, frankly, may or may not be outliers, getting any press at all seems like the best spin I can put on it is it's the height of irony.

**Bret** 1:25:44

It's the height of irony. And it's also obviously, duplicitous.

**Heather** 1:25:50

So that would be a slightly less generous interpretation is

**Bret** 1:25:53

yes, slightly less generous. But the simple fact is the reason that d transitioners are forbidden, and that there would be pressure put on 60 minutes, is that the strongest argument for a go slow approach, let us leave children to develop as they will, and not leap to conclusions is that not only do does dysphoria so regularly clear up on its own, but that many people who do transition decide later it didn't solve the issue that they were hoping it would solve and decide to transition back, at which point, you can't fully transition back? Right? There are downstream consequences of this. And so, you know, obscuring the awkward fact of many people who have thought that they wanted to transition and discover later that they got bad advice or had misunderstood things, is really it's going to put people in harm's way this story needs to be covered because everybody who's thinking of transitioning needs to consider the possibility that it isn't the solution for them.

**Heather** 1:27:00

Yes, exactly. As for instance, Abigail shires excellent book needs to be out there and available to people and not to be you know, taken off of the virtual shelves at Amazon. Just two more blue checkmarks on Twitter, who are tweeting about this and who have cultural sway. We have chase Strangio, at the famous at least in some circles, trans lawyer at ACLU, who quote tweets the boylen tweet thread that I just read the beginning of saying the story is deliberately airing at a time of dangerous assaults on trans healthcare and trans lives. While we, as trans people are harassed and Gaslight when we try to advocate for our ability to just live just live. I feel like I know who's being gaslit and it's not chase Strangio.

**Bret** 1:27:47

Right. That's the core of gaslighting now, isn't it?

**Heather** 1:27:50

Yes, it is. So, you know, at a time of dangerous assault on trans healthcare and trans lives, that will always be the claim. That will always be the claim. And any group, no matter how you define that group will always be experiencing something that they should not be experiencing, because that is the nature of existence. So there is nothing in here that is falsifiable. And yet, the entire thing is of a tone. That seems exactly wrong and actually quite deceitful. So just one more of these. Here we have someone actually sorry, Zack, give me my screen back just for a minute. So I can see this is someone who is the former editor in chief of out magazine, and the former chief Commercial Officer of Teen Vogue, Teen Vogue, which seems to be one of the sort of spear points of a lot of this madness. So the Twitter account is pf McCarty, again, quote, tweets, the original Boylan tweet thread, saying the media literacy around trans folks is nothing short of dangerous. I hope the folks at 60 minutes know there's a human toll to their irresponsibility. Each and every person affiliated with selecting this narrative for airtime should be held accountable, held accountable. The idea that there are stories of real people who have experienced real pain and real harm, and their stories should not be told is a remarkable claim.

**Bret** 1:29:19

Yes. And the remarkable in the slightest veiled threat, holding accountable people for telling stories, like for example, Jessie single, who has indeed been falsely portrayed, and, you know, what would the term be demonized online? Who has been quite good about reporting on all sides of the trans issue? So I did want to add one other thing here, which, in the spirit of what we were talking about last week, regarding candy and the idea that there are certain things that are that fit on a card, yeah, that actually tell the story. All right, it strikes me that at the heart of the issue of transition, and the transition is the hypocrisy of a movement. And mind you, I'm not talking about trans people, you and I draw a distinction, trans activists are the ones who have become so troubling and frightening. But if trans rights are human rights, right, if the right to transition is a human right, then surely people who have already transitioned, also have the right to transition and have the right to have that story told, right. So my point is, if the only people on earth who don't have the right to transition are people who've already done it, something is off, right? And if those who are advocating for trans people are the ones who are ruling out the discussion, then they are telling you what they're up to, right. This is a one way phenomenon from their perspective. Yes, right. Yes. And we need to recognize that and we need to, frankly, stare down the threats, because, you know, there's the group of people who have decided that transition is what they need to do. And there is an infinitely large group of people who have yet to make such a decision. And many of them are children, they are easily influenced, and they have a right to have normal development unfold before irreversible decisions are made on their behalf.

**Heather** 1:31:27

Exactly. And you know, it's not, it's not that everything in this landscape is clear cut, right? For those extremely rare people, extremely rare people who really would describe themselves to you and some of them have described themselves to us as having been born in the wrong body. The earlier they would be allowed to transition, the more likely they're there, they're understood and deeply felt brain sex would be could be come to become in accord with the body that they are then allowed to transition into. That is a tiny fraction of 1% of humanity, a tiny, tiny fraction of probably a 100th of 1%. For the vast majority of people, regardless of how they view themselves, how comfortable they are in their skin, whether or not they're gay, straight by whatever, the vast majority of people who do not end up feeling that the way that they must live in the world for ever after is as the sex that they were not born to messing with development is permanent, and tragic. And going to result in the things like infertility, mental health problems, and other physical problems like bone density loss. Yeah.

