Bret and Heather 91st DarkHorse Podcast Livestream\_ The Fog ...

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**SPEAKERS**

Bret, Heather

**Bret** 00:10

Hey folks, welcome. I am Dr. Brett Weinstein. This is Dr. Heather hying. And we are we are the official Dart the first live stream I don't even need you to confirm that number because I know it to be correct.

**Heather** 00:25

You don't need me to confirm it.

**Bret** 00:26

Nope. Nope, it's it's it's dead certain it's the 91st.

**Heather** 00:30

It is. And I'm glad you're on it because my grip on time and the passage there seems to be slipping somewhat. I think I said yours at some point in last episode when I meant either days or weeks. I never remember what the error was. There was another error. And in tweeting out the announcement of today's show, I suggested that it was going to be on July 7. So you know, hope springs eternal, I guess for that Endless Summer, but we're not going to get

**Bret** 00:54

it. Yeah, the more and more time passes, the less I'm a believer in it.

**Heather** 00:58

No, no, that's not true, actually.

**Bret** 01:01

Well, if I have to sort that out later, when we have a bit more room for that sort of thing, all right.

**Heather** 01:06

So today, we are going to be talking about it ways in which we might take control of our own health, with some some sort of personal personal stories. And, and just a reference, again, to the comorbidities that put you a particular risk of, of I think contracting, but definitely of falling very ill from COVID, a paper that we have referenced before and that others have as well. We are going to talk about chapter eight from our forthcoming book, a hunter gatherers guide to the 21st century, which is the chapter on parenthood and relationship. And then we're going to talk a little bit about how parenting might be evolving. I'll just leave it at that that's that's a teaser. That is somewhat misleading.

**Bret** 01:57

That sounds awesome.

**Heather** 01:59

Maybe, maybe. So if you're watching and this is just announcements for the top of the show, if you're watching on YouTube, consider switching to Odyssey this time we have in part in order to encourage that and also to give our moderators a break so they don't have to be moderating in two different places. We've turned off chat on YouTube. So if you want to be involved if you're listening live right now you want to be on chat. You should go over to Odyssey as of a couple of weeks ago if you are interested in asking a question for us to consider answering in our q&a which will follow this live stream go to Dark Horse submissions.com and you can ask questions there there are facts to answer your questions. If you find that you have questions about logistics that are not answered there you can email Darkhorse moderator@gmail.com with any such questions, consider joining one or both of our patrons. Many have of late and we are very appreciative and you had one of your conversations your Patreon conversations this morning another one tomorrow great. You can get dark horse t shirts and Goliath t shirts and such at Dark Horse podcast at store Dark Horse podcast.org and consider joining me in my new endeavor natural selections by my newsletter natural selections.substack.com where all the writing is free and if you subscribe you get weekly email to your inbox telling you what new post

**Bret** 03:29

has dropped still have that new newsletter smell it?

**Heather** 03:32

It does I'm trying to get rid of it sexually It's all right. It's all Yeah, okay, that's probably not good for you. No, certainly not all right, not Certainly not. And so today we do have two sponsors of the episode and without further ado, we will go into those. All right, we've got a new one this week from mud water, MUD Wt our mud water is a coffee alternative with for adaptogenic mushrooms and aromatic herbs. With a seventh the caffeine of a cup of coffee, you get energy without the anxiety, jitters or crash of coffee. each ingredient was added by the makers of mud water for a purpose. It's got cacau and Chai for mood and a micro dose of caffeine, Lion's Mane for alertness, cortisol, to help support physical performance Chaga and Reishi Reishi nebras that to support your immune system, turmeric for soreness, cinnamon for antioxidants. So that's what I was told to say I'll just say this, I enjoy my coffee just fine, but I don't need it. And that's intentional. I've spent time places where coffee was not or might not be available. So it's important to me not to lose functionality when I don't have it. So I wasn't sure that I needed or wanted this product. And we've been we've been pitched and I've tried a number of products to advertise on the show that we have not accepted because they just didn't seem right for us. They weren't a fit for our understanding of how to live the best life with an understanding of your evolution. But I've now been drinking what mud water on and off for a couple of weeks now several weeks actually and I kind of love it. I'm a sucker for chocolate and there's definitely Hana chocolate in there. Same for their Masala Chai blend which has cinnamon and turmeric, ginger, cardamom, black pepper, nutmeg and cloves. And I also looked into a lion's mane, which is becoming pretty popular. And often the things that become popular is just because someone discovered that, you know, another culture has been doing something for a long time, and it works. This is one of the mushroom species that they include. And I admit that I'm intrigued, I found a 2015 paper or a research paper, which was seeking to basically consolidate what is understood about about it, and the abstract says in part the described anti inflammatory antioxidant oxidative. I'll start over the described anti inflammatory, anti oxidative and immuno stimulating properties and cells, animals and humans seems to be responsible for the multiple health promoting properties. So I drink my mud water with a little bit of their sweetener, which is a mixture of coconut sugar, and lucam, which is an Andean fruit, and either a bit of cream or sometimes an alternative milk. And I really, really enjoy it. And it's got all the things that you might expect from such a product. So 100%, USDA, organic, non GMO, gluten free, vegan, kosher, certified, probably on and on and on. So visit mud water.com slash dark horse to support the show and use dark horse at checkout for $5 off, that's m udwtr.com. Slash Dark Horse, use dark horse at checkout for $5 off.

**Bret** 06:28

All right, next up is ExpressVPN. And let's just face the paradox upfront, you know that you need a VPN, but you don't know exactly what a VPN is. But that's not so strange. The fact is, it's a very technical landscape. A VPN is a protocol that allows you to anonymize your browsing so that it is not documented by someone because we all know that as we are browsing online information about what it is that we are looking at is being collected and sold to advertisers. And you don't want that. So you're going to need a VPN. And we recommend ExpressVPN, we have found it to be excellent, many regarded as the best VPN on the market. And for good reason. One excellent reason to use it is that ExpressVPN does not log your activity online. Many other VPNs especially cheap ones, or free ones, log your activity and they sell your information to advertisers. And you certainly don't want that. So ExpressVPN does not log your activity. Their speed is excellent. They have servers all over the world and allow you to place your browsing locale anywhere you want to be, for example, if you want to be browsing in Britain so that you can see BBC that is something you can do with Express VPN. And it's something I do very useful. It's easy to use, you don't need technical skills, you just install it and then you hit a single button and voila, you're online using Express VPN anonymized even to your ISP. And it's not just me saying this CNET and the verge and many other technical journals, right? ExpressVPN number one in the world. So protect yourself, protect yourself with the VPN that I use and trust. Use this link expressvpn.com slash Darkhorse today and get an extra three months free on a one year packet that's Express VPN e x p r e s s vpn.com slash Darkhorse. And visit that link to learn more.

**Heather** 08:34

All right, and in today's episode is brought to you by the number 91, and the letter O. So the O section of the index from hunter gatherers guide to the 21st century is short. It's much shorter than than most of the letters in the index and it reads as follows obsession, octopuses, olfaction, explosive gases and other dangerous substance then, remapping of olfactory perception warning provided by all limbs, omega principle one night stand strategy, opioids opportunity cost orangutans, orcas, organelles austrac these ovan or is it offered? It's of it? I think it's isolation concealment of and oxytocin. This also brought to you by the number 91, and the letter O and

**Bret** 09:25

letter O. Right. So

**Heather** 09:30

sound we wanted to talk you you specifically wanted to talk a little bit about what some some of what you're planning for us, specifically you and our children, as the summer looks like it might not in fact be endless, but first, let us review briefly. The fact that people with comorbidities are far more likely to get sick and die than Those without of SARS of COVID-19 caused Of course by SARS could be too and that, you know that line that I just read is directly from our driving SARS Coby to extinct posts that we made a couple of weeks ago that we've talked about here. And the evidence for that is all over the place, really. But one of the papers that does a remarkable job of kind of collating the evidence that exists is the one that we cited in that paper, and also described at some length by Chris martenson. of peak prosperity, in which he dove into this paper a bit more of a for fair bit for 35 minutes or so. So we'll post the link to Martinson's video as well. And I'll just if you would put this up for a moment, Zack, this original research Oh, I have you can't put this up because I am not playing

**Bret** 10:56

up with this. He cannot put Yeah.

**Heather** 10:59

Nothing. Nothing is working very well. Okay. So don't put it up yet, because I've gone back to my notes here. Yeah, which means my computer has gone dark.

**Bret** 11:12

Oh, no. Yes.

