Bret and Heather 81st DarkHorse Podcast Livestream\_ Permissi...

Sat, 10/9 12:12PM • 1:29:04

**SUMMARY KEYWORDS**

fact, point, question, week, trans, people, story, leak, lab, women, pandemic, places, epoxy putty, called, rules, species, talk, find, position, physical activity

**SPEAKERS**

Bret, Heather

**Bret** 00:15

Hey folks, welcome to the Dark Horse pod cast live stream number is at 81.

**Heather** 00:20

It is at one day we collectively comprise a perfect square.

**Bret** 00:24

I am not as square as people imagine, not at almost like to say,

**Heather** 00:28

but between all of us, oh collected podcast, the three of us involved. Alright, perfect square,

**Bret** 00:35

the three of us are a perfect square, which is kind of geometrically weird, but you know, I get it. And if you're gonna be a square might as well be perfect. Yep. All right, so

**Heather** 00:46

well, we'll start with some announcements do that, talk about where we're going today. And then we have a couple ads at the top of the hour before we get right into it. So announcements include, as always, we encourage you to join us at our Patreon is right now at my Patreon, the 48 hour window that is monthly for asking questions is open. So at the $11 or more level, you can go there and pose a question and we will try to get to it those those q&a sessions that we do in the last Sunday of the month are quite a lot of fun. And the live chat is small enough that we can actually engage with the chat which of course we don't do in these larger live streams. Where we're going today, we're going to talk a little bit about keeping why it's important to keep track of who actually got it. Right. Right. And, and pattern recognition, and some other things in the space of how how to use the scientific method to discern what is actually true

**Bret** 01:42

how to science good, I think would be the way to say that that

**Heather** 01:46

might be a way that some people might say that, try it on it is true. We're going to talk just a little bit about some more benefits of being physically active as if there weren't already enough known. We are going to find the trans ideology has come to both kickboxing and taxonomy thank goodness. And finish with a poem that I found on the streets of Portland, a beautiful poem. And we're actually going to finish with two pro bono ads at the end. I guess one more announcement before we get into the the paid ads, paying our mortgage for for the week. In last week's episode, we talked a lot about ivermectin and you finish that segment by taking some on it, you had researched what the prophylactic dose was, and you offered it to me and I said, you know, it would be it would be unlike me, and I'm careful, even as much as I trust you and love you to do that without any any forewarning without doing my own due diligence and research. So so I did. And I have, and indeed, we then posed the question with all of the information to our two children, 17 and 15. And they also chose to join us in that so we are all on prophylactic doses of ivermectin at this point, and

**Bret** 03:04

none of us have experienced any ill effects. And I have to say, while it is obviously completely psychological in nature, I do feel protected based on what we have read about the effect of ivermectin

**Heather** 03:15

well on that, and that's consistent with what I've heard from a few people who have been vaccinated that now they just feel like this weight is lifted off of them, like now you can actually engage more safely in the world, then you have been able to engage since I don't know February of 2020. So yeah. All right. All right. So yeah, time, time to pay the right

**Bret** 03:35

time to pay the rent. Alright.

**Heather** 03:40

I'm going to begin by talking about Oh, Max cryofreeze. As we have talked to you about here before, pain is useful. It is a signal from your body that something is amiss, or has been pushed too hard, but sometimes pain is too much. And as long as you don't push harder after alleviating pain, it's wonderful if you can get rid of it. If you have chronic pain, this is all the more true and as chronic pain can be debilitating, and there is really little upside. If you have as I do persistent deep injuries from a trauma from which you are still recovering after many years, but which sometimes leave you leaves with pain that is difficult to manage. Oh Max cryofreeze can be an effective tool in your arsenal, you should not push through the pain. You should find the right kinds of body work and activity to heal yourself and get back to full functionality. And also, a useful tool in this Arsenal is if you're sore and you need a break from the pain and you aren't going to push yourself further because you've alleviated the pain. Consider this product. Oh Max cryofreeze. I've used it over the last couple of months and it does seem to be helpful. It's a combination of CBD and menthol and it uses some other botanicals like aloe and Arnica. It's a paraben free formula. It's easy to roll on. It doesn't stink, it's no mess. It's really quite a lovely product. So Oh max health is offering our listeners 20% off of a full bottle of cryofreeze CBD pain relief roll on. And that discount 20% off also applies to any product sitewide go to Oh, Max health.com today and enter horse, nope, enter code, Darkhorse. That's Oh, Max, oh MAX health.com enter the code dark horse to get 20% off of cryofreeze and also sitewide.

**Bret** 05:25

Alright. And I'm going to talk to you about VPN, and in particular Express VPN. So I want to break this down into a couple different categories. Do you need a VPN? Yeah, you do need a VPN. And there are two reasons that you need a VPN. One reason is that there's content that you may want to access that you have trouble accessing from your location. So although I'm not a medical doctor, and therefore cannot recommend that you watch the BBC, if you're an American, and you want to watch the BBC, and you're willing to take the risks that come along with watching the BBC, you may have to make your computer appear as if it is in the British Isles in order for the BBC player to work ExpressVPN will help you do that. I know you're you're giving me that look, but it is true. And then the other big reason that you need a VPN is that you are constantly being tracked on the internet, and you are being modeled. And this facilitates people invading your privacy, and figuring out how to manipulate you in ways that we can scarcely imagine. So if you want to immunize yourself from that you need your computer not to be easily identified as associated with you in a VPN will do interesting things like it will pool your identity under a shared IP address, which therefore does not have a particular character. So you do need a VPN, why should it be ExpressVPN? It should be ExpressVPN. Because ExpressVPN is absolutely excellent. What makes it excellent, that it's mostly seamless, they have servers all over the world, they're very rapid, and you don't notice their interaction for the most part. So if you decide you want to get Express VPN, what you should do is you should go to express vpn.com slash Dark Horse Express VPN, e x p r e s s vpn.com slash Dark Horse. And that will get you a VPN, it will help support the podcast and it will anonymize you online. And you'll get three extra months for free. And you get three extra months for free. I forgot to mention that. I know it's here on the paper somewhere, but I misplaced it. Somehow that's probably also because I'm not a medical doctor.

