Your Questions Answered - Bret and Heather 40th DarkHorse Po...

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**SPEAKERS**

Bret, Heather

**Bret** 00:12

All right. Hey folks, you caught me off guard. Welcome back to The Dark Horse podcast, the 40th live stream. This is the Q and A section where we engage the questions with answers. Hopefully we can match them up well enough that they will satisfy

**Heather** 00:28

one of our cats has come to love these live streams, because now for the second time, we have fed him some cream behind you so that we get a little bit of cat behind you on the screen.

**Bret** 00:38

We did no such thing that was you. You are a sucker? Yeah. And you have

**Heather** 00:42

I have no idea why he thinks I'm his mother. You

**Bret** 00:45

are? Yes. I have some idea.

**Heather** 00:49

All right. We're going to start with four questions from Episode 39 and then move on to the ones from the last hour and then this hour. Why are the citizens of Portland accepting such terrible leadership? Could this be a test case for unity? 2020 at the local level?

**Bret** 01:11

This is a really good question. I thought so I think the people of Portland are accepting such terrible leadership because people are hell bent on signaling their priorities, their values, their virtue in the public context, and they have no understanding of what I have called the personal responsibility vortex, which is to say, if you instantiate your values directly in your own life, or in your own city, you may be doing so to the long term, large scale detriment of those very values. And so, in some sense, Portland needs to demand high quality leadership, which involves doing what's right for Portland, even when it doesn't perfectly match the aspirations of Portlanders. In other words, you have to get there. So homelessness is a lovely example of this. Lovely in the game theoretic sense, it's a terrible tragedy. But the fact is, the solutions to homelessness which we absolutely should have, as a society, there's really no defense of our failure to deal with people who fallen off the bottom of the economic ladder, or, you know, for whatever reason, but you can't solve it at the city level. And if you try, you will make the problem worse. And so Portland, because everybody understands that they want a solution imagines that you can enact it at any level. So I would just point out, this is the same failure we see in the BLM movement, which effectively is advocating for Reparations in all interactions, that anytime there's an interaction, there should be a flow of well being from one party to another, you you can't do it that way, you can't do it in a classroom, you can't do it. In a court, there's certain places that if you were going to engage in reparations, you could do it that would fairly distribute the costs of the program. But if you do it in every interaction, it will produce counterproductive results. So

**Heather** 03:29

an exact match for unity 2020 at the local level would be tough, because whereas the presidency does flip between red and blue, and you know, even putting aside for the moment that red and blue did not mean what they have in the past, and that many of us who have always voted blue are fed up with with the Democrats, etc. Cities tend to be stuck in one or the other color as it were, they tend to have my oral leader who's of one party or the other, on and on and on and on. And I'm not sure that that's as much choose maybe it used to be but certainly I would be very, I don't know, and we haven't been important in long enough for me to know most of my local history very well. But I don't know when the last time Portland had a Republican mayor was right. So you're a unity 2020 exactly mapped onto the local level might be tougher. But but something that had two people who were to some degree disagreeing on, you know, I don't know, eight or 10 of the top issues that are plaguing the city today. Running as as a team could be could be an effective way to bring unity 2020 to a local level.

**Bret** 04:40

Well, I think there's no structural mechanism because you don't have two offices. You don't have president there's also that if you have if you had vice mayor, you could potentially do it but we don't have that but the fact is, unity 2020 or let's just say the Unity movement is really about the recognition that there is a tension between values and that far better than having one side advocate for one value and the other side advocate for the other value and the pendulum swinging back and forth between them or, you know, that's how it works in the best of circumstances in our country. Recently, it's done nothing of the sort. But you could recognize that the solution involved navigating the tension, rather than oscillating between the extremes. There's no reason you couldn't do that at the city level. And in fact, we have this very tension at the city level. You know, business owners and homeowners, for example, have one view of things and renters will have a very different view of things. So you could navigate these things in terms of the Unity viewpoint, the Unity perspective, but you just couldn't structurally do it. So anyway, yes, I think it is a good idea for us to figure this out. And the Unity movement should try to figure out how to map that higher order value set onto onto other other power dynamics.

**Heather** 06:10

Since so many big cities increasingly refuse to pursue charges against protesters in quotes, what happens a big city cops just refuse to arrest any anti protesters. And then the question continues, problem solved, probably wouldn't be solved. But it might point to the problem with not arresting or pursuing charges against protesters such that at least it was revealed to more of the constituency of a city.

**Bret** 06:40

Well, yes, on the other hand, it's a step what the protesters slash rioters are demanding is effectively a discretionary legal structure, where there's one set of people for whom the laws apply and another set for them, they don't apply. It's a reparations program within that context. But the problem is, it breaks down into a totally discretionary thing, which will be the invention of civilization rather than a solution. You can't balance the discretionary thing on one side with a discretionary thing on the other side, there's no stable solution that looks like that. So you know, yes, yes, certainly,

**Heather** 07:24

certainly, it's not a stable solution. But could it be used short term as a sort of a hail mary to point out just how bad a policy This is?

**Bret** 07:33

Well, I expect that to happen. I don't expect it to be deployed but I expect you know, but I expect you will see you know, look this you know, who wins out of all this, the anarchists for a very brief period of time, they're going to get their wish and we will be if we are lucky, we will be picking up the pieces for generations.

**Heather** 07:56

About how long have humans been evolving in caves and handmade shelters? And how has that affected our physiology? This could be covered for hours but a light explanation for you is sufficient. Thanks, aren't you much so this is going to be different for different populations. And I actually I did not go back and try to figure out when is the oldest cave living that we think there is evidence for although gosh, there's some stuff at the southern tip of South Africa that's very old that I think is millions of years old that has evidence like shellfish processing that might be in a cave so you know caves versus handmade shelters are are quite different answers to this question. And but but the question then is how might this affect our physiology?

**Bret** 08:47

Yeah, I don't expect any start date on caves. Start date is out you said yeah, yeah, I mean, other animals use caves so there's no reason that there's any human start date that one should expect but the other thing

**Heather** 08:59

that we had to have come down out of the out of the trees were to have been on the ground probably

**Bret** 09:03

Yeah, you're right there not a lot of trees in caves therefore it you could have it but then you have a come down out of the trees date for early primate ancestors. But it's not the answer you're looking for. But I would say is if you're interested in caves, I've long been interested in caves because they often house bats, you realize that they are so patchily distributed, that there is no you know, caves exist in some places and people will certainly use them because they provide advantages. caves don't exist in other places people have long had mechanisms for doing something else. Tribes make nests you know, so that that suggests that behavior that you could call a manmade structure stretches back before our split from chimpanzee

