Your Questions Answered - Bret and Heather 48th DarkHorse Po...

Sat, 10/9 12:22PM • 1:34:53

**SUMMARY KEYWORDS**

question, sperm, point, create, fact, meritocracy, women, witch hunt, humans, problem, worse, add, mating, egg, number, bullying, imagine, means, sensory experience, true

**SPEAKERS**

Bret, Heather

**Bret** 00:12

Hey folks, welcome back to the Dark Horse pod cast queue in a section number 48. October 3. That's right. All right, we, here's what we're going to do. We are going to answer questions submitted by you during the first hour. And then once you submit now as many as we can get to, and hopefully those answers will be true. And I'm just gonna say, and I hope they're timeless,

**Heather** 00:39

timeless, yes, some of them won't be Hi.

**Bret** 00:42

Wow, it's probably true. Yeah.

**Heather** 00:45

So there were literally 14 questions that I really wanted to come back to from last episode. And if we did that we get to almost done from this episode, so we're not going to get to all of them. We have talked in the past about coming back to with just you know, a couple of we're just going to pick up questions that we've had before

**Bret** 01:01

14 questions that seven times to seven being a biblically special number and to being the only even prime Sorry, I guess I'm in that mood. I don't exactly know why it's awesome.

**Heather** 01:15

Okay, let's do it. So I have cut it down to a mere five will really four. Here, one of which was something that was asked of us last time, and we didn't have any answers, but you have a suggestion. Now the question was a while ago, Sophos came up with a drinking game for the streams. If someone says something that can get them canceled your drink, what do we call it?

**Bret** 01:38

pariah, they call the game pariah. Awesome. All right. I think so. You could also call it which but I think pariahs better

**Heather** 01:47

which which has an wi Tch, yes, switch, right?

**Bret** 01:51

The thing? Yes, it harkens back to the the model of witch hunts that I had on the board me or a day or two, prior to my being challenged by all of those people that I'd never met over the racism that I didn't have in May of 2017 in May of 2017, may 23. I believe it was just 10 in the morning,

**Heather** 02:10

could you reconstruct the model of witch hunts that you could draw on the board for your students? I think sufficiently I

**Bret** 02:16

believe so I believe it was a very small number of people will initiate a witch hunt, a substantial number of people will attend a witch hunt. A large number of people will stand silently by as the witch hunt progresses, and a tiny number of people will oppose that. Okay.

**Heather** 02:43

That actually sounds very much to me like a question that we weren't it was it was number 10 here, but let's just jump right to before going back to the questions from last episode, someone in the last hour said, with evergreen with the world with any of these things, what percent are consciously manipulating the movement cannot be 0%? Or is the entire movement like the fortune teller who believes in his own abilities? So this strikes me is very, very much in line with this model of witch witch hunter Ray. Yeah, that you just described,

**Bret** 03:13

I would say witch hunt does not involve anybody necessarily behaving manipulatively. I mean, that doesn't mean that in general, there's not a certain percentage of manipulators, but I don't think any percentage has to be for one thing you could get organic delusion. Right right. The

**Heather** 03:34

the Salem like we exactly like with our gut on may

**Bret** 03:38

well have been organic delusion. Yeah. A mixture of rumor and maybe,

**Heather** 03:43

well, no, actually Sorry, I the proposed witches are were imagined to have been suffering from having inhaled air gut, which is related to modern synthetic LSD. But is it also true that the townspeople who were on the witch hunt or imagined Oh, I think so. Yeah, yeah. So it was it was it was a community wide.

**Bret** 04:06

And I'm not saying you have ever done hallucinogens. But anybody who has done hallucinogens can imagine that you would be susceptible to imagining that others were engaged in magical sorcery based on the distortions that one gets in their perception. Absolutely, that that could look like magic.

**Heather** 04:25

And why aren't you saying that I've ever done hallucinogens you would want to cast aspersions?

**Bret** 04:29

No, I just I don't want you to get arrested.

**Heather** 04:33

I don't think having done them as itself a crime

**Bret** 04:36

as well. That would depend whether you did them knowingly and I am not saying that you did.

**Heather** 04:44

An answer for different questions. Yes. Okay. No fan of Trump, but credit words do his stance against critical race theories. emboldening you admitted he's not a fascist. Could he be attacked solution. So this is you know, this was written last episode, not this in light of our conversation here. I honestly don't know which of these candidates is worse?

**Bret** 05:13

Yeah, it's hard to know. But I will say from the point of view of this narrow issue, he's shoring up the federal government and that which is connected to it so that critical race theory cannot render it insane. is necessary. Crump is doing it. And I can't imagine that Biden would it would be putting the finger a finger in the eye of a constituency that I think he's counting on.

**Heather** 05:39

Yeah. And that his choice of running mate is explicitly playing with, you know, I don't I don't think I don't think that Harris is herself. Buying in to the the woke ideology, but she is perfectly willing to throw the rest of us to the wolves, if it helps get her votes and advance her

**Bret** 06:03

career. You know, there's a, I think you have not yet seen the movie vice.

**Heather** 06:08

Think I have not yet seen the movie vice back when

**Bret** 06:10

you and I are which is about cheney flying places. Yeah. I saw it on a plane quite liked it. And it you know, it's quite upfront about its political bias. So anyway, it's approach on a no, it's anti cheating, but I actually found it quite sympathetic in its own way. Okay. But yeah, it came from the left, and it acknowledges that. But in any case, there's a scene in which a young trainee who has effectively signed up with the republicans because it seemed like the, the better vessel rather than out of belief, is talking to Donald Rumsfeld, his mentor, about I forgotten what the issue was, but somehow Rumsfeld gives him a confusing answer as to what they're to do, and the cheney character system, but Donald What do we believe? And Rumsfeld laughs in his face? What do we believe, and this is sort of what I think of Kamala Harris is that the idea that she believes anything at all is pretty far fetched.

**Heather** 07:13

Now, she is the most, I don't know what to think about pants. But if we, if we think about Trump, Biden, and Harris, she's the most explicitly political animal. And maybe that's just because she's sort of the most coherent like you can see because she's young enough to be totally, she has all of her faculties. And they just they don't look honorable.

**Bret** 07:34

Now looks ambitious to the exclusion of everything else. Yeah, like belief.

**Heather** 07:39

Yeah, yeah. Okay. Oh, another question from last time. Do you have thoughts on Prop 16? In California? Alright, so we didn't answer this because we thought we remember what it was, and we weren't sure. It prop 16 would reverse prop 200 something something 70, I don't remember would reverse a long standing proposition in California that forbids affirmative action effectively. So prop 16, if it passes would allow for hiring decisions and other kinds of decisions on the basis of sex, race, creed, whatever creed is a disability, etc.

**Bret** 08:20

So I am going to carefully and hopefully without anyone noticing, sidestep the issue of the particular ballot proposal, I should say, You and I both grew up in California and I regard California's initiative model, extremely frightening, right, the way California does ballot initiatives is prone to all kinds of manipulation. I remember battles between industry written bills and actually corrective bills that were designed to confuse you. So anyway, I don't we

**Heather** 08:57

I mean, we won't here but we could spend a long time talking about you know, we lived through prop 13. Right. So prop 13, directly changed property tax law, and the cost when it passed was to defund public education, such as the California went from having some of the best public schools in the country to having some of the worst practically overnight.

**Bret** 09:19

So I will just sum up that phase as we lived through proposition 13. Barely. That's not exactly what happened. But

**Heather** 09:29

that would be an interesting conversation to have. But but not for right now. Just the point being neither you nor I have read proposition 16. So you want to sidestep my friend, you want to sidestep speaking directly to that, but by talking about the

**Bret** 09:44

issue, about affirmative action, I would say affirmative action, I believe is warranted, but it has been a problematic policy. In other words, it doesn't do what it's intended to do. And maybe most importantly, it needs to be temporary. Right? It needs to be targeted at solving a problem. And at the point that it solves the problem, it needs to be eliminated or at the point that it fails to solve the problem that needs to be eliminated in favor of something else. So what I would say is, I am now in light of the modern sensibilities surrounding race and achievement and all very concerned, the the sensibility is, oh, this is a problem, it will always be a problem. Therefore, we will need this remedy permanently. And anytime you set affirmative action, in motion with the idea that it is the new order forever, you've done something wrong. So I would, I would like to have a clear headed conversation about the idea that there's a difference between the justification of a remedy, the effectiveness of that remedy, and the durability of that remedy, and that even those of us who are fiercely committed to the idea of a fair society and recognize that society is biased in ways to demand a remedy may not be in favor of these remedies that have been deployed, because they haven't done what they were supposed to do. And what they have done is created a whole kind of set of unintended consequences that are very negative for the populations in question.

