Bret & Heather DarkHorse Podcast Livestream 59\_ 2020 Jumped ...

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**SPEAKERS**

Bret, Heather

**Bret** 00:10

Hey folks, welcome to the Dark Horse podcast live stream number 59. I am as always sitting with Dr. Heather hying. And we are going to discuss all sorts of interesting things today, some of them a holdover from the last episode, which was very well received, and we did not get to everything. So

**Heather** 00:28

we didn't, and we're not going to get to everything we planned last week this week, either. But we do, we're going to start with a few corrections, right. And then talk about some of the what the CDC is suggesting with regard to vaccine deployment. speak a little bit to a recent paper in the New England Journal of Medicine with regard to declaration of sex on birth certificates. You've got some things to say about journalism and interface with markets. And then we want to finish off by talking about the time of year that we're in right now with regard to the solstice, Hanukkah just ending Christmas coming up in less than a week or a week, week from yesterday. And we'll end with a short, seasonally appropriate

**Bret** 01:11

reading. All right, so it sounds like there's a lot going on cosmically and cosmologically. And in every other way, and we just have to, you know, dive in

**Bret** 01:19

there is actually something going on cosmologically What is it a Jupiter app, I can't remember, Jupiter and Saturn are going to appear to be at their closest that they have for something more than 800 years within a few days of now I'm doing all of this off the top of my head. I don't remember exactly what the what the date is and what the amount of time it's been since they have appeared disclose in the sky.

**Bret** 01:42

I know nothing about this have not read anything, but I can say

**Bret** 01:46

that I think I felt that. Oh, yeah.

**Bret** 01:49

Yeah. All right. I'm so sure. Yeah, we got the comment. I was thinking much more locally at the at the cosmological level, just the whole self selflessness of it, but but we'll get there.

**Bret** 02:01

Oh, yes. Yes. I don't know does um, yeah, I guess the solstice is inherently a more local phenomenon than the fact that from Earth, Jupiter and Saturn are about to appear to be as close as they have in hundreds of years. Yeah, this kind of equally local, actually, those observations those those, one of them is a reliably recurring astronomical reality and one of them

**Bret** 02:23

with the risk of creating more correct. Next slide. Am I in the ballpark to say that we are closer to the sun than we are, we are certainly going to be closer to the sun than we are to Jupiter on average. But are we closer to the sun than we are to Jupiter at our closest? In which case it would be fair to say that our Solstice was right, a good band

**Bret** 02:44

I this is this was the math I was trying to do my head and I just don't I'm not I think so. But I don't know. And I'm sure we'll hear.

**Bret** 02:50

All right, yes, we're gonna find out because we always do as we always

**Bret** 02:53

do. Alright, so we spent most of last time talking about the new vaccines that are now being deployed. And we have to, I think at the general scheme of things, pretty minor corrections to make. One of which is the subject of a ligand which most people will have heard me say, and then just just blown off, because it's a technique yet another technical term that most people have no familiarity with. So there, there are two definitions. And I said as a throwaway line, the chemistry definition rather than molecular biology definition, the molecular biology definition being something like something that binds to a receptor, something that has a reversible at the end that is reversible. And I will say I just wanted to, you know this, but back when I taught with my favorite molecular biologist, and I talked with him what three times I guess, I eat now he always used this word. And every single time I said to him, I am not the definition that you're using is not sticking for me. And ultimately, we we agreed, in part because of the sort of the milieu in which we were in where I was teaching phylogenic systematics that is the same macro evolution, how it is that we make claims about deep history, and what those claims are, and also comparative anatomy. And he was teaching genetics and molecular biology and developmental biology. And so these these all these fields, sort of colliding in a thought, mostly really effective way and this program in my language of phylogenic systematics, I came to understand ligand as the sort of junk term, it's like this category that isn't a single thing. It certainly doesn't have a single history. It's it's kind of vague. And it can mean different things, even within molecular biology, depending on exactly what the context is. So you know, it's a molecule or an atom that binds to another thing. It's always an organic molecule it binds to, often it's a protein, but not always. And I think it's always reversible or not even sure it's always used that way,

**Bret** 04:54

I think I think it has to be to meet the definition. I think

**Bret** 04:57

so. But yeah, it's just it's what's One rabbit hole after another. So,

**Bret** 05:02

I don't know, I sort of see it as a natural category. The idea is, yeah, you have a bunch of things that react in some way. So basically, you've got an informational system built in physical spaces, I guess they all have to be. But the idea is the trigger for the thing that react is the ligand and it's not about what it is it's about the fact that it's a trigger. And

**Bret** 05:24

so in some ways, maybe you know, it's exactly as real category as receptor. Right? So ligand and receptor do go together it's it's lock and key. And that's not exactly the right analogy, but it's one that's been made lots of times and it is not the kind of category like mammal right? Right is the kind of category like flight and because we were playing around you know, in when I when I was first and repeatedly exposed to this term, we were so playing around in epistemological space so like what you know, what is the nature of similarity? What makes that what makes a thing the same under what circumstances is a wing, a wing for most recent common ancestor as opposed to a wing because these two organisms and dragon fly in a swan their ancestors distinctly and convergently arrived at a similar solution to a similar ecological problem and you

**Bret** 06:15

can you know, you can get into severe navel gazing you know, at this point you're talking about a Samarra right wing which right probably requires a devotion to the thing on the seat this has evolved many times but you're if you're familiar with it, you're probably familiar with it from a maple Maple seed helicopters down and when it's falls off the tree because of this wing Samarra. So is that wing, the same thing as bird's wings, same thing as a bad Swing, swing, etc. But on the other hand, if you don't decide that the definition has to be, you have to perfectly solve a demarcation problem in order to be valid. We use these things all the time, right? warm blooded isn't one thing, viruses and one thing, you know, so you know, tree vine, whatever your category, true, um, these things are multiple evolved. And that doesn't mean that the fact of the categories and useful

**Bret** 07:08

Yeah, so I mean, I guess for, for people who watching even those who have no interest in the deep dive into sort of what, what jargon means what there are within different ways of trying to understand the universe going to be different categories of names for things, which can be very different, right. So, you know, it seems like ligand and receptor are both, you know, both both exist as categories outside of human naming of them. But if a molecule that has been a ligand is found in some other context in which it acts in a different way, and does not operate such that it slots into a receptor and can and can reverse that action, it is no longer a ligand. So that's that's one true thing. And then another true thing is that mammal mammalia, which is another technical term in biology, no matter. So the name of the eponymous trait, the trait for which mammals are named mammary glands, could disappear in some later mammal, and that some later mammal could lose fur and could lose Indo thermae, warm blooded us could lose all the things that we associate with being mammalian, but it never ceases to be a mammal. And so you know, my, you know, when we're in phylogenetic brain, like you know, is, if the thing changes its function, it does not change its its fundamental identity as a part of history, which is what mammal is, whereas ligand is is not right. So

**Bret** 08:31

you have to be able to tune in to both of these things for their value and not ride them all the way into the ground when you need to switch to the other way of finding things. But just to make as long as we're doing this, I don't think there's any way that we can avoid my correction for the full period of the podcast, but just go down the road here a little bit farther. Let's take ligand in some contexts that are familiar to us. All right, we've got neurotransmitter, right neurotransmitter crosses a synaptic gap very locally and triggers a receptor on the other side, right? You've got hormone, which is basically the same mechanism but it transmits from one part of the body to another part of the body, right? pheromone will do the same thing from one body to the next and then you've got another category like so you, I don't know what you're arguing. What I'm arguing is that the category is useful and interesting you claiming all those things are legal. So I believe so. I guess we'll find out if I'm wrong. She's I don't. Why did you go there? I don't I don't know. I guess I have a taste for living on the edge. But then there's this other category entirely. So in all the cases I just named right, neurotransmitter, hormone and pheromone, you've got basically the receptor and the ligand are both being generated by the same system, right?