**Heather** 11:14

Here we are. Okay. So what? Oh, boy. My new computer arrived yesterday. But But I'm not I'm not on it. Yeah. So I'm really hoping that by this time next week, I have a computer that is far more functional. Alright, so you can show my screen now. Here's Zach. This is and I think I think I've mentioned this paper by name before and then I also couldn't pronounce the first author's first name company that's perhaps published in preventing chronic disease on the CDC site. Or it's not even clear to me exactly. If it's just on the CDC site, or if it's in a Yeah, I guess it is in this preventing chronic disease journal. So the title is underlying medical conditions and severe illness among 540,667 adults hospitalized with COVID-19 March 2020 through March 2021. And the upshot is really as we have said multiple times you are much more likely to get sick and to have and also separately to have a very bad outcome from COVID if you have one or more comorbidities and but it's not just any comorbidities and specifically the one that they've found being the most predictive of bad outcomes is obesity and and then you know interestingly anxiety and anxiety disorders is number two and neither the authors of the paper nor Chris martenson talking about it nor do some of his commenters were suggesting interesting things you know, nor I have have anything definitive to say about that like what might that be one possibility is that the anxiety actually comes afterwards right that at the point that you're hospitalized for COVID then you're easily diagnoseable with with anxiety so you know there's a cause and effect issue and then there's also a possibility that because all people with a lot of health problems tend to present as anxious or depressed because of course they would be and there would be good reason for them to be that they would then be diagnosed you know before ever having COVID be diagnosed as anxious or depressed and be given you know, the anti anxiety or anti depression drugs as a result and being on one of those things is enough to get you described as being anxious or depressed in such a study and some of those drugs may also be risk factors for for COVID as well although of course there's one that may actually run in the other direction walks I mean, right Yep, exactly. But the you know, the fact that you may be like more likely to get prescribed such things if you already have a suite of other health problems because you may have good reason to have anxiety may mean that this isn't what it seems that it's actually about the presence of a bunch of other underlying health conditions unclear but but you know, the other the other predictive co-morbidities are you know, as as you might expect, things like chronic kidney disease and you know, as I said the number one, the number one factor that they found in this over half million people is of the obesity and so as we've said in service of this, why does almost none of the health messaging around saris, Coby two, and COVID seem to be about those things that you can actually take control of yourself. There is so much that we can do with diet to make us healthier and to bring bring into alignment with expected healthy numbers are you know things like our our blood sugar and our blood pressure and things like this. And obviously, the more fit you are, the more active you are, the less likely you are to be obese and have other underlying health conditions.

**Bret** 15:11

And the downside of getting your health in order is not a downside at all right? Even if these things turned out to be, you know, third correlates of something else, and they didn't have direct effects on COVID, you would almost certainly have greater longevity, greater happiness, etc. for having addressed these things,

**Heather** 15:29

even if it didn't turn out to have effects on COVID, which it seems clear that it would, it clearly would on other things, you know, metabolic syndrome is, you know, this this gorge among Americans now, and you know, it's not in non weird countries, this is something about the modern, the modern lifestyle, which includes crap food, and sedentary, sedentary lifestyles.

**Bret** 15:55

Yeah. And so I was in my conversation with Patreon subscribers this morning I was describing that effectively, we have a herd of elephants in the room. And this is one of them, the complete failure to highlight all of the easy things to do, that don't appear to have a downside that do appear to contribute to your resistance to COVID. And it's it's a very strange reaction, because on the one hand, we are literally at the point of, you know, strong arming people into certain treatments as we are ignoring other treatments. And it's not like all of the other treatments are controversial, right? The fact is, vitamin D is spectacularly important, as you and I had talked about early in our series on COVID, we talked about extensively the evidence that vitamin D is a strong contributor. And you know, the way this works probably, if you have sufficient vitamin D, there's no benefit to extra vitamin D, as far as we know. But the cost of being deficient in vitamin D is very, very high with respect to contract and COVID, I was actually surprised at how strong the evidence has grown since the last time I looked at it. And then

**Heather** 17:09

with regard to vitamin D, in particular, vitamin

**Bret** 17:10

D, in particular. And I guess the the reason that this is conspicuous is that we are not highlighting either the fact that time spent outside in the sun is particularly important in doing away with a deficiency of Vitamin D. The clock is ticking for those of us in the Northern Hemisphere, because yes, Winter is coming. I know you're shaking your head, you're literally shaking your head,

**Heather** 17:35

but I tried to make it July today.

**Bret** 17:38

But nonetheless, this is an obvious intervention, with no downside, tremendous upside, extremely inexpensive, something people can do, you know, without needing to radically alter their lifestyle. And yet, for some reason, we are not recommending.

**Heather** 17:54

And so in this case, you're talking about taking it sort of prophylactically. But really, on an ongoing basis. Well, I would

**Bret** 18:01

I would now just tell you how I'm looking at this for myself and and for our family, which is I suspect, but do not know that building up vitamin D, the most natural way, which is with sunlight, has some holdover effect into winter, there's probably some period of time at which you've had little enough sun exposure, that you're likely to be deficient unless you supplement and so supplementing is sure to be second best. But nonetheless, I'm supplementing

**Heather** 18:29

go to someplace with sun for a week or go does if you're if you have you have the capacity and the luxury and Yes,

**Bret** 18:34

right. And if you you know, there's also other things you can do, it's not like the sun doesn't shine in the winter, in most places it does. And the problem is that you're dressed up in such a way that you don't encounter but you can you can adjust this to an extent,

**Heather** 18:48

and I and I think and I actually would have to go back and re familiarize myself with the with the research. But because the winter sun, especially the farther from the equator You are the winter sun, which is you know, December through March in the Northern Hemisphere and June through September and the southern hemisphere is at such a low angle and therefore coming through so much more atmosphere, that it takes much more exposure to get what you need. And then add to that the fact that you're much less of your skin is exposed. There's far less far fewer hours in the day when you could possibly be exposed. That it's just actually much harder. And this is you know, this is part of why for instance, boy, which Scandinavians the Vikings I guess, who you know, famously a cod and they were not the ones that you know, they were the ones who didn't get rickets. And no, they didn't know, right, what the mechanism of action was. And it turns out, you don't need to know the mechanism of action for it to be a mechanism of action that works, right. In fact,

**Bret** 19:43

we've only recently been aware of mechanisms of action at this level at all right, the ability to detect them is hard enough. But it certainly seems, you know, I think there's a very terrible argument to be made about, you know, obesity. For example, and that there's some, you know, they don't want to fat shame people. And so they're not highlighting that I think that's an absolutely appalling justification for not highlighting it. Because for one thing, if this motivated people to get healthier and to control their weight, it would have, you know, collateral health benefits. But you can't even make that argument with vitamin D. and, and from the point of view of, you know, this is psychologically stressful for all of us, as you point out, there may well be a tie in with anxiety, that it may be a comorbidity and that therefore making you know, making hay while the sun shines, getting out, doing activities that you can do easily when it's not cold, outside is good for you, it allows you to socialize in a way that isn't, at least so far as we know, at this point, risky with respect to COVID, all of these things are pointing in the same direction. And so our failure to highlight all of the simple interventions that you can make that do seem to work that have collateral benefits, like you know, calming you down, improving your mental health, allowing you to socialize without putting yourself or others in jeopardy, all of these things point in the same direction. And yet they are conspicuously absent from the advice, right? The advice is so narrowly targeted as to be suspicious. That's right. Yeah. Which, so I, I will say, I heard Joe Rogan, Joe Rogan was trending last night, and this morning, as a result of people being dismayed at things he had said on his podcast, of course, and as so frequently the case, when you go and check, a Joe is not did not say the things that he is reported to have said, and be the things that people imagine where so upsetting, shouldn't have been upsetting to them. One of the things that Joe said was something very much like what you and I have been planning to say here about these other interventions, and the fact that it's weird that we're not recommending them. But the thing Joe got in trouble for most precipitously was he was claimed you it was argued that he said on this podcast, that the vaccines might be causing mutations in the virus, right, which is an odd thing for him to have said, and when you go and look at what he actually said, he never said anything of the sort. In fact, what he did was he read a he read from a paper that argued that the vaccines might select from mutants that would be more dangerous or more transmissible, which is a totally defensible and highly logical thing for him to have said. So in any case, there's some weird phenomenon where the simple fact of you know Joe Rogan's speaking common sense is so dangerous, that he needs to be strong and online, and he needs to trend for, you know, suppose it villainy, when in fact, what he's saying are things that should be obvious to anyone. You know, there clearly is a hazard that comes from the selective environment that we are creating for this virus. there clearly is a lost opportunity in not recommending to people that hey, there are certain things that are under your control that you're maybe not doing and you don't realize may be playing a very large role in whether or not you're vulnerable to COVID. come January, right. So there's some there's some failure of our discussion that's so fundamental, that we're just we're missing opportunities that are obviously there and should be completely uncontroversial, right? Indeed. Which I guess leads them to the question of what we are what we are doing.