**Heather** 11:16

Yeah. And I, I should have looked up when the proposition that 16 would would obliterate past but my my suspicion is that somewhere 2025 years ago or so. And that modern sensibility, as you put it, is that racism in particular is everywhere, and it is unsolvable. This is obviously an attempt to solve it, which is inconsistent itself with the ideology of it being unsolvable. But it also that the only reason to reinstate affirmative action, in particular, in California is if the last whatever it is 15 2025 years without it has revealed a greater chasm than what what was occurring before that proposition 200. Something was passed, right? Like you need to actually compare. And you know, it's impossible to do it perfectly, because you can't control for time. But what was you know, what did the disparities look like before proposition 200? Whatever it was, was passed. What does it look like, two years ago, say before that before this has gotten to complete a fever pitch as right now? And if it hasn't gotten worse, and my guess is it's actually gotten quite a bit better than On what basis would you possibly seek out a solution under which conditions were worse than they are now? That doesn't make any sense? And you know, this isn't exactly affirmative action, but the kind of you know, the, what did you call it the modern predicament, whatever, whatever, whatever this this modern insanity is, is revealing itself. And this isn't like I say exactly affirmative action. But didn't. San Francisco Mayor London breed, actually and like what an appropriate name here actually decided that she was going to start she right? She start paying black women $1,000 for their pregnancies, but only black women?

**Bret** 13:14

I believe this is correct. on

**Heather** 13:17

believable.

**Bret** 13:18

It's one unbelievable thing and a long list of unbelievable things, which tells us something about where we've ended up and how far we have fallen from the most basic principles that the Republic is, is founded on. Yeah. All right, so

**Heather** 13:33

Okay, penultimate question from Episode 47. What are the differences between the sperm that gets to fertilize the eggs from those that don't? How does this affect humans born from in vitro fertilization?

**Bret** 13:45

Totally. The sperm that fertilized the egg, those are winners? Yeah, I mean, it's almost by definition,

**Heather** 13:53

we're all from winners. Yeah.

**Bret** 13:54

Well, here's what you want to know. And this is why you took the time to write that question to a pair of biologists at large. The phenotype of the sperm that is to say its physical nature in the world is the result of the genotype of the individual that produced it not the particular subset of genes that it carries. I believe that remains the conclusion of the study that has been done on this

**Heather** 14:28

really so so to put that into a slightly less biologically dense language, what you just said, and I did not know this to be true. What you are claiming is true, is that all of the sperm from a single individual will have the same phenotype.

**Bret** 14:46

Obviously, there will be noise because there's going to be differences in the developmental environment for each sperm, but it will not be heritable from the genes carried within that sperm, but

**Heather** 15:00

There will be sort of cellular developmental differences. I

**Bret** 15:03

don't know that they would be measurable. I just it would be impossible for them to be zero. So and

**Heather** 15:07

and yet some sperm seem to be faster than others. Right? So you think that's just about like initial conditions getting stuck in an eddy or something?

**Bret** 15:16

Something like that. Yeah. So I mean, you can imagine, for one thing, path, path, literal path dependence, and the exhaustion of some sperm based on whatever energy reserves, they had them swimming slower at the point you chose to measure them.

**Heather** 15:31

Got me envisioning salmon.

**Bret** 15:33

Right, which are bigger? Yes,

**Heather** 15:36

multicellular to Yeah.

**Bret** 15:38

If you had I mean, this is just my other, among other differences. Yes. Jokes suggest themselves, but I'm not going to make any of them not here. No, you're not ever really well, I'd say well, we will find out this way. They might not tell though. They they will not. But yes, so my understanding and this is, you know, I don't know this. I know it from study with Bob Trevor's back in college. So it's possible something has up ended this result or that there's more nuance to it. But yes, the differences in the sperm are not the result of genetic differences of the subset of genes. So to take to take the caricature version to establish this if you had a loser parent and a winner parent, and the shuffling of genes resulted in one sperm.

**Heather** 16:31

So you're a dude who's got a loser parent and a winner parent, and you are creating sperm, each of which have half of your genome and some of those were will actually be entirely from your loser parent. And some of them won't be entirely from your winner parent, although that's really, really rare, because most of them will be mixed up will pretty much never have very occasionally some of your sperm will be 100% related to your mother, and not at all related to your father. No, actually can't be can't be that, because there's no Y chromosome from your mom. But but very occasionally, you will get sperm almost entirely from one parent or from the other. Same with eggs. Yeah,

**Bret** 17:03

yeah. I want to go back and check. So the sperm will be x bearing RY bearing 5050. Right? barring unusual, so

**Heather** 17:13

a sperm could be 100% from the guy who made it made its dad's genome, but it could not be 100% from the guy who made its mom's genome? Ah,

**Bret** 17:23

no. Because because of an ex bearing sperm could be 100%.

**Heather** 17:30

But a why bearings are so happy the sperm can't be Yeah, entirely from the moms, you know, this is the we're in the weeds. But

**Bret** 17:35

so anyway, so I don't I would be curious whether this result has remained robust in all of those years since I last encountered. Yeah, because we've learned a ton about epigenetics, among other things. But in any case, even the preponderance of loser genes would not affect the likelihood of the sperm succeeding now there are exceptions

**Heather** 18:01

to this, what does? What does drive which sperm succeeds?

**Bret** 18:06

Well, as I was gonna get to introduce anomic, conflict and sperm sabotage. So effectively, that's what

**Heather** 18:13

different like that's that inter genomic conflict is going to be if the female has made it with more than one male or no, you're talking about egg versus sperm?

**Bret** 18:25

No, I'm talking about things like t haplotype. in mice with sperm that carry one a Leal sabotager sperm that carry the other ili. Also, although they reduce the, the likelihood of the individual making those sperm of fertilizing an egg, if it fertilizes an egg, it will certainly be the T haplotype.

**Heather** 18:47

Even though the phenotypes appear to be the same, if this result from 30 years ago holds, there is still intra genomic conflict between sperm from the same dude at the same time. Yeah,

**Bret** 18:56

there can be okay, right. And so and there are many different versions of these things to haplotype is the best studied, or at least was the best of them. But so these are driving genetic elements that sabotage the individual in favor of their own continuance, which is, of course, exactly how you would expect teams to behave.

**Heather** 19:16

Yeah. And Trevor's and Austin Bert have not, I mean, it's probably been 10 years now. But they they were already sort of working, I think, on their book on inter and intra genomic conflict, I believe. And that's, that's out now so that we could probably look at that to see what is up to date here. Yeah, and does this affect humans born from in vitro fertilization? Probably?

**Bret** 19:41

Well, in vitro fertilization, I

**Heather** 19:43

don't really know the, the mechanism of IVF. So the mechanism

**Bret** 19:47

of IVF the primary one is just basically the physical introduction of genome of sperm genome into an egg. So with a needle Yeah, and That can be a destructive effect, but I think it's physically destructive of the ag right? So the question yeah is about competition about the competition and whether the competition between sperm means that the sperm that carry the genes that are better tend to fertilize the eggs which maybe in some way purify. So I think what goes on with IVF is a very different nature, but I don't know.

**Heather** 20:24

Okay, final question from last time. Would you rather fight one horse sized duck or 100? Duck sized horses?

**Bret** 20:30

Wait, wait, wait, what I rather fight one. Duck sized one

**Heather** 20:35

horse sized duck, or 100? Duck sized horses? I'm good either way. Really? Oh, yeah. That's cheating. You can't say that.

**Bret** 20:46

All right, then. I would rather fight the think I'd rather fight the little horses.

**Heather** 20:56

Yeah, me too. Yeah. Duck sized horses. 100. ducks. It's a lot like, you know, if it was 10 it'd be obvious, you know, one horse sized duck or 10 duck sized horses, but horses that are duck size just going to be pretty easy to take out, I think. Yeah. Yeah, I'm just not gonna be able to do much. But that's a lot of lemonade in being horses. They might team up. But

**Bret** 21:19

yeah, as long as they're not rabid,

**Heather** 21:21

rabid horses.

**Bret** 21:22

Yeah. I couldn't drag me away. rabid horses couldn't drive.

**Heather** 21:28

Okay. Okay. Next question. This came from the discord. Sir. The discord discussion this week. What do you think about the fact that there's nowhere on earth to go in order to be a sovereign individual under no jurisdiction by your own? There's no opt out any at all societies? And this came with a bunch more background. But fascinating, terrifying, sad question.

**Bret** 21:51

Oh, yeah, actually, that I spent a lot of time thinking about the consequences of this. Yeah. Basically, it's like this. We have signed you up for a deal that you can't opt out of who we serialization Yeah. And that means that civilization has obligations to you that it's not meeting Ah, right. If it's gonna sign you up, you can't go be a hunter gatherer somewhere. Right? Then the point is, it is taking something from you, and it has an obligation to deliver on its promise to be decent to you. And from this, I believe that the entire obligation to create societies that are fair and functional, and that free people to engage in things that are meaningful. All of that derives from this fact that you don't have another choice, right. That's why we have to do the right thing. Yeah. And anyway, yeah, I think it's a very important principle. And it weirdly as much as it seems deeply philosophical and remote It is one of the things that drives me is that I think we are just not living up to this obligation, and we have to fix that.