**Heather** 09:55

structure and shelter. Definitely there's there's lots of mammals and birds and even some amphibians And reptiles that make nests. But shelter and cave. You know, what I read as underlying this question is, Are there going to be effects on say, ability to regulate the thermo regulate or photo period? interpretation, if you're living if you're sleeping inside a structure that either mitigates changes in environment, such as temperature and rain, and protects you, which may mostly be a negative, from the direct evidence of the sun and the moon moving throughout through the sky. And because it's been so, so varied throughout human history, I doubt that we could find any consistent physiological change as a result of this certainly at the point that the vast majority of people are living inside, we should expect to see changes in our ability to acclimate that would be harder and harder for any of us to you know, go out and spend time outdoors for length of time. But that's probably at the level of individual acclamation, rather than long term evolutionary change, I would think,

**Bret** 11:12

yeah, I mean, I think the, the problem is, it's, it's almost a continuous state of being change where, you know, at first a cave is basically just a place where the rock overhangs enough so that the rain doesn't fall so some space stays dry and you seek shelter there, which reduces your caloric needs because you don't get wet. And because you don't get wet, you're not losing the energy you're producing by burning food calories. And then you know, at some point caves get deeper people don't typically move really deep into caves unless they have a good reason to do it because it just complicates everything. And you know, likewise, the shelters that people build at first are much closer, you know, they don't insulate you from the photoperiod issue. So anyway, I think the point is, the impacts are much more likely than much later you go in those technologies.

**Heather** 12:11

Okay, last question from Episode 39. Before we finally get to the ones from this hour, last hour, rather, a recently bought a bunch of eggs, labeled is coming from free range chickens and all 10 of them had double yolks. What could possibly explain this Chernobyl 2020 yoke loneliness love from Kiev. So the Kiev part is is relevant because he posits Chernobyl as a possible explanation, which would presumably not be an explanation unless every time you buy free range eggs, you're getting double yolks.

**Bret** 12:44

Anything? Well, one thing is you have to guard against the The fact is double yolk eggs are not all that uncommon. So there's a question about how unexpected any seems very unexpected, if you know if it was completely random process that produced double yoked eggs than you would expect for each, you know, if you get one double yolk egg, what's the chances of the next one is also double yolk would be the same percentage and you multiply these and you get a very low overall percentage.

**Heather** 13:18

Well, but I mean, it might be just like in humans, some families have propensity towards twinning. Yeah. Right. And so some chickens presumably have a propensity towards double yoking. Yep. And so free range chickens may be more likely to be being produced on smaller farms and so the chances of having a small farm in which a majority of the chickens are actually have this tendency towards double yolk and would be higher than if it was coming from some giant farm. So that's, you know, just just, you know, basically drift towards double yolk Enos and free range eggs is, is possible because you're talking about likely a smaller population that you're pulling from.

**Bret** 13:54

Yeah, so I what I was gonna get is the individual likelihoods if they were all multiplied together seem very low, you can't rule it out, somebody is going to get just by chance somebody is going to get that carton at some point, and maybe they'll write to somebody and ask a question about it. On the other hand, a free range doesn't mean what we think right free range is an appeal to some idealized version of, you know, chickens, chickens going their own way, whatever it is. But anyway, so the thing is, these chickens, they go somewhere to lay their eggs, you know, there's some nest box and somebody you know, your life, one chicken has a propensity to lay double yoked eggs, they're very likely to end up at the same place, they're very likely to be collected at the same time. So basically, the point is non independence of your points.

**Heather** 14:49

That's good. Okay, excellent. You were saying in the stream, that two thirds of one's ancestors being women is a misunderstanding of individual versus population. But it's actually one in two. Yes. And then I do not understand the second the actual question here, but maybe you will. But isn't this a contradiction since two to the n spots in one's tree will cover a whole sub populations in the limit? I think there's there's some there's some illusion I mean to to the end is obviously mathematical. It's it's exponential. But I don't understand what we'll cover a whole subpopulations in the limit, referring to it. Yeah, I understand that the mathematical term, but I don't quite get how it's being used here. Do you understand?

**Bret** 15:37

I don't Yeah. So maybe

**Heather** 15:39

we could just say again, although probably will just say the same thing. As we said, whatever it was that we said that that this thing that is trotted out a lot that oh, you know, women make up many more of your ancestors than men do, misunderstands that even if you come from a population where there was a lot of polygyny, which is to say one male mating with a lot of women and a lot of males not leaving any descendants at all. That is true at the population level. But every individual human being has one father and one mother, and therefore absent incest, which Yes, can happen, but even in strongly polygynous societies is is pretty rare. Absent incest, you have an equal number of male and female ancestors. Yeah.

**Bret** 16:27

So I think the point is this two thirds number if the two thirds number is right, it does point to something important, right? About mating systems in human history about mating systems in human history and the bottom like routine. bottlenecking of men. Yes. So that's a very real thing. And I think it's important. The problem is the way it's deployed is often very confusing. Yep. And so anyway, it's not like we're saying it's a non existent, it's a false idea.

**Heather** 16:53

And so, so like, we just don't know if the two thirds number is right. But let's imagine for the moment that two thirds is the right number here, what we're saying is that two thirds or some such number is true with regard to the population at some moment in history had to third. Boy, I don't even know how to say it for the population level. I can't do it with it. Why? I don't want to do it such that I can get clipped out of context, because I'm just not sure this number is right. It is true that at a population level, at many moments in human history, many more women than men have reproduced. It is not true that at any moment in human history, any individuals have many more female than male ancestors. That's what is true. Yep. escaping the matrix that told me evolution was alive from Satan, and that the universe is 6000 years old was rather hellish. I need a respite. Do you have any suggestions to escape the madness of man and fall back in love with nature? I'm willing to travel and I have money. Oh, boy. Yeah, so many suggestions. I don't know about I don't know if any of them work right now. Right a minute. If you're an American, you're not allowed to travel except to a few Caribbean islands and Mexico as long as you fly. And I guess you know, Ecuador, if you're willing to do a 14 day quarantine, but most of the world is off limits. So assuming you're willing to wait a little bit. So many wonderful suggestions for nature. One of our favorites is all of Ecuador, really. But the Ecuador and Amazon? And how we could we could just list a list and list you have any just off the top of your head?

**Bret** 18:40

Yeah. The here's the, I think the real answer is it's everywhere. Right? And if you can't see it, then there's a scale at which you could And so anyway, we have a a thing that a shorthand we say to each other about the fact that creatures elsewhere that are very exotic to us, maybe they're squirrel that we have squirrels that we take for granted. And actually, squirrels are completely fascinating creatures. They're behaviorally just out of this world, highly intelligent problem solving, and amazing to watch. And there's some places you can go, you could sit all day and watch squirrels and nobody would know what you were doing but but it's worthwhile and we just ignore them because they're so commonplace.

