Bret and Heather 78th DarkHorse Podcast Livestream\_ The Good...

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**SPEAKERS**

Bret, Heather

**Bret** 00:01

Hey folks, welcome to the Dark Horse podcast number 78 live stream with Dr. Heather hying. And me, Brett Weinstein. I am not repeating myself because apparently there was a sound problem, but I think it is now cured.

**Heather** 00:16

Here we go. Yes, it's may 1, spring is in full swing here in the gorgeous Pacific Northwest. We are going to talk about today. The recent kerfuffle between Joe Rogan and Fauci and what it what it might mean, also talk some about vaccines separately from that, right. You want to talk about a little bit what's going on in Portland still? Yes, right, which is our hometown. I have a little little item in which our vice president goes off script. off script, I think, yes, yes. And, and the AP, the Associated Press is making some odd claims about race. And all of that will take up a lot of time. But I really want to talk about nature, too. So we're going to talk about the Columbia River Gorge, and gopher snakes, and ravens and rattlesnakes and salamanders and shorebird migration, and we'll have pictures for a few of those. And just actually, actually back to what I still consider my roots talking about talking about the animals.

**Bret** 01:24

Is it? Is it wrong of me to conclude that this is an eclectic grouping of concepts? Yeah, I think it kinda often is. Vice Presidential off script madness to snakes,

**Heather** 01:36

ravens being on script. Oh, I think the raven that we saw, yes. Doing something kind of extraordinary. was actually entirely on script. Yes,

**Bret** 01:44

I was looking at the photograph. And I was hoping that we have it right. And then it's a raven. But anyway, you're going to tell me so we'll find out. I mean, I was there. Yes. You were there. But I mean, you know, at a distance the the camera does magnifies things and lets you see it better.

**Heather** 01:56

You know, we may be wrong. But we all hear that from you as well. You

**Bret** 02:01

know what that does? Tell me I do have a correction I forgot about Okay, which was that last week, I showed a picture that I thought was a golden eagle. Yes. In fact, does look very much like a golden eagle, but a

**Heather** 02:14

few weeks ago.

**Bret** 02:17

I think it was. In any case, it turns out that that was a juvenile bald eagle, which was something I had considered the possibility of an eye had rejected it on the basis that it was too big, it would seem to be larger than the bald eagle, on the other hand, very hard to know, because the scale of a bird in flight is, you know, impossible to assess. So it seems like I got it wrong. And the diagnostic characteristic was the battleship.

**Heather** 02:41

Yes. And that in fact, that was last week, I was wrong. So here we're just going recursive on our corrections here, because it was in fact, the thumbnail that we used for last week. Yeah. All right. So before we launch into all of that, though, just a reminder to please subscribe, like, go to our clips channel, do the same thing just like love. It's not an option. Alright, sorry. It's not. We are actually we we feel that actually, from people who write in and are grateful for, as I've said before, almost everyone who writes in and the messages that you're sending us, and also consider joining us on either of our Patreon is Brett was supposed to have a conversation this morning, there was a tech snafu. So actually,

**Bret** 03:24

based on the fact that zoom, no one cares. Yes. They don't care.

**Heather** 03:28

Yeah. So there's one tomorrow and there's one actually next Saturday that you could join. Yep, yep, that's right. Yeah. All right. You Why don't you launch us into talking about what happened this week, between Joe Rogan and the esteemed doctor?

**Bret** 03:45

Sure. And while I'm at it, you should ready that link that I sent you that you brought up.

**Heather** 03:51

I have so many nice.

**Bret** 03:53

So what happened this week was that Joe Rogan in conversation with comedian Dave Smith said something offhandedly about advice that he would give to a young person considering whether or not to get vaccinated for COVID. Actually, maybe Zack, we should show that clip. Do you have it?

04:24

Yeah, I think for the most part, it's safe to get vaccinated. I do. I do. But if you're like 21 years old, and you say to me, should I get vaccinated? I go No, no. Are you healthy? Are you a healthy person? Like, look, Don't do anything stupid, but you should take care of yourself. You should. If you're if you're a healthy person, and you're exercising all the time, and you're young, and you're eating well, like, I don't think you need to worry about this. Now Rogan was careful not to say that all people shouldn't be vaccinated. But

**Bret** 04:53

so that was Joe Rogan. And what he said is that if he was advising a healthy person Something like 21 years of age, that he would likely advise them not to get the vaccine and the world jumped on Joe and of course, mocked him and made fun of him for not having the expertise to say such things. And my sense was, although I didn't think Joe gave a complete analysis here of why what he suggested might make sense, I actually didn't think that the advice he was giving was so terrible because, of course, there are all sorts of questions that do suggest we should at least be thinking twice about advising young people to get the vaccine. So in other words, what we had was we had Fauci weighing in and saying that, of course, young people should get the vaccine and then Fauci, although I don't think Joe was wrong, Fauci said some things that were true, what he said was, that Joe's analysis seemed to pay attention only to one's personal well being, and that he was not paying proper attention to the fact that a healthy person who gets COVID and suffers from it only very little, may be exposing other people to the virus, and they may suffer greatly, and in fact, could could die from it. And that that is a reason to get the vaccine and in isolation, that analysis is probably right. But that analysis does not exist in isolation. And so I wanted to take some time to sort through the various things that contribute to the analysis of who should get vaccinated. But you had a point.

**Heather** 06:30

Yeah, I mean, there are many points to be made here. And I know we're going to spend some time talking about this, but I'm just to finish up your sort of reporting of what it is that you're responding to here. Joe did clarify with an additional statement after Fauci said, what he said, and it's too long, I think, to play here, it's, you know, five, seven minute thing, but he made he exactly repeated the point that you just made, which is this, this is an individual level, individual level analysis, not a population level analysis. And he was not presuming to make the population level analysis is his words,

**Bret** 07:04

right. But he was no, I saw the retraction or the walking back wasn't really retreating. But in any case, I was a little bit concerned about it, because my sense is, you know, Joe is a lay person, he was having a discussion that did not pretend to be authoritative in this regard. And so it was incomplete. But it wasn't pretending to be a complete analysis. And the fact is, I thought Joe was on much stronger ground in light of what we've been talking about on dark horse for so many months now, which is the huge unknowns that surround vaccine safety long term. And so the analysis about whether or not a young person should get vaccinated, should center on some kind of balance between Yes, the possibility that a young person could get COVID could pass it on to other people, but also the possibility that a young person could get a vaccine and then suffer hazards down the road. And that analysis does not suggest that this is clear cut. In fact, he's direction that is my water hit again, that this is clear cutting, in fact, he's direction and against Joe. So I thought, you know, I mean, I certainly understood that Joe was in a bad position. That in effect, somebody you know, without a credential was vulnerable to the world piling on that he was giving medical advice that he wasn't in a position to give, but he wasn't pretending to be a medical authority.

**Heather** 08:27

So before we start walking through some of some of what we do see with regard to the data, the wapo The Washington Post joined the fray with this piece you can show my screen just for me to read the headline Zack, Joe Rogan is using his wildly popular podcast to question vaccines experts are fighting back. So that's, you know, one of one of the main news outlets in the United States here and I'm just going to read from my screen Zack, so you don't have to show. Show it again. two paragraphs near the end of this wapo article dated April 29. This is two days ago. misinformation coming from someone like Rogen continues to perpetuate doubts at kuleana Cotai, a vaccine misinformation researcher at the University of Washington. A lot of young adults follow him and he's encouraging people to have hesitation. Cold I pointed out that quote, no one is getting all of their information from Joe Rogan. But when his comments clashed with what experts tell us, it helps muddy the waters quote, hearing these conflicting messages from someone you might trust and someone you might agree with typically, it can potentially cause you to be concerned she said, quote, oftentimes it just ends up confusing people and making them not sure what to do. So that language struck me as so anti scientific, and, like just antithetical to skepticism. That although I don't tend to do this, certainly not on air. I just went and figured out who this person was who was being trotted out as the expert who is saying that Rogen doesn't know what he's doing. She is a postdoc at U dub at University of Washington with a PhD in quote, Information Studies. She is not a scientist. And she states on the website, the University website that she researches, quote, decision making with a focus on when people descent from the scientific mainstream. That has nothing to do with science. And that actually may exactly be the training that she has that that allows her to speak as an expert here that runs exactly opposed to what the scientific method is, she may well know what information is, and, and what it looks like when people start to disbelieve things that most people believe to be true. But disbelieve in what most people believe to be true does not mean that those people are themselves wrong. I don't think that she I see nothing. And I spent just a little bit of time with her website, indicating that she actually understands what the scientific method is. And I'm not saying that, you know, if I put her in Joe Rogan in a room, and ask them to define the scientific method, that one of them would obviously come out on top, but I feel like Joe is personifying on a regular basis, a skeptical approach to the world in which he is using largely his intuition rather than formal training, to try to navigate and he is not accepting the basis of authority. And, you know, we're being told in response, how dare you listen to this man, you must trust the authorities and the authorities are over and over and over again, demonstrating that they actually don't even know what sciences