**Heather** 07:34

I don't think so you don't know. All right. You want it to believe

**Bret** 07:42

believe? No, I

**Heather** 07:44

want to want to believe a few things. You want to begin by talking about the move to script history and what we understand to be true and how it is that we understand to be true. How it is we understand things to be true, basically a sort of a sociology of epistemology.

**Bret** 08:03

A sociology epistemic I mean, that's like two

**Heather** 08:05

words that probably most people would flinch at. And probably I've just lost a considerable part of our audience.

**Bret** 08:10

It sounds scintillating, does it not? I mean, not really, actually. But it is it's more scintillating than you would think. So yeah, actually, I would say a couple of things have collided with each other this week, and they, you know, unleashed a flurry of thoughts that I think are important. And so we're going to develop them a little bit here. One thing that we have is we have the mainstream press falling all over itself, to script the story of how we went from, from knowing for sure that COVID-19 did not leak from a laboratory to being open to the possibility that it very well may have. Right, so obviously, things have been moving on this front over the course of more than a year. But suddenly, the mainstream has been forced to change course and acknowledge what it can no longer deny. And so the question is for all of the people who should have let us know that this was actually visible early on, who failed to let us know when in fact, kept doubling down on the idea that this was a preposterous notion. They have to explain themselves in such a way that they do not degrade their position of authority in the world. We would expect them to want to do that why we would let them do that as a different question. But nonetheless, you can watch in real time as the mainstream attempts to construct the story of why it got the possibility of a lab leak wrong and why it is now still worth listening to having made that error. And so you can see this in a few places. You can look at Donald McNeil's piece Donald McNeil actually has an interesting case Donald McNeil was the lead COVID-19 Order at the New York Times who lost his position when a strange scandal emerged after it was discovered that years prior on a trip in which he had led students in Peru, he had not used the N word. But he had said the N word in a discussion of its meaning and implications. And apparently that was simply too much for the pearl clutching class and he was unceremoniously booted from the New York Times. And of course, in that situation, we would certainly have supported his continuation there. But this week, he came out with a piece in which he attempts to describe the new landscape and this piece focuses very directly on the emergence of Nicolas Wade's piece in the bulletin of Concerned Scientists and medium last week, and it effectively describes the story in terms that viewers of our podcast will regard as somewhat preposterous. Let me see if I can find the salient paragraph.

**Heather** 11:17

People can't hear you when you're in front of your mic.

**Bret** 11:19

Sorry. So here he says for about a year there was General wisdom among science writers, the lab leak theory. By the way, he should say hypothesis, but theory migrated back to the far right where it had, where it had started championed by folks who brought us pizza gate plan demick kung fu Q and non stop the steel and the January 6 Capital invasion. It was tarred by the fact that everyone backing it seemed to hate not just democrats and the Chinese Communist Party, but even the Chinese themselves. It's fun, racist rumors, like Chinese labs sell their dead experimental animals to food markets. And then he skips and he says, And now to the present day, two weeks ago, my former New York Times Science News colleague, Nicholas Wade wrote an article in the Bulletin of Atomic Scientists and on medium arguing that the lab leak theory deserves a harder look. Okay, so anyway, he makes this move in which he completely ignores all of the people who didn't get this wrong, right. Nicholson Baker, Josh Rogan, saga and jetty and crystal ball. Matt Ridley, I'm, I'm going to hold it there because the list of people who didn't get it wrong is quite long and involves a lot of interesting, important people. I think. Steve Helton on Fox actually deserves quite a lot of credit for courageously looking at the story. In any case, there is this move to create the impression that this story was so polluted by the nature of the people who were discussing it, that it was actually responsible to get it wrong, because you wouldn't want to have traffic in conjecture by those people, when in fact, that is not the right story. And then, to my mind, maybe even worse. David Frum came out with a piece this week that makes the very same move is a piece bizarrely titled The Pro Trump culture war on American scientists at Do you want to put it out. Yeah. And I looked at this piece and was very interested to see from his perspective and then was quite disturbed to find that it was absolutely obsessed with Donald Trump, which of course, has had nothing to do with the discussion in responsible circles of the lab leak hypothesis for the last year,

**Heather** 13:39

hence the sociology of epistemology, right, the applying of human social truths to an understanding, to an analysis of an understanding of what is actually true.

**Bret** 13:50

Yes, it is. It is a social first epistemology in which the actual truth is subordinate to narrative, which is of course, absolutely antithetical to the scientific method. From in this piece mentions Trump no less than 29 times you can't it, I have my computer now. easier. Ones eyes tend to glaze over as it jumps from Trump, the Trump to Trump. But the point is, he makes the very same move in which he describes basically, he does not use the term basket of deplorables. But the piece effectively describes those who got this right as a basket of deplorables. And only after Nicholas Wade had cracked the case, was it possible for people to see that this was actually quite a logical hypothesis? Now of course, those of you who have been paying attention to the Dark Horse podcast know that this has long been discussed by responsible voices and that that story doesn't make any sense. I will say there was also a tweet by Matty Iglesias earlier this week in which he does slightly better than from AdMob and McDonald, McNeil, sorry, Donald McNeil and he says It actually what cracked the case and brought it into the mainstream was Nicholson Baker's article which is closer to the truth. But nonetheless, there is a long history of scientific work. And a journalist who was actually interested in how this story had evolved over this period of time would have to go no farther than the internet in order to be able to reconstruct that narrative, the actual one.