**Heather** 23:05

All right, good. Thank you from a fellow portlander, who happens to sit across the political aisle, your actions and commentary help lessen the lonesome feeling of disagreeing with the far left socio political landscape of our hometown. Comment, not a question, but we appreciate that. Yeah, thank you. Major de coverly from catch 22 mental maturity does not arise from a youth culture. How do you create so I think there's either a typo here or word missing, so I'm not sure exactly how do you create now Asimov's foundation to create a society focusing on growing mature thinking humans, and I don't remember I this this vague glimmering of Asimov's Foundation, but I can't quite remember exactly what it is. But I think we can interpret the question without that. even know how that scene you know, the, the getting rid of the great loyalty. The glorious loyalty oath crusade was done in Heller's imagining with a respected elder coming in and saying no. First, not first, not for me. And then oh, obviously not for anyone else either. So how I guess there's two possible questions here. What do we do absent those like, how who do we look to absent that kind of person now? And also, how do we make more of them? How do we make those people?

**Bret** 24:34

Well, I mean, this will be uncontroversial for you, me and most of our audience, but one thing is you have to stop demonizing masculinity. Yeah. And that's not to say that the people who wield the stuff have to be men, right? It's but the point is, those are characteristics that have traditionally been seen in men. They have been seen an extraordinary women who have very often found their names inscribed in history because It, the point is those characteristics that cause you not to obsess over every little slight, and to regard, being tough and getting stuff done, and, you know, stoicism and all of that, right? those characteristics need to be resurrected, and being told that they are toxic is itself toxic, right? It is dangerous to society to tell people that, you know, buckle up and getting the job done is no longer on the menu, because what we need to do is, you know, all come into work and immediately cry on each other's shoulders. No, right? That just doesn't work. And so how you do that in this era, where to even voice that runs the risk of, you know, you being portrayed as

**Heather** 25:50

callous, worse, toxic? Like, that's,

**Bret** 25:53

you know, that's the thing we have to get around is you got to cultivate that stuff in yourself, right? You got to toughen yourself up. And you got to not be shy about talking to your kids and others about the fact that these are actually not only desirable characteristics, but it is necessary. Not everybody has to have them. But you need tough people. Yeah, and,

**Heather** 26:14

and to those adults who do oversee large swaths of employees, for instance, like all parents should be inculcating this in their children regardless of the sex of their children. But if you are an employer who, who has, you know, run Spotify, and the employers are threatening to walk out if they don't start censoring some of Joe Rogan's podcasts, or JK Rowling's publisher whose employers are threatening to walk out if they don't censor her, or Google, whose employees, employees, one with the James d'amour memo, which didn't say what a lot of people thought it said, and which did say a lot of very true things. And not only the employees managed to get the, you know, make a coup happen. But what was less well reported was afterwards, a bunch of them took sick days, because they were too emotional to come to work. Now, come on, like, why would you let the people who are too emotional to work drive policy, don't let people who are too emotional to work drive policy, that's not sane,

**Bret** 27:19

right? That's not sane. And we saw actually one of the few examples of the proper response to this by the head of Coinbase. So I don't know think there's a story. So this is a CEO who put out a thing that says, look, we care about injustice, but that's not what Coinbase is. Coinbase is about something, and we are not gonna be able to accomplish it, if what we are doing is coming to work for the purposes of therapy. And so his point was, look, leave that stuff at home. Right? And he's taken a tremendous amount of crap for it. Yeah, but but here's the thing, can anybody really doubt that in a world, you know, the woke will try to stamp that example out, because in order for them not to lose, there have to be no examples of companies that do that otherwise, what you will get is the hegemony of those who have resisted, you know, we've been saying this from the beginning, if you've got engineering schools that are woke, and other engineering schools that aren't well, then ultimately the ones that aren't woke will, will be in charge of everything, because they will make better bridges and buildings and all of that other stuff. And so their stuff is less likely to fail, right. And so the point is, you know, get out of yourself long enough to recognize that whatever thing you're trying to fix with your hard coding of your morality, you're making it fragile with respect to all the things it's in competition with,

**Heather** 28:45

well, most of these people advocating for these things have never made anything real. And they wouldn't recognize the difference between a real thing and a socially constructed thing clearly, but you know, based on the fact that they keep on making ludicrous claims, like biological sex isn't real and math isn't real. And, you know, they clearly just have long since lost the plot. Yeah. And why are we listening to them? Why is anyone cave into

**Bret** 29:05

them? Well, unfortunately, the answer is pretty simple and pretty mundane. Right? First of all, I do think, you know, it's uncomfortable to say, but a lot of the people who are initiating this are people who Intuit that they will not be well served by meritocracy. They won't be winners, right? I don't think this is necessarily on them. I think society has served them very badly. And so the fact that they perceive that in a meritocracy, they will lose, and so they are fighting meritocracy, because actually, that's the route for them to wellness. That's something we have to deal with. But once they have articulated that position, and once they are exerting it in a muscular fashion, then the game theory for the individual who wants to dodge the penalty is to simply embrace it which causes it to grow and spread. So it's like those two things are sufficient to explain

**Heather** 29:59

so two things By you invoking a muscular fashion for the woke you caused a cognitive dissonance in my brain that I'm just having a hard time escaping from the most of the most individuals don't appear to be very muscular. It turns out

**Bret** 30:13

Yes, the threat is muscular. Yes,

**Heather** 30:15

I know what you meant I just like I got the like the visual image muscular phenotype I like that's not that's not what the whelk is. Are you making the claim, which is pretty, pretty audacious? If you are, but I just want to see if I heard you, right, that many of the people arguing against effectively enlightenment values, which includes the idea of meritocracy, which is not to say that we think that we have a perfect meritocracy, or even that it can be perfectly obtained in a democratic system, but that we can aspire to it. But are you saying that you think that those who are arguing against it are doing so in part because they would not win in a fair meritocracy that they are somehow they have, through, through maybe fault of their own, maybe no fault of their own through some combination of factors into which they were born and handed, that they would not be winning? And therefore we're trying to create a new kind of system?

**Bret** 31:12

Yes, but it's important to get all of the pieces of that and then to add one so the pieces are all the pieces that I just laid out or Yes, I what I don't want to be lost is you know, everybody who's over in that left cabal is a loser. My point is those who would argue against meritocracy itself, I believe, have intuited that it would not serve them and therefore, they have very little to lose and challenging the idea that it could even work right. But the other part I want to make sure is heard by people is to the extent that you have large numbers of people who cannot compete in a meritocracy that is not necessarily their fault, in fact, largely is unlikely to be their fault. It's the result of a system that decided to drug them for profit decided to miss educate them so as to create cogs to operate machines that don't even exist anymore. So babysat them with screens, babysat them with screens, fed them porn, whatever it did, it created people who are not well constructed to do shit and you know,

**Heather** 32:19

gave them junk everything, it gave them junk, junk, sex, junk, media, junk, everything,

**Bret** 32:23

and so their rebellion is to be expected. But that does not mean that we need to humor the idea that the Enlightenment was always and only a tool of oppression, that meritocracy is itself a trick. You know, those things are garbage and nonsense. And the answer should be, the quicker we get to a meritocracy that where you are incentivized to succeed and given the tools with which to do it, the better, right? Yeah, that's the thing. We want a fair meritocracy. Well, that's anonymous, but but that's the objective. Yeah.

**Heather** 32:57

Okay. Suppose we could create a digital emperor has no clothes mechanism for people in general organizations, as in with encrypted smart contracts or something like that. What would the game theoretic consequences of that of that be?

**Bret** 33:12

struggling to understand exactly what is it the ability to indicate anonymously that the emperor has no clothes? And when a sufficient number of people

**Heather** 33:23

yeah, sort of anonymizing whistleblowing so that it, it only manifests and maybe only become public? I don't know I, I'm putting stuff on here. And this may not be what the person in question was implying. But what I envisioned envisage, is an anonymous ability to whistle blow and at the point that some say fraction of people who could possibly whistle blow have done so then it becomes a matter of public record something like this

**Bret** 33:54

be a total disaster. Okay. Yeah, because so this is one of these cases where

**Heather** 34:01

I mean, I may also that may be not

**Bret** 34:03

good. Yeah, yeah. Well, I can't can't figure out exactly how it would work. Hey, we have versions of this. You know, HR is a ham fisted attempt to create a mechanism to protect people and it's now been weaponized,

**Heather** 34:21

right. But the, you know, the digital emperor has no clothes mechanism, if the AI can't get woke, right, like HR has been captured, HR is gone, woke, and almost every organization that we've heard about, right, and so the idea would be that the algorithm can't go work, the algorithm can have a lot of other things that are wrong with that. But if the algorithm can't get captured in the same way that HR has been captured, might this not be a way to end run some of some of the problems that we're seeing in organizations

**Bret** 34:46

My sense is the AI is Wolcott shit.

**Heather** 34:50

Okay, that like Why?