**Heather** 19:25

This is I mean, this is absolutely true. And you you can do, you can learn a tremendous amount and immerse yourself animal behavior almost anywhere. But in terms of getting a respite of actually getting away you know, going into the back country, and the US is still available. I think, I think even even back country, even national parks were shut down for a while but I think almost all of them are open again. If you know at your own risk, so if you have if you had the skills to do that, for that you need skills, the money won't money won't solve your problems. You know, don't don't go somewhere if you really want a rescue But an escape from the madness of man as you say, Do not go somewhere that has been Americanized and advanced for you, which is you know, it's the way most Americans tend to travel and any place that has. That is a giant tourist destination for Americans. I'm assuming you're American. If I'm wrong, then this is this is going to be slightly different. But any giant tourist destination like for instance, you know, Cancun or Acapulco or Cabo San Lucas is just going to be like many America except the climates a little bit different and other people around you're speaking in Spanish although frankly, probably not even that much. So go somewhere that a bunch of Americans aren't already swarming to that the point that Americans are once again swarming places and not just immerse in nature but also engage with the local people. And that is actually a cure for the sense that the madness of humanity you know, the madding crowd is everywhere it's it is so eye opening to just interact with people in of a different culture in a different language even if you only have a few words, but you can actually communicate quite a lot. And then you know, we've spent time we spent time in Turkey I don't know that when when that is going to be safe again. But Kappa Nokia and Turkey is extraordinary. You know, Madagascar is, is a really difficult and a lot of ways but unlike anyplace else on earth, and there's so many places in Latin America, that are distinct and just gorgeous with regard to to nature. One that springs to mind on the southeast coast of the Yucatan, near the Belize border in Mexico is like buckler where we spent some time a few years ago. really quite remarkable. Yep, there the

**Bret** 21:52

snail kites are like squirrels. The snail catcher likes girls. Yeah, it's like squirrels. I would say one thing to be aware of, though, is there is this empty forest phenomenon where places that are intact with respect to plants are not intact with respect to animals for various reasons, hunting can do this very easily. So you want to be sure that you're either not traveling to someplace that looks good superficially, in some eco Lodge is going to try to satisfy your desire in order to get you to spend your money. Sometimes you have to work to get to someplace that's far enough away from people, that nature is still intact there. Otherwise, you get a very wrong message about how common the animal life is.

**Heather** 22:44

Yep. Could you please clear up if unity 2020 is still possible? There are a few posts going around in the unity forums putting on their black hats and saying it is mathematically impossible. Is this true?

**Bret** 22:56

No. mathematically impossible. Now, I will say it grows less likely with the absence of a groundswell and to be honest with you. Lots of people who go around saying it's impossible are making the groundswell unlikely in and of itself. So they're sabotaging unity. And at some point, I expect many of them to be very sorry, they did that. Because what's going to unfold in the absence of a unity ticket is going to be a disaster. It's guaranteed. And people, you know, people at some point, if they're smart will remember that there was another possibility, and that they bypassed it for basically reasons of short sightedness at best if not cynicism,

**Heather** 23:41

you know, what's, what's the risk? Right? Like this is the thing I don't understand is what? What is the risk that people are perceiving, to trying it out? And seeing, seeing if it might make sense and just holding out hope? Right.

**Bret** 23:58

So I will say, this mathematically impossible business is entirely predicated on the idea that the plan was to get on ballots by collecting signatures, which that was never the plan. We knew that wasn't going to work in the very beginning. If that had been the only mechanism, then we would never have embarked on this.

**Heather** 24:18

It would it would have been early 2024. Right. Like that's right,

**Bret** 24:22

exactly. So you know, there are other mechanisms and it is not mathematically impossible, it does get harder there are various points at which of the many mechanisms one drops out and so you know, it becomes less likely at a structural level. But you know, if if events intervened at this moment, yeah, it's still possible. Sure.

**Heather** 24:46

How does your I know here we go. Shouldn't the corporate backing of the BLM movement demonstrate to the left the practical benefits of free market capitalism, while also alerting the right to its potential dangers? balance is necessary much loved people. Yeah, if we were all in a learning mode, I think that's, you know, that's that's apt, right that this, this could be a way for both sides to learn from to learn about their own blind spots.

**Bret** 25:12

Yeah, absolutely. And increasingly, I think it's really important that we get careful around the idea of capitalism as either a savior or a villain that, you know, I don't I don't know what people mean, by capitalism, if they just mean markets, then they're talking nonsense, because first of all,

**Heather** 25:34

didn't they talk nonsense when? When they say they're anti capitalist, anti capitalist? Yes, yes, we're gonna destroy all markets really forever, like, or until five minutes from now,

**Bret** 25:43

as if markets, you know, haven't been with us since the, you know, the first moments of exchange, right? It's like,

**Heather** 25:51

Oh, I mean, I can make an argument that other organisms besides humans, and, of

**Bret** 25:55

course, and so the thing is, it's a little bit like, you know, the, the cave and shelter thing, which is, you know, it starts with such a small alteration, that you can't even identify a point. On the other hand, there's clearly something about the, the markets that we have now that left to their own devices do a tremendous amount of harm. But you know, I really just think we should turn the question back on people like, what exactly is it that you want to end? Right? Because there's no, they don't know. They don't know what they're talking about. And the thing is, if you are interested in something that would actually deserve the label social justice, then markets are your best tool, right? What you need is a market that is in a context where the incentives result in more just outcomes, then the market finds the solution rather than Ebro x Kennedy inventing a solution that's going to result in the destruction of civilization, right, but collecting his share, oh, he is a marvelous capitalist. Yes,

**Heather** 26:57

yeah. How does your conception of geographical and transfer frontiers apply to the rest of the natural world, I can see the dynamics of the geographical frontier could be similar, but cannot intuitively apply transfer frontiers. So this actually fits perfectly with the previous question. So you know what? In what way could we argue that other organisms besides humans engaging in markets, or an exchange looks like markets, you know, just famously to use the one that titillates is sex for food trades in bonobos, right, the so called pygmy chimps, sister tacks onto chimps, and what and you know, and so called nuptial gifts are present from you know, spiders and wasps and, you know, all all over the animal kingdom, in which in order to get access, usually, to a female, a male must supply a gift of some sort, usually food sometimes his own body. And, and that is, that's a kind of market, right? That is an exchange. That is not a for a but a Furby. And there's going to be constant negotiation between each player in terms of whether or not they think they're getting a good deal. And no, it's not conscience conscious when it spiders and to some degree, some of its going to be in bonobo some of it will be conscious, but not as fully conscious as it is in humans. And of course, a lot of the trades that we do aren't conscious. And we think because we use language, we put this conscious wording on things, and then we forget all the stuff that's happening below the surface, because we think our words are our truths, and they're not.