**Heather** 15:21

Exactly. I'd like to just read one paragraph from a piece that I published this week in Aereo. On which is called What if we're wrong, right? And it is exactly about these these issues. It begins with these questions. What if the earth isn't the center of everything? What are the ancestors of humans once look like monkeys were single celled organisms. What are the continents move? These questions were once beyond the pale they were not to be discussed in polite society were outside the frame of the Overton window. None of that made them untrue, however, or unimportant and then, as the as the article proceeds, I asked the questions are what if SARS COBie two emerged from a lab? What if their long term effects of mRNA vaccines would have ivermectin as a safe and effective prophylaxis against and treatment for COVID-19? Of course, the answers to these questions are not resolved. Any all of them might the answer The answer to all of them might be it didn't. There aren't. And it's not safe, right? But the posing of questions is absolutely necessary to to the conducting of science. And so I also talked about pasture in here a little bit. And this is the paragraph that I want to read for every pasture, Louis pasture, who obviously, among many, many other contributions to modern science created the first rabies vaccine. For every posture, there must be 1000s of people who have had an idea that didn't pan out, as well as countless others whose ideas were good but never got traction. Science depends on the tenacity of the person with a new idea, even when others take pleasure in mocking it. And if science depends on individuals with tenacity, then society depends on all conversations being possible. The adults who mock pasture before he was successful in creating a rabies vaccine, were simultaneously small minded and arrogant, on the basis that he lacked the appropriate credentials, many medical doctors of the time scoring pasture and his work, pasture his contemporaries imagine that the current consensus was all there would ever be to know. I don't know if there was a Trump in pesters time. Or if there was some other easy Fall Guy easy scapegoat with which to ignore him, mock him deride him. But every, every single person in in whatever is, the modern moment in history seems to imagine who who is engaged in this sort of thing, that finally we've arrived at the true moment. Finally, we've arrived at the moment from which we can see everything. And it's akin to declaring themselves God. I mean, it really is the height of arrogance.

**Bret** 17:42

Yeah. And the fact is, at any of these moments, there are lots of people who know better. And the question is, are you gonna listen to the people who do know better or don't and, you know, we have had the experience of being ridiculed for our position on the lab leak hypothesis from the beginning. And so we know what it's like to be portrayed as right wing or wild eyed or, you know, tinfoil hat or whatever it is. And then when it finally comes around, you get to see the evolution of what has to be acknowledged.

**Heather** 18:13

So until very recently, my feeling was, you know, what, as long as we get there, maybe it doesn't matter that much about making sure that the right credit is due, but largely through conversations with you, I have come to a different position, I'd like you know, either I can play devil's advocate for the other side, or just, you know, just posed to you as if I, if I still have what I think that was a naive position, why does it matter? Are you being petty? Doesn't it matter most that we actually now have all the hypotheses live on the table and are moving forward?

**Bret** 18:47

Yeah, I want to answer that question directly. But I want to pair what we've already got here with the lab leak hypothesis and the jump that it has taken with another story that we have a very different position on. All right. So this is the story of so called uaps, which is I guess it kind of acronym euphemism for UFO. And the fact it's, it's

**Heather** 19:12

a it's the acronym used in, in military in the god.

**Bret** 19:18

I don't know when exactly that became the term. But, you know, I would imagine there was a discussion somewhere that said, if we call them UFOs, which is, of course, a perfectly neutral term, they're unidentified, they fly, right? Who could doubt it? But the point is, that term is searchable. And so somebody came up with a different acronym that you wouldn't necessarily guess. But anyway, the point is, this story has taken a quantum leap in terms of its discuss ability. This week, 60 minutes did a story on uaps, in which they interviewed military personnel who'd had encounters some of them described having encounters on a daily basis for over a year. So suddenly, we are able to discuss this at the level of the cocktail parties that are reflective of 60 minutes as an authoritative source. Now, of course, the New York Times had had discussion of some of the same observations, very recently. So what we're watching is the evolution of discus ability. Now, one of the incidents that was in the 60 minutes, piece of focus of the 60 minutes piece, dates back to 2004. And it's an incident that has four high level witnesses airborne at the time of their interaction, who all make a very credible case, they don't claim to know what they saw, but they and they all acknowledge that had they seen it with no one else present? They would have been hesitant to say anything, because they know it would call their credibility into question. But given that there for them the courage existed to discuss it,

**Heather** 20:53

nor are they in any way attention seeking, they don't want to be, you know, the, one of the people says, I never want to be on national television talking about this. This is not this is not my goal here.

**Bret** 21:02

Right? So anyway, very credible witnesses, right? These are highly technical, serious people who saw something and they don't know what it was, but it's hard to dismiss it as any normal phenomenon. But it goes back to 2004. And I know because of some of the sources that I look at for things that, you know, will clue me into features of the lab, like hypothesis that I don't know about. I know that there's nothing at all new about this discussion, except the discoverability of it. There were serious

**Heather** 21:32

discoverability that the veil of discoverability as provided by The New York Times in 60 minutes, is that what you mean?

**Bret** 21:39

Yes, that there is something going on, and it goes back to your point about social epistemology. There is something about this topic, even discussing it now. Right? If I am talking about an incident in 2004, I'm on solid ground, as long as I'm talking about it from the perspective of 2021, where it is now discussable. But the fact is, that incident existed in 2004, even as has not changed and right. And there were serious people discussing these kinds of incidents and military observations of them, and not just a few 20 years ago. So the point is, what do you do with the discovery that you and we were induced to be timid about the story when the story was every bit as real? And then we get permission to think from something like the New York Times or 60 minutes or something like that. And we are in a different position on the UAP issue? Because we haven't been early on it. Right? We have no,

**Heather** 22:42

in fact, we got a question a couple of weeks ago, after the New York Times are at its base, like I have no idea and you know, joked about it seems like the same old same old,

**Bret** 22:50

I think, I don't remember exactly what I said. But my guess is what I said was actually the stuff is more credible than you would think. Right? But the point is, is the Dark Horse podcast way ahead on UAP is No, we are not but we are in the same position with respect to commenting on the epistemological process. It just got safer. It got safer. And that's why we're This is suddenly on people's minds. Not that anything new has happened. You know, Nicholas Wade, did a beautiful job of summarizing evidence that had been accumulating over the course of more than a year. He didn't change the story. He didn't add anything to the story, but he gave discussable he gave cover. Now, back to your question.