**Bret** 09:49

It's pronouncing it differently just because there's, those are two alternative pronunciations, not because you're meaning to use it in a different way now,

**Bret** 09:57

I have no idea why I said I heard myself say it Thought I wonder why is that so they're both used, actually, we're gonna come back to consciousness a little later. This was a case in which I heard myself Say something. And it suddenly caused me to be conscious of all sorts of things that happen in speech when you're not usually conscious. But okay, so you've got those three things, which I'm going to claim are all ligands, right, triggering receptors. And then you've got a category where you've got like neurotransmitter mimics where something like a mushroom is creating a molecule that it does not use internally, nor does it signal other mushrooms with it of its species. Mushroom is the wrong word. But a fungus is not signaling other fungi, what it's doing is interfering with the physiology of creatures that might eat it. Right? And so is that in the category ligand does ligand have to be generated by members of your species that are trying to hit that receptor? Or can it be gamed by something outside and still be a ligand?

**Bret** 10:53

Well, this I mean, this is this is exactly why this word always, always drove me a bit nuts, you know, my, my, you know, admittedly, sort of, you know, undergraduate level understanding, having learned from, you know, one of the best repeatedly and yet it just, it never quite fit for me, would be nuts, not within the species that created it in this case, because they don't have a receptor in which it can, you know, it has that effect, it's doing some different role. And this is a role based definition, as opposed to an historical based definition.

**Bret** 11:26

I agree. I agree. But again, the lesson for you or what we would have said to our students is that the key is to extract the value out of out of a definition without falling so much in love with it, that it blinds you to the other thing. And so both of these things are simultaneously in play. Yeah. Anyway, I look forward to finding out of all those things are considered ligands by those who consider such thing I

**Bret** 11:46

guess I kind of, it's not that I mind, but I just don't care. Like I just don't care whether or not they fit into this category that feels I mean, you and I disagree a little bit like this category just feels a little bit too human constructing to me. And if we're now playing around with like, well, this this one is this one is this one, like, can't we define those things independently of whether or not they fit into some additional human category?

**Bret** 12:11

I disagree, because in the same way that I have argued that there are stories which diagnose journalism, they diagnose particular, publishers write a story will cause a publisher to do something right. At diagnosis, this term causes you to discover both the natural category, the gray area, and so you know, just in the same way that saying that actually seals are bears.

**Bret** 12:42

Not the same way, though, because that's a historical claim. Not my point. But

**Bret** 12:45

that's that's not what I'm arguing, I'm arguing that there are certain things that cause the discovery of something important. And so the fact that this category has a troubling gray area at its edge, right, does not mean that it doesn't have a strongly positive cost benefit analysis, that of net level that it's really valuable to say, there is something that nature that biological nature does, which is one part of something tries to talk to another part of something. And then if you push this far enough, you'll realize that it isn't just the something that's talking to itself, or members of a species talking to other members of the species that actually is interspecies. And that, you know, I just think, at so many things are, are defined,

**Bret** 13:28

I guess I just find playing around with edge cases, when it's about human semantics, really much less interesting than just about any place we could be playing

**Bret** 13:36

around, right. But the alternative then, is either to draw a hard boundary that has no gray area and blocks you from discovering something important, right? Like enzyme and catalyst. And enzyme is a catalyst. But catalyst is a broad category that really falls apart when you get to enzyme because enzyme is a machine a catalyst is typically a very simple chemical. Now you're gonna

14:02

get in trouble. I love this argument, if yes, but go for it. Well, I mean,

**Bret** 14:05

I just think it's quite clear. And actually, this is one of these places where it was much harder to understand this in the era that you and I first encountered biology because there wasn't such good animation of what these things are, like in reality, right? And so the picture on the page of this highly complex protein folded up, and you know, this was a catalyst and it facilitates the reaction, you know, between these two

14:30

substrates is inherently static.

**Bret** 14:33

Yeah, it doesn't capture it. Whereas if you see, like the, the enzyme complex that does DNA replication, and you're like, that's, that's not even a machine that's like a factory, right? That's a factory that's taking, you know, a raw material and, you know, whiz bang, you know, catalyst doesn't evoke it at all. So, anyway, yep, yeah. All right. We've done it. All right now. I have to I I have to do my career. Well, I

**Bret** 15:01

mean, I'm, I'm prepared to do it. But you know, you want you want to start, I have some things to say. But

**Bret** 15:05

of course you do, of course. Okay, so here's here's what it was. In the last discussion, we were talking about adaptive immunity, which is this amazing process by which your immune system discovers the formula with which to fight a pathogen, and it's actually evolution taking place at the cellular level so that it happens on the same timescale as your pathogens, right? You have a little army of effectively single celled organisms that have your genome and your interest, and they play this adaptive immunity game to learn, right? And Heather, hearing this, or she knows about it, but hearing the description of it says how far back does this go? And I said, I told I said it was a risk to my reputation to say what I thought the answer was that I thought I had looked into it before, which I'm sure I did. And that the answer I'd come up with was it It goes back to our common ancestor with salamanders, which other points out means that it would cover the group tetrapods. And just the

**Heather** 16:02

first the original vertebrates to come to land

**Bret** 16:04

right. Now turns out I had that wrong. However, that happened, whether the knowledge of how far back it actually goes has changed since I look it up or I miss remembered it.

**Bret** 16:14

Well, but it was it was wrong. If you were going to be wrong, one of two ways to guard doing historical estimation who were wrong in the correct way. It goes even farther back than you thought. It's not right. It goes as far back as you said,

**Bret** 16:25

right. It goes back as far as I said, and then some. And but the important thing. So I don't feel like this is just a flat out correction. Because what I think what I think people will have heard us talk about is I said, I believe it goes back to our common ancestor with salamanders. And I said, but there's something that troubles me about that, which is, what the hell do you do with an animal like a shark? How does it not have adaptive immunity when they can live actually hundreds of years? Right, something is not adding up. And so there's a question. In fact, you explicitly raised the question of whether it might be vertebrates, which it turns out it is. Alright. So the group that has this adaptive immunity is vertebrate. So it goes back considerably farther than I had suggested, basically, the aquatic fully aquatic ancestors of the terrestrial creatures that I had thought, or I had suggested was was the answer. And so anyway, in this case, I think a yes, I was wrong. But be you heard us navigating in real time, as biologists might, what the you know, we were testing whether the claim made sense. And we actually had the right instinct, even if the answer was incorrect, which also

**Bret** 17:30

demonstrates that we don't have all of the facts that we've ever known on board at a moment's notice. But we can derive parts of what must be true. And that's, that's, that's part of what we're doing in front of you guys. And, and I think a large part of what the appeal is certainly was when we were in classrooms, to to demonstrate for people who were younger and learning how it is that you would deduce things about the universe. So I will just say that we heard from a number of people on various forums that it that it was older than tetrapods. But you're true to form one of our, one of our former students, when, when our best students came to me with the most succinct and clear explanation, and I asked him if I could just quote him, he just texted me. This is Jeff adesh. Writing off the top of his head, he says he attacks listening to your latest podcast. I think all vertebrates have adaptive immunity. hagfish and lampreys have a different cell lineage that are being T cell analogs, but structurally different. So it's possible parallel evolution. And then I think all other vertebrates do adaptive immunity via some kind of B and T cells. I thanked him, and he wrote back quickly, and quickly and briefly checking the literature, I can confirm that I'm remembering correctly, this abstract captures it nicely, I'm going to show the paper to you guys a second. And then he says, I originally learned this on one of your programs while doing a deep dive into vertebrate immune systems. And I think indeed, actually, I was gonna say that was one of the programs with the molecular biologist, but now it's it was a different sort of revolution. But so the paper that Jeff linked me to Zach, if you just show this real quick, is a review from 2011 on the evolution of adaptive immunity in vertebrates. And the thing about adaptive immunity being about 500 million years old is that since 2011, it hasn't changed much. But also, our understanding hasn't changed that much. There's certainly been advances but this is all true. So I'm just gonna read the first sentence of the abstract and the last two, which is exactly fitting with what you've just said, and what Jeff reported, as well. Approximately 500 million years ago, two types of recombinant torial adaptive immune system arose in vertebrates. And then at the very end, despite these differences in anticipatory receptor construction, the basic is design featuring two interactive T and B lymphocyte. Arms apparently evolved in an ancestor of Jordan jawless vertebrates, within the context of pre existing innate immunity, and has been maintained since as a consequence of powerful and during selection, most probably for pathogen defense. purposes. So,