**Bret** 28:27

Yeah, I agree with this. And one of the reasons that we talk about mating and dating markets is that this really isn't conscious people are involved in market like exchanges, even when they're, they find that terminology abhorrent. But somebody who is versed in the technical terminology, can just map it on there very, very easily. But here's the thing, you know, you've got lots of examples that we can find within humans in places that we don't expect it within other creatures, in close context, like, you know, bonobos within their group and all, but if you're willing to look between species, the stuff is everywhere, right? Every one of these insect or animal pollinated systems, free distribution, you

**Heather** 29:15

know, yeah, free to even Oh, so. So what you're talking about is, you know, a B comes to a flower and gets, gets nectar and exchange carries gametes to the next flower. So clear trade, but even something like mixed foraging flocks, of different bird species, one of whom is helping find the food and other who of whom is better at alerting against predators, like that's a kind of exchange as well.

**Bret** 29:39

Oh, of course. And you know, frankly, if you and I were to just set about the task, we could probably come up with example after example, until we literally fell asleep at the microphone because you don't want to see that. No, you don't I that Yeah. Now and market forces will prevent us from doing that because it wouldn't be good. Strategy however, I mean, look, we've got even just you, right? You are, yeah, you all are you, you are simultaneously an individual and a colony of gut flora. And you know, other creatures that live or some of them are eating right now. Well, not anymore. But you know, your gut flora are part of a partnership in which they get something and you very definitely get something the ability to live because of their activity in your gut, and even even your cells. Your cells are the composite of two distinct creatures, right? Your mitochondria were at one point free living creatures who took up residence inside of cells that became eukaryotic, so you're not even one creature, you're a partnership at the level of 30 trillion cells, each of which have these little ones, autonomous creatures within them. You know, we've got networks of fungie that allow plants to extract nutrients from their soil environment, and there's an exchange of resources there. The exchanges are everywhere. And anyway, a little imagination reveals just how broad a concept it is.

**Heather** 31:31

Yeah, so I think we, we did not actually answer the question was the question which was about transfer frontiers, oh, where we see transfer frontiers in in nonhumans. And I think basically anytime you see theft of resource or which often manifests as territoriality that's, that's effectively a kind of transferred frontier, you know, we're talking within species. Well, gosh, not even like I can think of just from from my own research I had, I had one frog species moving in and stealing, stealing a place in which to rear his, his babies from another frog species. And once done, there was no using that resource again until the second frog species had raised his kids and moved on. Yeah, so nectar thieves. nectar thieves. Oh, yeah. Like hummingbirds that go on at the base of the flower rather than going in where they're supposed to, and so get the nectar but don't pollinate. Absolutely. They're beautiful. But they're diabolical. Yes, I mean, nasty, nasty hummingbirds.

**Bret** 32:30

Big fan of hummingbirds. But yes, they do. All sorts of creatures, steel. And in fact, I have bad news for you. animals were stuck with it. Right? We we are not autotrophic. Right? And even those who might be thinking, but corals are autotrophic. No, they are not because they might need to define your terms, generating their own food. So plants are generating carbohydrate from sunlight and co2 in the atmosphere. They're literally taking air and turning it into sugar and cellulose using energy from the sun. Like that's the honest way to do it.

**Heather** 33:05

So auto trophic, self feeding effectively versus heterotrophic. Other feeding, which is what we are

**Bret** 33:11

Yeah, so basically, no matter what kind of animal you are, you're stealing those resources from some animal or some plant and ultimately, if you chase things, thing, these things down far enough, it has to come from some autotroph, almost all of which are plants, which are generating these things through photosynthesis. So, you know, do we still call it a transfer frontier? If it's been going on for so long? That was just the way things function? I you know, it's kind of a distinction without a difference. But anyway, is it a perfect match? maybe not maybe, maybe it's just easier when you're talking about human populations, but it you know, if you back off the tolerances, just slightly, it maps very well? Yeah.

**Heather** 33:59

Okay, we're gonna get through a few more of these, because we spent a long time on the four that weren't even from this last hour. Hoping you can share some evolutionary thoughts on recreational substance use? Are we faced with new stressors and lifestyles that are prompting new ways to cope? Or have we always looked for ways to alter consciousness? Yes, the answer to both of those questions. So, in part, create a world of stress from which you cannot escape and in which boredom also, reigns, reigns supreme. And you will not only have people or rats where research has been done, seeking to press the lever for more cocaine or whatever it is over and over again, but then rather than become addicted, when they're bored, and that's, that is just now well understood. Put aside that addiction and abuse as opposed to use have we. Boy, where's the question Have we always looked for ways to alter consciousness Absolutely. Like, I believe, I don't think it's a universal because there's just a lot of little cultures that we don't have complete information on. But this is one of the things that seems close to a universal in the human experience there is the seeking of some kind of altered consciousness from, you know, something as simple as fermenting fruit to bringing together a number of Amazonian species and making Iosco

**Bret** 35:28

Yep. Yeah, it's a brain hack that allows you to do various things, I would argue, it allows you to, to move across the standard lines of consciousness so that you're basically investigating your own hidden cognition. But anyway, people do it with all sorts of stuff that isn't, you know, even substance based sometimes, like sweat lodges, for example. Yeah. And starvation. And anyway, there's all sorts of stuff. So yes, it's a it's a long standing tradition, so many cultures, that you'd have to be crazy to imagine it was anything other than adaptive, which isn't to say that every interaction is adaptive,

**Heather** 36:11

right? Are there examples in biology of predators that hunt by disguising themselves as prey? how effective are they compared to other types of predators? Thank you for the informative informative content. Predators so we have Okay good. Just let me say there's lots of evidence like lots of examples of prey disguising itself as something that's toxic or dangerous. You have apt somatic prey, but

**Bret** 36:37

there are some very handsome deep sea fish that have a Yeah, like a little looks like an invertebrate on a fishing angler fish angler fish. I'm hesitant to say angler fish because I know that angler fish is a term that applies to semanas. Amazonian fishes that are those are Archer fish. Maybe. Yeah, I think those are Archer fish that shoot insects off of Yeah, no. I think this thing attached to the I think you're right, the deep sea ones are angler fish. And anyway, they're very they're very interesting creatures. Yeah. Also, they

**Heather** 37:15

actually so handsome.

**Bret** 37:16

They are very lovely. Yeah, no, actually they are. Basically, it is not true. But it should be true that they had to descend so deep in the ocean that there was no sunlight on account of just sheer ugliness. And

**Heather** 37:31

there's a bat like this as I remember that has a is so ugly that he has a flap that he pulls up over his face.

**Bret** 37:35

kareo cynics Yes, no picture, at some point, we will we will show that creates a very interesting fruit bat.

**Heather** 37:41

But not pretty. Nope, not pretty. Did we answer that question? Oh, yes, yes, we did. Oh, how effective are they compared to other types of predators? I don't. So the only example we came up with angler fish? I don't know, in order to answer the question, how effective are they compared to other types of predators, you really want to compare control for both phylogeny and ecology? And I don't know who the English fish are related to. And I don't know if they're deep sea. And so it's likely that such fish have gone into a new place, and therefore it's going to be impossible to answer the question while controlling for the things you would have to control for. Yeah,

**Bret** 38:18

I don't think I don't think it's an answerable question. Yeah. Right. And I will say I'm coming up with other examples now. Yeah, like what I think about oh, there was this thing. I tweeted about it. Some years back, a spider mimic the tail on the tail of a snake that causes birds to

**Heather** 38:36

birds that eat spiders to come and then get eaten by the snake.