**Bret** 11:32

right. In fact, the entire idea of taking science and marshalling against those who would challenge it is the height of unscientific, right. Everything we now believe started out as heterodoxy, right, and it comes to be orthodoxy, because it withstands test and we find out how it works. But the point is, do you really think that we're in a place where you can freeze that process now? It's like, it's God given? Right? This is a religious perspective, the scientific perspective is, you know, we don't know what of the things that we believe today we will come to discover our false tomorrow, right? But we understand that that is the pattern. Anybody who studied the history of science knows that and so yes, the idea that departing from heterodoxy is evidence of something having gone awry, or somebody overstepping the bounds or something is is nonsense on its face.

**Heather** 12:26

Now to steal man say Fauci is, and the so called experts position here, this does come down to is this an individual versus a population level analysis? Because the you know, the assessment that say Joe was doing, and that we have largely been doing when we have talked about these things here. Are, is this the right decision for you? Is this safe for individuals? And the epidemiological question is a different kind of analysis, the what, what amount of protection does a population need so that we can safely go back to normal? And you know, what is safe mean? And what is your tolerance for risk? And all of these things need to be wrapped up into that. But that is a different kind of analysis? Well,

**Bret** 13:08

it is a wholly different kind of analysis. But my claim is that we are actually not in a position where anybody gets to waive that issue. And the reason they don't get to waive that at you is because they have botched their side of a contract, right? Yeah. And believe me, I'm I'm always in this weird position where I have to explain what my own values would mean, if we were if we were navigating this the way I think we should be navigating this, we would be having a thoroughly open discussion in which heterodoxy was absolutely welcome. And people were able to level whatever challenges and be protected in so doing, and so we would have a really good understanding of what the risks of these vaccines are, what the risks from COVID are, what the uncertainties about both are. And then, once we had done that analysis, once people had hashed out the question of how do we compare the risks that come from COVID, with the risks that come from vaccines based on unknown technologies accelerated through this process, once we had done that, I do feel like society has the right to coerce people to take their share of the risk to shut down a pandemic that threatens us all. But we aren't remotely in that world. And I don't want to be told by any of these people who are busy participating and obscuring those risks that I or my children or people who know better have to take these risks, because that's simply part of, you know, our duty to society, society has fallen down on its side of this equation. And of course, the irony of ironies is that Fauci is the one telling us what our duty to society is right? Because Fauci played a role in restarting gain of function research, which it is ever clear may have played a decisive role in creating the pandemic. So, you know, frankly, you know, this I'm sure that that was an honest mistake on His part. But the fact is, some people like Fauci used to believe gain of function research was safe enough that we could engage in it and not put the world at risk of a major pandemic, it's becoming clear that that wasn't the case, right? Whether or not this pandemic is the result of a laboratory escape, it is clear that things escaped laboratories routinely and gain of function researchers perfectly capable of creating a nightmare virus. And so did it happen here we have yet to find out. But wow is factually not in a position to wag his finger at the rest of us. Yeah. Also, there's the mask fiasco where he, you know, lied about whether or not masks were valuable, and then later acknowledged, that's what he had done. So he's not, he's not in a position to do it. But if I can just reset the discussion just slightly, I want to point out that there is a hierarchy of categories. And that all of these discussions should recognize that we are being asked to move from one category to another. So actually, Zack, could you put up the risk categories for the living that I sent you? My claim,

**Heather** 16:07

can you give me one of your copies? Sure.

**Bret** 16:09

In fact, that is your copy, I printed it for you. So my claim is that there are four large categories that you could be in. The first one is you haven't had COVID, or a vaccine, that's the category you and I are in, and that one carries no risk in and of itself. And an unknown ongoing susceptibility to COVID risk, that is to say, You are the risk is zero of not having a vaccine and not having COVID. And the risk of getting COVID is unknown.

**Heather** 16:41

So this is very unclear to me. I think I know what you mean. But obviously, if you haven't, if you're not protected from COVID, COVID, as we have said many, many times is a dangerous disease. Yes, there's no risk. I mean, there's not no risk No,

**Bret** 16:53

well, I think this will be clear, okay, go through it. The point is, you're not having a risk from either COVID or the vaccine, if you haven't had either, you do have a risk of getting COVID, which will be destructive, and it is a very dangerous disease, but you don't have any risk going forward from your status, because you're basically you haven't been affected by either yet. second category is you have had the vaccine, but you have not had COVID. Right. Now, presumably that has a small short term risk, although I don't think we have a good sense of how small that short term risk is. And there are certainly a tremendous number of anecdote, even just among the people that we know who have gotten the vaccine have all kinds of pathologies that have shown up. And the long term risk in category two, that is to say you have had the vaccine, but you have not had COVID is entirely unknown. We don't know what the long term risk of these vaccines is. The third category is you've had COVID. But no vaccine, there is substantial short term risk from having had COVID tissue damages we have covered many times. And the long term risk from having had COVID is unknown, but likely substantial. That is to say tissue damage has an ongoing cost. And then there's category four, where you've had both. And I've had to divide this into two because the order in which you've had COVID, and the vaccine probably makes a big difference. If you had COVID first, then there might even be a benefit to those who have had what's called long haul COVID. Right? There is some evidence

**Heather** 18:25

that are some anecdotal stories of people getting recovering from long haul coal, but after getting a vaccine, right,

**Bret** 18:31

which I should say in passing, I think implies that long haul COVID is an autoimmune disorder, right? Because if if you have autoimmunity, your immune system is now attacking your tissues having cleared COVID, but it still thinks there's something there and it's attacking you. And then you flood the system with spike protein generated by the vaccine that may occupy the cells that are otherwise attacking your tissue and give you relief. Okay. And then category, the category four, you've had both but you had the vaccine first, then you will have greatly reduced COVID risk. That is to say we believe from the data, we have seen that COVID is less severe if you get it having had the vaccine and that means less

**Heather** 19:21

likely to get it and it's less likely to be severe if you do get it right.

**Bret** 19:26

And that yes, less likely to be severe. So you probably have a reduced long term risk, though. We don't know that for sure, either. Yep. Okay. My basic point here so I will

**Heather** 19:35

say I just I think it's I think it's guaranteed that that screenshot is going to be taken out of context of the conversation and the idea that haven't had covered vaccine is no risk is nothing that you actually believe and that that is I wish you hadn't written that on this piece of paper because that's not what you mean. Yeah, I

**Bret** 19:54

absolutely do not. I as we have said many times and as I have said to Joe Rogan, I believe on his own gram, the fact that COVID is less deadly than we once thought is misleading people, it's a very dangerous disease on the basis of tissue damage. And it's robbing people of years of life in all probability, if everything we understand about physiology and tissue repair is true, and the significant damage it does is very harmful. And you definitely want to avoid COVID. That said, we are in a situation where without the ability to know what the long term consequences are, you do have to ask a question about for whom is it worth taking the risk of the vaccine and that's the thing that that Joe was addressing. So

**Heather** 20:41

before we go to the economist things you you just brought me at the very last minute I have not seen yet. So can we just show the CDC tables and study something that is easy to interpret, and it's not interactive. So Zack, you can show my screen, which both Brett and I are familiar with already, this is a chart that the CDC updated February 18, of this year, risk for covid 19, infection, hospitalization and death by age group. So they are they've split age groups into several have different different spans, which is weird, right? zero to four years old, five to 17 years old, 18, to 2930, to 3940, to 4950, to 64, why they expand the the number of years as we're getting older, and as the risk is getting higher, I don't understand like this, this is a strange, strange table. And then there's three categories, cases, risk of risk of getting it in each of those age groups, risk of hospitalization, each of those age groups, and risk of death. And each of those age groups. And as we've said many, many times, focusing only on death is not the right way to think about the true risk of this disease. And for the purposes of this table, they have used the five to 17 year old category, which is too broad, but the five to 17 year old category as the reference group. So that's sort of that's that's default. That's that's one. And what you can see, for those listening only and not watching is that interestingly, cases increase the older you get above 17 years old, in until you get to 65 to 84 year olds, and then it's down again. So I don't know what that's about.