**Heather** 23:42

Yeah, we can either we can go there or given that you segwayed there first, as a couple other things that as you like,

**Bret** 23:50

either way, all right after you.

**Heather** 23:53

Were just gonna kind of be all over the place today. I guess two things and one I forgot to mention to you before I listened to this extraordinary podcast from Barry Weiss. This this week, or new or relatively new podcast, honestly is really terrific. And this week, she had Camille Foster, our friend, Camille Foster, who's one of the hosts of the fifth column podcast, also an excellent podcast. And it's mostly it's it's Camille Foster, who has basically chased down the story of the Central Park dog walker, a woman named Amy Cooper who got into an encounter with a guy named Christian Cooper no relationship between them. And as I did not know this until listening to this hour plus conversation. Apparently that incident happened within hours of George Floyd's death. That that was that was right that it was actually before. It was just it was like, I don't remember what it was like 12 hours or something before and so it just got wrapped up into the whole the whole story of have, you know historic and systemic racism against black men and how it manifests today? And Camille Foster, you know, finds me Cooper has gone into hiding who's nowhere that anyone can find her at this point and talks to her and he does due diligence, and he does journalism. And he finds that the story is not what we were told, right. It's just it's it's not what it was told it's not a and I refuse to even use the epithet. You know, they're calling her care and I you know, I as I've said before, I hate the idea and this is this is another kind of other ring of dehumanizing people the idea that, you know, middle aged white women who are, you know, too nosy or something not even know what it is exactly are going to be given a name that actually is the name of a lot of people, you know, no, thank you very much. But what was actually happening there at a really will link will link to this, and I really encourage you to go listen to their to the conversation turned out to be, you know, emerging from such a deeper and you know, if there was any racism there at all, it's on, it's unverifiable. And it's probable, there's no racism there at all. And in fact, if you swapped the roles of the two people, the black man and the white woman in that incident, it would have been just as easy and maybe even easier to ascribe racism to what is now the white woman's position, which in this case, was the black man doing what what he was doing. So all of that was fascinating. And again, I highly recommend it, and we'll link to it in the in the description. But the overall, the overwhelming sense that I had coming away from listening to it was, this is what happens when our sense making apparatus becomes conclusion driven. That the conclusion is decided, before data come in before evidence comes in the case that it might not be data per se, before analysis is even possible. And certainly before analysis is tolerated or allowed. And then if and when data or evidence or analysis does show up. When it runs counter to the conclusion that has already been generated that is already forgotten. It's ignored. And this is not how journalism is supposed to work, of course, or science. What it is, is PR, it's public relations. And it's PR decked out in the guise of journalism or science or justice, right? But this guy's it has no it has no clothes. You know, this is like a classic emperor has no clothes. I feel like Look, guys, that's not journalism fault. I'd love I'd love to follow some journalism and follow some science and follow some justice and be right there in the thick of it. And it turns out without hardly any trustworthy journalists out there, Camille Foster, Barry Weiss being two notable exceptions in this regard, I don't even know if Camille regards himself as a journalist in general, but in this case, he did some extraordinary journalism.

**Heather** 27:56

But this this guy's his PR just yells and yells and yells at us, and it can't see beyond itself. And those who disagree with it are evil or disgusting, or dirty or deplorable. And, of course, we're seeing the same thing over and COVID space, the conclusion is foregone. We have a conclusion there is some conclusion and who knows under what circumstances and by whom, and for what purposes it is arrived at. But then we are fed that conclusion along with feel good human interest stories, and some of you know, something that looks a little bit like data or evidence that may or may not be, and what they're effectively doing is guaranteeing that some it's it's increasing a sense of tribe, by dehumanizing those who aren't in trouble. And it pretends that we're all one people, right? It actually talks a good game about like, well, we're all in this together. But we are actually 101 people, and this is doing nothing to to preserve that. And following along from that I was sitting, thinking about the podcast this morning, taking, taking some notes, reading a couple of research articles in this beautiful park today. And I was listening, I ended up eavesdropping, and I ended up ultimately going over and telling the people that I had been at we had a wonderful conversation. I was positioned such that I couldn't help it over here with these three women, you know, a bit older than us between your three women. Liberals, in or outside of Portland, white women, not that it should matter. People with adult children because I heard them talking about them, who were engaging in this very careful discussion of of COVID in so many ways. One of them had been diagnosed with it and gotten a false negative first and then come up with a false positive but that sent everyone into some kind of disarray like what do we what are we supposed to do with this false negative when clearly she this person seems to have it To which one of the women sitting there says, You know, I don't I just don't think the tests are reliable and they're not reliable in either direction as false negatives or false positives. And they're saying that they're not, you know, they're not prepared to travel yet because, you know, it's likely that another another wave is coming. And so and you know, and they're and they're vaccinated, but they're not, they're not sure about everything that they're hearing about the vaccinations. And so one of them said, CNN is so untrustworthy, I don't trust them any more than I trust Fox at this point. So again, this is liberals and I know a lot of people listening to us and watching us might say, the opposite. You know, Fox is becoming untrustworthy. They don't I don't trust it any more than I trust cnn at this point. But I'm saying this, as you're speaking to those many of us who are liberals, and those many who would say, oh, you're not a no liberals think the way that you do. Right? This is this is anecdote for sure. But listening to these women talk and then talking with them a little bit before before I had to leave to come back to do this, you know, they're saying, It's, they're talking about particular politicians, and I'm just not going to name them here. And and you know, Hollywood actors and stuff and saying, The trying to make the unvaccinated the enemy, it's horrible. Get them, they seem to be saying and be our country is in such poor shape. And with regard to the media, and Corporation and the politicians, each of those groups, they said, they're just making shit up. This is what they said over and over again, they're just making shit up. And the path that we're on 100%, for sure, people are going to be restricted in terms of where they can go. It's terrifying. So this is one conversation, one that I overheard between three women in, you know, very liberal Portland, very liberal people vaccinated, who are saying, this is, this is a very big problem for our country and for democracy. And effectively, much like in a totally different domain, what I was hearing in this conversation with Camille Foster and Barry Weiss on the honestly pod that when the conclusion is handed to you, and you are told there is no possible other thing that you could conclude, you should immediately begin to wonder what you're not being told.

**Bret** 32:20

So I think you're, I think you're on a very important topic here. And I'm juggling a few things that seem to fit together. And you know, this is the first time I've heard your riff on this. So I don't know where this goes. But I want to start with something some, some of our listeners will have heard of, and many will not, or won't know what it means, even if they've heard the term. You know, what a push poll is? I do, but it's a push poll is a poll, whose purpose is not to collect information, but actually to drive belief. Right? And so then

**Heather** 32:57

done by, you know, the people working on behalf of politician like what, under what circumstances to push polls

**Bret** 33:04

exist? Yeah, it's it's often done by workaday people who have just, you know, signed up for a job, but they're, I think, always instituted by terrible people who are using the act of data collection as a stalking horse for another purpose. And it's hard to imagine how any decent person finds themselves engaged in that behavior.