**Bret** 34:52

Well because we've seen it at places like Google where it picks up the ethos and starts trying you know, it's It's a version of the paperclip Maximizer.

**Heather** 35:03

It's woven into that scenario. And it's, you know, it's sometimes sometimes presumably, will feed you, you know, extreme right ideology, if that's the area

**Bret** 35:12

No, no, it does it does worse than this. And I mean, you know, it's not to say that it can't be utilized to anything positive, but the idea of mechanizing, it actually just adds a layer of hazard. And you know, I can imagine if you had a whistleblower, automated whistleblower, yada, yada, yada, right, then the woke would be, I mean, in fact, they already are, right, this is what this is what I believe happened to the articles of unity account on Twitter was that a bunch of woke folks who didn't like unity from the beginning, because it wasn't woke. They reported to Twitter triggering an algorithmic process that sidelined the account that then resulted in some person with discretion on the inside using the excuse.

**Heather** 36:10

So there's, you know, social media has its own kind of problem, because you can game the social feedback thing. But even you know, absent that kind of feedback, because why would you build that into such a mechanism, as is being asked here, you still ultimately need the human with discretion. And so you're still dealing with a human with discretion, who is receiving the outputs of the AI? And, and that that will always that will always have a potential flaw. So we should be getting through more of these. I see you forming some ironic thing to say remembering

**Bret** 36:44

the the movie wargames starts with them, removing the people with discretion and thinking they were solving a problem and creating a new problem, which I think is likely.

**Heather** 37:01

This is written teller graphically. Do women have instinct? Can you read this? I can't. I can't read this. I can't. I can't quite make sense of this question. to women of instinct to continually refine women's intuition of human behavior, to assess trust, as an alternative to male reliance on violence, thinking of murder shows,

**Bret** 37:29

we I can't quite get the exact question out of there. But let's just say, all intuition is about subtle patterns. And the thing that we don't get about intuition is that we sort of have the sense that it is, you know, God given or if you're more of a scientific materialist, you may imagine that it's written in the genes that you're wired to perceive certain things. And undoubtedly you are, but the intuition is really about experience that is hard to that is hard to reconcile consciously, right? So you may have the experience that people who have a certain, you know, shifty way of standing are hazard or untrustworthy, right, it's very hard to write exactly what the rule is what you're even noticing. But these intuitions can be well tutored. If they have if they're built on experience that's actually informative, that is to say more signal and noise. They can be cruddy if they're built on noisy data or pure noise. And so anyway, yes, women's intuition is of course, going to be augmented by continual selection. Whether it's exactly about male reliance on violence, hard to say undoubtedly, women have an intuition bout those tendencies of men. Good something Yeah.

**Heather** 39:02

There's there's something very interesting to be done here that maybe, maybe we need a bit more time or words to, to pull out. Can you are people wolf? Is that a troll today? Oh

**Bret** 39:14

my god. She's terrible.

**Heather** 39:16

That didn't say she was terrible. He's just like snorting and rolling around the floor a lot. Can you comment on Yuval Harare, his book Sapiens? Is it true that the cognitive revolution was driven by man's ability to create fictions as in money, religion, states, etc? Also, is it true that these things are actually fictions? So Gosh, that's three different questions right now. Neither of us I think neither of us have read Sapiens. I read part of it. I picked it up and I looked through it a little bit. I did not not read it because I thought it was terrible. It just didn't really grab me. It's been recommended by smart people who know something about evolution. So you know that I neither of us can speak directly to whether or not it struck us. As insightful and true, but so if we take that part out of it and just address the rest of the question as if it is not referring to her always book. Is it true that the cognitive revolution was driven by man's ability to create fictions such as money, religion and states? Just taking that question that's just wrong. Yeah. Because our, you know, the, the size of our brain just just in terms of not the software, but the hardware of which we are made, has been more or less the same unchanged for about 200,000 years. So money, what are the three things you put their money, religion and states are all we think, quite a bit newer than 200,000 years old? So the cognitive revolution that allowed us to have the size of brain and specifically the size of prefrontal cortex that allows us to think forward and reflect backward and tie those two, two things together into the present, is much older than these things. And then, is it true that these things are actually fictions? Not fiction, they're not fictions, they're abstractions. And they are human constructs.

**Bret** 41:09

I would say those two things are close kin. Yeah.

**Heather** 41:12

But you human construct does not make a thing. Fiction. No.

**Bret** 41:15

Right? So hey, what we've said elsewhere, what came from tick Alexander on this front, was that it was an arms race between humans at the point that humans become their most prominent hostile force, their own most prominent hostile force, that arms race sets up the increase in cognition. What does that mean? It means that that cognition was largely built around things like understanding the state of mind of your competitor or your enemy, in order to model their behavior and either parasitize it or challenge it. So anyway, that's a pretty good model. Is that unrelated to what you have called fictions? And what we would maybe revise to abstractions is not unrelated, right? You're right, your competitors mindset is an abstraction to you, right? And it can be better or worse? And does that capacity to generate the abstract model of your competitors mindset ultimately result in your ability to abstract value to currency from barter? Yeah, I probably does. So it's related, but probably not causal in the way that you lay out here.

**Heather** 42:25

And I guess just one more thing about that the way that you just built up analysis, it clearly originates or you know, there's something sort of more fundamental than money religion states, which is theory of mind, you know, imagining what your competitors mental state is, and and recognizing that it is not inherently the same as your own, which is something that I think it's like two year old baby humans can begin to do. Well, that's not even unique to humans. So there we know that for instance, dolphins have theory of mind in some circumstances, elephants do baboons terrific book baboon metaphysics by Cheney and Seyfarth explores in some depth all the ways that baboons appear to have theory of mind can really recognize the ways in which what one baboon may feel and desire and understand to be true. can also recognize that a baboon sitting across the way understands other things to be true and desires different things. So you know, if it's in baboons, and we share our most recent common ancestor that must go back, or I'm going to be completely making this up, but at least 20 million years, I would say if we share most recent common ancestor with chimps and bonobos at 6 million years ago, the other apes probably 1012 you know, are basically baboons are Old World monkeys. And so that's got to be at least 20 million years ago. I think

**Bret** 43:42

they're all World monkeys and old school monkeys. No,

**Heather** 43:44

they're definitely old school. Yeah, slapped on the knuckles all the time. Monkeys Really?

**Bret** 43:48

Oh, gee, yeah. Original gangster monkeys. Got it? Yep. Okay.

**Heather** 43:58

Is there adaptive use to something like bullying? Also, what's up with male pattern baldness?

**Bret** 44:04

How is that an attack?

**Heather** 44:06

Why? Yeah. Why does that persist? What seems to be a handicap so that is two questions. Maybe we'll do just do one of them since we want to get through more of these. Which one do you want to take on male pattern baldness or bullying?

**Bret** 44:19

bullying, okay. By the way, this is real. I'm, if I have male pattern baldness, it's 100 years behind schedule.

**Heather** 44:29

trans men begin to experience male pattern baldness which suggests that it is a direct effect mechanistically of testosterone.

**Bret** 44:37

Yeah, yeah. Okay, so bullying. First of all, this is part of bullying may be the pathological version of something for which I think actually in this case, we maybe do have non Pathak pathological names for the things that are short of it, but one wants to be very careful. If you take all of the things that could be portrayed as bullying out of the school yard, you will get fragile. Snow flaky kids. Yep. Right? If you want to create robust adults that can endure stuff, then they need to be exposed to stuff including not so nice colleagues giving them a hard time on the playground. And so bullying toughens you up. And the fact is, you're probably better off being toughened up by the kid in your school yard, who's maybe a little rough around the edges, then you are being pampered through school, and then getting out into the real world and running into somebody who really has, you know, no stake in your well being and an iterated sense. Going forward.

**Heather** 45:52

So I'm going to name drop just a little bit here. I was actually just in the conversation. I don't think you know, this. while editing the childhood chapter was either the childhood or the school chapter of our of our book. And I had made a claim I'd written something and made a claim about bullies, having very short term success, but long term being losing power in in the scenario in those situations where bullies are allowed to persist, and that the children themselves, hopefully in mixed age groups are allowed to basically do do the business on their own without having adults come in and inform them of who's the boss and who's not. And I realized that I just I had this in my head, but I didn't have a reference for it. And I couldn't find one. So I approached Lenore Skenazy, our friend, who is the founder of among other things, let grow. She became famous many years ago as the nation's worst Mom, I think when she let allowed her than nine year old maybe to ride the New York subway. And of course, she is very much not the nation's worst mom. In fact, she's probably one of the best. And she has become quite an advocate for free play, and unstructured play and unsupervised play in children. And I asked her and she said, because she I don't know, but Peter gray, who is a researcher on Play, not just in American children, specifically in the Sudbury schools, which have a lot of unstructured play with mixed age groups, but also in hunter gatherer children. She put me in touch with him and in conversation with him an email conversation with with Peter gray. He says, You know, I have no references to support this, but I know that it's something I've seen and I also I can also point to other personal observations of other researchers from various hunter gatherer societies. So from hunter gatherer societies, in pre industrial societies, to the playgrounds at Sudbury schools and in the Newton in New England, yes, this would seem to be the case that bullies are, are a strategy that show up over and over and over again, and under circumstances where children are allowed to deal with their own troubles. Bullies tend to lose in the end.