**Bret** 22:25

Well, it could be that the cohort is small, I don't know how what the methodology was,

**Heather** 22:30

well, its ratios. It's not it's not absolute numbers. But but the two other the two other metrics that they're using here are hospitalizations, and deaths, which follow exactly what we all know, everyone who hasn't been under a log for the last 14 months knows, which is that the older you get, the greater your risk of hospitalization and the greater your risk of death with for instance, in just for hospitalizations, 18 to 29 year olds are six times at risk is five to 17 year olds, the next age group is 10 times then 15 and 2540 6595 times the risk for 85 plus year old people and it's for death, it's 8700 times the risk. But before you say something here, what is also interesting is that the very young, zero to four year olds actually have a higher risk of hospitalization and death from COVID, only twice, but then do the five to 17 year olds, okay. But

**Bret** 23:26

I have to say this chart has me jumping out of my skin, I cannot think of a justification for having put it together this way, it is absolutely misleading and in a direction that we are now being scolded with. And I believe it, you know, I cannot establish be could just be ineptitude that caused this. But the idea of these broad categories, in a case where you have not even a linear relationship in which the hazard goes up with time, but an exponential relationship, the idea of grouping five to 17 year olds, making them the reference category, and then deriving an 8700 times risk from that reference category that's basically using the fact in this is a scary table. But in fact, what it says is that the number is very, very tiny in that five to 17 year group. And the fact is, five to 17 years is a weird jump to have made so the I don't I don't know what's misleading that back when we were in graduate school. I did a joke survey you may or may not recall, we were in the field. And my joke survey in Costa Rica, Costa Rica. What I did was I did a survey to see what the density of non avian dinosaurs was per hectare in a study area. And the way I did my study was As I had categories, I would count the number of non avian dinosaurs. And I had a category if a hectare had zero to five, I ranked it as 2.5, etc, right? And then it turned out that there were an average of 2.5 dinosaurs per heck there.

**Heather** 25:19

We that's, that's hilarious. But I don't see how that this this table chart and even know what to call it. This this table, yes lumps five to 17 year old people. And we know that we can get greater granularity than that. And the five to 10 year olds are at significantly lower risk than the 10 to 15 year olds, for instance. But but there's nothing that goes counter to those numbers here. We've just in case we've just got to collapse categories that are very, very soon

**Bret** 25:50

a sophisticated person can figure out what this chart does and doesn't mean and what it does mean is that they've effectively done surgery with an axe, right? Those large categories don't have to be there. It doesn't add clarity. And in fact, you can see if you go to the economist as an alternative way of viewing this kind of information.

**Heather** 26:09

So I'm not vouching for this because I have not seen it. You just literally sent it to me. So scroll up. sec, you can show it.

**Bret** 26:19

Okay, that chart. Okay. This chart gives you enough granularity to see what the risks are.

**Heather** 26:27

Right? What so people are some people are just listening, what what are we looking at what

**Bret** 26:31

we are looking at it, scroll back out, scrub back out, you've estimated COVID-19 risk if diagnosed in the United States. And what we have is a curve it's not perfectly smooth, but we have a curve. And you can see risks are extremely low, you can switch between males and females. Right? So at 21, go to 21, you have about a 1% risk of hospitalization. So this is the exact number that

**Heather** 27:04

Joe Rogan was talking about for men, and it's way low, it's lower for women. And then you

**Bret** 27:09

can move by age, and you also can add medical conditions as you want. Interestingly, I think I added asthma just to see how it worked. And the numbers drop. I've also heard that it so that the result, this

**Heather** 27:23

seems this seems cool. It does not allow us, you know this, this has hospitalizations and deaths, and it doesn't say how likely you are to get the thing in the first place, right. Which is what the CDC graph table did show,

**Bret** 27:38

right. But that CDC table creates, I believe, a false impression on the base of making giant categories for no reason. But my point here is that the granularity of this allows you to see how steeply your risks go up. And so if we're going to wag our fingers at Joe Rogan, we need to understand that what he said, requires us to take the condition of a healthy 21 year old right to give them an unknown risk from an from a unproven technology. At that age, not only are they taking a risk of an unproven technology, but their lives are going to be longer. And so the time in which something can go wrong is that much greater, as we've discussed here on Darkhorse multiple times. And so the point is, if all Joe said was that if he was advising a person at 21, whether or not to take the vaccine, if they were healthy, and they weren't going to take stupid risks, he would advise against it. And whether or not that is the right advice. It is certainly fair for a person or that person's parent, I mean, I guess a 21 year old is old enough to decide for themselves, but that person has to be able to judge what is the risk that I'm going to do my self harm with a vaccine that I would not suffer if I if I stayed away from the vaccine? And so that is a reasonable question for us to ask. And again, if some panel that was completely immune from perverse incentives, and well positioned to see all of the data and to look at the patterns was to say, actually, we don't know what your long term risk is, but here are the reasons we think it's low, here are the risks we think you suffer, you know, of both getting COVID. And if you get COVID, what the consequences are, and here's why this is either better for you, or if it's somewhat worse for you it is a manageable level of worse and the advantage that comes to society of nobody being downstream of you who gets the disease, which mind you isn't even the case it's not like these vaccines are perfectly effective at keeping people from getting and passing on COVID though they do appear somewhat effective. So, it is a reasonable question to ask.

**Heather** 29:50

Of course it is. It is you know, as you just alluded to, it is constantly a struggle to Get the conversation to toggle explicitly between into individual level decisions and what is best for society. And, you know, broadly speaking, the people on the political right tend to focus on individual level rights, and the people on the political left tend to focus on population level level rights. And, you know, we have been arguing as people who have long been on the left that of course, we need to be doing both, that we have responsibilities to each other, having gotten rights from society, we have responsibilities in return. And we also exist as individuals, and what what the scientific method is very good at and what you and I are very good at is assessing. In this case, individual level risks, and the population level analysis is tougher. And I have yet to see a careful a careful explanation of what is going on to make the recommendations what they are, as opposed to simply let's let's bludgeon the populace with the sense that if they don't do this, there's something wrong with them. And they simply must, there are there are plenty of us out here who would like the information and are not interested in simply taking it on someone's authority, especially someone who has reliably demonstrated that their authority is not particularly reliable?

**Bret** 31:22

Well, but I think I think my point goes, one step beyond that, which is what we can see of the analysis so far, tells us that nobody has the information to balance these concerns. Right? If they have it, it's private, we haven't heard it, right? Well,

**Heather** 31:38

that's, that's my point that I, I want, I want to have access to that information.

**Bret** 31:42

Right, it would be great to have access to that information. But knowing that we don't, right, knowing that what we have is the pretence of vaccines that are safe, when there is at least a large unknown risk of a long term hazard and that that is not being discussed, we are forced to default into actually protecting our personal well being, if we haven't been given the information to say actually why why is it that I as an individual, I'm taking some risk, I'm doing it, because collectively we need me to do it. But if I can't calibrate the value and can't calibrate the risk to myself, then I'm justified. And in fact, I would say we've got to two liberal things against each other. On the one hand, we've got the, I think, justifiable focus on collective well being and having to balance it with individual well being. But we also have the precautionary principle. And the fact is, we are effectively being shamed out of applying the precautionary principle to our own well being in order to make this all work out. And at the same time, actually, Zack, what you put up the thumbnail for crystal ball from the hell. So this is just one more piece of information in the stream. But crystal ball had a very good piece this week on Bill Gates and his insistence that patent protections be maintained that effectively pharmaceutical company patent protections be maintained in order to keep the flow of resources going, even though that surely means fewer people are going to end up vaccinated and in fact, her accusation is that bill is lying that he claims there are no facilities that could be brought into creating vaccine if the patents were relaxed so there's no benefit to doing it and in fact that is absolutely false. There are apparently so what we've got on the one hand is business as usual taking place in pharma land, you know, we have public financing of the research that creates these things and then we have the privatization of the profits and we don't have a footing as you might get during a war where factories are brought in to the national interest in our making weapons or something like that. What we have is the pharmaceutical industry continuing to practice it's it's business as usual, in spite of the fact that it will cost lives if these vaccines are the lifesavers that are being claimed. So we are being told we have to take risks that cannot be calibrated when others are not showing that this is you know that all hands on deck moment and that they are doing the same with their business profits. It just doesn't add up.