**Heather** 33:26

Well, but I'm in a push poll. I wish. I wish we had an example here. Because my sense is that they don't always unless you're unless you're thinking very carefully. They don't necessarily reveal themselves. Oh,

**Bret** 33:37

right. Know that they it's like any other kind of advertising, right? PR advertising, you're supposed to think it's not working on you. That's when it works on Yeah, right. Right. But anyway, the idea is, there's some thing that we all understand to be a legitimate exercise, which is a poll. And because it exists, you can use it for another purpose, which is actually to manipulate people's belief structures. And what you're describing your conclusion driven landscape is a place where the language and form of logic and analysis is borrowed for something else. And I think this actually explains a lot of what is happening

**Heather** 34:14

it's equivalent to scientism, right and and high x formulation, but it's it's bigger than that. Yeah, it's

**Bret** 34:19

Yeah, it's logic ism, analytic ism, analytic ism. And so here's what I think you and I are running into. You and I are trying to do an analysis of an a set of evidence that is nothing if not confusing, and self contradictory, right. And, you know, on the one hand, that's not outside of what we do on topics where there's nothing writing, right? in evolutionary biology, you're often looking at different kinds of conflicting evidence and trying to figure out what the underlying pattern is. So you know, that sorting through evidence and figuring out what to wait and how is a is an art more than a science and if you're good at it, when it comes Whether it results in is predictive power. But anyway, the point is, that's just a, just a thing that we do, we are now doing it in a realm where everybody perceives a great deal at stake, and there's a lot at stake. But what that results in is a lot of people being hostile to the exercise of those tools, and availing themselves of the right to borrow logic and analysis or the trappings of them for the purpose of manipulating, and I think, almost to a person, that the people that we come up against who we know who we have had positive histories with, who are doing this, imagine that where we are, is this. This is no time for analysis, right? It's like the person who wants to question authority in the middle of trying to, you know, defeat the machine gun nest, right? This is not the time for that this is a chain of command, people can't this chain of command business. And so the point is, look, we all understand the vaccines are good, and that they are the key to going where we're going. And we all all of us adults understand that it's a more complicated story than that. And this is no time to talk about downsides, trade offs, risk, uncertainty, long term hazards, any of those things. Because the point is, we either get over some threshold number, in which case things get better, or we don't, and you by trying to deploy your analysis in the midst of this battle are getting in the way of us crossing that threshold. Now. I will speak only for me, though, I would imagine you are in the same spot. I've looked at this puzzle. There's no threshold. It's not like we're going somewhere. It's not like some policy is being deployed that explains what number we're shooting for. And if we can only get enough people on board, we will actually be able to relax, there's no conceivable way that this goes that direction. But

**Heather** 36:48

and if we were if even if there had been a number, they're like, that's what we're shooting for 100%, it'd be like, catch 22. They just keep on upping the number of missions.

**Bret** 36:56

I think the thing is, either they're so diluted that they think there's a number, right, and they haven't looked at the vaccines that they have at their disposal. And what will happen if you there's no number right now, number two hit the vaccines are too leaky. And there's too much for the club, they can't read.

**Heather** 37:10

So sorry. But that's like that's a combination of the social landscape is such that actually there is no number and we're certain of that. But the more important thing, of course, is the actual the facts on the ground, the non social landscape, the biology is such that we actually have never heard because there does not exist. They plan to end the pandemic with the extent vaccines,

**Bret** 37:35

right. And so it's all done by implication, well, there are vaccines and vaccines could be used to end a pandemic, and there's some number that you have to hit. And those people who, you know, aren't participating are counterproductive to that. And so it's all done through implication, but it's never stated for some reason. But in any case, I think this, this neatly explains, I hope it's not too neat, but I think it neatly explains the experience of having people who on an ordinary day should see through the failures of our public health apparatus just as easily as we do, who seem to be completely blind to any level of failure that exists there. And the basic point is, they are on a team because they believe that we are in a battle that has a coherent endpoint, and that anybody who is not, you know, shouldering their share of the load is counterproductive rather than No, sorry, that battle doesn't even exist. That's not the battle we're in. Right. And so Frankly, I guess, you know, the other term that I think belongs in in here is that this is basically a Machiavellian approach to analysis. That effectively, that's interesting, because there is loosely understood to be a coherent public health endpoint. And it is imagined that the prescriptions we have been given with respect to what to do must point in that direction, that there is a sidelining of one's own self skepticism, that is resulting in a kind of certitude from people who know better than to have that kind of certitude about anything that they believe. Right. Yeah. You know, who amongst our friends isn't good at the question of, you know, where's the weak spot in my own argument, right, right. These people are typically good at that. And they seem to have just lost touch with that, that instinct which I take to be about a, I think demonstrably demonstrably false belief that we are on a path and that there is something useful at the end of it and that therefore it is simply time to put it all aside and pull together

**Heather** 39:45

well. Or, I guess, an alternative way to think about where people believe we are is that we are ascending or you know, trying to take in a machine gun knows that we are in The fog of war and that there is someone and they are telling us what needs to be done and, and ignoring the chain of command here will get all of us killed. So stop it already. Right, right. And and you know, frankly how do you create the sense of the fog of war without the fog of war, you have to get people scared you have to get people back on their heels you have to get people terrorized not just by a virus, which is actually terrible and horrible, horrifying, but also terrified of each other. You have to create division between between human beings such that whenever you go out you're looking at them going Oh, I'll bet you I bet you're the enemy.

**Bret** 40:39

Right? Right. So and in this So two things one in this mill you the fact that we can't seem to make the point that hey, actually, we're not the thing that you just portrayed us as right or wrong. We don't believe the things that have been described to us that's odd that that anybody would be continuing anybody honorable would be continuing to assert these things or to believe them. Unless the point was really the purpose is to get you to stop what you're doing irrespective of true false whatever. The thing you point to though about that's funny this the fog of war is a natural fact of the confusion of the battlefield and it has impact Yeah, if you need the fog of war, to be useful to some objective that is unstated. And I'm not claiming that that's what our friends are up to. But I do believe that somebody is polluting our environment so that we are not capable of making sense that we would otherwise make it is the fog machine of war.

**Heather** 41:42

The fog machine fog machine Oh, my PR mutes war. Yeah, yeah. So that's

**Bret** 41:46

that is in fact what I think we are really fighting over is whether or not this is simply a war and that fog is natural and we need to get unconfused and all pull in the same direction or we are being fogged. So that we will be confused about what is and is not on the table in terms of paths forward so that for example, the possibility of driving Cyrus Coby to to extinction, which you and I are still advocating and still I hear almost nobody else talking about is even

**Heather** 42:14

know to the degree that most people say anything about they say, yeah, everything else maybe but certainly not that we're never going to accomplish it at this point.

**Bret** 42:22

Right. Even though it seems to be implied in the simplistic prescription that has been handed to right What then is the right? Trying to achieve right? So all right. fog machine word is

**Heather** 42:36

like it. I mean, I hate it. And I like it. Yeah.

**Bret** 42:38

It's a decent.

**Heather** 42:40

It's a clarifying. Yes, yeah.

**Bret** 42:42

All right. Oh, so I hadn't yet talked about what it is that we all are doing. That's and this is something I'm just gonna invite everybody in the sound of, within the sound of our voices to figure out their own version of this and join us in it. I will say Heather's in a slightly different position than the rest of our family because as many of you will know, Heather was in a nearly fatal boat accident. What is it five years ago?

**Heather** 43:12

Yeah, it was

**Bret** 43:13

nearly five years ago, which means that cycling although over five years over five years, that bicycling which was a major part of all of our activity is something Heather is working her way back into but doesn't isn't where the rest of the family is exactly at them. Yeah,

**Heather** 43:29

I was thrilled. I mean, I'm just gonna jump here. You know, I've been paddleboarding a lot as people know, but I and it's wonderful to be out on the water especially early in the morning. He had some nature but there's no speed and I love speed. And I did go I did go on a 24 mile bike ride yesterday, which was mostly up and then mostly down and man I just love going fast

**Bret** 43:51

there. There is speed in paddleboarding just so little it's barely perceptible Alright, it's not

**Heather** 43:57

that I'm staying in the same place the whole time which would be its own kind of work but yeah, no, it's it's wonderful. But it's, you know, just just as you know, like single track mountain biking, which we used to do a lot of is fabulous but not when you're out there as a birder as a naturalist right? Like you just you don't see anything you go too fast and you don't see the nature and so paddleboarding allows you access to to the nature allows you to be a naturalist at the same time. But if you also like to both get your heart pumping, and just have the sense of like the world going fast past you fast bikes are well here to get you there. So

**Bret** 44:34

that's true. That's true. I have been biking to a nature area and then hanging out there.

**Heather** 44:38

Yeah, no, that works. Yeah, you bike there and then you slow down and then you bike. Oh, yeah,

**Bret** 44:42

exactly. But anyway, what we are doing is we are looking at the calendar and thinking, oh god, it's going to be winter here sooner than we know. Some of

**Heather** 44:51

us are thinking if I just write it down, it'll be July and it will be July.