**Bret** 20:01

while most of that sounds very concerned, it's so probably for pathogen defense purposes now, my attitudes have an advantage, they evolve really quickly. So we developed a subsystem that evolves on the same timescale, like, you know, how amazing confect be, it might be at that pathogen, the fancy could be arguably Yeah. Alright, so just drifted into

20:21

an adaptive immune system.

**Bret** 20:25

Doctor, I, you know, that can't be. Alright, so are we there with respect to the corrections? All right, we've done and we'll see you next week. Who knows what massive corrections you may have to engage? Oh, fabulous. Yes. All right, what's next on the agenda?

**Bret** 20:40

The CDC recommending that essential workers get the vaccine first to address racial disparities that been revealed by the pandemic. Shall I say that again?

**Bret** 20:48

Yeah. Why don't you? Um,

**Bret** 20:49

let's see, first, let's just go to the top The Washington Post article. If you would show this aq COVID-19 is devastating communities of color. Can vaccines counter racial inequity? And that's their end. Okay. That's probably it. That's all we need to see for here.

**Bret** 21:08

Actually, Zack, would you put up the I've got a screenshot of the New York Times. Yeah, here we go.

**Bret** 21:16

So this is from a piece in The New York Times that was published on December 5, but updated December 15. So it's been reviewed recently.

**Bret** 21:23

And it says, Harold Schmidt, an expert in ethics and health policy at the University of Pennsylvania so that it is reasonable to put essential workers ahead of older adults, given their risks, and that they are disproportionately minorities. Older populations are wider, Dr. Schmidt said, society is structured in a way that enables them to live longer, instead of giving additional health benefits to those who all who already had more of them, we can start to level the playing field a bit. So how many different ways is this wrong? It's pretty spectacular that we would be playing this I will say, actually, a very fitting following on our corrections I, I'm going to say, I predicted this one, because I said, Where's this all going? It's going to go to reparations in every interaction at every scale, 24 hours a day, seven days a week, 365 days a year. And that's effectively what this is, is that people are being programmed such that any place where you could distribute things differently based on race, it's assumed to be a good thing.

**Bret** 22:33

And it's just, you know, there there are a couple of demographic markers that everyone seems compelled to elevate at every other cost at the moment, pushing that one slider all the way to maximum, thus reducing outcomes, minimizing the effects on these decisions on outcomes for every other possible category, not just within that category. Obviously, it's going to have health effects on older adults. But it also means that there are going to be effects for for everyone else. Hey, we've got a visitor for the first time in a while

**Bret** 23:05

a visitor who very definitely has adaptive immunity. Yes, he does. So I don't know exactly know where you all are headed here. I know. There are some things about this. I am multitudes now. Yes, I believe we all are. But But anyway,

23:19

if you've ever called me you all before,

**Bret** 23:22

it was you all to separate words. So I don't, I think I'm on safe ground, but go for it. But in any case. So to be clear, the CDC and most of what we know I think comes from a slide deck in which they presented this material and they go through an analysis. It's not a super high quality analysis, but it's sort of

23:44

do you want to just show it Yeah, you

**Bret** 23:45

want to show a little bit they do their little matrix thing you want to? Zack, you want to

23:49

I have it on my screen sec.

**Bret** 23:52

There we go scroll up. Okay, so

23:54

this is coming out.

**Bret** 23:57

Oh, then we can't scroll. figures, please. Alright, so let's get down to they're also here. They're basically arguing that there are three different categories competing there. They're alluding to trade offs, I think kind of ham fisted Lee, but nonetheless, they're alluding

**Bret** 24:19

to trade offs. But I would also point out that this once again reminds us that the sort of the hashtag slogans that are accompanying the culture wars, always pretend that there are no trade off so you know, the one that you know, that I've talked about most in the past is passion. I believe all women are the all the time no matter what they're saying, under any circumstances, right. And then another one is, is it follow the science? Oh, what is it? Yeah, something about like, always trust the science under under all circumstances, no matter what. And here we have well, like no, and like, this is not what they're doing. They are recognizing, frankly, that there are trade offs and that and They're there. They're not just going to follow the science at all moments.

25:03

Yes,

25:05

I'm going to scroll down some more. Yeah, I

**Bret** 25:07

do want you to scroll down some more. I mean, I fully believe that actually the science doesn't. You know, it depends how you categorize this right. But the science doesn't answer the question what you should do it can if it's done, right, it can answer the question of what is the case? What are the facts, but then the ethical part is, is distinct. Yeah.

**Bret** 25:23

But okay, under ethics, they've got promote justice, by which of course, they mean, promote social justice, by which of course, they mean, capital S, capital, J 2020. Brand social justice, which is about equity, and not about equality. So

**Bret** 25:35

let us be really clear here. In some sense, they are arguing for race based medical triage. Right? triage being the mechanism whereby when you don't have the resources to save everybody, as in on a battlefield situation, right, prioritize those who are best able to make use of what efforts you have, and you may let people die who could be saved? Because, you know, it's it's a required phenomenon. The question is race based triage. Really? That's how we're gonna do this. Yeah.

26:09

Okay. So Okay, go ahead.

**Bret** 26:13

I was, I was gonna, did you stop here for reason?

**Bret** 26:16

No, I just have a couple more things to say on the subject. But But go for it,

**Bret** 26:20

go for it.

**Bret** 26:22

There are a couple of things. I'm going to do my screen back here, Zack. There are a couple of things that this reminds me of. And one of them is a word that we said at the same moment when we were talking about this morning, which is Tuskegee, like the Tuskegee syphilis study, which started in 1932, targeted black men, and allowed black men to die of syphilis, even long after treatment was known and available even long after I think it was penicillin was understood to be treatment for it. And, you know, in fact, I went back and look at the new york times, which is, you know, quoting this, this health experts saying that we should not give the vaccine to older people, because they're primarily white first. The New York Times back in 97, and earlier also did a good job explaining why this Tuskegee was appalling. Right. And everything in what the CDC is saying in the slide deck now, is is not only race based, but presumes that the vaccine is an unalloyed good that there is there is no question at all about sure efficacy, but primarily safety. And if there is if there was anything to the many concerns that have been raised, very few of which are saying, oh, the mRNA, the mRNA vaccine is bad, most of what you're saying, like we did last week, we cannot know yet. Then what if, by actually doing race based medicine here, we are repeating something like what was done in the early 20th century. So it's it's it's frankly, completely appalling. You know, it's it's it's racist, either way, either way. And just one more thing to that end, because we don't know the long term effects of the vaccine. And because there is reason to think that there might be long term effects of the vaccine, that is actually another reason to prioritize older people in getting the vaccine not only because they are more likely to have very bad outcomes from it, but because if there are very long term effects of the vaccine, they are less likely to be revealed in those people.