**Heather** 34:29

So apropos unknown risks. This just came out from the Salk Institute yesterday. You can show my screen just for me to again read the headline here, Zack, the novel Coronavirus is spike protein plays additional key role in illness. Soc researchers and collaborators show how the protein damages cells. Confirming COVID-19 is a primarily vascular disease. So that was posted on the Salk Institute's website yesterday and they refer obviously As you would expect them to, to the paper that was published, but the paper doesn't seem to be accessible in through any of my normal normal routes. And I don't know why that is I'm not going to hypothesize about that here. But because the, the sort of lay audience explication of what this is, is coming from the Salk Institute as well, I find it a reliable source in this case. And, you know, so what they say is, and this is just a quote from that, that page that I was just showing, in the new study, the researchers created a pseudo virus that was surrounded by SARS covi, to classic round of spike proteins, but did not contain any actual virus. exposure to the pseudo virus resulted in damage to the lungs and arteries of an animal model, proving that the spike protein alone was enough to cause disease. tissue samples showed inflammation endothelial cells lining the pulmonary artery walls. And then later in the same article, they say this is the first study to show that the damage occurs when cells are exposed to the spike protein on its own. Everyone who's been paying attention knows that every one of the vaccines that is being deployed not just the mRNA vaccines, but also the DNA vaccines, uses the spike protein. And if this research holds, again, this is animal model, I can't see the original research this just came out. It was it isn't a peer reviewed journal. But you know that all those caveats, if this holds. This right here is reason to be concerned about the kinds of vaccines that we have right now. Many of us are hoping that there is a traditional vaccine under development, which I would get in line for right away. But the spike protein itself, researchers at the Salk Institute have found now is causing disease is partially responsible of causing the disease known as COVID. That is a bombshell.

**Bret** 36:52

Yeah, it's an absolute bombshell. And, you know, there are a lot of different mechanisms that could be in play here, it could be that the spike protein, so I do want to eventually see that paper, of course. But, you know, it could be that the spike protein is triggering the immune system to do this damage, which would explain you know, it's interesting that the list of symptoms that they found in their model animal is very similar to some of the worst symptoms of COVID. And some of the most deadly. And but you know, what people need to understand is that the the whole trick, the reason that this vaccine, which is a marvelous technological or these vaccines, which are marvelous technological achievement to have gotten them so quickly, the way they work is they take the message for spike protein, they isolated from everything else, and they get a mechanism to deliver it to the cell, and then your cell produces spike protein. So basically, we have a synthetic virus like entity and nanoparticle covered piece of mRNA. that triggers you to produce spike protein. And now we know that at least in a model organism, and that model organism is sure to be a mammal.

**Heather** 38:01

I'm looking for it like it is a mammal, you keep talking, yeah, figure out what

**Bret** 38:05

it is doing the damage of COVID, all on its own. So, you know, that's a very surprising result. what one wants to compare it to is what we've been saying from the beginning, which is We hope these vaccines work really, really well. But you are walking into a complex system and imagining that it's a simple system. And the range of things that could go wrong here is huge. So I hope that, you know, frankly, I hope that research is wrong due to a very devastating result if it's true,

**Heather** 38:40

very much. So. Yeah, I I'm not finding I saw it when I was looking through what I could find earlier, I can't figure out what the animal model they used was, but it was a mammal, it was it was a rodent of some sort, I think,

**Bret** 38:53

probably going to be a mouse, but I don't remember. All right, so let's just say the individual versus collective analysis is important. And the question is whether we are in a place where society can force us to behave in what it claims is the collective interest, which in this case, it may not be and I would point out, for those who have not looked at my podcast with with Garrett Vanden Bush, the his argument is that this is actually going to make the pandemic worse. Now, again, I didn't know that and I still don't know whether he's right. I will say, given that something more than a third of the US population has been vaccinated, and yet we are seeing an increase in cases, one has to wonder what's going on. We're also seeing an increase in variance but you know, the data is noisy, and I think it's going to take time to figure out but

**Heather** 39:57

I also want to start seeing the data on Especially in the places in the world and in the country, where cases are increasing. What the ratio, you know, if if there are as few breakthrough cases for vaccinated people as we are being told, or if, for instance, new variants, you know, people who are vaccinated are at risk for new variants, and they are a surprising percentage of the people who are getting sick. I don't know if that's the case, but I have not seen the analysis and I haven't been able to find it, right.

**Bret** 40:28

So what I've seen is I've seen Gert, demonized and portrayed as having a financial conflict of interest, I should say, I contacted him to ask him about that he does not apparently have a financial conflict of interest, there is an old pattern which did not go through. And so as long since dormant, but he appears to be acting out of his belief. And he also sent me I should say, a long list of predictions if his model is correct, he would expect to see these things, you know, behaving exactly as a scientist would behave in such circumstance.

**Heather** 41:00

And so I guess, my guess is he also hopes he's wrong.

**Bret** 41:03

He does. In fact, he says that multiple times. He doesn't want to be right, because

**Heather** 41:07

we're being cautious and skeptical here of these amazing new miracle cures, hope we're wrong to be skeptical. Not Not Not that it's an error to be skeptical, but hope that the skepticism

**Bret** 41:21

out that our fears are not warranted. Yeah. It's a very uncomfortable position to be and it's one, you know, frankly, the good scientists have to learn, nobody is born wanting to be wrong, right? That is not a normal state. But But anyway, it's it's one you learn, I will say, I do have the sense that we are watching. I haven't come up with a good name for it yet. But effectively, there's a thing, the good people game, right. And the good people game is like a massive online game. Like it's literally a massive online multiplayer game. And the idea, you know, there's a version on the left, and there's a version on the right, and at the moment, we are seeing the version on the left, which holds so many properties that you know, it effectively owns the whole territory. But the idea is that the good people game, that good people can be recognized by certain things that you can just simply spot them, you know, that good people will get their vaccine, and they will boast about their vaccine status that they will wear masks whenever they can be observed. They do not question COVID origins, they treat discussion of the financial incentives of vaccine producers as forbidden. They believe that science is reducible to a list of clear answers which you just simply follow. They punish anyone who discusses vaccine safety in anything other than glowing terms. And they place greater good signals above the well being of their own children and family. And frankly, I'm sick of it right? I feel like the good people, the ones who actually care about science, are all permanently in a state of trying to sort through the nuances of these things. And what the good people game effectively does is it rules out the very territory that we have to go to right, you have to be able to say, Hey, Joe Rogan, you might be right about a 21 year old who's healthy, you're not right about COVID not being a dangerous disease, right? You have to be able to say that, and to the extent that the idea is Oh, no, no, no, you've expressed nuance, you're not one of the good people, you're one of the bad people, then of course, we're going to end with a disaster of one kind or another, whether it's of the sort that Gareth Vanden bush is predicting, or it's, as a result of unforeseeable autoimmune disorders that arise out of these vaccines, or who knows what it's going to be. But in effect, we have to have a much more open conversation, which isn't going to be comfortable for people, but it's the only way to get to a decent outcome.