**Bret** 44:55

I hope that works. And please invite us backwards in time to July I wouldn't mind that but yeah But anyway What? For two different reasons one, because of all the things we've talked about with COVID and the value of being in good health with respect to fending off the disease from the point of view of contracting it and if you do contracting and having less severe course of disease, it makes sense to get into shape while the sun shines and the hard part for all of us who live fairly far north or presumably fairly far south, the harshness of winter makes it hard to stay on your exercise regimen so just simply getting on your bike here in August is pretty easy because you don't need to bring that much You don't need to think about the exact temperature and all of that and it's very different in you know let's say December so we have set a goal in the house and i'm i'm going to be leading my kids in this the goal is

**Heather** 45:55

kids at this point being 17 and 15 year old really oh yes

**Bret** 45:59

young man right? We are going to ride a century that is 100 miles in one go before it's too cold to do it which really means before school starts I

**Heather** 46:12

mean those are two different yeah oh yeah you might we might want to clarify exactly which goal it is because well I'm actually here somewhere tends to you know our summer weather often last through mid October

**Bret** 46:22

Yeah, it's not that it's not the necessity I mean, the days do get shorter which makes it more challenging to it because there are fewer hours of daylight but but anyway, we're gonna ride 100 miles and we're going to try to do that before school starts if it ends up being after school starts that's not a big deal but before it becomes a matter of needing equipment to stay warm and all of that we're going to ride 100 miles which is obviously not a huge number people ride hundreds of miles all the time. I've done it many times. I haven't done it in quite a number of years. But anyway, it's it's a challenge, you definitely feel it, it's not the kind of thing you can just hop on a bike and do you have to train a little bit to get there. But the idea is at the beginning of cooler weather, you get to the point that your body can do the 100 mile ride and then as the weather warms up on the other side of winter, you get to that point again as quickly as possible and you use it kind of as a bookend and the idea is the amount of fitness you lose over the winter as it becomes harder to ride a long distance without getting cold and soaked or whatever you know you lose less than you stay in better condition and then that will have COVID benefits too so that's the plan and I'm hoping you will end up making that goal but it's obviously not you know you're doing other things that we're not doing so

**Heather** 47:42

I'm not sending it as a goal but I will participate for instance we're gonna do a 4040 ish mile ride next weekend the plan and I will participate with you guys on that. And and I guess you wanted to you're not yet formally but maybe talk about at some point formally inviting people to, to to do their own challenges

**Bret** 48:04

joy I think I think this year as we're rapidly ramping up to this year century it's not going to work for us together with others here locally but on the other side of winter I'd be kind of interested in seeing if there are enough people in the Portland area that we could you know hold each other's feet to the fire a little bit

**Heather** 48:23

do people bike in Portland or people do bike in parks? Yeah they do

**Bret** 48:27

yeah quite a quite a number of them. So anyway, you know if you're not in Portland or even if you are we would encourage you to do something in the waning days of summer to gain as much fitness and as much vitamin D as you can and to think about how you're going to return to that state of fitness at the far end of the cold season

**Heather** 48:54

and figure out I mean just like with food you know some people are like well yeah no I don't want to eat healthy because it doesn't taste good to me and yeah good delicious delicious we eat very very healthily India we also eat we also eat we do have some sugar and some alcohol and stuff in our in our diets. But it's delicious we eat extraordinarily well and it's you know from the farmers markets and from from farm raised grass fed beef and you know these these sorts of things and it's fabulous and so you do have to train your palate if you were raised on other stuff or if you become accustomed to other stuff. And the same thing with exercise you know if your sense of what you'd have to do to be in shape is you know if if what I had to do to be in shape was go inside and a gym and do repetitive stuff on machines. I wouldn't, I just wouldn't I can't I cannot imagine that and for some people, that's terrific. For me and I think I've actually mentioned this on the show before I like you know, part of what I get from being outside is the is the constantly changing conditions and the slight risk, frankly, just be Somewhere where the you got you got a little skin in the game in terms of taking on some risk because you are outside and then that also means that you get you can be surprised like I saw a couple what a week go some I saw mink while I was paddleboarding you know bouncing along going to came out of the water than it was in the rocks going in and out and would stop and look at me and I got pretty close. And I watched Oh my God, I think maybe I mentioned this already. But I watched this this Eagle diving for ducks, as a bald eagle, not a not an osprey, what she told me as an eagle as well. So you just you see things that are unexpected. And that itself can take you into new places in your head and take you out of whatever stuck places you were in. And so you know, it's not just about the physical fitness part of it. So you'll figure out what it is for you that's going to that you want to do that you will find pleasurable, and you know, to get your your yas out, right and not to say that as much as we used to bike a lot. And still, in the various places where we bite and we would we did a lot of single track mountain biking, it was really hard to get that activation energy to get out the door even though we loved We not only loved having done it, which is fairly common, but we loved actually doing it. And yet still the motivation to actually get out there I had the same experience yesterday it's like I don't want to go I'm gonna have a bike in a while. And I just had a fabulous time. Yeah. So you know it is true that your brain can convince you that whatever it is that you're not yet doing is just too hard. And it's better off for you to sit on the couch with your with your Cheetos. But, but really overcome the inertia and make the inertia work for you such that you're once you're moving, then you're more likely to stay moving.

**Bret** 51:47

Yeah. And I think, you know, when one of the rules has got to be figure out what works for you. Right? And you know, there are lots of options available. We don't have any electric bikes, but electric bikes open up a world of possibilities. And it's Mike's true. Yeah trikes are complex to get anywhere, unfortunately. But you know, electric bike, you can go a lot farther with the same input of energy. It's not necessarily like you're working less hard. It's just, you know, how far do you want to get with it? You know, I have a helmet that I used to listen to music if I'm, you know, biking somewhere that's not super interesting to look at.

**Heather** 52:28

And you don't find that helmet to be one of the horsemen of the apocalypse.

**Bret** 52:31

No, no, it's actually no, I find it. It's great because well, what it does is it you the music is a close enough to your ears that it's not loud to other people be it's not in a an earbud that blocks your hearing of things in traffic that you need to be aware of. It's easy to silence it if you need to, you can also you know, if I'm late coming home, as you know, I can call you or text you from the helmet. And you know, anyway, it's not the most natural experience, but I do find, you know, it means that I get out on the bike more because I can multitask a little bit or what I can do

**Heather** 53:11

you actually do phone calls from it. Whereas I really relish the silence. As you know the one that you got me one of these and you tried hooking it up and we lasted about 15 seconds. It's like it's the helmet or the marriage. Really.

**Bret** 53:28

God I didn't know was that.

**Heather** 53:31

It wasn't an exaggeration.

**Bret** 53:33

Thank you for choosing the marriage.

**Heather** 53:35

Yeah, I mean, I still have the helmet. It's just not activated. Yeah. Okay, as far as I know.

**Bret** 53:43

It needs a VPN.

**Heather** 53:46

Alright, good.

53:47

Are we there? I think we're there. Okay.

**Heather** 53:49

So as as has become our our want. We are working through the chapters of our book and the weeks before publication. So 13 chapters, All told, and we are now on chapter eight, parenthood and relationship. So there's a lot in here. So last week's last week's chapter was sex and gender. And we talked a bit there about mating systems is a lot in this chapter about mining systems. That's not where we're going to go today. I will say as a little teaser, that my natural selections post next Tuesday is about polyandry. So, for those Oh, yep. You didn't know that. But every other threat No, it's not okay. Yeah, you should read it, you should subscribe.

**Bret** 54:29

I do subscribe. Now.

**Heather** 54:32

So so we will we will we have and we will continue to talk about mating systems, which just means the terms you'll be familiar with are like monogamy and polygamy. And the promiscuous mating system, which in humans is often called polyamory. But you know, descriptive of on average, how many partners do individuals have one sex tend to have versus the other. So we talk about that a lot in the book, but we're not that's not to say So we're going to read from today.

**Bret** 55:01

Can I ask you one question before you move on to the reading? Absolutely. Have you tried? If you say

**Heather** 55:06

no, I have not No, no that.

**Bret** 55:09

Thank you. Have you tried the term? You say? promiscuity goes by the name of polyamory? monasterboice I have a sense of every polyamorous person within earshot of this podcast or blood pressure going to say that Yeah.

**Heather** 55:27

And you know, I can it's not quite right, right? It's not quite right. It's it's not quite right. And so there is no a what polyamory is a modern is a modern weird capitals, you know, acronym weird, human thing that I don't think has a representation in non human animals or even in sort of pre industrial cultures. And so, you know, promiscuity as a mating system in which there really is no, there is no sticking to any particular mate. And so individuals of both sexes might have one or two or eight or 40, partners, whatever. Whereas polyamory is having, you know, having a primary partner but also having sexual relationships with other people in a in a mutually agreed upon situation, it's not cheating. It's, it's disgust and past tense of discuss,

**Bret** 56:25

right? Yeah. So I also should say, I've had extensive discussions on this topic with a number of people that we know who are polyamorous and one person in particular, who I think I'm not going to name because I don't know whether he would, I don't think he's secretive about it. But in any case, one person did manage to convince me that there is sort of a higher order pattern that effectively, people who are serious about polyamory are actually serious about stabilizing something that is not in any way indiscriminate.