**Bret** 48:06

Yeah, bully is not a good strategy. Right? Right. And so again, I want to draw the distinction. bully might be the pathological version, but giving your you know, taking the piss out of your friends might be the wholesome version of it that results in you knowing where you're vulnerable, fixing the problem being stronger in the end, and all of those things and so, you know, I don't want to defend bullying because maybe it's just bad, but that's, you know, it's bad. Like, water is bad when you drown. Right? You know, yeah, that's not an indictment of water. No, I

**Heather** 48:39

mean, and there were boys I mean, this this is actually one of the themes of the way that we think this evolutionary lens you know, dyslexia, maladaptive or adaptive, right, like, Oh, okay. You can't actually do it that way. Yeah.

**Bret** 48:50

Can I do it that way?

**Heather** 48:53

Okay, my 10 year old son debate I apologize if I'm mispronouncing his name, my 10 year old son who wants to know the egg the first chicken is born in is it really a chicken egg or an egg of a pre check? If the latter than chicken came first not the egg we love your voice of Sadie stay safe.

**Bret** 49:12

Yeah, you've resurrected the chicken and egg problem was neatly solved.

**Heather** 49:17

Well, it resurrects it only really, if you add a little somatic thing to the question Which came first the chicken or the chicken egg? Yeah, right. And so that, you know, that's not in fact, the question as it usually is asked, and maybe that's what they're trying to ask. But, but really, you know, which came first the chicken or the egg? Clearly the egg. Because eggs predate chickens, which came first the chicken or the chicken egg, which is what this this question resurrects perhaps what do you think?

**Bret** 49:48

Well, I mean, look, let's put it this way. I am not a fan of sophistry. But were you to get involved in sophistry were you to take it up. Maybe as a hobby. You could make an argument And that the chicken came first because the egg shell goes on after the chicken egg is fertilized. Little known fact. And therefore the if the chicken is synonymous with the zygote then the chicken shell came second. Again that's your Sophos. Okay.

**Heather** 50:24

What do you want to play? It's office three. Yeah,

**Bret** 50:26

I do. Yeah.

**Heather** 50:27

Okay. So in what universe? Is that? How we play? It's office three. Do we begin our questions where they want universe in what unit? Oh,

**Bret** 50:34

that's a good start. That

**Heather** 50:35

was threatening. Yeah. In what universe? Do you imagine that the egg and the egg shell are synonymous?

**Bret** 50:41

Whoa, I know. In what? Well, in this universe? Oh, sweetheart.

50:48

No, it's a terrible answer.

**Bret** 50:50

It's a terrible it's I don't know. I

**Heather** 50:52

don't think so. So yeah. So then we have a temporal thing, which, you know, which came first, the question is already temporal, but then the egg exists, and then the egg stops being formed. And somewhere in the middle of the egg being formed, the chicken comes to be Oh, it depends. It depends on what the definition of is, is.

**Bret** 51:13

This is why this is why I dislike sophistry as a mode of analysis. Yeah, did you know that the Sophists were paid tutors?

**Heather** 51:23

No, I didn't. They were paid tutors. They were paid to be paid on the acids. Yeah. Depends on how many people how many

**Bret** 51:31

assets you've got. Yeah, yeah. Alright.

**Heather** 51:35

intubate Dyson, a preacher called Jordan Peterson, a mean old white man and an upholder of patriarchy. Then he invited Jordan Peterson to a black church in the absence of religion creates a void for wokeness to fill, what do you make of this? Have you both? You know, I my very short answer is that you know, nothing Dyson did and that, you know, well known debate looked like on herbal Christianity or religiosity to me, and you know, and I say that with no, you know, without Christianity or religiosity to me, but the nothing in the teachings of Jesus suggest that calling someone a middle white man or an upholder, patriarchy has anything to do with that's just inconsistent with what the New Testament is trying to inform people of as a way to behave. Yeah. So it's, I think, I think he Dyson whatever his name is, Eric, Michael, maybe, is just a hypocrite. And he's, he's, he's not an upstanding religious person as he would appear to be if he isn't fighting Peterson to a black church, Orpheus,

**Bret** 52:43

he's got work to do. He's not getting it. Right. Okay. You know, and for one thing, I mean, we can say, Jordan's a friend. He's not a mean old white guy. Now, he is bit traditional in some ways that we're different. But but also not an upholder of patriarchy, not an upholder of patriarchy. In fact, he's a fan of the ways in which we are different, right? So he's, you know, sort of rooting for that difference to be dealt with responsibly. And so anyway, he's a cool guy. He feels other people's tribulations intensely, which is not something that I mean, old white guy does, right, right. He's somebody who cares a great deal, and it has been very costly to him. So in any case, yes, I would say Dyson missed it by one mechanism or another.

**Heather** 53:34

Yeah. Your dog is almost under your chair, there seem to be aware. You've stated men and women need to renew renegotiate terms. I agree, specifically in regards to child rearing. What would be the ideal arrangement for parents to feel fulfilled at home and work? Both part time every other day? Question, Mark? Boy, it's gonna depend on all of the particulars. Yeah.

**Bret** 53:58

All right.

**Heather** 54:01

We were in a really lucky position when our kids were tiny, because we both had full time jobs that allowed such flexibility. And we had on campus childcare that allowed us to do part time such that we could, you know, really both be co parenting in every regard with the exception of the anatomically mandated stuff. Yep. Which is to say once they're born just just breastfeeding.

**Bret** 54:27

Yeah. And we had almost zero commute. We lived walking distance from work and the kids daycare and biking distance Yeah, biking distance, and we biked with the kids to daycare dropped them off. We had special tandems and use them to drop the kids at daycare. So that was really good writing

**Heather** 54:46

by the time they were two they were each on the back of cabana. Yep.

**Bret** 54:50

But all of this the symmetry allowed, you know,

**Heather** 54:54

symmetry in our both our jobs and

**Bret** 54:57

lives and and all of that work. Really Useful from the point of view of not having to divide up the labor of it too much. There's obviously stuff that you do, there are novel opportunities, which, you know, the, the interesting one is breast pumping allows some of the feeding to be done by the Father. Now, is that a good idea, and there's at least one way in which it's a hazardous idea, which has to do with the fact that the breast milk has circadian messages in it.

**Heather** 55:34

Yeah, so let's just give a shout out here to Josie Josie Jarvis, who is one of our students who this is an idea that is a little bit out there in literature, but she really dove deep. And actually, I've been in contact with her a little bit because this is this is another idea that hopefully, it's gonna end up in the book. But the circadian information, the information that's in breast milk, that is circadian in nature, may mean for instance, that if you pump breast milk, in the hopes that for instance, your partner who's not lactating can do a feeding in the middle of the night, and that partner gives the baby breast milk that was pumped at noon, you might actually wake that kid up and render a night without sleep for any of you. Whereas if you pay attention to when it was expressed when the breast milk was expressed, that you do very much better job of getting your kid on to some sort of circadian cycle it is very much more like the one that you are on

**Bret** 56:25

right now. So anyway, yes, that Yeah, so so Rosie, if you're out there,

**Heather** 56:30

yeah. It's it's going to be harder to be symmetrical if you don't already have symmetrical stuff. And you know, we didn't we didn't plan it out. That way, we just ended up with like, literally identical jobs, right. And living really close to both our jobs and the daycare, which was part of part of the jobs and really at that point, the daycare was was exquisite, it was so good, and we could do it part time and all of us. That said, there is real value in division of labor. And many of the ways that male and female roles have been divided in the past are no longer necessary. Some of them will persist for anatomic and physiological reasons. Some of them will persist for persistent differences in sex while I guess this is still anatomical, physiological like you know, the study that I like to bring up this provost and Murdoch 1973 review of pre industrial societies finds that in every society they looked at that has, you know, a marine mammal hunting it's always the men who do it and this just isn't something that you send women to do also you don't send women into the mines.

**Bret** 57:40

Yeah, and I should say none of those three things showed up in our relationship.

**Heather** 57:45

Yes, you never hunted whales. What does the mind always catch and release? Although I mean the third one that I say no you're joking. Yes, especially with the blue whales.

**Bret** 57:55

Why? Because already getting in the boat. Yeah, exactly.