**Heather** 44:12

That's right. And, you know, it changes this week, the good people have stars on their bellies, are they the ones without? It goes back and forth, of course, and it's not about actually understanding what's what's true. And what's best for us. It's about signaling. And I think unfortunately, what follows from that is good people get the vaccine without questioning and even in their heart of hearts. And a vaccine passport is a way to actually signal that and so part of the reason I think that people so many people on the left who wouldn't be normal under normal circumstances pretty anti authoritarian are saying, Well, of course we should have this like well, so that's that's your public signal to the world. that you did the good people thing. And there are a lot of us who are saying, actually, I assume that most people are going to get vaccinated. But that thing, I don't want the government having that thing in an app on my phone and having the information and, and, and, and all of this. So Oh, boy, there's just there's so much that follows that falls downstream from what you just said about the good people. And I would say, I guess, like maybe we won't talk about we're going to spend some time on relative risk reduction versus absolute risk reduction. Maybe we'll come back to that. It seems like we sort of moved on from that. But I will say I think

**Bret** 45:40

it's actually can I persuade you to go there? Because it's,

**Heather** 45:43

well, let's go this other place first, okay. I feel like we've become a society of active, like enforcement officers for drug pushing, but only some drugs. And this is this, this is part of it. That's really driving me crazy, right? Like, you know, you You must, you must have these one of these new vaccines, despite the fact that there literally cannot be long term safety data for them. You must agree that puberty blockers and cross sex hormones for children and young adults are safe or else you know, you're not a good person. You're not one of us. But we can't, we can't talk about ivermectin right, and we can't talk about ivermectin. It's not vetted, even though it's been around for decades and has a great safety track record. So here's, here's, again, Washington Post on April 18. of this year, as I just show it briefly. A article with the headline supporters tout anti parasite drug is COVID-19 treatment. But skeptics call it the new hydroxychloroquine. at NIH trial may subtle debate over ivermectin officials warn people not to take animal formulation of the drug Wait, so they misspelled Trump. Well, so that's the thing. Get this and you're gonna love this. Here's a quote from the end of this article, again, dated April 8 2021. It's like the new hydroxychloroquine said Angela Rasmussen of neurologists at Georgetown University Center for Global Health, science and security, referring to the malaria drug pushed by President Donald Trump that proved ineffective against COVID-19. Quote, it would be great if ivermectin did work, it's been around for years and is cheap. But to my knowledge, there is no data that suggests it's good for COVID-19 Rasmussen concluded. Wow. So logical fallacies are now being employed like against drugs aren't even against arguments. Now, I don't even know which one this is. It's like,

**Bret** 47:38

it's guilt, right chemical category. Like it's,

**Heather** 47:41

there's like two steps of guilt by association, one of which isn't even a person, right? But you all you have to do is like, vaguely gesture in the direction of Trump and like, Well, no, you don't want to get anywhere near that, do you? So we're supposed to, we're supposed to accept cross sex hormones for 16 year olds, and vaccines that are brand new on the market as 100% safe, and you're crazy if you say they're not, and not not consider a drug that's literally been on the market for decades, and has years of efficacy data, not for COVID-19. Because COVID-19 is very, very new. But the idea that it is harmful is very, very, very slim. So

**Bret** 48:21

I will just say you have pointed out on a previous podcast, the perverse financial incentive, and the massive benefit potentially to pharmaceutical companies of pushing the idea that it is morally right to not only allow but basically insist on puberty blockers for kids who express any any sort of trans tendencies or arguably trans tendencies. And here we have, you know, pharmaceutical companies with an obvious perverse incentive, you know, partially their research is publicly financed. But they benefit massively from a program that we all have to participate in or we can't travel. This is becoming absurd, right? So my sense is, look, if you want me to accept the idea of a vaccine, passport, I'm all yours. But I'm not doing it if the people pushing it are financially incentivized to ignore hazards that are obvious, right? those hazards are there, right? How bad are they? We don't know as you and I have been saying for months. But

**Heather** 49:31

we're not it's possible that no one knows. But we are not allowed to No,

**Bret** 49:36

we are not allowed to know and I'm really hoping we get back to that relative versus absolute risk paper, which I only read through at once, but I was pretty stunned by it.

**Heather** 49:51

Okay, let's let's just do it briefly. So we got these concepts of absolute risk and relative risk. absolute risk is the total risk of a given thing occurring after all the risk factors and confounding variables are summed up, for example, you could sum up your lifetime risk of using COVID based on the incidence and prevalence of your demographic, relative risk is different. And for these vaccines, we are we are hearing about relative risk reduction rather than absolute risk reduction, relative risk is different relative risk is the risk of a given thing in comparison to something else, for example, your risk of developing COVID if you get vaccinated compared to if you don't get vaccinated. So when that's it, there's just a lot of places we could go here. Um, okay, how about this, so there's a paper out, you can show my screen, I think, Zack, let me get it bigger here. Outcome reporting bias and COVID-19 mRNA vaccine clinical trials by getting Ronald Reagan and Ronald brown came out February of this year, he has this graphic at the top of page three, which is just that the numbers are made up, right. But this is just his visual. And I'll try to describe it for those of you just listening of the difference between relative risk and absolute risk. The idea is, you've got a population of people who've taken the vaccine, and in his hypothetical, one person who took the vaccine out of 100, ended up with the disease. And in his hypothetical of the 100, people who took the placebo, two people out of the 100 got the disease. So with those numbers with those made up numbers, the absolute risk reduction would be the difference between those two numbers in both cases. Basically, a pointer to minus point one. Oh, actually, he doesn't have he doesn't? This isn't as clear as I thought it was. The absolute risk reduction is we really needed to walk through this more in depth in the place where we're trying to do it. Brett, can you help me out here?

**Bret** 52:08

I can't even see it. So

**Heather** 52:11

what we what we have is with regard to absolute risk reduction. Or I can just I'm just getting myself confused here. Yeah, the absolute risk reduction is for his numbers 1%. Whereas the because that's out of the differences to minus one people who got it out of a population of 100. And the relative risk reduction is one person got it from the vaccinated group versus two people got it from the unvaccinated, but placebo group, so that's one in two. So 50% relative risk reduction, and this paper, so that was a terrible explanation. I'm sorry about that. But this paper, he then goes to the math, and I did not have time to check all of his math here. But he arrives at these numbers here with regard to what he has done before I show this. What he has done is he has taken the numbers available from the clinical trials for both Pfizer and moderna vaccines. And, and said, Okay, well Pfizer reports 95.1% relative risk reduction from using the Pfizer vaccine. But the absolute risk reduction given the numbers is 0.7%. And the Madonna vaccine madana reports in 94.1% relative risk reduction, but calculating the absolute risk reduction from their own clinical trial data, you get a 1.1% absolute risk reduction. So Zack and I have my screen back, I think if I could see my notes, I might be able to do a better job here. And

**Bret** 53:49

so there are two up shots that I thought were very important here. One is apparently both numbers are required to be reported. But somehow there's an oversight here and we're only getting the more dramatic number which supports the application of the vaccine. But more importantly,

**Heather** 54:07

you don't again, I'm not I'm not sure I object to one number only being reported because most most people do not are not paying attention anyway, etc. But But I mean, I want more transparency around words like effective we are being told 95% effective, right? And if we were told 95% slash point 7% effective depending on whether or not you're looking at relative risk or absolute risk reduction, then people are gonna start to go Wait, what? And it's that Wait, what moment that our public health officials and our government don't want us doing our public life without more information we need to be allowed to do that

**Bret** 54:44

our public health officials and pharmaceutical companies with a perverse incentive right so my when I say that they're required to I mean, in the filings for these things, they are required to report them and so this paper I read as alarmed that this number that should be available to those who want Dig and find it is not easily available. And the other thing, though, the really important thing is that if you are trying to calculate whether or not to take an unknown risk of a long term harm, you know, there's some short term risk there's some people have died. It's not a large number, but some people have died. We've had blood clots, I've had people report to me very severe local reactions near injection sites. But if you're trying to decide whether or not to accept those risks, what are you going to compare it to? The point is, which of those numbers is actually a more reliable guide to the value because what you're really trying to do is compare a value of the vaccine to a risk that comes with the vaccine. And

**Heather** 55:45

the so the value to you as an individual is much lower than it would seem, but the value to the population is a better match for the relative risk reduction number, which is what we are seeing, and I will cite. So I will also post both that paper. But also this since you can just show this this blog post called the blog is called cyclical modeling causal inference and social science. And this particular post from the 12th of April of this year, relative versus absolute risk reduction. 500. doctors want to know, this guy writes, I think, a fairly compelling argument for why Yes, we absolutely do need to, to be to be made aware of absolute risk reduction. But I don't think that this changes the analysis. And he actually does a much better job of describing the distinction between the two, then then I did so I think we got there. But I mean, I, what, what I want is for everyone who is interested to have access both to that paper, that paper that I was showing images from and this blog post that is saying, Yeah, here's what the paper says, and there's nothing new here. And the argument for the distinction between absolute risk reduction and relative risk reduction is that you could learn on Wikipedia, that's fine. Nothing shameful about repeating stuff that is sort of common knowledge for statisticians. But I don't I, the author here doesn't think that it changes the the overall decisions that people should be making, that's fine, as long as we're informed, right. But we are not properly informed. We