**Heather** 57:06

And so right. But as I remember, this set of conversations, it requires a stability over enough generations. Right, right. And if you're if you're the rare phenotype of the rare mating system phenotype in this chaotic culture, we're never going to get there well

**Bret** 57:22

right. Two things I would say one, he convinced me that such a stable structure is at least possible that it did require the demonstrations of require a long term multi generation process of discovery of what the stable pattern was. And I also say that I will say, I have particular concerns that the real fly in the ointment is that the raising of children Yeah, maybe even in those stable patterns not so easily done well because of course humans are so thoroughly wired for investing in their own children that you know, there's a there's a there's a hazard to kids involved in those things and so I feel quite differently about people's exploring this if no kids are involved, right, that is you know, it stands to do less harm than if kids are caught up in the in the mix. Indeed.

**Heather** 58:25

A great I'm glad it went there and I don't have to threaten to investigate polyandry

**Bret** 58:33

is not going well. It's going

**Heather** 58:35

just fine. Okay. Okay, so, we're gonna read just a couple of short sections from the end of parenthood relationship, which is chapter eight of hunter gatherers guide to the 21st century. Having just so the section immediately preceding is a fairly, fairly in depth and discussion of senescence and, and, and how our children provide us immortality of sorts, which is fairly fairly deep and serious section so love across species in pursuing lighter fare than considering that children not immortality are the antidote to aging. Let us ask, we love our pets, but do they love us? Humans have domesticated dozens of species of animals across the globe, mostly to provide food or do labor for us. Some of those relationships that began as purely functional cats has mousers dogs as protection, have since become cross species friendships. Cats have befriended us for far less time and remain more wild than dogs, more of their original selves, although they bond tightly to humans under the right circumstances. Even before we began to farm though, dogs were by many of our sides becoming domesticated, as hunter gatherers, some of us already had dog friends. Dogs are in many way a human construct. We have co evolved with them for so long that they are now tuned to human behavior. Like And emotion. Perhaps you could argue then, that humans are also partially a canine construct. Does your pet love you, of course your pet loves you qualify are your pet can love you if it's a mammal, or one of a few clades of birds like a parrot. If your pet is a gecko or Python or a goldfish, your pet is probably incapable of love. Love develops for every evolutionary pairing that requires devotion. We love our pets and our pets love us. Dogs in particular are love generators who hang out with you and help you know that you're not alone. dog is love on board. Watch how cats and dogs engage with each other and with us. They don't use language to convey meaning and emotion but convey it they do. You have no reason to doubt that your dog is disappointed when you stop throwing the ball for him. Or that your cat would prefer that you stay seated with her on your lap. we name our emotions love, fear, grief. And when we attribute those words to animals, we may be accused of anthropomorphizing. As Franz Deval who has spent a lifetime studying emotion and animals points out. This argument is rooted in assumptions of humans being not just exceptional, but wholly different from the other animals with which we share ancestors. We need to be careful in how we attribute emotion and intention to other animals as we should within our own species as well. But there can be no doubt that many other species plan and grieve, love and reflect in our interactions with our pets, we read their cues without language. It is helpful to in your interactions with people to turn the sound down sometimes be an animal behaviorist or just act sometimes like a human before language evolved. We often use language to cover how we actually feel, to deceive to throw off the scent of what is actually going on. When you watch people, especially strangers from a distance, it's relatively easy to read the emotion of the situation. Pay attention to people's behavior, not the stories that people tell about their behavior. That's what your dog is doing. Your dog doesn't by your cover story, although he is likely to forgive you for your foibles. next section grief is metamorphosis. avid writes that the old married couple Baucus and filamin they have been poor all of their lives, but generous with what little they have. The gods recognize them for their righteousness and ask what they would like most in the world. Baucus and Philmont asked that when death draws near, they might die together so that neither shall see the other dog or be left behind. The gods make it so the old lovers become trees and oak and ilinden, which intertwine their branches with one another as they grow. Absent interference from Zeus, the only way to avoid grief is to live a life without love. Grief has evolved multiple times across species always in highly social organisms with parental care. the grief of chimps is presumably the same at its root as human grief. the grief of dogs has distinct origins though, as the most recent common ancestor that we share with dogs was a nondescript little mammal with little to no social structure. Perhaps the most famous story of how grief manifests in dogs is that of a Chico, a handsome Akita who was born in Japan in 1923. Chico was taken in by HUD as a borough lento, a professor of agriculture who commuted to work by train every day when a widow was due back at Chico met him at the train station and they walked home the other. One day when I did not return having died of a cerebral hemorrhage while lecturing at Chico. However, continue to go to the train station every day and wait for his master for nearly 10 years until he himself died.

**Heather** 1:03:28

the grief of canids, wolves of domestic dogs evolved separately from our own. Elephants also grieve as do killer whales. And all of these cases grief is independently evolved a deeply similar and extreme emotional response to the death of an intimate, unpredictable and it's lengthy manifestation. Modern approaches to loss into grief tend to overemphasize metrics and logistics. How many years have you been sick? How do I obtain a death certificate, close bank accounts, cancel appointments, and spend too little on meaning and narrative? What did you bring to us? How are we better for him having lived we often don't want to see the body or sit with it at all. Death is a to remove in this particular hyper novel situation in which it is our choice to not confront the corpse of a loved one can render us more confused in the aftermath of death. Grief is us recalibrating our brains for a world without one of its central pieces. We must reform that our understanding as we are no longer able to go to that person or animal for words of wisdom or comfort. But we're still able to think back to learn from and to take comfort in the relationship that can no longer grow but can still be remembered. We don't want to believe in their permanent absence and so our brands create fictions ghosts, was that him turning the corner at the cafe we used to frequent surely that was her. I know her hair her jacket getting on the train. Grief is the downside of high bandwidth interdependence. Grief is the downside of love. All too often moderns tried to protect children from grief. For instance, we have known parents who would not allow their children to attend their grandparents funerals for fear that it would scare them or harm them. There's fear and anxiousness and raising children in turn creates fearful and anxious children. In the next chapter, we explore childhood, and how to raise children who are independent, exploratory and full of love. And then the very first corrective lens for this chapter is now actually the second one, spend time with the body of your loved one after they die. Those who have lost loved ones to situations from which their bodies could not be recovered, often suffer from prolonged periods of grief. When we view our dead, sit with them and talk with them, we set a foundation upon which our grief or natural recalibration can be more.

**Heather** 1:05:39

So I mean, this, this chapter grows as a ton of stuff in it, right, it's all over the place. But that felt that felt appropriate given that we recently lost one of our one of our kitties Moxie, as regular viewers and listeners know. And, of course, that hadn't happened at the point that we were writing this, but I was, I was thinking specifically of, of my father and your grandfather, who had you know who, who had died within a decade of writing this. And just thinking about the way that the modern medical structure moved in and tried to prevent the natural grieving process. And both in both cases, right in the case of my father, who unfortunately died in the ICU, but surrounded by five people in the world who loved and tremendously, my mother, his wife, and you know, who they would have just celebrated their 53rd wedding anniversary this last month. And you and I are two children. And the staff at the hospital and the staff at the hospital were mostly quite kind and an understanding, but they were, I think, shocked that we wanted to stay in the room afterwards. And we stayed with his body for an hour or so. And then also accompanied it to the crematorium, when it came time for that, and it really helped assure me anyway, of what I did not want to be true. But it assured me that it was true, and it helped me not be in denial about it any more than what would have been helpful.

**Bret** 1:07:32

Yeah, the ambiguity that one is left with, if one doesn't have some sort of evidence that's incontrovertible is obviously a source of, of danger, psychologically speaking. And it is not surprising that we would be built this way. Because, you know, to put it in relatively Stark terms, human being is a big animal, and it's hard for a human being to die in, you know, your home range, and there to be no evidence. So in general, our ancestors would have had a pretty good idea, you know, somebody wouldn't simply disappear with no sign. There'd be awareness in general.

**Heather** 1:08:18

And so lost at sea is particularly hard for this reason, right? Well,

**Bret** 1:08:21

and see his novel. That's the thing. It's not that novel. But

**Heather** 1:08:25

yeah, we were coastline explorers for a long time, but not deep, deep ocean voyages until relatively recently,

**Bret** 1:08:31

right? I'm not saying it never happened. And I'm not saying that the evidence was always, you know, really substantial. Obviously, there are predators in the world, but a predator doesn't tend to take out a human being and leave no evidence and, you know, there tends to be a record enough that a person can grieve and move on, which we argue is, you know, is, this is the downside of love. It's not that grief is inherently good, but grief is necessary when you have loved a person or a creature deeply in order to rewire. So that their absence is not a constant obstacle to functioning.