**Heather** 57:59

You might need a bigger boat Are you yes yes. But you know with lumbering I mean like when this tree fell in our driveway in the windstorm that just before the smoke Eclipse you know, you were the guy with a chainsaw. And I like I know my way around a lot of power tools. And I have enjoyed making a lot of things, a lot of power tools and chainsaws ain't one of them. And, you know, that's it could be different. Yeah, it absolutely could be different. But you know, most of these gender norms don't need to be the way they are anymore. But it's also true that across cultures there are a whole lot of gendered activities, that it depends on the culture as to which gender does it. So you know, weaving for instance, is highly gendered in most cultures that have been looked at. But sometimes it's only women who do it and sometimes it's only men who do it. And that suggests not that men or women are better at weaving but that there is a value in having gendered activities. So that itself is something that we can unpack what

**Bret** 58:57

I was just gonna say that lumbering about is the providence of men

**Heather** 59:04

and weaving can be either waiting on the alcohol women

**Bret** 59:08

do not leave well enough alone.

**Heather** 59:10

Oh, wow. I don't know. Yeah. So yeah, obviously we can we can talk about this for for a long time, but maybe we'll stop there for for now, Zack. How long are we at? So 50 Okay, well, we are going to stop there for for Okay, sorry. We're not going to stop stop. We are going to move to this our super chat questions. Okay. I am a public school teacher being told that I must return to in person school in two weeks. I'm in multiple high risk categories. If you were in my shoes, would you return to work or quit? quitting halfway through my contract may affect future employment. Oh my god. Yeah. Boy, I mean it. It depends not just on your risk from COVID. But your financial risk from not working and potentially not being able to get more work.

**Bret** 1:00:14

Yep. Well, I would say you want to think very carefully about, unfortunately, the problem is at the beginning, you're liable and we don't know where you're writing from. But now, you know, if you were in LA, then you might be able to use open windows and fans or something. Yep. To reduce your risk a great deal, you know, in conjunction with a good mask. Yeah, you could do something like that.

**Heather** 1:00:45

Yeah. So there's not only is the answer going to be different, depending on both your risk from COVID and your financial risk, but also geography. So that's, that's just a third thing here. And I'll call them of things to think about. Oh, yeah.

**Bret** 1:00:55

So anyway, what I would say is, yeah, we can't, we can't really help you with the analysis fully, because you do have these two competing things, and we don't know anything about one of them. But you can, within whatever risk is coming to you from your environment, do an awful lot to protect yourself, and reduce the likelihood of, you're getting sick. And if you do get sick, reduce the likelihood that it is severe. So I would say yeah,

**Heather** 1:01:24

so viral viral load being an indicator, a good predictor of both, whether or not you get sick. So exposure to the amount of virus to which you are exposed, is a good predictor of both, whether you get sick or not. And if you do get sick, how sick you get both of

**Bret** 1:01:41

those things. The other thing I would say that's a very big one is vitamin D. Alright, so outdoor exposure to the sun, you can also supplement vitamin D, but vitamin D appears to be one of the most protective things that you can have available to you. Matt really just did a good piece on this. Oh, yeah. Yeah. And his point was, nobody's pushing vitamin D cuz there's no profit in it.

**Heather** 1:02:11

Always. But I mean, I feel like him. Yeah, it doesn't mean you can't and I gotta say, I feel like actually, you know, given the market economy that we live in, a number of a number of companies could be pushing that as part of their advertising when so i was i while you were on your Patreon call this morning, I was out stand up paddleboarding on the Willamette. And it was a cool cloudy day, but it's still just completely gorgeous. I saw two kingfishers fighting over the water. And an osprey flew overhead with a fish and his or her I can't sell them at that distance. I can't sell them at all in his talons, and you know, great blue heron that I put, you know, paddled five feet from So no, this is on the Willamette. In just outside, I guess I was the City of Portland limits, but extraordinary. And I'm out there, getting my vitamin D. Right. And no one else I signed it, it was it was early on a Saturday that wasn't a beautiful Saturday. By most by most metrics, there weren't a ton of other people out there. But you know, no one's masters they shouldn't be if they're alone in a boat or in a kayak or on a stand up paddleboard or fishing a lot of people fishing out today. And why not have people selling fishing gear and stand up paddleboards and kayaks and other things that you do outside hiking boots? You know, aren't Why doesn't Rei? Like why don't a lot of these places that actually their business model is about getting outside and being outside. They could start to do this that would be both a public service and it would help their bottom line.

**Bret** 1:03:46

So I fully agree with that, that we ought to be heavily emphasizing those things which are protective, which oftentimes you should be doing anyway. Yeah. But yesterday, I was at a UPS store I needed to get something notarized and there was a line and I was in there and the line was inside and it was inside and it was like 74 degrees outside and while they had the door open, yeah, but anyway, as I'm standing there in line, and the line is moving very slowly, I'm thinking about this model about Okay, as anybody sick been here, they stand in line for a long time exhaling this room full up with high viral load in which case you know, it's not like you get it instantly but it means that if you continue to breathe it eventually you do and so anyway, I made an arrangement with the guy was in line in front of that I was gonna go stand outside as long as I was waiting, right? That was not perfectly straightforward thing to negotiate. But the point is, you've got a good model, then you can look at the situation and you can say, all right, what can I do here to drop my risk to a level that I can accept it? And

**Heather** 1:04:57

they're just curious, I don't know which UPS Store you're at. But would it been possible for them to have the line outside the store?

**Bret** 1:05:04

They could have? Yes. And we should we should want them to do exactly that. Like every other month, and that won't make sense, right?

**Heather** 1:05:11

So if there's no awnings, you know it might be pouring. And in a lot of parts of the country, it would just be too cold, potentially, but, you know, I feel like I would always prefer to be outside, then inside in a enclosed space where you don't know who has been sick.

**Bret** 1:05:30

And from the point of view of the employees, it makes a ton of sense to have all of that exhaling done outside the building dissipates naturally rather than accumulating there one sick person could get every employee sick. So yeah.

**Heather** 1:05:44

Okay, next question. Thank you for helping putting Thank you for helping put the unity in humanity.

**Bret** 1:05:52

That's a stretch spelling level, but you're welcome.

**Heather** 1:05:57

He found the letters and letter even in the right order. That's cool. Yeah. given only Okay, so this one we were told might have been asked a little oddly just because there was struggling with character limits. Let me see if I can figure it out. Maybe you can help me. Okay, so it's basically this is a question about negative assorted of mating. So let me just give a little background first on the in evolutionary biology, we talk about assorted of mating, in which mate choice is based on particular characteristics and positive assorted of mating isn't is not a value judgment. It suggests that, okay, if I have blonde hair, which I don't, positive assortative mating for that character would be like me looking for a mate with blond hair, or as negative assortative mating would be me looking for a trait with the with the opposite Valence. So for dark hair. So in that framework of positive versus negative, assertive meeting, this person has basically asked why women are often women in particular, more often than men are more likely to engage in negative assortative mating across race. And if that is the, if that is true, So first, we have this observation, that's a claim. If that observation is true, given that illegals are in charge interested in furthering themselves, why basically why would you ever have negative assortative mating?

**Bret** 1:07:30

Well, this is a great question. Yeah. So again, I don't know if the pattern is right. But you have to factor in lots of

**Heather** 1:07:37

Oh, hold on. Just the final question here was, are they looking for immunological enhancement for offspring? that's a that's a possible explanation for why if the observation is true, it might be true.

**Bret** 1:07:45

So possibly, but not necessarily. So I would say, look, first of all, there's a general category of something called hybrid vigor. And I would say hybrid vigor. You know, in the narrow sense, if you take two purebred dogs, they're liable to have pathologies. purebred dogs often do if you breed them, together, their offspring get the benefit of genetic diversity in different

**Heather** 1:08:17

breeds. Right?

**Bret** 1:08:19

Right. Right. That's what I mean. So

**Heather** 1:08:24

same thing, same thing over with cats, right? You pure breeds often have particular problems that they reliably have, whereas you get what you have dubbed the epic Tabby sub sub breed. Yeah, which, you know, tabbies are much at one level, they're not exactly mutts. Although, you know, when they have the white and the Tabby with them, they're pretty muddy. And, boy, have we had a number of these epic tabbies that are just, you know, extraordinary in terms of their thing. Yeah, it's going to sound like we're just bragging about our cats, but like, a couple of cats with this particular phenotype that are extraordinary cognitively.

**Bret** 1:08:59

Yeah, I do seem to be a little too clever for their own good. But in any case, the hybrid vigor thing, I think, arises a lot because of the deficits of purebreds rather than because mixing is always good. In fact, yes, you know, there's inbreeding depression. There's deficits from breeding too close to home. And there are costs from breeding too far. And then, you know, purebreds have some hybrid vigor when you mix them.

**Heather** 1:09:30

So the distinction you're making is it might be just avoidance of cost, not adding unknown benefits.