**Bret** 57:17

are not properly informed. And we are also in a position where the pharmaceutical industry has corrupted government, it is teamed up with tech platforms, and everyone has decided for us that the risks that you and I no one has to be worried about, because they are not. So they're not negligible, that those risks are overblown, and that only bad people talk about them. You know, it happens that they don't seem you know, they don't seem to like drugs that they don't stand to profit, great deal from. And so the point is, Oh, those drugs are not promising, right? And so how many of these things would have to go in this direction where, you know, okay, Bill Gates is an authority on vaccines, he really is. But he's also lying to us about the capacity to produce more of them if the patent structure was altered for the purpose of the pandemic. Okay, that's interesting. Fauci, you know, who has demonstrated a willingness to lie to us about masks, and has also demonstrated rotten judgment with respect to gain of function research is now telling us in the clip, I didn't show you the Fauci clip, but he talks about the fact that we're going to need to vaccinate children? Well, there are reasons you wouldn't want to even if this vaccine thing was safe enough for us adults, there are multiple reasons why as the risk of serious COVID drops off with kids, you might want to exclude them, one, they're still going through development, you could be impacting their development in a way that wouldn't put us adults at risk, but we'll put them at risk to they're gonna live longer. That means the downstream consequences of something we don't know about these vaccines is that much greater. Three, the value to them is much lower if they're not going to get particularly sick from COVID. And so, you know, the relative degree to which that risk is not warranted in their case, is substantial. So they're telling us a conclusion, to the extent that we can check their conclusion. It doesn't add up to the extent we can check their perverse incentives, they're all over the place. So, you know, at what point do we get to ask the question, you know, yes, we have a real, you know, pandemic. It's a medical phenomenon, and it has medical implications. And yes, we can't be completely free to choose for ourselves, whether to wear masks in a place where the disease can be transmitted or whether to get a vaccine if it's actually safe enough. But in light of all of the shenanigans that have been deployed over these very questions, at what point are we entitled to protect ourselves from bad information coming from every channel. Alright, I will get off my soapbox at that point.

**Heather** 1:00:06

So we're at over an hour already. And you want to talk about Portland, maybe we can do that briefly, briefly. A little bit on race and a lot on nature.

**Bret** 1:00:18

Okay, so I feel an obligation for us to talk about Portland. The reason we talked a bit about Mayor Wheeler having done something unusual last time, which is he stood up and said that the anarchists who are breaking the windows of businesses and setting fires and all have to be in his words, unmasked and arrested. The nr kiss came back this weekend, I don't know the anarchists but someone among the anarchists, a self declared member of an Tifa put out a video in the style of anonymous. But this was actually quite different than any anonymous video I've seen before. Zack, do you want to show it? Yeah.

1:01:05

I can't use a small collective from within the anarchist and anti fascist community. But I speak for the whole as each individual may carry different ideologies and beliefs about how things could should or will be accomplished. We hope with this message to simply convey a few points that are commonly agreed upon within this community. The mayor of the city is undeserving of his position, he has made it abundantly clear that Windows to him are more important than human life. So we are not just challenging the idea of having 10. As a mayor, we are challenging the idea of having mayor's that all we want abolition, abolition is absolute. If peaceful marches, speeches and voting were enough to bring about that goal. And we would have already been there window smashing, and riots are a necessary escalation, when those in power have proven that they are unwilling to listen and have made the choice to ignore you. We are moving with a sense of urgency, because not only is the system destroying us, it's destroying the very planet that we live on. This movement encompasses the liberation of all those oppressed by the system, whether it be black, indigenous, Hispanic, we cetera. Nobody owns this movement. and wanting to we're trying to claim ownership of this movement just leads to more division, which is counterproductive to all of our goals. We are on the same side, though. And the more time we spend fighting each other, the less energy we have to fight the true enemy. So let's start local, with our own cities failed leadership said we're asking for the last time that you resigned, if you ignore this message outright, the destruction to your precious way of life is going to escalate blood is already on your hands. The next time, it may just be your own.

**Bret** 1:02:58

Okay, so what you've just seen his video in which Ted Wheeler is threatened at the end, and doxxed, the video that we showed had his address blurred out, but But anyway, this is quite serious stuff to have anarchists threatening your mayor and police chief. And I'm very much hoping that that Mayor Wheeler will stand his ground. And I think that this is evidence that he needs to actually increase his commitment even beyond because obviously this is a response to his saying that they need to be unmasked and arrested. And if they're going to up the ante by threatening public officials, then obviously, capitulation would be an insane thing to do. And, you know, anyway, I hope he has the courage to do what must be done. But the other thing is, this has not been widely reported. Yeah. And that I find absolutely stunning.

**Heather** 1:03:53

There was a death threat made by a bunch of anonymous thugs against a sitting mayor of a major American city and they say if I remember correctly, we're not just challenging the idea of having Ted Wheeler as mayor we're challenging the idea of having mayor's at all we want abolition, they just keep on saying it, you know, they they're really not pretending. And no, this isn't the same. You know, this, this isn't the 1000s of people who were showing up for the daytime protests. But this is some of the same people who stuck around night after night and you know, the destruction downtown has is experiencing a Renaissance. And then yo and here we go and into the middle of us into the middle of this fray. So you reported on wheelers, standing up to them, saying that they needed to be unmasked and arrested last week. And in response, one of our city councilman has chided him. So here we have from Willamette week which is our local free news weekly. Hardesty Joanne Hardesty is the council person in question. Hardesty says Wheeler must hold police accountable. If he wants an end to destructive marches, in chiding Wheeler Hardesty waded into an ongoing civic debate about Portland policing, and the nighttime protests by a group of roughly 100 leftists. So I will say that that, you know, that sub headline in particular is just full of I would say beyond imprecise but inaccurate language as well. Nighttime protests, ongoing civic debate. She chiding him, and I used that word when I was introducing us, but here we go. Just the first paragraph. Portland city Commissioner Joanne Hardesty issued a measured rebuke. That's more accurate Wednesday to Mayor Ted wheelers call for a crackdown on Black Bloc marchers who smashed windows, saying the city shouldn't expect peace until it disciplines police officers who thrashed protesters last summer. This is a city a sitting city Commissioner who says the city in which she has a seat should not expect peace. Intel. Police officers who thrashed protesters last summer are disciplined. Now I am unaware of thrashing. That happened. And there will be plenty of people who say oh, here's a video here. Like, you know what, we covered this in more detail than I care to. But I am I am not compelled that the Portland Police or the the feds when they were allowed to be here. Did thrashing. You're in Portland. I'm not compelled.

**Bret** 1:06:26

Yeah. No. And of course everything here is turned on its head cause and effect wise, this was going on long before the LM protests long before George George Floyd. Yes. You know, and I think again this week, the anarchists of what was going on long before George flake of the anarchists in the Pacific Northwest,

**Heather** 1:06:45

right. But But this wasn't No, no, this is not going this

**Bret** 1:06:48

is new. But my point is the idea that the precipitating event is the thrashing of the anarchists by police is absurd, especially in the larger context. And you can see this in the fact that when we arrived in Portland, they were already periodically taking over intersections and what would the term be harassing drivers threatening them happen again this week? Yeah, the point is, is the same old same old being portrayed in a context that generates sympathy on some fronts, but you know, the smart people aren't buying

**Heather** 1:07:22

it. Yeah. Okay. I seem to have spent more time than I usually do on the washington post this week, because I have another Washington Post article just published right today. Why isn't it not clicking through for me? There we go. Okay, so I can just show my screen for me to read the headline. opinion. This is an op ed published today in wapo. Kamala Harris has to walk a tightrope on race. This time, she slipped. So that got my attention on the washington post things Kamala Harris slipped on race. Paragraph two reads, it all started Wednesday night with words of another black political figure while delivering the GOP response to President Biden's address address to Congress. South Carolina Senator Tim Scott said flatly that, quote, America is not a racist country. The predictable backlash sent Scott rushing to Fox News to whine that black people on the radical left were being mean to him because of the color of his skin. skip ahead, one paragraph paragraph four in the same op ed. But republican denial is a familiar story. The plot twist came when Harris second and Scott no i don't think America is a racist country. She said on Good Morning America the next day. Our vice president said she doesn't think this is a racist country.

**Bret** 1:08:40

You know what? michael kinsley defines a gaffe as know when a politician tells the truth.