**Heather** 1:09:08

Same thing, as you know, just as we were talking about earlier today, anxiety and depression are not inherently maladaptive, right, you know, some sometimes the world is such the depression is the appropriate response. Sometimes your situation is such that anxiety is the appropriate response, you know, when someone you love has has died, grief is the appropriate response. Can each of those appropriate adaptive responses occur in situations or for a duration, for instance, that make the maladaptive Of course, and, you know, but but the modern quick fix types of solutions would have you Medicaid equally all instantiations and that, that misunderstands that there are there are appropriate times and places for for all of these things. responses, of course,

**Bret** 1:10:01

and in fact, the pattern of grief leaves no doubt whatsoever, this is not a malfunction, right? This is a highly organized process, which tells you that, you know, it is it is providing a benefit. And I would say it's a necessity. You know, and it's one of these things, one of the one of the things, features of the pattern is that you can put off grief, right? If you can't, you don't grieve on the battlefield, when your best friend has just died in front of you, you fight, and then you grieve later. And that that capacity to put it off, but not forever, is, you know, one of its fascinating features. And of course, you would expect that you can't have a creature who can be suddenly debilitated by grief so that they themselves succumb to whatever the threat is, that just wouldn't make sense as a program. So so it isn't like that. But it is also true, that we intervene in this process, you know, both by, you know, removing bodies and having a process that deals with them. So that, you know, the family doesn't have contact that might be part of the closure process. But we also, I think this we did not put this into the book. But there's this issue of, you know, in our case, we did not ask to know the sex of the children that we were going to have in one case, we found out accidentally because the technician, you know, it was pretty rare for

**Heather** 1:11:34

me specifically asked not to be asked not to know, explicitly and I took it out, because it was I don't know, we didn't have time to explore it fully. But I will just say that the question is this. Yeah, no, it is it's, it's gone.

**Bret** 1:11:45

I think it's not there. But the question is this, if you are going to have a child, and you do not know its sex in advance, as no ancestor until very recently, it could have been certain, what it does is it prevents you from doing too much scenario building about what your life is going to look like after the child is born. And what that means is that the degree to which you have to forget this lesson is decreased. And that in some sense, by now providing this information, which seems what can the harm of more information about, you know, the child you're going to have? What could the harm of that possibly be? Well, the harm could be that once you know you're going to have a boy or you're going to have a girl and you start thinking about here are the places we'll go, this is what we'll do, this is what it'll be like that there is the need for vastly more grief to unwire those things at the point of loss.

**Heather** 1:12:41

Well, I guess I mean, I would also argue that, you know, for us, we intended to raise our children without the expectation of stereotypes, right. And we're not going to paint a room blue, or pink, depending on the sex of the child. Either way, right. And that's, that was just never, never in anything that we were thinking. And frankly, imagining all the possibilities, absent any overlay of boy or girl, male or female, helped help to keep that alive. And you know, even though I think that we were particularly, you know, just because of who we are, and how we think, and what we think about would have been unlikely to fall prey to those kinds of stereotypes, but especially in those in this modern era, where we should be as free as possible from the traditional gender roles that don't have specific anatomical or physiological basis. You know, what, what does it get you to know in advance if you're going to have a boy or a girl and, uh, you know, in both cases, because I was because I was older, you know, we had all the genetic testing. And so you know, we there was a carrier type and a sealed envelope, and both cases that you could have looked at at any moment, since looked at, like, sure enough, sure enough Y chromosome in both cases, but specifically did not want to know, in advance.

**Bret** 1:14:04

Yeah. And you know, at some level, even if you didn't have these two reasons, formulated, that you might not want to know, the one thing that you can know for sure is that the information wouldn't have been available to ancestor. And so you don't know whether there's any, you know, harm downstream of it. Now, of course, scientifically speaking, this makes a prediction, which is that in the case that somebody loses a pregnancy, that the amount of grief will actually correlate with whether or not they did or didn't know, and that at some level is something I think we should be. I don't know if it's been tested, but it is something we should be looking into because at some level, the natural way of doing this may simply be superior. And we may be creating unnatural trauma that could you know, be be avoided if we just simply realize we were being unwise.

**Heather** 1:15:03

Yeah. You know, I actually remember a grad school colleague, how's this been in the 90s, I think, or maybe early, very early aughts. Who He was a guy, but we were also friends with his, with his wife, who was also a grad school colleague, and she got pregnant. And she never said this. But he said at the point that they revealed what the sex of the baby was going to be, I don't even remember what it was. And I said something to him, like, are you sure that that's something that you wanted to know? Or I don't know exactly what I said? He said, I'm a scientist, more information is always better. That seems like a rule that sounds like something you can say and have most people agree with. But I don't think it's true. Yeah,

**Bret** 1:15:52

that's definitely not true. There are many cases in which more information tends to be better. But there are certainly cases where more information can be disruptive. Yeah,

**Heather** 1:16:01

exactly. Okay, should we should talk a little bit about breastfeeding, of course, of course. So this will seem like a totally different thing. The final corrective lens of this chapter is actually about it. And I wasn't going to talk about it. But then I was, I was reading the New York Times. Oh, no, no, I was reading the new york times the Sunday paper, and I mean, we still get it. We still get it in hardcopy. Last week, August 1, and I came across this full page ad, which is going to show you briefly I'm going to read it. Okay. So this, yeah. How is breastfeeding going? It says except breast is crossed out. It's crossed out and then it's got four testimonials brief one more testimonials. Someone named Liz Leanne says don't assume my breasts can make milk. Someone who is in France, I guess, a gay man says don't assume I want to feed my baby donor breast milk. An entrepreneur named Hannah says don't assume I can do it all. And a philanthropist named Kelly says don't assume breast was best for my entire family. The rest of the ad reads, nearly 75% of us parents will turn to Formula within the first six months. So why are we ashamed to talk about it, it's time to evolve the conversation. We'll start. So I received pulled this from the paper and saved it and I then went to the site. being somewhat horrified by this full page ad in the front section of the New York Times, and I find this this is how is feeding going calm. We're starting up movement. It's time to evolve the conversation around how we feed our babies make the commitment. And it says I commit to evolving the conversation around how we feed our babies by asking a new question How is feeding going, your commitment will further help Bobby shake the stigma on formula feeding every committed voice helps reduce another parents guilt. So you can take my screen off here. First of all, guilts like anxiety, like depression, like grief, is appropriate in some circumstances and not in others. Same thing with stigma. Some stigmas exist for a good reason. It turns out it's a tire thing. And I'm going to try not to swear here, even though I don't always try to swear. It's a it's a formula company. Of course this is an advertisement the whole thing is a is an advertisement for formula company. And it's reprehensible and confused and unlike your helmet and other Horsemen of the Apocalypse, and it comes in this like woman friendly family friendly guys, it's a couple of women who really felt that they needed to create this formula company, but it's manipulative and greed driven. And yes, I think another existential threat. So I'm gonna just I'm going to read this last corrective lens for this chapter and then go to one of the papers. So when I'm reading excerpts, I'm not reading the footnotes, obviously, but this book is very well referenced, we've got a lot of primary literature and other literature. in it. I'm going to go to one of the papers that this corrective lens paper cites this corrective lens bullet point at the end of our chapter cites breastfeed your infants, if you can. adults who were breastfed have better formed palates and better aligned to teeth compared to those who are bottle fed. And breast milk has in it all manner of nutrients and information that we do not understand. It may, for instance, contain cues with which the infant and transit sleep wake cycle. Thus, if you do breastfeed, and also pump milk to feed the babies at other times, feeding your baby milk that was pumped at the same time of day as it currently is, could be helpful in getting your baby to sleep when you want him to put it another way, we were chestertons breast milk. So before we go to the literature, I just want to say with regard to that that hypothesis in the second half year the idea that there may actually be like circadian cues in the breast milk which may help and train the sleep wake cycle of The baby is a hypothesis put forth by a former student of ours, Josie Jarvis. And I actually approached her when when writing this and said, you know, have you ever published anything you have anything and, you know, I have, what we have is the paper that she wrote for us in the program in which she described a considerable amount of evidence in support of the hypothesis, but still, you know, not directly tested. But, you know, it's it just it points again, to the idea that simply, you know, if you really do recognize and believe and recognize the fact that breast milk is best for your child, through some some age, and what age that is, varies widely between cultures,