**Heather** 23:30

Yes. Why? Why does it matter? That we keep track of who is early? Why does it matter that we give credit where credit is due?

**Bret** 23:37

Right? Here's why it matters. Because this process is an evolutionary one, and what is supposed to happen so you've got signal and you've got noise, somebody could get this right. Early without understanding anything. In fact, it's a strong argument to be made that that's what happened with Trump that to the extent that he said anything coherent on the issue of lab, like he just had the same instinct on hearing the the evidence that this had emerged right near elaborate, substantial evidence was all he knew he was all he knew it was being discussed in places on the internet he paid attention to and see, he tossed off something because he thought it worked in his advantage. Now that doesn't add or detract from the actual credibility of the story. In fact, it has zero weight, right? But the point is, okay, you're going to get some people who get lucky early, will they be able to repeat their ability to predict the future now you'll find an awful lot of noise and very little signal. On the other hand, somebody who has a track record,

**Heather** 24:34

sorry, but you also want to keep track of for those people who get lucky early, is it because they are broadcasting predictions if they are making you know, 100 predictions and one of them turns out to be true, but the other 99 have disappeared into history, you know, perhaps because they're just constantly blathering about stuff. That's also right and indication that that they have a you know, finely honed epistemological brain,

**Bret** 24:59

right and so You have to pay attention to the signal to noise ratio, how difficult to prediction? Is it? How early ought to count? Right? How early relative to the recognition that it's real? How many wrong predictions of a similar type are there? Right? So anyway, you can track that. But the important thing if the system is to get better at spotting things that matter in time to do something about them, is it the people who get stuff right, have to advance and the people who get stuff wrong have to have their the weight of their opinion downgrade

**Heather** 25:30

now, and you're not actually making an argument like that that argument would be true from say, a market perspective. It's you know, it's, it's good to to incentivize people who are good at this to for them to know that they will be able to advance right, that's sort of the that's the that's the market reason to do this. But from the perspective of science and knowledge and the well being of humanity and the planet. This is also you know, in this in this case, are the incentives are aligned, we actually need to make sure to know who gets it right early because they are the ones who are most likely to be able to do see patterns in the future that other people are not seeing in combination with stand up against the the madding crowd, you know that the social forces that say we don't talk about that, and if you do, you're wrong, and you're bad.

**Bret** 26:20

Alright, this is Exxon, those are two quite distinct points. Yes, in order for us to get collectively smarter, you have to empower the people who are capable of seeing farther seeing earlier. But also, you want to reward the people who show evidence that they are actually immune to the social incentives that would have set them up. And if you do advance those voices, you do get smarter. And in this case, you can see why that is in a position to affect whether or not millions of people die, because at this very moment, lab leak is the central question in whether we studied gain of function too much, or we studied it not enough, potentially right now, again, if those of you who follow along with our course, will know that we had a discussion very early, if you have to do gainer function research, which we do not believe you have to do, but if you have to do gain a functional research on you

**Heather** 27:15

don't write much of the world seems to civilization

**Bret** 27:19

needs to do gain of function research on human pathogens, it should do it under circumstances that are safe. And what I proposed was such a thing, if it needs to be done, could be done on a ship, right? At sea far away from other things. Now, again, I don't think we need to do this research, I think it's more dangerous than it's worth. But if we decide otherwise, you would want to take precautions like that, right?

**Heather** 27:45

So something with no leaky borders,

**Bret** 27:48

right, exactly what you would want to have another system to protect you. And to the extent that we now have all woken up to the hazard of pathogens moving freely about the globe, so a cold that starts in one part of the globe is all over the place inside of weeks, right? We could start getting serious about the major human cost of all of these relatively minor pathogens that are circulating and start figuring out how to frustrate that process. Right? So anyway, that would all be worthwhile. But everything depends on us not rehabilitating people who got it wrong, because they were socially motivated, and elevating people who were in fact insensitive to the social incentives, and willing to see what was right in front of them all along. And yes, there are millions of lives at stake. And I would also point out, we have two forks of the question of where the lives are at stake, one of them has to do with a future lab leak, which is all too possible. The other has to do with whether or not understanding if this pathogen came from a lab, what were the protocols that were used to generate, if we could understand what was done that generated this thing, we would have a great deal more predictive power with respect to its future evolution, for example. And by playing as if this is all impossible to navigate, we have slowed down the process of understanding what what value there might be an understanding protocols that, for example, might have created this,

**Heather** 29:15

in a way actually, you know, we've begun to say welcome to complex systems. I mean, we've we've been saying it privately for a long time. But we would be able to say that here and I feel like a recognition that many people have at an intuitive level that you know, very virus is different from a rock and a virus that has been worked on through some fancy, accelerating evolutionary change research in a lab is potentially going to be a different thing from a regular from a from a naturally wild type virus from a rock a rock, which is not a complex system. That is actually that sort of intuitive recognition that most people have now that like so much of the world is so complex and most of us don't have the background to assess from first principles, a lot of what we're being told. And so there's a lot of this like hand waving around lab leak and SARS COBie two origins and in fact vaccines. And in fact ivermectin and in fact, all of these stories around this pandemic, are it's kind of like, it's complex, you wouldn't understand. Don't bother looking here besides also, you know, the guy you don't like Senate. So it is in some ways, it could be viewed also as a weaponizing of the concept of this is complex systems. And, you know, you little people wouldn't understand,

**Bret** 30:33

well, it goes back to the distinction I draw between terms of art and jargon. So my claim is that terms of art art terms you have to invent or redefine in order to discuss something technical, right? They have to exist, but it's a necessary evil. It's not a good thing. Yeah. Right. And then there's jargon, which is used to keep people out. So they don't know what you're talking about when you couldn't, you could well explain it, right. And so yes, it is being used as a territorial protection. And, you know, you've got journalists who are protecting their territory and now have to protect it in spite of the fact that they screwed up. And I don't mean, it's a lab leak. I mean, they screwed up pretending or believing they're terrible sources. Who said couldn't possibly be

**Heather** 31:13

yes. How did they look into the evidence and found that there was no reason to pursue it and said, I'm not going there. It's not worth my time. That's a very different kind of mistake. I think it's still a mistake, but it's not one that is opposed to the job of journalism, whereas, whereas circling the wagons around against a story against a hypothesis, that has growing evidence, in support of it, and nothing to falsify it, that is against science, it's against journalism, and it's against progress.