**Heather** 1:08:49

Well, I don't I actually, I don't know if Harris thinks it was a gaffe. I said off script because that was my imagining, because certainly that is not the that is not the rhetoric that we heard from her during the campaign. No, at all. But that is like that is one of the few hopeful notes that I find this week of like, she said, what now on national television, that, that strikes me as potentially very good news. Well, I mean, you just don't like good news.

**Bret** 1:09:18

There's a there's an album for people like me, is that yeah, I think the title is good news for people who, like bad news or something like that. So Modest Mouse anyway. The problem here is the the person in question is cynical, and yes, maybe she's come around to speaking the truth. You know, it's not that there's not racism in the country, but it's not a racist country. And, you know, we do better over time. But I don't know, recently. Yeah, well, all right. But I'm not sure what how to feel about Kamala Harris saying true things all of a sudden, it's like well, what have you just put us through Well, what kind of danger Have you just put us in by pretending otherwise? And you know, I do wonder if at some level, I mean, you saw james carville this week said, effectively wokeness is a problem and everybody knows it. Right. So behind the scenes, there's some sort of discussion going on and this could be part of a planned change in posture which would be positive but for the fact that you know, as we said during the election, you basically have the blue team cynically playing footsie with with wokeness they won't be able to control it, though they think they can. So maybe this is even Yep. next phase. Okay.

**Heather** 1:10:42

Actually in in conjunction with the Carvel quote, or whatever that does. That does dampen my enthusiasm a little bit. I can always rely on you for a good cynical take

**Bret** 1:10:57

out Well, thank you. Kind of.

**Heather** 1:11:01

So sort of related, maybe ish, the AP, the Associated Press reports, and you can show my screen here, Zack, I don't know why we're just hearing about this. Now. This is from July 20 2020. But I just ran to it this week. And I saw some other people were to AP says it will capitalize black but not white. After changing his usage rules last month to capitalize the word black when used in the context of race and culture, the Associated Press on Monday said would not do the same for White. The AP said white people in general have much less shared history and culture and don't have the experience of being discriminated against because of skin color. So okay, don't have the experience of being discriminated against because of skin color. True. So irrelevant to the question of capitalization. Obviously, the first part of the sentence, white people in general have much less shared history and culture. I can't even read that sentence with, I don't know combination of like laughing and rolling my eyes and wanting to slit my wrists or something like my god, did these people not understand basic, basic truths about who we are and where we came from? And oh, by the way, like, Europe and Europeans created a culture that actually has meaning. And yes, it's a lot of cultures, but for God's sake, so I was thinking that we would do like a diversion into some evolutionary concepts like monophyly and paraphyly. And Pilate Finally, I think this is not the place maybe we'll save that for another time. But the fact is, we were all originally black. We're all originally Africans. So blackness is in systematic speak this, like paraphyletic group, like some of us have have changed, and we don't look black anymore. But we all originally are Africa

**Bret** 1:12:49

changed because the sun comes through the atmosphere at a steeper angle, therefore, there's less UV radiation where our immediate ancestors came from. It's

**Heather** 1:12:57

astronomical and implications and so Monday, yeah, right. Like astronomical, London.

**Bret** 1:13:02

I think in some sense, you know, you've missed the scariest part of this story. Okay. Okay. They're not going to capitalize white. Okay. In order not to capitalize white, they're going to have to keep white at the back of the sentence, because if it came at the front of the sentence, grammatical rules would force them to do it now. Wow. Your disdain is is is is radiant.

**Heather** 1:13:29

Just just now. Okay. Yeah.

**Bret** 1:13:32

I tried.

**Heather** 1:13:34

You did? I did. You did? Okay. Boy, it's one good one. Um, let's talk about nature. Yes, let nature I was hoping that we would spend the entire time today talking about nature. We're not

**Bret** 1:13:49

talking about the British Journal. You're talking about nature herself.

**Heather** 1:13:52

Now. I don't want to talk about any more scientific publication. Oh, actually, I do at one side? Of course. So yeah, actually. Let's finish with the, with the pictures. Okay. Because that's sort of the most dramatic, we got this dramatic thing that we saw this week. But we also saw a few other really cool things this week. And first, I want to talk about the thing that we didn't get to, but what's happening right now is just finishing it happens every year, which is the shorebird migration, that many, many species of birds who breed who have summer breeding grounds in Alaska and Canada, and spend the winter in the south of the southern US or Mexico or farther south. They their southward migration in the fall is much more dispersed in time there is nothing they're fleeing exactly except for an encroaching winter which comes somewhat slowly. Whereas seasonal breeders being what they are, you know, humans aren't seasonal breeders, but almost all organisms are. Interestingly actually among the, you know, the sort of closer to us in primates we get the less seasonal are breeding gets in that's also an interesting to me conversation to be had. But all the shorebird species have a limited period of time during which they can they can find mates and rate and lay eggs and raise birds and they can fledge before they have to escape again to the, to the south, and they have to meet partners. And so the timing of landing on breeding grounds in the North is really quite tight. And that means that whereas the southward migration every year, is dispersed, and if you go to any of the places where the birds tend to come through, in the fall, you'll see some but in for a few weeks, every spring at a few spots in North America, and I'm sure this is true in in Europe, Europe and Africa, for instance, as well and other places, but I'm much less familiar with that. You can reliably see 1000s 10s of 1000s, hundreds of 1000s even of birds if you go at the right time. So there are in fact five distinct spots in in North America where birds reliably come through and this this to read from this for people who like birds, I recommend this, the birders handbook a field guide to the natural history of North American birds, the essential companion to identification guide. And we've got in here marked with a book Dart somewhere course Of course. Here we go in North America, five such sites support more than a million shorebirds annually. Now this is from 1988. These numbers may have declined some since then. In North America, five such sites support more than a million shorebirds annually. Alaska is Copper River Delta, Washington's Grays Harbor, Eastern Canada's Bay of Fundy, Kansas is Cheyenne Bottoms and the beaches of Delaware Bay in New Jersey and Delaware. More than 80% of the entire North American population of some species may join ranks at any of these key locations. Virtually all Western sandpipers and dunlins use the Copper River site. And then he says the series of critical stopover sites is typified by Delaware Bay. The arrival and departure of 500,000 to 1,500,000 shorebirds within a span of three to four weeks is synchronized with the annual breeding cycle of the Bay's enormous population of horseshoe crabs bridges the eggs of the crabs that supply the energy required by the birds to complete their spring journey to the Arctic. Each evening after day long feasting on crab eggs the birds move east to roost and tidal marshes and on the outer beaches of the Atlantic coast. Coastal and wetland development have forced the birds into ever smaller foraging and roosting sites as the number of suitable areas has dwindled. on high tide nights, more than 100,000 shorebirds may be packed into a few 100 yards of beach. So I've never been there. And I You surprised me this week when you told me that you actually hadn't been out to graze or not been. But I used to last year around this time, I guess actually in Yeah, this this month last year on this podcast. I talked some about Steve Harmon, who died last year who was one of the almost founding members of, of evergrande excellent ornithologist, a man that I was actually hired to replace even though I'm not an ornithologist, and he introduced me to the Grays Harbor shorebird Festival, it's called and the migration there. And indeed later started the amazing Field Station down in Sonora, on the Sea of Cortez called Nava partea. And another Poggio which is one of the places that a lot of these birds overwinter. You can see them you can see these birds in January, February. And so this again, for people who care about birds, The shorebird Guide is is is terrific. And I'm not going to read from it. But we didn't get out there this week as I was hoping to and now the birds are mostly on their way north. We were hoping to impart a flat tire which never happens anymore, but a flat tire goddess,

**Heather** 1:18:52

Goddess, and I want to just show if I can find Safari, Why's my computer doing this? Oh, my goodness. Okay, can't show it. Because my computer's not playing nice with me at all. There is maybe after we talk a little bit, I'll figure out a way to show it. The there is much to be said about why migrate. And I found I used to do a whole section on migration when I spent a whole year teaching vertebrate evolution and you know talking about you know, how different species migrate, how far they might go, Why, what what they're, what they're going towards what they're cycling around, you know what, what all are the factors that drive, how efficient their migrations are, when they migrate how many they migrate with all of this. And so this that that I would love to come back to but maybe that is for now all we'll say about the amazing shorebirds

**Bret** 1:19:54

sure we can come back to it. You probably don't recall. It's been so many years now, but There was a section in my dissertation about why birds migrate, that had everything to do with trade offs.