**Bret** 38:39

Exactly. And then I had a couple Yeah.

**Heather** 38:43

Oh, there are some others kind of like that. I think snake snakes may do stuff with their tails. That it's not it's not exactly well, disguising parts of themselves as prey. Yeah, there's stuff like that. Yeah. And then

**Bret** 38:57

there's other stuff like, you know, looking blending in with a flower which is kind of at the edge of your question, right? If you if you're a like, a mantid, disguised as a flower part, and some pollinators gonna come to pollinate the flowers, not exactly what you're talking about. It's really

**Heather** 39:15

close. camouflage is

**Bret** 39:18

that's why it says, Yeah, because what they're camouflaging themselves as something that indicates food. Yeah, so I think it counts thematically, but it's not a perfect match. Yep.

**Heather** 39:33

In gender ideology, they say that everyone has a gender identity, sis people's matches their sex, but they can't explain what gender identity is. can't measure it, and it doesn't have a material basis. Do you have thoughts? Yeah, gender ideology is ideology that is a decent match for a lot of the modern woke, anti analytical, anti scientific ideology. It's impossible to Assess impossible to falsify. That said, as, you know, as we've said, Now, many, many times, here and elsewhere, gender is real, it's not a human construct. It wasn't made up by humans, gender is the behavioral manifestation of sex. And for some people looking around at what the dominant way that members of their sex tend to behave, they may say, you know what I'm going to, I'm going to prefer to behave like the other sex or in stereotyped ways, they're more likely the other sex behaves like, that's, that's fine, your behavior doesn't have a material basis. But you're not having material basis does not render it unfalsifiable or untestable, or unscientific. It's the point where they wiggle out of all attempts to figure out what they're actually talking about, that makes it unscientific. There's Yeah, there's a lot more but

**Bret** 40:58

I mean, I, you know, at some point, we're just going to get down to, can we just be decent to each other, right? The idea that we're going to establish this category, it's not on the basis of something scientific, so we're going to assert that it is and then we're going to bend the science to make it seem scientific. Look, you know, gender is interesting, it's highly plastic, it has certain consistent features, there do seem to be some people who are out of phase with their morphology such that trans is the right category. And that appears to be an ancient phenomenon, but not nearly at the level that we are seeing it nor does it suggest that surgery is the proper response to you know, so anyway, I think I think we just need to be decent to each other and leave open the possibility that there's stuff we don't get, but at some level, there's an awful lot that we do get and it does not match the madness that we are seeing.

**Heather** 41:56

Yeah. Okay, we'll do three more here. And then we'll switch to the next to today to this hours live stream. I'm not sure what this next one means. Next time you're on Rogan. Can you explain to him that 10 to 20% of Mongolian men being direct male line descendants of Genghis Khan means that 100% are direct descendants in some fashion. I'm not sure why that is positive as a as a truth.

**Bret** 42:22

I think the point is that if 10 to 20% of Mongolian men are direct male line descendants above some threshold, then 100% of them are likely to be descendants below some threshold that the nature of genes as the self optimizing property over time means that you have to set a threshold to establish

**Heather** 42:56

so the idea is that that 10 to 20% is what we can discern with our current tools. And because what we can discern with our current tools is, is imprecise. And we're going back in history a long ways,

**Bret** 43:09

right? So if you set some threshold where you say you need x level of sequence identity, right, in order to be able to say descendant, then well, what, what percentage would you come up with if you had half that level? And then there's a point at which it's so low, that you can't establish it, but it doesn't mean it's not there. It doesn't mean you don't have Ganga Khan, somewhere in by some ancestor.

**Heather** 43:35

I guess. So. Yeah. So I guess, however, that he's talking about men. And, and it feels, it seems to me that you can trace the Y chromosome. And, you know, direct descendants of Ganga scon should all have his Y chromosome. And that that shouldn't have slop in it. There will be some inaccuracy in the test, but it's not going to get less concentrated over time. It's just it's a Y chromosome, and there's not a lot of him crossing over at that 23rd 23rd spot.

**Bret** 44:12

I am now afraid that I'm about to make a serious error that I will be correcting with great embarrassment in the next live stream, but it doesn't seem to me that a direct descendant of Ganga Khan necessarily has to have his Y chromosome.

**Heather** 44:30

Direct Mail descendant

**Bret** 44:33

well, direct mail descendant does not mean

**Heather** 44:38

Oh, okay. So you don't we're not talking about a line of mail mail mail mail merge, right. So his daughter could have had a son that doesn't have his Y chromosome, so I'm not wrong. No. Yeah, you know, you're not wrong. So yeah, so the direct if, I mean, maybe maybe this recovers the question then that it's not the 10 to 20% Mongolian men being direct male line descendants it's tough if if what is hidden in this question is that 10 to 20% of Mongolian men are understood to be direct male line descendants because they have his Y chromosome and therefore we know that went male male, male, male, male, male male. Yeah. Then there's a whole lot of other stuff going on every time Bingo. I think we got it. Yeah. Yep. And again, because with this, obviously, strongly plugged in a society there would have been a lot of daughters that didn't have of his that didn't have his why that then went on to produce boys. Yep. Okay. Good man is venusaur who quits that question? Two more here. And when I say two, three, something like that. Did you happen to read the Atlantic article? anti racist arguments are tearing people apart? Maybe the author saw your latest live stream hot? reassuring that the periodical isn't 100% in on the candy kool aid? Yeah. Oops, oh, god, what just happened? What happened? here just put my screen up for a second sec. I actually, believe it or not had this open. And I thought we might get to it in the first hour and didn't. But yeah, so this is kind of friedersdorf it's not too surprising that he ended up writing this piece. But the fact that he's still published in The Atlantic is a good sign. Yeah, so there you go. Um, according to the US Census, male atheists outnumber females, female atheists in a two to one proportion. Why do you think it is this way? Please? I think this is going to have to do with this is going to be a similar answer to why women conform at higher rates, when you put them through like the Asch conformity experiments, and such, and that are more interested in appeasing and soothing over disruption and discomfort, on average, as a rule than men are. And at the moment, and presumably, forever. atheism is a is a minority view, it's a fringe view, and it doesn't offer the kind of community or comfort that religion does.

**Bret** 47:09

Yeah, are to say it slightly differently. Males are traditionally more likely to blaze new paths and the path out of an established belief system is likely to be pioneered by males more frequently than females. I don't think there's any reason to expect that that pattern has to continue just that it has traditionally been male associated behaviors, and that one of the things,

**Heather** 47:37

but but it's been male associated behaviors for the same reason that in every human culture that does whale hunting, women don't do whale hunting. Right? So mean, it's it's it is in part about not being able to, you know, if in your prime, you might be pregnant or, or breastfeeding, you're less likely to be taking huge risks that would put not just you but your tiny children at risk.