**Bret** 31:49

It is. And I, there's another thing that just looms into view there, right? This is not like a historical case, where we're now building the description of Well, here's what actually happened. And here's what its implication is for who the authoritative sources were, we've got, I would say, several live heads to this Hydra, right? We have permission now to talk in public about the lab leak hypothesis, and to not be snickered at or derided for doing. So. We don't yet have that permission. With respect to ivermectin, we don't yet have that permission with respect to the actual hazards of vaccines, be they short term, be they long term, be they epidemiological, all three of those things are places where we are headed with a collision headed for a collision with complex systems,

**Heather** 32:42

specifically with the COVID vaccines, you're not talking more broadly? Well,

**Bret** 32:47

I mean, I am talking more broadly, yes, the COVID vaccines, we have a particular problem because they're so darn new. And so there's so little insight into what we should expect going forward. But, you know, it turns out that we've got an overly pretty view of vaccines, because frankly, they are so highly effective. They're such a marvelous tool that we you know, we tend to absorb the the brochure version, which is that these are these, you know, marvelous technological advancements that, you know, with just with no downside with no downsides, and it just not right. So, anyway, I guess, I guess what I would say is, again, and again, and again, we see analogous failures. And these analogous failures are telling us something, and one of the things that you can see this week that was harder to see three weeks ago, is what roll is what you have permission to think about playing in what you understand that could hurt, right? I didn't know the term gain of function research in, you know, October of 2019. I had not run across it right. I now know,

**Heather** 33:56

had it been described to you, you would have understood it as I would have. It's it's an it's, you know, it is obvious in retrospect for those with evolutionary background,

**Bret** 34:05

right? Yeah. But here's the thing I was asking before that date, all right, in light of the financial collapse of 2008, in light of Fukushima, in light of the Aliso Canyon leak in light of the Deepwater Horizon accident, in light of all of these things, where we discover we in the public discover that we in some technical field are doing some really dangerous thing that then we'd hear about at the point, something has gone wrong, right? I've started asking the question, well, what are we doing that I should know about now, before something has gone wrong, and gain of function research would have been a great answer to that question. We're doing gain function research. Oh, that sounds great on what? Oh, we're enhancing human pathogens. I would imagine that we are doing that at sea. Where if such a thing escapes and infects one of the people doing the work, we're not all going to infect it is that in fact what we're doing? Oh, no. We're We're doing it across the road from a seafood market.

**Heather** 35:04

So that's a great list. I mean that, that a partial list like that shows up in our book as well. But you mentioned the financial collapse of 2008, Aliso Canyon, Fukushima and Deepwater Horizon. I wanted to just say those again, I don't know if you want to spend just a minute on each of those or maybe not

**Bret** 35:21

sure. So the financial collapse of 2008 is very famous, I probably don't need to say very much. If you are curious about this, and you don't mind pain, you could watch The Big Short and get a really good idea of what what happened. But basically, the bubble game was, it came to visit the mortgage market and got amplified by processes. So arcane that no one would have thought to ask about them, and obviously almost crashed the world economy. That's why Aliso Canyon was a natural gas leak where we had been injecting natural gas for storage in Southern California in a emptied crude oil deposit. So basically, we had a pressurized crude oil deposit full of natural gas, and it sprung a leak and was hard to plug it was very reminiscent of what took place in the Gulf of Mexico with the Deepwater Horizon accident, where we had drilled into a very large crude oil deposit and the floor of the Gulf and at the point that they had a blowout, the technology to plug the blowout did not exist the fail, safes had not worked. And they had leaked extensively. Fukushima we had a triple meltdown in Japan as the result of a tsunami that swamped the diesel generators that were supposed to keep electricity running to the reactors. And it turns out that when fusion reactors do not have power fed to them, they melt down, so we had a triple meltdown. One of those meltdowns in reactor, building three, actually appears to have been a prompt criticality where a nuclear chain reaction unfolded. The other two were hydrogen explosions where the radiation had torn apart, water and left hydrogen and oxygen, highly flammable, and it blown apart the buildings. And frankly, it could have been much, much worse if those fuel pools had cracked, which they didn't. But because we were lucky. So anyway, these are all places where our technology allowed us to do something that we were the technology to control what we had done was far behind the technology that allowed us to get into trouble.

**Heather** 37:36

There it is. Yep. And all of these, the financial collapse of 2008 is the earliest of those. So this is it would appear. And this is not a careful statement that's backed up with a nice fiscal analysis. But it would appear that we are putting ourselves at ever greater risk as we as we have ever greater numbers of people who are even tighter specialists who are doing work outside of the view of you have those of us who could assess it. And as simultaneously journal journalism and academia fall apart with regard to their ability or willingness to actually keep eyes on these things. So you know, what, if, if COVID-19 turns out to be another one of these, this is by many measures, the biggest, and when, what's next?