**Bret** 28:42

Yeah. The thing here is this, is an experiment being run at a scale that is it fair to say that there has never been, at least medically speaking, it's going to be hard to come up with a case in which there was a broader scale experiment in long term consequences. Maybe there is something but the degree to which this is rapid deployment of something novel that doesn't mirror anything we have experience with in the absence of any mechanism that might tell us what the long term consequences are. This is an experiment being run at an unprecedented scale. And the idea that based on race, people are going to be advanced in this cannot help but imply that at some level, we are willing to run that experiment first on people because they've been disadvantaged, which you know, it's a gamble, could it be that being high on the list of the vaccine ends up working out for you of course, it could be this vaccine could be just as promised that

**Bret** 29:51

as hope that everyone who receives the vaccine gets a health boost from it

**Bret** 29:56

gets the health effects are low, and that the Long term, you know, I mean, there's lots not known here, including whether or not this has any positive effect on transmission. Right explicitly not

**Bret** 30:07

known at all explicitly not know. So provides may provide some immunity for the person getting it but whether or not if they have it, they're less likely to transmit it. We know nothing.

**Bret** 30:16

Yeah. So anyway, this is a an argument that in this context, I believe completely accidentally amounts to running an experiment on disadvantaged people. That's their argument, you know, by giving them the vaccine first, while we are effectively lying to ourselves about how much we know about how safe it is. So yes, that goes up to ski indeed. All right, can you scroll further down in there? Sure.

30:43

You want to show it? Yeah. Would you show it?

**Bret** 30:46

This? No, keep going? Keep going. So they have this matrix analysis here, science implementation ethics, they've got mysteries here. And then as you go through the slide deck, they fill these things in, and they give ranks and it's all very pseudo quantified. But keep going.

**Bret** 31:08

It's gonna get people dizzy, dude. Yes, it is. Why don't we do this off screen? I don't know what you're looking for.

**Bret** 31:13

Well, I just wanted to show some of the matrices filled in. Yeah, here. They're different matrix. Every matrix, there we go. So they begin to fill these things in. And as they do it, what they reason so this is their reasoning, whether true or not, is that prioritizing hold

**Bret** 31:29

on for people who are listening and not watching? It's a matrix, three columns, three rows, science, implementation ethics, that same diagram that shows up throughout and then the columns are essential workers, non health care, but 87 million people, this is us, adults with high risk medical conditions, over 100 million. Incidentally, high risk medical conditions includes obesity, and either former or current smoker, which is how that number is so big. And adults age over at 65 or over years of age. 53 million.

**Bret** 32:02

Right? Okay, so the result if you scroll down, we got one more another matrix, there it is. So here's how they have, oh, no, no, this is a different matrix. Well, this is becoming confused, but let's just say the sum total of what they did was determined that they would save more lives if they gave it to the elderly. But yes, the ethical implications as the, as they read them, suggest that there is a reason in spite of the fact that we would save more lives if we gave them to the elderly, to prioritize essential workers first now. So there is, you know, as there is an echo of Tuskegee here, there is an echo of eugenics here, too, right? There is, you know, if if we read that, you know, in the 30s, that there had been a, you know, a terrible flu in in Germany or in Europe, and you know, that the Nazis had decided to deny Jews vaccines, right, we'd understand it completely would fit perfectly with that story, we would understand it as what it was, and then in this case, because everything's on its head, you've got a, you know, a kind of nonsense that sort of superficially, well, these people are more disadvantaged, therefore, priority to the vaccine levels, the playing field, even that language is kind of creepy.

**Bret** 33:24

Yeah, I mean, and it is the same language of of, you know, old school racists and specifically anti Semites, look at how much the Jews have gotten in the world, and we just we need to take from them what they have that isn't rightfully theirs. Right, right. vantages. So right? Or, for me, it's very much the same language. Right?

**Bret** 33:40

So now the at the bar, I've done a lot of thinking about this. And the question is, is there anything at all to what they're trying to do? Is there some hint of reality under this? And I sort of think, look, if you made the argument, that there are some neighborhoods, for example, that have been disproportionately hit, because for whatever reason, you know, the way they get to work puts them in danger. People who have been watching our live streams will remember the subway issue and the issue of local trains versus express trains, right? There are certain places you can live that put you in danger. And those things, these, you know, whether you're in danger based on where you live, or where you work is not evenly distributed by race, were they to say, look, we are going to deploy these vaccines in the places where they stand to do the most good and that happens to be racially biased. I wouldn't have an objection to it, right? But the idea that, you know, you're going to categorize all of these essential workers, right? Okay. So now you've prioritized essential workers over people who are even more disadvantaged and don't have a job, you know, from the same neighborhood. Why did you do that? Right? If you're really trying to correct a disadvantage with a vaccine, which doesn't make sense, right, then the point is, you've done it so clumsily, that it can't be defended, and You know, we're at neighborhoods, you know, we're Where are we going to guess that not only does immunity to the disease come from the vaccine, but that immunity to transmitting it also comes from the vaccine. And therefore we will do more good if we deploy it in a neighborhood that has less control over the spread of this thing, because people are packed densely together or something like that, you can make a perfectly valid bioethical argument for it.

**Bret** 35:27

But even though there are a couple of logical leaps there that aren't founded yet, just because no one has bothered to

**Bret** 35:32

write out they're not you know, you could imagine that the look, I think, chances are that if we understand the vaccines correctly, in terms of what they do, that they are also highly likely to reduce transmission. Right? It's not certain hope. Yeah, but it's not certain. But the point is, you know, there are reasons that you could imagine that that would likely fall, we just don't know yet. So you could build a policy that would protect those who are most likely, you know, protect communities that are most likely to have this thing spreading in an uncontrolled fashion, and that would be racially biased, but to put race first in their analysis. You know, this is this is the road to hell.

36:12

Yeah, I agree. I agree.

36:16

Anything else on the subject?

**Bret** 36:17

Um, no, I think we've I think we've pretty much got it. Okay.

**Bret** 36:22

The next one, I've got I've got something of a ramp. All right. Okay. I have tentatively titled in my own head, this section jumping the shark with the New England Journal of Medicine. So, New England Journal of Medicine, I'll just start with their tweet, because why not? Why not go there. New England Journal of Medicine, said, Here's Zack. Sex designations on birth certificates offer no clinical utility, and they can be harmful for intersex and transgender people. Moving such designations below the line of demarcation would not compromise the birth certificates public health function, but could avoid harm. Okay. They link in that tweet to their newly published paper, which is here, failed assignments rethinking sex designations on birth certificates. Here, hold on a second, let me go to

**Bret** 37:19

this is the paper

**Bret** 37:24

in a PDF form. So the first paragraph of this paper which was just published three days, two days ago, failed assignments rethinking sex designations on birth certificates in 1900. The year the US Census Bureau created the first iteration of the US birth certificate. Nearly all births occurred at home often attended by family members and midwives without specialized training. During the 20th century as the medical profession assume greater responsibility for managing childbirth, it also assumed responsibility for completing birth certificates. A process that includes a medical evaluation to categorize each newborn as male or female. We believe that it is now time to update the practice of designating sex on birth certificates given the particularly harmful effects of such designations on intersex and transgender people. So I am going to argue that failing to include sex onboard certificates only do specify they want to move it below what is called the line of demarcation, which means that it is not available as a public part of your birth certificate. And it is still available as like aggregate data for statistical use, but it's not part of your, your your ID.