**Bret** 1:32:53

And sexual dysfunction. So and

**Heather** 1:32:54

sexual dysfunction. Yes. All and that's and that's an incomplete list. Yeah. So you it is it is not, it is not the right of a tiny, tiny, tiny number of people to change development for everyone else. And in fact, it's and and then having children have this thrust on them, because they say something in the spirit of childhood where they're exploring identity, because that's what childhood is, is should be criminal. It should be criminal,

**Bret** 1:33:26

it should be. I would also point out that somehow we have been lowered into a conversation in which everything downstream of the concept of trans is taken to be sacred. And this doesn't make any sense. We have said repeatedly that too many cultures have trans as some role, ancient cultures for us to imagine that this is some new invention, or that it is inherently a disorder. However, this is not the same thing as saying, pharmaceutical transition and surgical transition is ancient. It isn't. And so to the extent that we are talking about who has surgery available to them, how early in life, when can we disrupted a developmental process in order to you know, to ostensibly help you these are not simple matters, right? And they are very different from the right to live as you would, right? Yes. Right. The ability to be surgically altered as you would is not a human right, right. We have not declared it such right. There are surgeries you can't go get right. So this is not one of those things, and we need to stop pretending that it is compassion for people is important. And the recognition that trans is something real and ancient is important that is very different from pharmaceutical and surgical alteration.

**Heather** 1:34:52

Beautiful. Exactly right. All right. Well, we will no doubt come back to this topic and its various instantiation But for now why don't we Why don't we share the thumbnail that we've chosen for this week? Sure. And and just say that these this is in advance of a bike ride that Zachary our 16 year old son and producer took yesterday out west to Portland on the bank's pannonia Trail. It was a beautiful day it's an even more beautiful day here today in the Pacific Northwest. And at least in the Northern Hemisphere, although frankly near the equinox it should be beautiful pretty much everywhere at the moment. Do remember to to get outside and you'd help make vitamin D while the sun shines and get moving. get your heart rate up and you know be be with the people you love and and just enjoy what the earth is giving us as opposed to what the media and the laboratories are giving us

**Bret** 1:35:53

yeah, go out and smile at someone. Right have a normal human human interaction

**Heather** 1:35:58

outside it's harder with the mask isn't it? Well

**Bret** 1:36:00

as you as you pointed out last time this rubric where you need to have three of the protection This means you can be outside and in smiling range without breathing down someone's neck and not wearing a mask. Absolutely.

**Heather** 1:36:13

And it would be wise actually I will say so Zack and I just did you know 20 miles yesterday and I don't think Zack correct me if I'm wrong I don't think we saw anyone on the trail with a mask I thought a couple but a couple of right at the right near the trailhead maybe I mean throughout but not too many overall Okay, so maybe a few I don't think anyone on bikes maybe only the walkers were wearing masks and then we went we came back through Northwest Portland to pick up some food and we had to park a ways away and I left Zach with the car because the bikes were on the back of it and I just walked through slab town which is just a part of Northwest Portland and like I said it was a beautiful day it was a Friday evening the sun was out there was you know we've there the the local government has allowed for a lot more outdoor seating spilling into the streets actually than would be normal in times of a non pandemic so when the weather is good, there's actually the possibility for people to be to be seeing each other and to actually be being human with one another. And I saw almost no one with a mask out there either on my you know what amounted to like an eight block round trip walk just to pick up the food that we had ordered. And it felt so terrific. So felt so human and wonderful. And like, you know, like the Portland that we love. Yep. Yeah,

**Bret** 1:37:31

absolutely. Well, I'm glad to see it returning and I'm ready for the warmer weather.

**Heather** 1:37:35

Yeah, indeed. So with that we are for those of you with us on YouTube and take 15 minute break. Then be back with a live q&a answering questions from your Super Chat. And if you have any questions about how to do that, or anything else, you can send email to Darkhorse moderator@gmail.com again, consider joining us tomorrow at 11am on my Patreon for a private to our q&a where where it is intimate enough that we can actually engage with the chat as it happens. You will have before our next live stream a your first of the month Patreon conversation as well. So at higher tier levels, Brett has two monthly conversations as well at his Patreon Yeah, we've got a clips channel where there's lots of good clips that are wonderful clips guys generating and maybe that's it once again, yeah, be be good to one another and eat good food and get outside.

**Bret** 1:38:35

We will see you next time or we're in 15 minutes depending be well