**Bret** 38:24

What's next? And you know, okay, we've got a discussion about gain of function research and the cost benefit analysis. We have Dr. Fauci, who apparently played a key role in lifting the ban on Ghana function research, which may well have led to this pandemic. And we have Richard E. Bright, who has been attempting to call people's attention to the danger of this kind of research. Who do you want looking out for you in the discussion of whether or not we should do future gain of function research on human pathogens? I want Richard yb right there, right. Now the question is, if we get the right story of what happened, and we say, all right, where is Richard yb? Right, in that story, how early was he? How accurate were his predictions than the answer is? Oh, yeah, of course, you want him in the room? It's not gonna be easy, right? He's gonna set a high bar, but that's what you want. You want somebody to set a high bar for you. Do I want Fauci there? Well, I sure as hell don't want him there. If he doesn't admit what role he played here. And frankly, I probably don't want him there at all. Right? He he obviously led us into danger whether that danger actually resulted in the lab leak. I hope we find out but but nonetheless, you're really talking about a battle between people, mostly you haven't heard of who did get it right and might have protected us from this. And people who got it wrong, who would like to hold on to their credibility and obscure basically airbrushed the others out of history? Right. All right. Are we there? I think so. All right.

**Heather** 39:59

Let's talk briefly about a paper that came out this recently called and you can show my screen if you like Zachary, by a crew of researcher solace at all published in the boy have lost track of where it is published in the British Journal of Sports Medicine, called physical inactivity is associated with a higher risk for severe COVID-19 outcomes, a study and 48,440 adult patients and most most of the conclusion is discernible from that from that title, but I will read to you just a couple of paragraphs from the introduction as well. The US Centers for Disease Control and Prevention the CDC has identified risk factors for severe COVID-19, including advanced age, sex male, and the presence of underlying comorbidities such as diabetes, obesity, and cardiovascular disease. However, there are no data regarding the effect of regular physical activity on COVID-19 outcomes even though a lack of physical activity is a well documented underlying risk factor for multiple chronic diseases, including those associated with severe COVID-19. They then go on to say that the US Physical Activity Guidelines suggest that all American adults engaged in 150 minutes of activity every week, and that includes just a brisk walk actually counts towards that. So what is that two and a half hours of your merely brisk walking or or more a week of physical activity counts as meeting the guidelines. next paragraph. During the pandemic, populations across the globe has been advised to stay home and avoid contact with individuals outside of one's household. lockdowns and other measures that constrain travel have restricted access to gyms, parks and other venues where people can be active in the USA education about the benefits of physical activity and advice to maintain or increase physical activity during the pandemic has been essentially absent. While pre pandemic levels of physical activity were generally insufficient, pandemic control measures have likely had the unintended consequences of reducing physical activity even more. Indeed, early studies indicated a significant reduction of physical activity levels since the beginning of the pandemic. So that's that's the setup. And indeed they refer to a another paper that was published just last year, which does indeed find that while this is all its self reports, and indeed this paper itself is self reports of physical activity as well. But it's it's a way of self reporting that has been otherwise demonstrated to be pretty accurate. We know that the people reporting on their levels of physical activity in the wake of lockdowns, many people are saying it's the same. But to the extent that people are saying it's, it's different. Many more people are saying I don't do as much as I did before that are saying I'm doing more than I was before, although there are some people in that in that other state too. So if this is all true, and if physical activity has an effect on COVID-19 outcomes, then we've got at the very least yet another strong messaging problem. And indeed, what this paper finds is, let's see, I'm not sure there was no the graphics here aren't terrific. So I'll just go to one more paragraph in the discussion, the magnitude of risk for all outcomes associated with being consistently inactive, exceeded the odds of smoking, and virtually all the chronic diseases studied them, this analysis, indicating physical activity may play a crucial role as a risk factor for severe COVID-19 outcomes. So, you know, again, like we've talked about before, with regard to obesity, there are some there are some things that aren't even hidden, but that are hidden from conversation that are hidden within the media that are not discussed, that you actually have control over and even more than obesity, because you know, some people once they have become obese, especially if that's due to developmental intrusions into their lives, over which they no longer have any control, because now they're adults, many people who are obese are actually going to have a very hard time getting on obese. And that's not to say that you don't have agency but it's tough. But do you have an ability to get active? Does everyone in fact have an ability to simply walk briskly for two and a half hours a week? I say yes. And are there rare exceptions and

**Bret** 44:13

if you don't, sure, it's an emergency that you develop that capacity that you build up to it? Exactly. So I just wanted to add here I don't think this paper discusses masks, it discusses activity, but I want to point out the absurdity in light of this of two things. One, you know, as we pointed out, over the last couple of weeks, the idea that one has to wear a mask outside which is completely unscientific manifests an anti scientific conclusion. But that conclusion portrays the world as 100% dangerous where it is in fact 99% safe by virtue of the fact that it's 99% outdoors and that thing doesn't seem to spread outdoors. At least it hasn't learned that trick yet. But the the fact of that Miss portrayal in Canada junction with the idea that even outside because it's all dangerous, you must wear a mask that idea which reigned until a couple of weeks ago. That means that to the extent that there was a question about should you go outside and be active, there were really two things marshaling against it one was outside is dangerous. So yeah, you should probably go out and be active. But you know, it's you're not escaping COVID out there, even though you really are. But the second thing is that it complicates being highly active, right, as bad as it is walking around with a mask, walk, running around with a mask, or biking around with a mask, or any of those things is awful. And so

**Heather** 45:41

it makes it less likely that people will choose to do it, it's harder to do. And, and in many places, it was actually forbidden for a while to just go outside at all. And I think indeed, one of the one of the studies we talked about earlier, which had this very strange result about dog walking being associated with with higher rates of COVID. And I think that was in Spain. After we talked about it, we heard from a number of people actually, this was, if memory serves in a city where a lot of people are living in high rise apartments and the one thing you're allowed to do is walk your dog. And in order to get your dog down to walk them you have to be in these elevators which have these title, you know, enclosed spaces. And so probably this was, you know, the dog walkers were just simply the only people who were going up and down the elevators with a new regularity. And that was likely to be the issue. But anyway, there are a lot of people who just weren't even allowed to go outside