**Bret** 38:38

That, in fact, doing so Doing this will cause much greater harm, much greater confusion society, but also much greater harm, mostly to women, but also potentially to men, because so much of our medical models, until recently have been based on research on men and have assumed that the male model was the one that applied to everyone. And in fact, we now know and I'll provide a ridiculous amount of evidence here that men and women have different outcomes, different ideologies, different disease progressions for so many conditions, that if we start pretending at the level of birth that this is not true, we are going to cause a tremendous amount of harm all in service of a piece of Okay, so intersex is real, and there is potentially some real harm done by the MIS assignment of sex on someone on a on the birth certificate of someone who is in fact intersex and trans is a muddier issue, but we will we will get back to that. So I want to read two more paragraphs from this paper and respond, respond to them. one paragraph designating sex as male or female on birth certificates suggests that sex is simple and binary when biologically it is not. Sex is a function of multiple biologic processes with many resultant combinations about one in 5000 People have intersex variations, as many as one in 100 people exhibit Kaymer Ism mosaicism, or micro mosaicism. conditions on which a person cells may contain varying sex chromosomes often unbeknownst to them, the biologic processes responsible for sex are incompletely defined, and there is no universally accepted test for determining sex. Wow, there's so many numbers like I'm super impressed with them, aren't you? They used a lot of numbers. But like I got a few numbers to you. I got some numbers. All right. So we have been sexually reproducing with two and only two sexes, uninterrupted for 500 million years. That's a conservative estimate, you're not talking about you and me. vertebrates, that's like adaptive immunity and sex, for sure have been in our lineage for 500 million years uninterrupted, but that's conservative, probably sex with two and only two sexes goes back one to 2 billion years in our lineage to the so called leka. The last eukaryotic common ancestor that's an acronym l ECA. And maybe that's 1.2 billion, maybe that's as far back as 2 billion. But we're talking billions. That's a lot of zeros for you guys who were using all these numbers and clearly don't know what they mean. Also, we do have a universal way of defining sex. Actually, apparently, you haven't been thinking very clearly about this. It's called gametes, okay? If you produce or could, or will, or do, or might have the, or have the machinery to produce gametes that are tiny and Zippy, you're male. And if you produce or could, or will or do or have the machinery with which to maybe or will, in the future, or did in the past, produce gametes that are big, full of cytoplasm and stay still or sessile, your female symbol, right. But that didn't have very many numbers in it. So it's not very sciency as if it doesn't have numbers, it's not sciency. So here's a couple more numbers, sex ratios returned to one to one, they do, there's a lot of math behind that I'm not going to go there now. But that means with all due respect and recognition, as I already did, for the existence of intersex people, and we're very, very, very rare. And they also incredibly rare, truly trans people, roughly half of any population at any moment is male, and roughly half of any population at any moment is female. sex differences manifest in many places, because as I already said, these, most of most of what we have known until recently about medical processes and treatments have been done on men, if you start confusing men with women and vice versa, and don't let it be clear, what you're going to have is a whole lot of downstream health effects, mostly cascading to women's health. So here are just a few Let me pull these up. So here's the article, you can just show my screen throughout this sack. We have this article published in 2020 by the prestigious New England Journal of Medicine. Here's a 2008 paper reviewing the sex differences in Alzheimer disease, not just in progression, but in ideology, just in in in symptomology. And how it presents. Here is a 2017 paper on sex differences in the epidemiology, clinical features and pathophysiology of migraine. Here's 2000 years a 2002 paper on the biological basis of sex differences in drug abuse. Here is a see what is this? Where's the year on this?

**Bret** 43:27

You can find it 2013 2013 paper on the sex differences in Parkinson's. Here's one from 2003 on sexual dimorphism and asymmetries in the gray white composition of the human cerebrum that's brain differences like actual anatomical physical brain differences between men and women. And here's one on the textbook. This is fascinating on the structural connectome of the human brain that is to say the ways in which the neurons are intersecting, connecting so there are no differences bowl shit, this is ridiculous. And like, I cannot believe what is happening. I cannot believe it. I was reading this paper and I said to you, I feel like society has jumped the shark. This is completely insane. Okay, one more quotation. Yeah, one more quotation from these people. Assigning sex at birth also doesn't capture the diversity of people's experiences. About six and 1000. people identify as transgender, meaning the gender identity doesn't match the sex they were assigned at birth. Others are non binary, meaning they don't exclusively identify as a man or a woman, or gender non conforming, meaning their behavior or appearance doesn't align with social expectations for their assigned sex. Again, I'm like so impressed with them. Aren't you so impressed. babies have really amazingly diverse experiences in utero, don't they? And then of course, the ones that they're later going to have all of that has to be captured on the sex on the birth certificate. I'm wondering too about those other people who identify as different species like the other kin, like they identify as elves or sea snakes or something well, in order to be respected And fully inclusive of the other Can I feel like we should put seesnake on their birth certificate, alright, actually, we're doing something else. We're just taking human off of all of our birth certificates. We're now not going to assume species, because some people are delusional and think they're not human. That's not how this is supposed to work, what the hell is going on?

**Bret** 45:21

Well, what the hell's going on? First of all, I am shocked to discover that birth certificates do not capture the whole experience that people have in life. I know they're defective documents clearly, already shot, here's what I think is actually going on. I think that there is actually a central argument that can't be won and must be won for the trans activists to succeed. Right?

**Bret** 45:47

So you're talking with the trans rights activists, not the different slightly overlapping population of people who are actually trans. Right, right.

**Bret** 45:55

Exactly. I think the argument that has to be one is that science is supportive of their position that there is no distinction between a woman who arises at womanhood through regular developmental processes and one who arises there through transition, okay. So in order to get there, they have to attack the sex is binary, and basically say science has concluded otherwise. Right? And they are muscling things like the New England Journal of Medicine, which we're going to return in a later episode to the corruption of science journals and things but what you're effectively seeing here is that a corrupted science journal is willing to go along with this nonsense that anybody associated with this journal should know better than most of them will not understand that the game is not chromosomes that it is in fact gametes. But nonetheless

**Bret** 46:55

Well, it could be corruption and it could be a form of Don't worry Don't hurt me this the same thing it's so but no, I think I mean, corruptions and corruption is an umbrella category. Yes. So there can be multiple kinds of corruption and one of them can be motivated by fear and just like what I was calling the don't hurt me walls that that had all the Black Lives Matter stuff on them during the summer. In storefronts, less they be vandalized. This is kind of a don't hurt me article, okay, any New England Journal of Medicine is playing by your rules. Please don't come after us when we post something that maybe you don't

**Bret** 47:27

like, right? I mean, corruption in the sense of that file is corrupted, right? There are many forces that distort what you might find in the science journal. Some of them you know, you could find outright bribery, you can find many things that are shy of outright bribery, but function like it, you can find canonical ways in which it becomes confused. But the point is, what you're reading in there isn't what it seems to be yet, because it's been corrupted by some force. And here, I want to try to draw up the argument. Okay. The argument is, you will find in many of the things that we are fighting over that you never imagined, we would have arguments about, there's a basic process, which is there are two poles having an argument. And what they do is they stamp out the space of nuance in between, right? So you and I are trying to hash out an argument that is in the space of nuance in between, we do not deny that there are trans people, we do not deny that they have the right to be treated as they would ask to be treated. For most intents and purposes, we do not believe that that should extend to places where there's an objective fact that requires that you obscure it in order to do it.

48:32

So this is a or you put half the population at risk by doing so, right? We do

**Bret** 48:36

not believe that you should assume that, you know, children who flirt with the idea that they might prefer to be the other sex actually are and all of these things. So anyway, there's this inter there's this space between these two arguments. And the trans rights activists are stamping it out. Because the argument that sits there is look, intersex is real, and it is a physically measurable and study Abul phenomenon. Trans is real, and it's not the same thing as intersex, it may have some relationship to it, but there's lots of trans stuff that doesn't come down to physiological intersex ness. What's more, it appears to be ancient and widespread. Many cultures have a version of trans right? And so there is something in which you can say, look, trans is natural, and to the extent that there's any sort of oppressive tendency to pretend it doesn't exist or is a you know, is necessarily about something being broken. That's a bad argument. However, trans is natural, right? It exists at some level in many populations, maybe all of them. What isn't natural, is availing yourself of pharmaceuticals and surgery and these other techniques, should you be allowed to, I don't know probably, but we do get to decide right? If you decide that you want to you know, have Your arm removed and attached to your ear. I don't think we let you do it. Right. So the point is, it's not that you're entitled to any modification of your body you want. So to the extent that there is something to be modified, then there's a question about whether or not it is supported by the science. And so in order to win that argument, they have to pretend that in fact, science invalidates the binary Enos of sex and we all know it. That's the pretense, right? Science invalidates the binary ness. And so they are going after this and you know, it's a silly Hill for them to die on. Because, you know, no, here, let's say that we we played their game, right? And we just said, You know what? Sex isn't real sorry, we blew it. We're taking it off the birth certificate. So we're gonna just assume everybody is, is a blank until they tell us what they are right? In that world.