**Bret** 1:09:37

Well, in the case of humans, I'm going to make the argument that probably this has very little to do with jeans hybrid Faker does, right? Well, oh, well, yay, hybrid vigor can work in terms of culture also. Yeah, I would say many of the students that we saw that showed the most extreme potential were actually hybrids. Right. And my sense is

**Heather** 1:09:57

that the cross cultural, as I said they had parents from different Places from different places,

**Bret** 1:10:01

right? And the sense was actually you got some of the wisdom from two different cultures rather than getting two doses of wisdom from one culture something. Yeah. But in this case, you may even have an economic phenomenon, right? So the question is, you're, you know, we are all in competition with other, assuming we are straight, we are in competition with other members of our sex, for mates, and people made with the highest quality person that they can wrangle, right? superficially speaking, the quality of the person you can wrangle may have a lot to do with what the incentives are in the population from which you're wrangling. And it may be that women are, they get a better deal from males from a different population. So in other words, it's like, I mean, I hate to talk in these terms, I don't really hate a dog in these terms. I don't really think there's anything so terrible about being clear about this, but I know that it will freak people out. But the question is, look, you've got some goods in which market? are they worth the most? And which market? are they worth the most in a currency that you value? Right? So it may

**Heather** 1:11:10

be don't play around in markets that you don't care about, right? Why do that? But you know,

**Bret** 1:11:15

so the question like, put yourself in the mindset of, you know, like a woman, I think I can do, yeah, shouldn't be too, too much of a stretch for you. So put yourself in the mindset of a woman, maybe the value is in having a really devoted mate who's going to invest very heavily rather than a mate who's, you know, only kind of paying attention and with which you have a lot of freedom, right? Those are two different value sets. And the point is, well, where would you find, you know, the highest quality mate with what you bring to the, to the table? Yeah.

**Heather** 1:11:49

True, it's a stretch to me to then jump to, you're more likely to find that with the negative assortative mating for phenotypic caracters.

**Bret** 1:12:03

unclear to me, okay, because the point is, you're dealing with somebody on the other side of that equation, who has the same puzzle, as the universe version,

**Heather** 1:12:13

right? I just don't see any reason to think it would track by things like ethnicity.

**Bret** 1:12:21

track, it's not necessarily the ethnicity, it might be the let's say that you are of the dominant population, it might be that you will find a more devoted mate in a minority population, because the deal is better from the point of that individual. And they're also it's productive.

**Heather** 1:12:48

So if this is true, the prediction would be and I can get behind this prediction. Not I'm saying, I think it is somewhat more likely to be true that this would be true only for some groups, and not for all like that. You would not expect to find all groups negatively assorted of mating, you're doing mate choice for people who looked very much not like them, and therefore probably from somewhat different populations in recent history. I'm

**Bret** 1:13:18

very skeptical that this is a general pattern. But but

**Heather** 1:13:21

might it be true for for some groups, especially if you add, it's gonna sound postmodern to some but like, if you add the power component, if you add the understanding of actually who is wielding power, and how is it that you try to get the best deal for yourself in an honorable way? Yep. Humans have 23 chromosome pairs. This is true. I believe the militant moderate writes that chromosome pair number two has been found to be a combination of two a pairs, since other great apes have 24 pairs. So I'm just going to keep on stepping out to add editorial comment. It's true that at least chimps have 24 pairs, I have never seen an analysis of which we think might have either been lost or fused in humans. So that is, that is a claim that is being made here. But the part that we are 100% sure of is humans have 23 at least chimps I think bonobos as well have 24 therefore Something happened there. Do we know other pairs of species in which chromosomes have fused?

**Bret** 1:14:25

I believe that that is not so unclear. I think there's still a lot of mystery about how chromosome number changes Yeah, in animals and plants. This is relatively common ploidy events well, but

**Heather** 1:14:37

so I was just gonna say you know, ploidy events is different from a change in the haploid or the diploid number, right? So ploidy ploidy, events to me tends to mean a doubling, tripling octuple in whatever if the entire genome so that's that's what's going on so much with frogs with their crazy, you know, like congeners cannot be you know, tetraploid versus regular diploid, whatever that would be. But adding and dropping chromosomes I don't even know exactly what we what we call that I guess it's still a ploidy event, but it seems it seems less clear

**Bret** 1:15:10

double the ploidy number, you create a liberty to fuse something. So in other words, initially what you have is just a simple doubling. But downstream of that event descendants that have inherited the doubled number can alter something without interfering with the original genetic complement.

**Heather** 1:15:32

Yeah, but that's but just like I'm saying that's, that's a very different set of circumstances, then, for instance, great apes, at least some great apes have 24 chromosomes, we have 23, there was presumably no doubling event that then God has racked in less than this case, even if it was 24 to 26. I think there's some great ape that has maybe

**Bret** 1:15:50

I was talking about. So what I said was that in animals, there is still a great deal of mystery about how these things work, I believe, yes, in plants, there's much less mystery because these ploidy events happen regularly. Okay. And so anyway, there's just a simple yes, that some plants are also less susceptible, there's more room to take a structure and radically alter it without disrupting the fundamental nature of the plant itself, their cells,

**Heather** 1:16:19

all of their cells tend to remain pluripotent, have not totipotent. They don't have segregated germline. You know, all, it's all different. Exactly. It's all different.

**Bret** 1:16:27

But it doesn't work that way. With elephants,

**Heather** 1:16:29

not so much. Not so much. Yeah. So I don't know a particular answer to this. And I think one of the things that you can read from our answer is, neither of us is up on the most recent thinking on this. But what we do believe is that there is still a lot that is unknown, and therefore probably some of what we think we currently know, won't turn out to be true. About our Okay, I'm going to try to I'm going to get through a few more of these since we just started with the second one. Is it possible that is it I'm just going to read it exactly as it's written, is possible that you have left yourself vulnerable after today's podcast? if in the future, you contract COVID?

**Bret** 1:17:22

What? Oh, that if we can track COVID after talking about how to avoid COVID, that we will be mocked by our enemies or something?

**Heather** 1:17:33

Oh, maybe maybe, maybe that's what I mean,

**Bret** 1:17:34

this has been this has been the case from the beginning, because we've talked about COVID. And our understanding of it, and the this, we might

**Heather** 1:17:44

get it. Yeah, we said careful, but we might get

**Bret** 1:17:48

worried that I had it at one point got tested didn't have it, clearly didn't have it based on what unfolded. So this is always a risk. And nobody, you know, as we if you go back to the early livestreams, you will hear us talking about the fact that the only way is to be perfectly safe, are unacceptable. Right? Right. The level of isolation is too high. So you're accepting some level of risk and managing it is a question that involves you having to set a, you know, a threshold, but yeah, we could get it and I really dread it because the even low symptomatic cases seem to come with a lot of damage. And there's a lot of uncertainty about what it means going forward. So definitely to be avoided.

**Heather** 1:18:35

Oh, boy, next question. During Tuesday night's debate, Trump issued a message to the proud boys to stand down and stand by stand down as standby. Somebody said, something like that. I think it's important to get it right. Zack, do you remember what he said? Exactly.

**Bret** 1:18:54

Stand back and stand by what did Trump

**Heather** 1:18:56

sit, stand back and stand by to stand down is a very different what I think would have been received. I hope differently. I think what he said was stand back and stand by. Yeah. What do you think are the implications of this message? We are asked.

**Bret** 1:19:15

You know, it was definitely dog Wesley. But I've seen a lot of stuff because the nature of the question involved fusing the proud boys to white supremacists who were undefined. There's an awful lot of shell game going along, going in tandem with this. So stand back and stand by could mean a lot of things. The proud boys are troubling. It's a frightening organization. And what they stand for isn't entirely clear, but what I've seen people do is because he issued that, in response to a question in which white supremacists were called out, but not named Yeah, it is unclear people have used that to portray him as telling white supremacist to stand back and stand by

**Heather** 1:20:08

nobody seems to have been specifically responding to with regard to proud boys. Right. So you know, we really, it has to be separated like white supremacist like are there white supremacist organizations? Yes. For sure. Can we go to the Southern Poverty Law Center to decide who they aren't? No, not anymore. They've been captured, unfortunately, like they were useful and they're dead now. Like, we just can't use them on their list. is proud boys, a white supremacist organization? Well, it's certainly on some people's lists. I don't I'm still on the fence. But I don't think so. If I mean, if I had to decide if I had to declare right now is proud boys, a white supremacist organization? I would say I don't know. I don't think so. Yeah, what I've seen, I don't know. Right. So but if you had if you're like, Okay, but you you tell us right now, like if you have to, you have to decide Yes, yeah,

**Bret** 1:20:58

I would say undoubtedly are almost undoubtedly there are white supremacists in the proud boys. But what that has to do with what the problem is are about, I don't know, and I also don't want responsibility for figuring it out, right? point is the hubbub around this answer has to do with, you know, even having asked the question in this form, makes it difficult to know what the answer would mean, I think it was an irresponsible question. If you want to ask about white supremacists. Fine, if you want to ask about proud boys fine. But well, I

**Heather** 1:21:30

think if memory serves, I think he I think Chris Wallace did ask about white supremacists. And Gosh, I hope I'm not getting this wrong. But I think Trump said but who like Who are we talking about or something to that effect? And or he said, Well, of course I denounce, but like which ones are white supremacists? But like, who specifically are we talking about, and it's that where he's, he's easily described, but he's reliably described by everyone on the left, who wants to see it as he is himself advocating for white supremacism, and racism. But we also see exactly those same people, those exact same institutions, saying that his official memorandum on not using critical race theory in federal agencies as evidence of his white supremacy and racism, and that is not like that we can be 100% clear about so. You know, does he does he play footsie with some unsavory and worse groups? Yeah, yeah, he does. And I really, really wish he wouldn't, right? Yeah, not because I voted for the guy, or I'm gonna vote for the guy or I like him, but just like we deserve better as Americans did not have a president who's willing to do that. But is he potentially trying to do right by organizations that are, you know, questionable in their methods, and ethos, but actually not the thing that they are slandered with? If it is, in fact, slander? Maybe he's just trying to be careful. Like, that doesn't seem like the guy that we've seen. But wouldn't it be great if he was just trying not to sign on with a sort of across the board to claim that anyone who disagrees with woke culture, for instance, is interested in white supremacy? Because that certainly isn't true.