**Bret** 46:30

right weren't allowed to go outside. But imagine for a second that the actual adults had been looking at the actual evidence and making actual recommendations for how you actually avoid COVID. And they had concluded You know what? physical exercise is key obesity is a disaster. Masks are potentially helpful, but not outdoors, and they impede the very behaviors that are most likely to make you well, psychological well being is increased by your going outside. So sit down, everybody, here's the recommendation, go outside, spend as much time outside as you can go to the beach, have a good time at the beach, you know, remind yourself what it is like to live without fear. If you would have that kind of recommendation, this would have been a very different pandemic. And instead,

**Heather** 47:24

we were having officials close down beaches. Right, close, close limit, you know, you can't play tennis. I mean, there's still signs up I think it's allowed now but importantly, I was taking pictures and showing them on air. All through last summer. Yes, the swimming pools were closed. And I think at that point, we didn't fully know if maybe water transmission was possible. So I did not come down strongly against that it felt like a, a tragedy for the children. But But okay, but you know, sporting fields, no baseball, no basketball, no football, no tennis,

**Bret** 47:58

not even for kids, you know, kids who were immune by virtue of the fact that COVID does not seem highly capable of infecting or damaging kids, they could have had sports and other activities outside they gauge with each other engaged with each other. This so much of the harm here was needless, and there's something about it, which one just has the impression that there's a certain kind of authoritarian that likes spoiling people's thought. And so instead of embracing the counter intuitive facts about COVID, and saying, you know, what, COVID is a disease of indoors, it's the buildings that are dangerous, if you can figure out how to stay out of the buildings and really think very hard about how not to be in a car or if it's winter, and, you know, open the windows all the way in, turn the heat up, if it's winter, these sorts of pieces of advice about how to continue to live a normal life, we would I think we'd in some ways be like a different people at this point, because we would all discover what it was like to be advised, actually, you know, the dangers in your house, but out there, you're safe. And you know, we might have Well, I wouldn't

**Heather** 49:08

say the dangers in your house, the danger is not in your house, if you you know, if you weren't letting lots of strangers coming up to come and go the danger is about being indoors among other people who might be infected.

**Bret** 49:20

Well, I slightly disagree. I mean, I think your your caution is accurate, but it's a lot of what was true here was that once COVID got loose in a house, it tended to bounce around to anybody who could catch it.

**Heather** 49:32

And actually that you know, that that mode of transmission is appears to be if not the, one of the most absolutely

**Bret** 49:39

most dangerous is anxious to have somebody bring COVID home. So which

**Heather** 49:43

is again, another of the recommendations of you know, across the US anyway, and I don't know how widespread This was outside of the US was, if you get sick given that we're so worried about ICU beds. What you do is you go home, really you just guaranteed a lot more people are going to get sick

**Bret** 49:59

Yeah. Right, exactly. And so anyway, I just, we will never know. But I do wonder if this might not have been an enlightenment, if instead of having fingers wagged at us for smiling outdoors at each other without a mask on or whatever it was right? If instead of being scolded for natural, the sense of relief that you should have had outdoors, for those of us who did experience that, right, we also experienced stigma for apparently not being decent, right? That was preposterous. That wasn't science. Well, I

**Heather** 50:32

mean, there was just across pretty much every domain that that SARS Coby, to touched, there were simple rubrics, that people felt empowered to use against other people to increase tribalism, to increase fear to make them on their own cells feel better. And just, you know, here's here's an anecdote, which maybe I've mentioned before, but I was walking outside without a mask at one point. I'm British, big, broad path. And there was a woman coming towards me with a mask. And she saw me and she saw someone way behind me and gestured at her and yelled, in my general direction, thank you for wearing a mask, like you are yelling, you're actually, if you're sick, the mask is not going to fully block when you're yelling, and I'm not speaking, because I'm actually interested in not getting you sick, and I'm six, more than six feet away from you. And all of these things are true. And the idea that signaling to someone you don't know about how awful I am, is making you feel better. Hello, can't? Can't we all get a life at some level? Like, aren't we all capable of bringing something to the world that actually builds it up? Don't we all have some ability to create, or to build or to heal, or to communicate or to, to adventure to discover, to analyze, like, these are all productive, amazing activities, and I haven't begun to, you know, to exhaust all the possible verbs of productivity. And, and, and then building that humans can involve themselves and you know, is critique a important part of the human endeavor? It certainly is. But anyone whose job entirely is about critique is not really doing the world the service?

**Bret** 52:23

Yeah, I mean, I agree, although, you know, I sort of think of critique as the good version and criticism.

**Heather** 52:30

But I but I, this, I'm not sure that most people will agree with me, I'm not sure that anyone were really well, but I thought about this. And I don't think that as much as critique and criticism are kind of flip sides, we've put different connotations. And critique is the positive. And we know that critique is absolutely necessary in science and an art and you all endeavors if the only thing you engage in is critique. I don't think you were doing the world, the kind of service that you imagined you are.

**Bret** 52:56

Oh, yeah, definitely. I guess I'm, there's a sense. You know, how there were teachers who had a really deep insight into human development, and yes, they were part of the schools, but they also, were sort of above that level of, you know, rules and regs, right? They were flexible, they had nuance, they were about discretion. And then there were other teachers, who were just all about the enforcement of the rules to the letter without any consideration of why the rules necessarily existed. I feel like we are all somehow being reduced to some schoolyard that is being ruled by the least imaginative buzz killing, rule loving, authoritarian nanny teachers. And we just got to rebel. Right? Yeah, the fact is, there are places where the rules are essential. And there are other places where somebody made them up because they wanted to tell you what

**Heather** 53:58

to do. And there's, I guess, there's three categories, really, there's places where the rules are essential, and they have to be the right rules. And then there are places where the rules aren't essential. But if you're going to have rules, they have to be the right rules. And then there are places where you don't need rules. And if there are rules at all, you should be free to ignore them.