50:51

Some of them are sea snakes.

**Bret** 50:55

More power to them. Snake sea snakes by the crit. Alright.

51:00

Oh, nice. Nobody's gonna

**Bret** 51:02

get it. Yeah, but that's those are the ones I like to give the most points to. Yeah,

**Bret** 51:06

I feel good about that. So I've now lost my place. That's my fault. But you're

**Bret** 51:13

while you're coming up, do you get? Well, let's get us back there. But well, so I reminded that this is actually the one year anniversary of JK Rowling's descent into this into this craziness in which she stands up for for reality. She says, dress however you this is on Twitter, dress her over you please call yourself whatever you like sleep with any consenting adult who have you live your best life and peace and security, but force women out of their jobs for sitting that sex is real. Hashtag I stand with Maya hashtag, this is not a drill. That's my force daughter, who was forced out of her job for insisting that actually sex is real.

**Bret** 51:51

Okay, I got my place. But Excellent. So let's say that we obliterate sex, we decide it's not real, right? And we take the trans activists at their word that they're on board with sciences, anybody, and the science just doesn't support a sexual binary. And so they're pro science, anti sexual binary, because science supports them, right? So we move forward into the world, we obliterate all references to sex that are not self defined, right? And we embrace science. Okay. Science is going to rediscover the awkward fact of sex again, and again. And again, because it's so very reliable, right? In other words, in a world where there was no sex, some bright graduate student is going to come up with the idea, you know, I wonder if somebody having a penis at birth is predictive of the content of their cells at any level, I wonder if it's predictive of their likelihood of getting Alzheimers late in life, I wonder if it's, you know, predictive of some feature of Parkinson's disease. So, the point is, you cannot get around the fact that of you know, you can have a lot noisier correlations, then, you know, then sex and still have a valid pattern worth describing right? Sex is so low noise with respect to how much variation there is with respect to the basics, that it would be impossible not to constantly be rediscovering it if you just simply blindly point science at interesting patterns. Right? You'll find sex like many times a week, so. So anyway, I think the point is, look,

**Bret** 53:32

that was something like point sex at any pattern, and you'll find sex many times a week. No, sorry. So sorry, point science at any pattern blindly at any pattern, and you'll find sex many times,

**Bret** 53:41

many times a week, you'll keep rediscovering Yeah. So anyway, I think the point is, look, they've just, they've chosen the hill to die on that doesn't even exist, right? Either the point Welcome to post modernity. That's it. Right? Either the science is real and functions in the way we know science does fallible, but basically, you're marching in the direction of knowing more over time, right? In which case, trans is natural surgical alteration. And puberty blockers aren't, there's an incredibly strong tendency having nothing to do with any anyone, you know, designating somebody's sex at birth, in which boys tend to grow up into men and girls tend to grow up into women, right? This is just, this is the way things typically function.

54:25

It's my God. I thought it was God.

**Bret** 54:29

I think got a lot of ranting out here, but I think there's no hill there either.

**Bret** 54:36

Like I said, this is the nature of postman arity it's like okay, there's this there's this hill that the scientists that the scientists are standing firm are standing I go I like, sex is real. Hello. Sex is real. It's literally perhaps over a billion years old. I mean, sex isn't 4 billion years old, but it may be over a billion years old in our lineage alone. And they are over here in flatland or in a depression going like that's not a hell, though. Aren't hills we're on a hill. We got the hell

**Bret** 55:03

we got the hill and the hill just happens to agree with our idiosyncratic and self incompatible set of beliefs.

**Bret** 55:08

Yeah. And oh by the way, totally delusional.

**Bret** 55:11

Yeah. All right well

55:14

that was fun. That was fun

55:17

journalism time man.

**Bret** 55:18

Oh journalism talk Okay, so now Wow, boy really got to switch headspace for this one. Yeah, what I wanted to do is lay out a thought and it treads near some thoughts that are, you know, talked about a treads near what Eric has called audience capture. But I don't think it's the same thing. So what this is, is a thought about why it is that we find ourselves in a space with mind numbing fake news that caters to our preconceptions rather than informs us. And the idea is this. The idea is we commonly I think, believe wrongly, that people want to hear stuff that they already believe that they basically have an insatiable desire to be told the same things that they already believe in, you know, there's some desire for this, but the question is, is that really true? Are people so interested in hearing what they already believe that they will avoid hearing things that they don't already believe that challenge their their system of thought, and I'm not so sure about this, in fact, I think, you know, it has been remarked on by many including us. But there's something interesting about the fact that a population that we were told that a very short attention span, and basically needed to be catered to with three camera sitcoms, actually, you know, regularly tunes into, you know, Joe Rogan marathon podcast with all kinds of interesting experts and you know, is willing to dive deep in these things that the same people are willing to, you know, follow Game of Thrones season after season with these, you know, these over layered plotlines, people actually have more of a taste for complexity, then we tend to give them credit for it's very easy to oversimplify people's tastes. And what I wanted to point to, is the question of whether or not advertising is actually the thing that causes the mind numbing default to a dichotomy between two stupid narratives. And the idea is, the idea is that, and this goes back to what you and I, people who are familiar with the podcast will have heard us talk about consciousness. And the point is that consciousness is a mechanism, it's not a good way of doing things. If you're super awesome at something, whether it's playing the violin, or, you know, skiing, or tennis or anything. You're playing, when you're flowing. You're not it's not the conscious mind playing the game. It's when you become conscious that you choke, right? And so the idea is that consciousness is there for a very good reason. It's an adaptive process, but it's a spectator for anything you're really good at. Right? And it comes into play once you're good at it. Yes. Once you're good at you know, you learn something consciously. You're very bad at it as you're learning because you're sometimes you learn things consciously. Yes. Many things are conscious. Take my favorite example here is ping pong. Actually, a reason I like ping pong is that the game is so fast that when you're playing good ping pong, you can realize you can't possibly be paying consciously because you're just not be couldn't do it fast enough, right? You know, so your conscious mind is present, right? It's watching the game. But the point is, you know, I'm surprised like, whatever. So,

**Bret** 58:38

can I interrupt for just a moment to say that we've referred in the past to playing pool, we've now put the ping pong top on our pool table. And last night, we were playing ping pong, both us and with our younger son, Toby. And I benefited from your introduction of a totally new cocktail last week, and so had a couple of Portland mug shots in advance playing ping pong. And it interfered somewhat with my with my unconscious with