**Heather** 1:20:45

then it is and therefore you are interested in pumping milk, in order to give your child that milk when you can't be there for for him or her. It actually makes sense. And we hadn't thought about this. So this was not something that we did for our own children. But to actually keep track of the time of day when you express the milk because sending sending a child who wakes the middle of the night, if it's your partner who's getting up to feed them, for instance, giving the milk that was expressed midday, man, in fact, wake the child up more. And again, this is a hypothesis that hasn't been tested, but they're given how much immunological, internal logical stuff material there is in breast milk. It almost seems to me once Josie proposed this to us, I felt like oh, it's like so many of the best evolutionary hypotheses. Obvious in retrospect, which was almost the name of our book, right? obvious in retrospect, highly,

**Bret** 1:21:37

highly likely to be true. And, you know, and also, this is the this is the perfect demonstration that it's not like paleo, everything. Right, right. There is a role for pumping breast milk and modern society. And the way we relate to work makes it useful. But the point is, there's a there's a ham fisted way of doing it in which you assume that this all this is is food. Yep. Right. And then there's a way that understands that actually, this is a complex mechanism through which mothers have been communicating with babies in a way neither of them understands for, I guess, almost 100 million years now. Not quite. But nonetheless. I mean,

**Heather** 1:22:22

it's a minute I missed that. Oh, mammals. Yeah, mammals is probably closer to 200 million. 200 million. All right. Yeah. Well, well older than chicks a lot impact. But you know, 100, right, right. 1,000,200

**Bret** 1:22:33

million. Okay. So, in any case, the The point is, this is a this is a complex phenomenon, and you know, is there room to disturb it? Yeah, you may even have to disturb it. And not everybody can breastfeed, but the idea that we're going to pretend that breastfeeding, that promoting breastfeeding is a bad thing, because it's insensitive to somebody who can't do it.

**Heather** 1:22:57

And the fact that a majority of mothers currently feed their kids some formula and therefore we need to normalize it and D stigmatize it. That's no argument Yes. Or no argument at all. Right? It's, it's, it's quite appalling. and

**Bret** 1:23:12

and the the issue of pallet Actually, I want to return to that one. And so this

**Heather** 1:23:17

actually, let me just let me just read the introduction of this paper because this is this is actually the paper about palette. This is by actually a dentist DDS, Brian Palmer from 1998, called the influence of breastfeeding on the development of the oral cavity, a commentary. So the short introduction simply reads, and you can show my screen if you want Sackler, you don't have to conventional wisdom supported by scientific research advocates breastfeeding as the superior method of infant feeding. The nutritional immunological, psychological and general health advantages conveyed to infants have been documented for years. And then he has nine citations. luggage listed the merits of human breast milk as compared to artificial feeds to include ideal nutritional content, better absorption, fewer food related allergies, more favorable psychological development, better immunologic defenses, and a substantial economic advantage. There is another compelling benefit to exclusive breastfeeding, positive effects on the development of an infant's oral cavity including improved shaping of the hard palate resulting in proper alignment of teeth, and fewer problems with malocclusions. The purpose of this commentary is to stimulate further research as well as to propose the importance of breastfeeding to developing and maintaining the physiologic integrity of the oral cavity. And then he's just got a ton of evidence in here about and you know, including from historic for basically skull collections from both modern and historic peoples. And, you know, yes, some of that's going to be diet, as we've talked about before, as you talked about with Mike mu in summer of 2020. But the idea here is that in part, basically the the way that the tongue and the jaw are held during breastfeeding, as opposed to with an artificial nipple are so different that you end up with Things like tongue thrust in bottle fed kids and that you don't in in breastfed kids. And that those things those misalignments those malocclusions. Tongue thrust and such persist into adulthood.

**Bret** 1:25:13

Right, and result in a tremendous amount of orthodontia, which is itself destructive as I learned all too painfully. But anyway, to connect this up with the mic mute stuff, right? Mike does a great job of laying out the evidence that suggests that all of this tooth alignment stuff is likely to be downstream of changes in diet. And, you know, behavior. And not the result as the entire field of orthodontia of orthodontists has it that it's some sort of mystical, mysterious failure of genes, which couldn't possibly be the answer,

**Heather** 1:25:53

it is just got really bad,

**Bret** 1:25:55

really bad really quick. And the point is the evidence from other creatures from ancestral populations all suggests something very different. And you know that it isn't one thing, you know, you've got breastfeeding, you've got, you know, the chewing the knowing on harder foods by very young children early on all, which is good for job development, good for job development. And the point is, it results in a, a mouth shape that is proper and prevents all of these other things. It's not just your teeth alignment, it's you know, whether or not you have things like sleep apnea, and

**Heather** 1:26:28

the nasal cavity development, even I think it's an evidence for soft tissue in the esophagus development.

**Bret** 1:26:35

Right? So anyway, it just it's the same story again, and again, we have some foolish, simplistic medical explanation for why there's so much dysfunction in the world, when really the answer is a many, many variations on the same theme, which is somewhere along the line, we disrupted something that was important that we didn't understand the function of, and we never got around to saying, hey, maybe that was a mistake, right? And so this is, you're watching that mistake, be amplified with sophisticated advertising with a full page ad in the New York Times. And you know, that's not to say, it's not an appropriate remedy if you can't breastfeed your child, but breastfeeding simply superior.

**Heather** 1:27:15

And I mean, I think one of the errors here is, and I guess I alluded to this already is, excuse me, the idea that if if something has been stigmatized, we, as fully sophisticated, modern people should recognize that that's regressive and archaic, and we need to abolish the stigma and know, right, like some things that have been stigmatized should still be stigmatized, to use the example I gave last week, paedophilia, like that needs to remain stigmatized. And, you know, all of it, all of the horrible things that I could list here, right, like they need, they need to stay stigmatized, rape and incest and murder, and like, these things need to stay stigmatized. And the idea therefore, that something that was stigmatized needs to come out into into the light, like it's, it's a borrowing of the successes of civil rights, frankly, and women's rights, and we're seeing it across the board, you know, the, the idea that we lived in a, in a much more racist society in the past, and most of us have seen the errors of our ways, and so have we society wide. And we can therefore look back on that and see how bad it was, well, now people are taking that Overlay and applying it to things to which it does not belong.

**Bret** 1:28:33

Yeah. Another way to say this, is that many things like stigma are named after the malignant version of something functional. And so we tend to get the sense that everything that looks like that is bad, when in fact, no, there's a category where you've got some adaptive, you know, guilt, for example. Right? Right. Guilt has a bad rap. But it shouldn't, right. Guilt is one of the things that causes us to self regulate. And there's a point at which you're feeling too much guilt to be adaptive, where it becomes maladaptive, at which point we start noticing it. And that's not the way it should work. So if we can divide, you know, all of these things into To what degree has it been useful? To what degree was it adaptive? To what degree is it still adaptive? And when have you gone beyond what is adaptive? When is it a pathological version of the thing? It's a much it's a much healthier way of viewing it rather than, you know, stigma bad,

**Heather** 1:29:30

right? It's a it's a very binary approach to the world. Yep. All right. There, we're there.

**Bret** 1:29:36

I believe we are. All right.

**Heather** 1:29:39

We're going to take for those of you listening. We will be back here next week. For Episode 92. And for those of you watching, if you care to stick around we're gonna take a 15 minute break ish and be back with a live q&a. Your questions can be asked at Dark Horse submissions.com. We don't get to all of them. We to pick and choose, we prioritize on some bases but we look forward to seeing what you're asking. Please consider joining our Patreon as as we said before, we have a monthly private q&a at mine and Brett has more intimate conversations yet on his way you can get some merchandise, Goliath shirts starcore shirts at store dot Darkhorse podcast.org email, logistical questions like where can I send a thing we've been getting some some lovely gratitude in the mail lately and include ensam gifts as well, for which we're very, very grateful. And if you want to know where you could send such thing as you can email me or how to use the q&a system or anything else, email Darkhorse moderator@gmail.com and consider subscribing to all four Yes, four of all of our channels, the two on YouTube and the two on Odyssey that's Brett Weinstein's main channel on both and the Dark Horse podcast clips. Anything to say before I finish our sign off,

**Bret** 1:31:00

no but favor Yeah, figure out an exercise regimen and get to it because Winter is coming.

**Heather** 1:31:09

Be good to the ones you love and eat good food and get outside.

**Bret** 1:31:13

Be well everyone