**Bret** 48:04

Yeah, I see some aspect of that, because this is completely a belief, which doesn't necessarily mean atheism or atheists. Simple belief, it seems to me that there is a this is probably not going to make sense to people. But you could there is no bar to writing new mental code that couples atheism, with exactly the same behaviors that would emerge from faith or some particular faith, there is no bar you can write any code you want at the software level. So what that means is, if it is true, that the beliefs that are resident inside these evolved systems, is resulting in behavior that is necessary for females to carry out the part of their role that would block them from taking up well, I don't think that code could be generated, and therefore, you can break the pattern. That said, Well, I guess the the play I would make one more time is we are at a place where we have to renegotiate the relationship between males and females, the ancestral stuff doesn't work. And the no holds barred everything is postmodern doesn't work either. So what we need to do is figure out how to renegotiate this so that everybody has access to whatever it is they want to do, but nobody is forced to take up stuff they don't want to do because of some naive belief that we should all want the identical thing. And I don't know. I mean, you and I have done this. It's possible. And so I think it's important that people just recognize that there is a mechanism to do it and it will not be that it can be a very positive thing, but It is not a simple matter of saying anything that ever created a gender role distinction was oppressive,

**Heather** 50:06

and you can't, you can't cheat. You can't say I don't want any of the downside of this gender role. But I want all the upside, neither neither neither sexes are allowed to do that. And what has been pointed out, it is captured a third wave and later feminism is that it would appear to be too often exactly that desire to keep all of the upside. That comes from being a sex that warranted protection and did not have to take the risks, while also claiming all of the upside of the other sex. You can't You can't have it both ways. Yeah. All right, we are switching now to the questions from this hour. Who scrolling? Could there be a role to play for an Tifa version of titanium McGrath never calling for violence, but giving high resolution satire of an Tifa positions. James Lindsay thinks it's too dangerous. What do you to think that's from the militant moderate?

**Bret** 51:11

James, Lindsay thinks is too dangerous. Look, at this point, we are on a trajectory for the collapse of the basic functionality of civilization at some level. I don't know what too dangerous means. Yeah, because it's slated for destruction. So could it make things worse? Of course, a lot of that is always the risk with anything that is novel. But at some level when you're headed for the waterfall, right? You got to figure out what your best likelihood is of paddling out of the current so that you don't go over it.

**Heather** 51:52

But I guess the way it could be too dangerous more than what Titanic McGrath is actually doing is that the Titania McGrath character is making outlandish claims and you know, calling for sort of social cancellation? Yep. Right. But an Tifa actually regularly calls for violence. And so what would I What would I tinea McGrath style. parody of an Tifa look like if it was to be believed if it was to be effective, the devil also sometimes called for violence, and therefore Wouldn't it be potentially dangerous and that it might result in same?

**Bret** 52:30

Yeah, I get it. I mean, obviously, it can't. You can't do it as titanium mograph. Does it or not, you know, the funny thing is, I would have to go back and look at what titanium mograph does. Because it seems to me that it involves the same danger. But it is well done. Yeah, in other words, you can't do it haphazardly. You have to do it in such a way that the parody is very, very clear. And I don't know what you do in a world where,

**Heather** 53:00

you know, well, but so I can't I can't remember I'm sorry, I can't remember the name of the British comic who is actually Titania McGrath. But he was doing her character for a while without it being clear that it was a character and that was a large part of its effectiveness. And then he got outed by someone on the woke side. We thought that would cancel McGrath and it didn't like the character continues to be quite powerful, though. I think the account was taken down briefly on Twitter recently.

**Bret** 53:25

That's not how I remember it. It was he was anonymous. He wasn't known who titanium McGrath was but it was clear parody. Okay. I think I mean, certainly it was clear to

**Heather** 53:37

me that's that's where it is that right? Yeah. Tim Dylan did a great parody of an Tifa in the Hamptons. Okay. Sounds fun. It sounds hilarious. bandanas have been poo pooed by the media recently as an effective mass compared to other options. Do we need to hang up our spurs?

**Bret** 53:58

It's good question. I saw this. The methodology was atrocious, which doesn't mean that the conclusion was wrong. But my thought was, first of all, I will make an argument for bandanas on the basis that they solve one of the problems that masks in general costs, which is because they can't be integrated normally into what you wear. They're inherently oppressive. Whereas if I put on my bandana, and I go out into the world, I don't even know it's there until I'm suddenly about to go in someplace that I need to have a mask and it's already on me. So my thought was if bandanas are actually less effective, they weren't ineffective, but they were less effective in that particular study you're referencing, then there's a question about what would you have to make them out of or what will you have to align them with that that was no longer the case. And really, we should be shooting just as people have produced lots of masks that have humorous things on them or designs that are nice or whatever. We should be making bandanas that solve the problem by changing the pore size, if that's the issue, and that retain the value of it, which is that you can just simply have it on and not think about it and go into the world. And I mean, I actually find, in at least two instances, that the mask has come in handy even in places where I didn't need one the bandana or the bandana? Yeah. So I had this experience, I was riding down a bike path in a forest around here and there were bugs. I pulled up the mask and I could breathe your helmet. I wasn't wearing a full face helmet I was. And then the other place was leaf blowing. I kicked up a ton of pollen. And I was already wearing a dust mask. So anyway. Yes, it was a question to be answered. To the extent that that atrociously arranged study is actually indicating something real, which I'm not convinced that it is. But if it is, then the question is, well, what do you have to do to modify it? Because the design beats the hell out of wearing a mask over your ears and pulling it down under your chin, which looks ridiculous, isn't comfortable, causes acne?

**Heather** 56:18

I hold it in my hands when I'm not wearing it. But it's not a great solution.

**Bret** 56:22

It's not a great solution. So anyway, I ultimately the answer is let's come up with a great solution that integrates with your life doesn't make you feel self conscious. doesn't cause acne. Yep. Is there when you need it? All those things and works really well? Yeah.

**Heather** 56:37

Brett and Heather, do you? What are your favorite movies? Also, this contribution isn't for you. It's for your cat. Thank you. He is very much appreciative. We all buy him fancy steaks. We want we will buy us fancy steaks, and we will let him smell them.

**Bret** 56:52

You'll get the grizzly?

**Heather** 56:54

Yeah, he does. And he likes it. I actually wrote that I saw this question was coming and I wrote it down to answer it next time because I have some strange lapse in memory that whenever I'm asked a question like that, I immediately forget all movies that ever existed or books or any such thing. I

**Bret** 57:10

agree. It's a difficult one. Yeah. Yeah, we have.