**Bret** 59:04

your unconscious ability to return the ball. Yeah. All right. Well, I apologize. They're still probably net net. It's worth it. But yeah, it's not good for your ping pong game. Alright, so the idea is the conscious mind is there to deal with stuff you don't know how to feel. In other words, your conscious mind comes online, when you're confronted with something that you didn't expect, right? If if you go up against a, a, an opponent in ping pong, and they keep delivering the ball somewhere where you're not anticipating it, your conscious mind will think well, are they putting a kind of spin on it that I don't know, or just simply will notice that the pattern is that they deliver it to this corner more frequently than I think they will and so I'm going to cover that corner better. Right, you'll have that conscious thought. So the connection to the question of journalism is advertising that is not strictly speaking informative, and I would Say a lot of advertising contains some information about a product. But in general, it functions on bases that are not conscious. In other words, there's no reason in the world that the attractive model sitting in the passenger seat of the fancy car should persuade you to think differently about how good a car it is. Or even if she comes with the car, that's the thing is they never do, yeah. So you should not have your sense of value of that car, or your need for it or anything else altered by the fact that the company who's selling the car has hired somebody attractive and put them in the seat of the car. And if anything, you should think, well, the car is going to be somewhat more expensive, because they're investing in persuading me on a sexual channel that I need this machine, right? So the point is, we know that this works, because advertising is well studied. And people pay billions of dollars, you know, in the aggregate to be selling all kinds of things. They're basically persuading you of things on unconscious channels. So here's the question, if you link advertising to journalism, right? journalism, that does get your attention, but wakes up your conscious mind because it challenges what you think may not be very good match for advertising. Right? You may not be so persuaded by the attractive model in the car, if you're in your conscious mind, because your conscious mind is smarter than that. Right? And so the question is, is there an evolutionary tendency, as we have used advertising, to fuel journalism, and you know, this has always been there, there's always been a kind of hegemony of the advertisers over the content of the newspaper. And that's always been a problem. But at the moment, so much of our world is being driven by advertising upended to everything that anything that properly tunes into loading people into that sense of calm that makes them I mean, because even think about the way the internet works, right? advertisers are paying based on clicks, that means they're paying based on how effective their ads were. So any ad that was depending on persuading you of something on an emotional channel that is unconscious, is going to discover when it works, that you click More, what if it's true, that journalism that wakes people up and causes them to think, Oh, geez, I didn't realize that, right? What if that kind of journalism causes people to click less on the emotional ads that are spread around the page? And so it goes extinct? Yes, you know, or it gets driven to substack, or whatever happens to it? And then the point is, the mainstream just becomes a reflection of your, your biases and your predispositions because that puts you in a buying mode, right? That's the point is, is it the advertising, it's not that we wouldn't read the stuff that would challenge us and make us smarter, it's that that doesn't work. From the point of view of the economics of the journalistic establishment.

**Bret** 1:02:47

That's excellent. And it's I mean, it's a really different model, than the one that anyone who's thought deeply about advertising, how it's how it has affected content in the past has locked. So I'm thinking specifically, I'm in the, just because it's something I did research on a long, long time ago, I know particularly how advertisers have been able to, at least in the past, specifically, drive content in so called women's literature, women's magazines, and actually decide not just what page you know, what, what so called editorial comment, content is opposite their ad, but also what that content says, which means, you know, makes the entire magazine effectively an advertisement, there is nothing that is ad free content in a magazine, even when you're reading something that is supposedly, you know, a feature or something. And that is that is a model that is you know, heinous, and has been much decried and all of this, it's also really easy to understand, right? Like you can you can just you can get there without thinking very hard about it. And you can wonder if it's still happening, and you can suspect that there's some covert stuff. But it's just like, that's a model that is encapsulated within that story. This is different, it's a little harder to grok you gotta you got to sort of spend some time with, with what the implications are and why it would be evolving this way and why it might not have been noticed by those who would be trying to be paying attention to metrics in the first place.

**Bret** 1:04:12

Yeah. And I wonder, it's the kind of thing that might be worth talking to get sad about his

**Bret** 1:04:18

Yeah, I was just thinking this is exactly his expertise. Yeah.

**Bret** 1:04:21

But anyway, I think it's an interesting question. There are a lot of places it goes, unfortunately, don't have the tweet. Something came up in a discussion that I was party to. And it reminded me of a hypothesis I advanced many years ago. 95, I believe. So there was a tweet that somebody was showing in a conversation that I'm part of, and the tweet argued that porn is actually because it's male biased because it's targeted at men, and it's sexualizes women in a particular way. It is actually causing women to imagine And that they are lesbian, even though they prefer having sex with in the company of men romantic context. So what I advanced in 95 was not about porn at all, because of course, porn was, you know, existed for hills, but it wasn't accessible and as ubiquitous and normalized and all of that stuff as it is now. And so anyway, my nearby hypothesis was that, in fact, it wasn't porn, but that it was advertising because males are so driven by female sexuality, right? The advertisers have honed in on it, right? sex sells. And typically that means, you know, the male version of it, right? Because it makes men impulsive. And, and all of that. So the, the hypothesis that I advanced was that, that, basically women were being sold as sex was being used to sell products, right, that in an inadvertently the male view of sex was being sold to everybody, including women, and that women were, in fact finding themselves, you know, lustful towards other women because, basically, you know, irresistibly desirable images of women were being, you know, constantly broadcast and everybody. So I don't know whether this is right or wrong. Yeah. And, you know, system whether the porn has greatly amplified, some parallel thing, but this is also someplace that would be worth paying attention to,

1:06:34

indeed. All right. So

**Bret** 1:06:38

that's it from my perspective. All

**Bret** 1:06:40

right. Our final segment, we want to talk a little bit about what time of year we're in, and, and read little Dickens as well. So we are I think the solstice is going to be on the 21st is always a day or two.

**Bret** 1:06:56

It is Solstice Eve.

**Bret** 1:06:58

It is Solstice Eve, Eve, Solstice Eve Eve. All right, right now, yes. So here in the Northern Hemisphere, where most people watching or listening, or are living in the shortest day of the year, it's definitely feeling like like winter's coming. And boy, is there widespread fatigue, and just exhaustion, with with everything that's going on. And you know, Hanukkah has always been around this time of year, but it was sort of a minor holiday. Christmas, I actually don't know the history. And you know, in my Natal home, growing up, it was always a time of, of, of great joy and wonder and lights, and family and community and all of this and the fact that there is no historical evidence that Jesus was born anywhere near the winter solstice, the northern winter solstice. And in fact, I think there may be some evidence that he was quite quite precisely not suggests that moving a major holiday for one of the major world's religions, to a moment exactly as pagan rituals that might actually honor things like the solstice, you know, astronomical realities, were being downplayed, would help people at a time when things are literally getting dark, when astronomically, things are at their darkest and things are about to get even colder. And even though the shortest day of the year is in two short days from when we are talking, the day length changes are very slow right now that we're not going to really start seeing a significant uptick and daylength for several more weeks after the solstice. So all of that all of that suggests that regardless of what you think about there being a sky god or not, that there is value in ritual and there is value specifically in in being around around festivity and light and that is all but impossible this year for many people that the combination of the actual virus and the societal response to it has meant that the vast majority of people at least in the US are effectively are actually again in lockdown and it means that many many people have actually not had a normal interaction with another human being for the better part of a year and it's it's tragic and you know, may we may we have a much better one of these next year but also everyone can get through this like we can all get through this and I know it's really hard. You're looking at me like you have some

**Bret** 1:09:29

is the somber tone you're taking is going to make it impossible to make fun of this holiday.

1:09:34

Okay, go for it.

1:09:36

And then I'll read Dickens who does Oh, no,

**Bret** 1:09:37

I would never I would never Christmas. Well, I just look, the thing is, Christmas is really a much it's the it's it's about faith clearly. At a very original level. Yeah, no, I mean in more modern times because you're given To me that look, no, look, it's one thing to have gonna be a bat reindeer. Isn't

1:10:04

it down now reindeer?

**Bret** 1:10:05

Come on, that's a mess. Yeah, no, look, it's one thing to have faith. That there the universe of 360 million stars was created by somebody intentionally, right? And that all of this is part of some plan. It's one thing to have that level of a lot of people do and have for millennia. It's another thing entirely to have faith that you can cut a tree off and bring it indoors. And it's gonna be all right. And then all right, as if

1:10:39

this thinks it's going to be all right. It is pretty, it smells good. And it's enjoyable. You're bad person.