**Bret** 1:23:18

Yeah, that isn't true. But at some level, I just don't like this landscape at all. Yeah, we are somehow getting involved in, you know, us having to figure out what the proud boys are. I didn't sign up and what Trump was thinking what Trump was thinking and all that. So at some level, I would say, look, what I want is for the President to say, you know, we all need to rise above this, that our interest as Americans involves regarding each other, as you know, important, and yeah, that any organization that wants to divide us as problem Yeah, and you know, we didn't get that out of him. Yep. So yep. It is what it is, I suppose.

**Heather** 1:24:03

timeline, integrated sensory experience, or language, pick the graphics, phonics, printing press, which comes with gatekeepers, social media, everyone can publish smartphones, everyone can publish video and there's a lot in that and there's no question but it's a it's a worthy timeline to have described

**Bret** 1:24:29

and wondering why integrated sensory experiences before oral language I wonder if I'd maybe a misunderstanding what that means.

**Heather** 1:24:37

Yeah, I integrated sensory experience might, to me looks like what all social organisms have. I don't I mean, maybe it can mean a lot of different things

**Bret** 1:24:47

and oh, it's integrated within an individual.

**Heather** 1:24:51

Well, no social organisms are integrating their sensory experience with other individuals you know, in order to have something like theory of mind and I'm just being social is you're, you're sharing sensory experience.

**Bret** 1:25:08

I'm just not not buying that we know that, that we we know what, that the fact that an animal is social means that it is sharing sensory experience. So social doesn't mean socialism is inherently mean that you have theory of mind just means that you're interacting with other members of your species.

**Heather** 1:25:30

Yeah, so if you're interacting with other members of your species, how are you doing it except with your senses? Well,

**Bret** 1:25:35

okay, but integrated sensory experience.

**Heather** 1:25:40

It's not a term, I think it needs more, we either need to define it and it's not a term that we've ever seen before. Integrating sensory experience we need to define it first. I don't I don't think this is an interesting game to play without defining the term and it's not a term that exists in our landscape. So I'm sure there's something real there. So I took it as one thing you took it as something else, okay. It'll be the person writing the question took it as something else entirely. But regardless, you have some kind of shared sensory experience. And then oral language then picked up graphics, meaning like cave drawings, right. phonics, what is what is what is I'm not sure what phonics is then printing press which has gatekeepers social media in which everyone can publish, and then smartphones whenever income publish video, so at one level, this strikes me as alluding to his analysis by Walter Ong in a book 50 6070s I can't remember which called orality and literacy, in which he is arguing that oral cultures cultures without a written language, and you know, he at that point, called them pre literate. And increasingly anthropologists would like us to call them non literate, because they aren't inherently going to literacy nor Aspire into literacy. But sort of, you know, oral oral exclusive cultures have very different ways of being and understanding the world than literate cultures do. And Walter Ong began to ask whether or not we might have returned or always of thinking even back in the cache, don't remember if it was 50 6070s. But specifically, with the advent of social media, people began saying, okay, actually, this begins to look like even though it's in text, that the ways that we are communicating now are much more like oral societies did. And it's confusing to us, because we have an entire societal framework based on literate understanding of literate society understanding. And I won't say much more than that right now. But we might come back to it because it's actually pretty fascinating. Done Yep. A company called lithium created by bio PhDs cells and ad plus supplements that promote a healthy aging process and activates or to one's unhealth truth or BS. I feel like we got this exact this question before.

**Bret** 1:28:02

Yeah. You know, look, if you have a deficiency, there's a lot to be said, for a supplement. If you don't have a deficiency, it's very hard to enhance the functioning of the organism beyond what selection does. Yeah, there are places this might not be right. But they're going to be the exception. I can't speak to it directly. But I'm skeptical.

**Heather** 1:28:25

Yeah. And the idea that every human that every human has a deficiency that could be fixed by a supplement is suggested. pretty radical misunderstanding of evolution, because if it could be fixed that way, why didn't selection fix it?

**Bret** 1:28:39

Yeah. So unless there's a novelty issue, like vitamin D,

**Heather** 1:28:42

either a novelty issue or a pathology of some sort, but largely more broadly speaking, that affects some some number of people but not but not all people. Okay, let's do two more. What do you believe evolution is? Is it a force of nature, a simple algorithm encoded in the data of life or perhaps a mathematical function like a chaotic attractor? Are there emergent phenomenon Keep up the good work, and this is from chop president?

**Bret** 1:29:19

Chopra. traphouse. The answer to that is that we've talked about this a little bit before, there are four parameters that cause a pattern to become common in the universe, they have to do with either reproduction or the tendency to come into being the tendency to be self similar, the tendency to stick around once created and the tendency to accumulate limited materials. That's selection and it creates every pattern that is non biotic. You Get into abiotic mildew, you add one thing to it which is heredity, then you get adaptation. And when we say evolution, typically we mean adaptation. And the answer is this is an automatic. It is, in some sense, a nearly tautological consequence of preconditions that will result in patterns becoming more common, and then those features that cause increases in commonality accumulating through adaptation.

**Heather** 1:30:34

Excellent. What do you accept the three word definition? descent with modification?

**Bret** 1:30:40

Well, if we you know if we're being literal about what we think the question asker means, what do you believe evolution is right? I understand what they've asked. But the problem is evolution, which does not involve anything interesting as its product is simply kinetic change within a population over time.

**Heather** 1:31:03

But it can't that be crunched down to descent with modification

**Bret** 1:31:06

that can but if you think that that is tantamount to adaptation, which is what people typically mean when they say evolution, right, then it's insufficient,

**Heather** 1:31:17

right? It's it's insufficient. But evolution doesn't modification change over time. never good enough. I mean, that's that's the thing that people think they think. And in fact, I was listening to an otherwise really good podcast this morning on which the author of this book who knew a lot about what he was talking about, but as usual, didn't really know anything about evolution said you know, that evolution, your change, that's what evolution is like, no rocks change over time, and they don't evolve. descent with modification is the shortest definition that actually seems inclusive.

**Bret** 1:31:51

We have an insect that has invaded the house,

**Heather** 1:31:54

and our epic Tabby is interested in eating it. Okay, one more question. Is unity 2020. Finished? going forward? How about American unity name change? Do it if you know where your vote will go at this point? That was three questions. Yeah, I'll fight you naked. Three questions.

**Bret** 1:32:16

It says that, okay, no, that's that's the that's Oh, that's it. I thought that through me. Alright. So is unity.

**Heather** 1:32:25

2020 is exactly what this person has been hoping for. Unity

**Bret** 1:32:28

2020 is suspended. It could be unsuspended. If crazy events caused it to be viable again, and we have gotten a crazy event that has not yet created the opportunity for unity 2020. But depending upon how things unfold, it could So no, it's not finished unity itself, the Unity movement is certainly not finished. And you know, there is a question about

**Heather** 1:32:59

what to say anything about that, about unity, unity, not unity 2020 going forward?

**Bret** 1:33:06

Yes, well, I can say that we are taking steps to build an organization. We have so far done everything without money. And that has been good in one way. But it's obviously limiting in another way. So we are realizing that with more time, we will need to build an entity that is capable of taking donations and using them well. So anyway, we're in the process of building that. And, you know, there's no question that there needs to be a unity movement at needs to bring to an end this cycle of polarization that's putting the republicans so much jeopardy. So whether there's an opportunity to 2020 we don't know. But going forward, there better be because we need it.

**Heather** 1:33:52

That's right. All right. Well, I think we've reached the end of Episode 48 q&a. We encourage you to like this video, subscribe to the channel. Join us at one or both of our Patreon for access to private q&a, discord, long form conversations with Brett and some other goodies there. We will be back probably next Saturday. For the time being. We're going to be doing this once a week hopefully with bread adding a non live Darkhorse podcast on the regular. We might move the once a week to a weekday so that we can free our weekends to be with our children. And anything else?

**Bret** 1:34:34

No, I think that about does it. It's been fun. We will see you next Saturday. All right, well,