**Heather** 57:15

Um, so I, I promise we'll come back to it if you want to just pass this for now. Yeah,

**Bret** 57:20

I'll give you one. Okay. I'll give you once you have something to watch. In the meantime,

**Heather** 57:25

shows more ease of the movies at this point, frankly, because we've been watching some of their kids.

**Bret** 57:28

Yeah, indeed. Brazil is a great movie. Oh, also, The Big Short. Big Short, if you have a certain orientation to the world, The Big Short is a really emotional movie as the Renegades are fighting the mockery and the insistence of their betters that they are seeing a mirage. Yeah. Anyway, those are both good.

**Heather** 57:55

Yeah, actually, I'll provide a show that we recently rewatch made maybe my favorite, which is Peaky Blinders. I just just just extraordinarily well done. Yeah,

**Bret** 58:07

mine is a great show. This next question is supposed to start with your new product.

**Heather** 58:13

Oh, yes, that will make it make more sense. Thank you, Zack, do primates perceive emotion better in the left visual field, right hemisphere? baboons hold opponents on their left side? Do we tend to move anti clockwise enclosed spaces, for instance, stores to be ready for danger on the left? That is fascinating. Echo. I don't? I don't know. I don't I don't know if the question about other primates is known. I would be surprised if we had if we had shifted that from other primates to humans, like what would have explained us flipping the directionality of emotion in terms of the lateralization of brain hemispheres, as I would think would be similar. But of course, there's emotional processing in both in both hemispheres. And then this question about moving anti clockwise and closed spaces stores. I'd never thought of it. But as soon as I read it, I started imagining, I thought, well, they're they're all set up that way. Isn't that just because like, we're just forced to do it. But no, they're they're all set up that way.

**Bret** 59:24

Now, I'm not anti clockwise. They're clockwise, but only when viewed from below. Yeah, this is a tough one. For one thing. I think the real I don't know the answer to this question. But I do think the way to think about it is, if it were the case, that we reduce our vulnerability to enemies by keeping them on a predictable side in which we better process their intent or whatever it is, then there would be a premium on being the enemy that didn't work this way, but work the opposite way. You

**Heather** 1:00:00

Which is almost certainly, you know, this the adaptive explanation for, you know, not just handedness, but there being a nine to one ratio of right to left handers in every human population, right? So that having, you know, having the dominant way being useful for sort of group cohesion and problem solving, but always having someone in the group that is likely to be thinking about what about attacks from that side, oh, maybe I can lift I can get up into the tree that way, or whatever it is,

**Bret** 1:00:26

well, but the problem is that I'm wondering if the logic in this case, so you know, if you take the example of the desirable object in the tree that isn't accessible with the right hand, but is accessible with the left hand so that the group gets served, the lineage gets access to it by virtue of having a lefty, in, you don't need an even number. But in the case of this antagonism idea, I'm wondering if it doesn't tend to a 5050. Where, to the extent that there is a strong bias towards one side, the advantage to coming from the other side is great until you get to 5050. And so I've been doubtful about this in an antagonistic context, because I think you would get to a 5050 parody or very close to it, unless there was some other reason for the lateralization. So I'm doubtful, but I wouldn't rule it out.

**Heather** 1:01:25

What is your view on the impact on the lack of techno optimists? Recently, all mainstream technology and science themes have been overwhelmingly dystopic? Do we need a new wells Haldane Julian Huxley, etc?

**Bret** 1:01:43

Do you understand?

**Heather** 1:01:44

I don't quite get the connection. So I would I have I in the past have argued that techno optimism is part of the problem that we are facing that it's a kind of a new cornucopia anism that imagines that all we need is human ingenuity to solve even problems of clear resource depletion. Which, you know, resources are finite and zero sum and no amount of human ingenuity can can change that fact. It is true, though, that dystopian views of the future are much more common, at least in mice, my sense of what kinds of stories are, are making sense right now than, than optimistic ones. And I don't want to use the word utopian, because that's less likely, you know, a dystopia is going to be easy to fall into in a utopia just won't happen. So how about an optimistic version? I guess an optimistic version of a future that doesn't put too much faith in technology and human ingenuity is what I'd be looking for. So I think I think this question doesn't quite as insofar as I know exactly what's being asked doesn't, doesn't quite thread the needle, exactly the way that I would do. So, yeah, I

**Bret** 1:03:02

think what I see going on, is our system is so techno optimist by structural design, that the nature of markets of our political apparatus, the corruption of our political apparatus, all of these things, tend towards techno optimism, right? That is to say, where we might have the precautionary principle or the Chesterton's fence recognition of old protections and things like that. What we instead have is this childlike faith that that which is new is fine until we know better, right? At which point it's too late to do anything about it. And so I guess the point is, I think the dystopian nature of our fiction is the natural outgrowth of a system that is based on the faith of the safety of the novel. The novel is not safe. And because we are on a on a ship that is committed to the idea that it is safe until proven otherwise. We are headed to dystopia, right? We're blindly headed into the North Atlantic in the winter at breakneck pace on the basis that most patches of water are not inhabited by an iceberg. Yeah, right, which will result in you hitting an iceberg soon enough.

**Heather** 1:04:28

Okay, we are going to try to get through. Looks like six more frequently. One of these is just a comment. a Google search for Brett Weinstein listed you as an American biologist. his search for Eric listed him as Brett's brother, from one younger brother to another congratulations.

**Bret** 1:04:48

Well, I would I would dismiss Eric to Toby as well. Eric is certainly listed as a an American mathematician. Oh, for sure. But he's

**Heather** 1:04:57

just he absolutely is, but I can't Having the younger brother show up as the main guy as opposed to the older brother always taking first

**Bret** 1:05:08

totally. Although I'd be I'd be heartened if it was like, you know, Brett's older and slightly dimmer brother or something. Yeah, that'd be cool. Now

**Heather** 1:05:17

you would do what? Not like that. Okay, following up Oh, yeah. So following up from five weeks ago, we'll both of you interview at Richard Hart win who has been demonized by bad actors and smear campaigns for eight months? We have not looked into this. I don't actually remember this. We get a lot. You know, I will actually Zach, can you highlight

**Bret** 1:05:36

I think I'm actually aware of this person slightly, I want to make sure that it's the same account.

**Heather** 1:05:41

But so Brett says you might be aware of him, I will say that we've been getting a number of requests for people to be featured on dark horse with Brett. And really too many to to even give much thought to many of them. But that said we do appreciate you appreciate it and might might look into it. My wife, daughter and I are huge fans of you. Both my wife is do with our baby man. Two weeks, we would love to hear your thoughts on circumcision, as we both have differing opinions, and neither of us is very staunch. Thanks. So you did this recently. Yeah. And you answered this, maybe two, two episodes ago. And I think Dave are the guy who's making the clips for us actually clipped it out. So we might just refer to that.