**Bret** 1:10:51

It's true. But the whole thing was set in motion by, you know, radical rabbis. I think of him. So anyway.

**Bret** 1:10:57

Well, I don't think the trees were I think I think many of the parts of the Christmas traditions that I like the most are actually borrowed from the the pagan traditions that pre existed them.

**Bret** 1:11:08

Yeah, I mean, I agree. And I do think it's a Solstice holiday. And you know, it's actually we will let some I think we have not talked about the the odd fact of the calendar not being an integer number of days, and therefore, there being an incredibly hilarious history of people trying to figure out how many days are there in a year and getting it wrong and bad things happening? Yeah. But anyway, there is reason to have God's meanness

1:11:33

joke.

**Bret** 1:11:35

Well, I says the wrong season for me to be saying this right in between Hanukkah and Christmas, but I think that this is the proof that one of two things has to be true, right? Either this universe was not created by God, or he hates us, because if it was created by a loving God, it would be an integer number of days, right? And it would be a lot easier to know when to plant your crops and all of the important things that go with that, but by making it free to

**Bret** 1:12:03

use it anyway, and then you'd have a stable answer and Right,

**Bret** 1:12:07

exactly, and so this is this is either God's joke on us or he's absent, he was at least absent in the creation phase of the course. Am I in trouble now? Having trouble? Alright,

1:12:19

let's,

**Bret** 1:12:20

let's go Dickens. Alright, let's do it. Okay, so it turns out, we don't own a physical copy of A Christmas Carol. So there's a great site. What's it called? So I'm going to read this from a print out that I got, but gutenberg.org has put publicly available versions of many of the classics online. So even if you don't own a particular book, you can find them their entirety. This is from A Christmas Carol first published in 1843. Written Of course by Charles Dickens, which is and this is a play that we saw, was it last year, the year before we've seen it recently? Yeah. And locally, you saw it. Yeah, we saw it. We saw it recently in Portland with my mom. This is the first Christmas. Aside from when we were in Mexico a couple of years ago. I think that we have not been with my mom since our children were born. So that's, that is sadness. Here we go. The door of Scrooges counting house was open that he might keep his eye upon his clerk, who had a dismal little sell beyond a sort of tank was copying letters. Scrooge had a very small fire but the clerk's fire was so very much smaller than it looked like one call. But he couldn't replenish it for Scrooge kept the call box in his own room and so surely as the clerk came in with a shovel, the master predicted that it would be necessary for them to part wherefore the clerk put on his white comforter and tried to warn himself at the candle, in which effort not being a man of a strong imagination, he failed. Ameri Christmas on call God save you credit, cheerful voice. It was the voice of Scrooge's nephew who came upon him so quickly that this was the first intermission he had if his approach. Ba, said Scrooge humbug. He had so heated himself with rapid walking in the fog and frost this nephew of Scrooges that he was all in a glow. His face was ready enhanced and his eyes sparkle in his breath smoked again. Christmas a humbug uncle said Scrooges, nephew you don't mean that? I'm sure? I do. Send Scrooge Merry Christmas. What right have you to be married? What reason have you to be married? you're poor enough? Come then return the nephew Kaylee. What right have you to be dismal? What reason have you to be morose? You're rich enough? Scrooge have no better answer ready on the spur of the moment said bah again and followed it up with humbug Don't be cross uncle so the nephew What else can I be returning the uncle when I live in such a world of fools is this Merry Christmas out upon Merry Christmas? What's Christmas time to you but a time for paying bills without money? A time for finding yourself a year older but not an hour richer? A time for balancing your books and having every item in them through a round dozen a month present a debt against you. If I could work my well, said Scrooge and definitely every idiot he goes about with Merry Christmas on his lips should be boiled with his own pudding and buried with a stick of holly through his heart. He should oncall pleaded Nephew, nephew, returned the uncle sternly keep Christmas in your own way. And let me keep it in mind. Keep it repeated Scrooges nephew but you don't keep it. Let me leave it alone then said Scrooge made much good may do to you much good It has ever done you. There are many things from which I might have derived good buy, which I have not profited, I dare say return the nephew, Christmas among the rest. But I am sure I've always thought of Christmas time when has come around, apart from the veneration, do it sacred name and origin, if anything belonged to it can be apart from that, as a good time, a kind, forgiving, charitable and pleasant time. The only time I know of in the long calendar of the year, when men and women seemed by one consent, open their shut up hearts freely, and to think of people below them as if they really were fellow pastures to the grave, and not another race of creatures bound on other journeys. And therefore uncle, though does never put a scrap of gold or silver in my pocket. I believe that it has done me good. And it will do me good. And I say God bless it.

**Bret** 1:15:58

Nice. Yeah, it does. Yeah, it does raise exactly the question that you began with, with respect to this being a uniquely isolating Christmas it is. And yeah, maybe we will figure out what to do about that. In other words, there are hints of us developing new ways of interacting with each other that do not replace, you know, being physically together, but nonetheless are better than staring at your TV. So anyway, maybe

**Bret** 1:16:33

you just leave that as a as a tease for now. Well,

**Bret** 1:16:36

I just think, you know, maybe it's the darkest. Well, as you point out, the days are about to start getting longer, even though it's going to continue to get colder. And maybe it will be a winter of innovation.

**Bret** 1:16:51

Oh, let us help. Yep. Let us out.

**Bret** 1:16:54

All right. So we have the usual announcements that we'll make here. And then we'll be back. We will take about a 15 minute break and be back to answer your questions. So if you have questions, ask them via Super Chat. On this hour or the next. You can if you wanted for instance, to have a Portland mug shot, go to www dot story that dark horse podcast.org it's also on the screen here. And although it's I don't even know if it's totally too late to get anything by Christmas. At this point, you can use the code, you can use the code Christmas all caps to get 10% off through Christmas on anything you order. patrons of ours get a little bit further discount. Darkhorse dot moderator@gmail.com is an email account that you can use for logistical questions like, when would the private q&a be if you join Heather's Patreon, for instance? And how do I pose a question? At my Patreon, we have a private q&a every month to our q&a that has few enough people that we can engage with people in real time on the chat. And actually, just before I livestream today, I opened up for people at the $11 and up level, the forum to pose questions for this month's q&a. We don't get through all of them. But we prioritize those asking questions at that level and up. So that's open right now. You have conversations at your Patreon every month for people at the higher higher tiers.

**Bret** 1:18:20

Yes, and I should probably make a an announcement about that. So in the last iteration, on the Saturday conversation, the coalition of the reasonable conversation, there was a hiccup It was my fault that I didn't catch it in Patreon and certain number of people did not get their invite. So we are going to reschedule that conversation and we are going to open it up to anybody in that group who wants to be a participant. So if you didn't get your invite, send us a an email at the

**Heather** 1:18:48

Dark Horse moderator@gmail.com

**Bret** 1:18:50

dark horse that moderator will do it. If you sign up before we reschedule, which should be at least a week out. You can be part of that conversation.

**Bret** 1:19:00

I think it's exactly when we got I think it's going to be on Boxing Day.

**Bret** 1:19:04

That's right, right. Okay,

**Bret** 1:19:05

so that does mean that if you signed up for your Patreon is the $100 level, you would be usually your conversations are the first Saturday and Sunday of every month. So there's going to be a second one this month.

**Bret** 1:19:15

Right? There's gonna be a second one this month and you could get in on it and then you'd have another one soon thereafter. Yep, very soon, very soon thereafter. So anyway, there's that and anything else?

**Bret** 1:19:27

Yep, you get access to the discord server, either of our Patreon is at the $5 and up level and we got a great clips channel. Thank you David for doing this. We really some terrific things coming out all the time, indeed. And we'll see you in 15 minutes

**Bret** 1:19:41

and 15 be well