**Heather** 1:20:06

It's gonna happen relative to the lateral latitudinal diversity gradient.

**Bret** 1:20:10

Well, yeah, the same logic that explains why the latitudinal diversity gradient is what it is also explains why things would participate in multiple latitudes.

**Heather** 1:20:19

Well, that Yeah, so I don't think you ever heard really, because we weren't teaching the same stuff. When I went into migration in depth. It would be we could, we could riff live on migration. Totally. And

**Bret** 1:20:31

if we disagree, we could we could battle it out. We could migrate wars and machetes. Oh, yeah. Or migrate. That's true. Yeah.

**Heather** 1:20:39

Okay, so we didn't i didn't get to see the shorebirds this year. I mean, that there are some and actually, they're, they're still flying over. And they still are being funneled to these these sites. And at different times, actually, that just happens to be Grays Harbor, which is close to us here is the spot that I know best. But we did one night last week, go out just into our own landscape. And it was close to or just after the full moon, the full moon was on the 26th. I know that because it was my birthday. And we never saw it because of the cloud cover. And we were I don't know, somehow we were out and then and then we were in just before the full moon showed itself. But we went out either that night or the next night. After midnight. You had been out maybe with Maddie and you said come on out you're gonna want to see this. And we must have found two dozen salamanders. There was a lot a lot of salamanders and they're in these little tiny tubes, little tiny dirt tubes that they've dug into the earth and we've got wood live on pretty steeply sloped forest here. And so they basically built them into these dirt walls. excavated them. I'm pretty sure they're Western read back salamanders plus the dawn for Hickey alum baculum vehicular only driving. So Plaza Don, as you will know, is the type genus replot. The Donna de and that is a family, his giant family of salamanders, all of which are long lists. So that you know that again, something that I could go on about for a while, but it raises the question, of course how they're breathing and mostly not entirely, but most of their breathing through their skin because they literally have no lungs, they don't have gills. So anyway, we have many, many, many of these guys in our landscape right around here and during the daytime, you cannot find them. Yeah, you cannot find them at all. And then earlier in the week we went on on, on my birthday, we you and me and Toby our younger son, our producer and older son Zach was at school, but the three of us went out to the Columbia River Gorge and the Columbia River Gorge for those of you not in the Pacific Northwest or especially if you are and you've never been is an extraordinary glorious place. And the first time I went there I was actually taken by then emeritus professor from the University of Oregon, Bob storm who met me and my program my evergreen program there and showed us some remarkable sights and we went looking for tailed frogs and we found tadpoles but not the frogs at Multnomah Falls and we also went to a place that I'm not going to name because it's just it's since been closed but where you could climb up the scree field this like the steep scree field and end up at the base of a natural arch and underneath the rocks that you were standing on if you're there at the right time of year which we were right time if you're if you're someone like me wrong time if you're if you're like a lot of people you could hear the fact that you were actually standing on what dock storm had demonstrated was in fact the largest rattlesnake den in the Pacific Northwest and they were just they were just sort of waking up and you could hear them just rattling under there. And we I was hoping I was hoping for my birthday to find some rattlesnakes that was that was what I was hoping for. So we start off on our on our hike, you me and Toby and there's a rock in the middle of a paved path the paved path quickly gives way to actual actual trail but in a rock in the middle of a paved path we find the one and only rattlesnake that we will see the entire time and it's

1:24:26

a small collective

**Bret** 1:24:27

but that was it that's it Yeah sure. Okay, that rattlesnake We'll be right back Yeah,

**Heather** 1:24:34

yeah. I so cute. So I was a baby and he didn't have a rattle the button just a button but definitely rattlesnake and definitely acted like a rattlesnake when when I tried to move them to a safer spot that wasn't in Iraq right in the middle the path and I did not have I did not have a snake stick with me which is a long metal rod with a with a kind of a hook on the And that you can use to pan or hug snakes. So using found sticks didn't seem all that safe and I tried it a little better than than the other two short. So anyway, we saw that which pleased man, we'd never Sweden's anymore. It was a beautiful day out there perfect for snakes to be out and then and then maybe 20 feet later down the trail. We hold on, take that off, please. There's an osprey that's coming up over the river so the Columbia is a fair bit down to the right. But there are a lot of birds sort of floating on the thermals and playing around with the wind we're right near Hood River which is like the

**Bret** 1:25:41

mecca for kiteboarding Yeah, exactly.

**Heather** 1:25:44

It's super windy. And this Osprey is sort of you know floating and up behind it comes what looks at first like another Osprey but it turns out to be a raven with a gopher snake in its I don't even remember was it its beak or its feet and it comes like brighter i mean i didn't let it come right over my head because as much as I like snakes I didn't feel like having a drop down dropped on me pretty low and then lands on this basalt ledge right like maybe 12 feet above us and then Zach you can show this picture now. The Raven then proceeds to pin the snake with his feet and just eviscerated just pulled out the stomach use and and you could see it hanging out of both his intestines both sides of the Ravens beak another Raven came in kinda wanted a piece of the action first Raven flies off deals with Raven to comes back picks up the carcass of the snake and flies off Yeah, totally extraordinary is

**Bret** 1:26:44

amazing. Amazing really, really nice bird hard to photograph but oh,

**Heather** 1:26:50

that's that's beautiful. So I don't know from that picture if anyone's going to be able to tell for sure if it's a raven or a crow I feel like I got a good enough look.

**Bret** 1:26:59

Yeah, I was certain at the time and then I looked at the photos and something about the angle made the bill look thinner than I had thought but I'm pretty sure it was a raven.

**Heather** 1:27:07

And we all saw we saw what seems to us to be three or four the Ravens on our walk and we never saw any crows. Yeah, that's right. Anything else you want to say about?

**Bret** 1:27:17

No it was it was amazing and reminds me you know we are frequently asked in light of all the crazy things that are famous about Portland now why we live here and one of them is that we are just surrounded by fascinating things and the Columbia River Gorge has an amazing little known story of its creation. And the the wildlife is spectacular and we're not far from Mount Hood. And in fact this Raven incident happened at Hood River where a river descends from the the hills foothills of of Mount Hood in into the Columbia River Gorge. It's a tributary and so anyway it's a it's a lovely spot. And

**Heather** 1:28:01

well we were actually we were on the Washington side actually. Yes. So I don't know what I don't remember what river would be descending into the Columbia from there but but do we ever will be descending? Little White salmon near there? Yes. Yeah. And maybe we have a thumbnail for this week.

**Bret** 1:28:20

Well, I was sort of thinking it would be either the rattlesnake or the raven or I took Ross of these odd cucurbitaceae 's squash your wild watch that was plants. I got some nice pictures of the things that coiled around but I didn't I didn't get one ready in time for the stream. So maybe we'll surprise people with it or go with one or the other.

**Heather** 1:28:41

Yeah, I don't know. We didn't look it up. But clearly cucurbit squash, which is one of the one of the three sisters of some Native American culinary traditions where you combine corn beans and squash I think probably not this far north, right? Cuz I don't think corn was this far north ever. But combining corn beans and squash provided all the nutrients you needed all the protein, you know, all of all the essential amino acids, I believe, without any animal protein. So finding Wild Wild squash out there was pretty

**Bret** 1:29:14

cool. Actually, there were some of them beginning to fruit.

**Heather** 1:29:17

Oh, absolutely. Yeah. Anything else?

**Bret** 1:29:21

Um, I don't think so. I think we've, we've gotten there. All right.

**Heather** 1:29:24

So as is usual, we will take a 15 minute break and be back with live q&a answering questions that you've asked this hour and the answer and ask next hour. For those of you just listening, we will be back in a week. On May 8, same time, same place, and please consider joining either of our Patreon is at mine. We will do a once monthly to our private q&a on the last Sunday of the month. And Brett has conversations through our conversations that his as well coming up tomorrow. Morning Sunday, May 2 and next Saturday. Send any questions you have to Darkhorse dot moderator@gmail.com. And maybe that's it for now.

**Bret** 1:30:12

Yeah. Like, subscribe, comment, circulate clips, achieve greatness, all those things.

**Heather** 1:30:20

Be good to the people you love and eat good food and get outside. Get outside. All right, be well, everyone