**Bret** 1:06:27

Yeah. The short version is the foreskin and circumcision are both adaptive. That's the implication of the fact that the foreskin exists, and it is made of material and therefore passes the Adaptive Test. But the removal of it also passes the Adaptive Test. So probably these are responses to two different selective forces that are intention. The question is, how does this map onto modernity? In other words, if for example, the removal of the foreskin is a a an issue of hygiene and Epidemiology as has sometimes been implicated to very much. This has been controversial. But nonetheless, if that's what the removal is about, then it is possible that modern medicine or the access to reliable hygiene maintenance mechanisms, like showers and things means that that advantage no longer applies, don't know. But you're you're dealing with something that existed for a purpose in the past. And it is unclear how it maps onto the present my senses that that probably means that you are free to navigate this that you know there's costs and benefits on both sides and do what feels right. I don't think there's a terrible mistake to be made.

**Heather** 1:07:57

And I will just say that. Lest people misunderstand as ISIS, I suspect people did when you talked about circumcision a couple weeks ago, just because something has persisted and been adapted for a population does not mean that the rest of us need to look at it and applaud it or get behind it. You know, this is this. This is a long standing argument in cultural anthropology, right? Do you go in and simply observe even things that that you yourself find heinous if you were trying to do ethnography? Or are you allowed to speak what you understand to be a better a better way? So for instance, often people who are simply critics of male circumcision will say, Well, if you're in favor of it, you must also be in favor of female genital mutilation. And really, there. There is no good analogy between those two things. In part because although we don't know as you have said, Brett, what the adaptive reasons for male circumcision have been where they have shown up multiple times in human history, there has never been a suspicion or a hypothesis that has gotten anywhere with evidence that it was about controlling reproduction of or otherwise controlling the demographic that is men. Yep. Whereas female genital mutilation clearly has been about controlling the sexuality and the demographic that is women. And whenever you are controlling a particular demographic, with something that is widespread, it may well have been adapted, but that doesn't mean that it's any less cruel, unreasonable, heartless, and should be abandoned.

**Bret** 1:09:36

Yeah. One final note, I would just say, there are many mechanisms whereby a human mating system has been maintained. Almost always the downsides of those maintenance mechanisms fall on women, which is not fair. That said, the West which basically abandoned this, this invites a whole different level of catastrophe. We have a different sword. And so we need to discuss those things in the context of each other. Right? Right. So it's at the moment what it is, is pick your failure mode. And the real question is how can we avoid a failure mode and share the costs of whatever our system is equally? That would be the ideal. Yep.

**Heather** 1:10:19

Okay, two more questions, one of which is a double. Or actually, it's just a two part thing. First, first of two, the death metric really bothers me. I try and explain it this way. Hypothetically, if the virus took 20 years off the end of life, all people would die, middle aged, unhealthy, people would be at risk, young adults would be mostly fine. kids would have almost no deaths. Do you still want your kid getting this? Thoughts on the percentage graph, do you that's on the percentage graph? Do you give long term effects on heart brain lungs reproduction? So that's more of a comment than a question, but I think it's a really apt way

**Bret** 1:10:54

of thinking of it exactly. Right. And whether it really is that it knocks 20 years after the end of life or not? It's probably more complicated than that. But that's certainly how we should be thinking about it that simple rubric and that's before we even get to the question about whether or not it may be in people who have recovered hiding out in neurological tissue to reemerge later the way. herpes zoster, which is chickenpox, hides, and then comes out and causes shingles. So we're really early days here with respect to what the actual costs of this thing might be. Yeah. And the fact that it doesn't show up in you know, immediate death is little comfort, given how many systems at damages and how severely it apparently does so.

**Heather** 1:11:37

Yeah. Okay, last question for today. I was watching a documentary on Tantra tantric sex with Colombian girlfriend, many affluent white women gyrating and moaning to connect with their sensuality. The girlfriend asks, Why don't they just dance is dance adaptive? What are the effects of dance losing popularity in the white West? Great question. Yeah. And yeah, your Colombian girlfriend asking why don't they just dance that is apt. That is that is terrific.

**Bret** 1:12:06

Yeah. In fact, for years now I've had a plan to have a podcast discussion with Iona Italia about this very question about what is lost in the tradition of partner dancing, because even if you have dancing, she does Tango, rightly. Exactly. And so yes, I think there are great many things that are supposed to be worked out on the dance floor that get worked out in other much more destructive ways. And we, you know, it's another one of these things where it's, it's it's Chesterton's nightlife?

**Heather** 1:12:40

Well, let's say you came back, and one of your long field seasons in Panama, you had in order to keep the visa alive. You had gone to Cartagena for a few days, right? with a bunch of other people from from strive from Smithsonian tropical Research Institute where you were working. And you reported, in fact, you would, I think, bought a piece of art that then got lost in transit somehow that I never saw. But I still have this image in my head of this piece of art that you had that I haven't seen of a couple dancing, either salsa or marang. I don't remember maybe if it was Colombia, it wasn't either of those, but some? Yes, it's probably okay. In which, and you said that it reflected some of what you'd seen in kartha hain as well in Panama, too. But I remember you talking about Cartagena, it's just a place I haven't been so maybe I'm romanticizing it. And like the other place you talked about, yeah, I so I hear. But it was this oil painting of a couple in Titan brace, both of whom were quite heavyset, and neither of whom were young. But both of whom were beautiful, and doing the dance well, and clearly engaging in sensuality, and, and, frankly, sexuality in a way that was totally acceptable, and lovely and loving and wonderful. And that this was also something you were seeing among people dancing, actually. Yeah.

**Bret** 1:13:59

And anyway, that it's too much discussion for this late in our podcast, but there's a whole landscape that needs to be sorted out here because it isn't that dance is sex. It's not. But it is related in some way that has a lot. It touches on a great many different parameters. And the fact that the West is so confused about this is in part because you know, I don't think people in cultures were couple dancing is an important feature necessarily have the meaning of it. explicit in their minds, right? It's just something one does, but you know, the fact that you're, you know, if you go to a disco in Latin America, right, there's a lot of modern music that your grandmother wouldn't recognize. But your grandmother's music also shows up to Yeah, and,

**Heather** 1:14:50

and when it does, people are more likely to partner up and partner dancing and prediction. Those cultures that still have a fair amount of partner dancing that's done by young people. Have a lower rate of people succumbing to gender ideology.

**Bret** 1:15:03

Yeah, right. Exactly. All right. All right. Well, yes, so so so, all right.

**Heather** 1:15:15

Yeah, again, find us on our Patreon for private q&a once a month on mine. The Discord server is available for either of them. There is a clips channel that will have clips from today's stream up within a few days. And subscribe to this channel. If you want notifications. Try vacations. What else?

**Bret** 1:15:37

You know, achieve awesomeness. Oh definitely knock on all of those things crack on. Yeah. All right. Thanks, folks, and we'll see you next time.