**Bret** 54:15

Right? But in this case, right. It is amazing to me that in some sense, the solution to a huge number of the problems created by COVID problems that none of us invited, right, a huge number of those problems were solved by going outside I mean even the social distance that this put between us didn't need to be maintained in the same way outside right. And you know if you know we have the saying in the Pacific Northwest, there's no such thing as bad weather, just inappropriate clothing. You know, if you have to discover what you're going to have to do in order to be outside in the winter because there's a new wrinkle that makes it hard to be inside. Right? Okay. That's the thing. We should have advised people here's You know, he The the gentle slope to getting yourself active in cold weather in your environment or something like that. And you know, I just I feel terrible for our species that we allow this to happen to us and not just, you know the disease but the way we botched the coping mechanism, we just screwed it up. Well, I

**Heather** 55:21

love this framing of yours. You know, the idea that instead of this just debilitating debacle, worldwide debacle that we find ourselves and now it actually could have been the opportunity for another enlightenment. how tragic.

**Bret** 55:35

Yeah, utterly tragic, utterly tragic. And it's tragic. But you know what, there's a reason we focus on tragedy. And that's because you can learn from it. And that's, you know, we don't know what the next thing that has the magnitude of COVID. Could be. It's hard to imagine such a thing. But you know what, given the way disasters are going, the magnitude is going up. Something is going to be down the pike. Let's not screw it up next time.

**Heather** 55:58

That's right. Okay. slight change of pace, but no more uplifting really. Now, you know, this this weekend, sex and gender madness. Hmm. Yeah. I actually I want to, I wanted to this week, and I definitely want to, at some point, talk about some of the diabolical stuff that's going on in schools with regard to what is happening under the auspices of sex ed and inclusivity. And I've heard from some parents on this topic and I went looking for those emails or notes this week, and I could not find them so if you're listening, please send them to me again, because I know that there is some some stuff going on in many school districts that are that are worthy of discussion here. Absent that though, I wanted to talk a little bit about kickboxing and an ant named today.

**Heather** 56:54

Just because, first though, here is the kickboxing thing. Oops, there we go. Oh boy, that wasn't good at all. There we go. So the British kickboxing Council, an organization I had not previously been aware of tweeted. In the end of March. Today we celebrate hashtag trans day of visibility as our trans inclusion and kickboxing project continues. Access to sport they say is a fundamental human rights supported by the Olympic Charter. Please read Emily's story and check out mermaids UK. It's brand new active about inclusion website below. So for those of you who don't know mermaids UK is an ideological organization that is doing tremendous amount of harm. And of course, they're claiming to be about the new civil rights fight for you know, trans awareness and inclusion, but it's really quite, I'm just gonna use the word again, diabolical, actually. But when you when you go into this site, what you find is that the British kickboxing Council is proud that now they're going to let trans women compete against women. So I said in response to that, quote, tweeting, for those of you who are unfamiliar, blissfully unaware of Twitter, what I said was This Week in progress, men can keep women for fun. And if you object, you're the problem to which someone who said who is on Twitter as a quote unquote, enlightened scientist, says, responds to me. Anyone who has been involved in martial arts knows men and women and boys and girls frequently sparked together and learning about inclusion, respect and fairness are fundamental to this principle. I'm not sure what the problem is. Really, probably, we can just leave it there. But anyone who invokes the cool fact that at this point in history, certainly girls and boys, but let's put that aside for the moment, but that men and women can get together and engage in sport together, including martial arts on a friendly basis, conflating that with competition, which pretends that men and women are the same, and that all you have to do to build for to turn from one into the other is to declare that you have is so misunderstanding of reality, and, frankly, so misogynistic and dangerous to women who would compete, that not being young, being able to finish a tweet with I'm not sure what the problem is here. Well, really, if you can't see what the problem with encouraging men who have declared themselves women to compete and kickboxing against women is, I'm not sure how to help you. Like, what what do you say to him?

**Bret** 59:26

Yeah, well, as you're talking I'm, I'm seeing the picture even more clearly. Terrific. Well, here's what I see. You've got two sides of this argument. One of them says trans rights, right? It sees only that as an objective and who could object trans rights, trans rights are good, I would agree trans rights are good. There's the other side that recognizes that there's a tension between something which is you would like to give trans people as much leeway to live in a way that feels authentic and right to them as you can. But that if you just simply grant them every right as if they were born into the other sex, that you start infringing on things like the protections of women, and so one side is engaged in a discussion of how do we draw this line so that the ideal balance is discovered, right? So that we do protect trans people. And we do protect women, and we do so simultaneously, right. And the other side only wants to talk about one side of a trade off. Now, in my opinion, the side that wants to talk about one side of a trade off, is not offering anything, it is a act of purest advocacy. And we have an obligation not to listen, in some sense, it's not even a complex systems level problem. It's just a systems level problem.

**Heather** 1:00:49

Well, I, I agree. But also, there are places in this discussion about trans rights, where you know, all all reasonable people I've ever met, are interested in accommodating people such that they can feel respected regarding the choices they are making, so long as no impinging is done on pre existing rights of other people. And so especially when what is required is I declare myself x, but actually, you know, we all know that I'm not, but I declare myself x. That, at that point, I'm not, I am not interested, actually, in giving up any of the hard won rights of women, or children, or homosexuals, or, you know, to sort of go slightly smaller with each group in terms of the the number of humans who are represented in each group, or female competitive athletes, right. And so, you know, sport as a human, right, I don't know where that came from. But like, imagine for a moment that you believe that to be true. Sport is a human right, which, again, I think, is an absurd Proclamation. But even if you think that's true, that is not the same thing as saying, therefore, anyone can compete against anyone else, if we want, if we want to do that, and acknowledge that actually, we are no longer interested in seeing women win at sport, or engage in team play, or, you know, be able to be competitive in in informal sport, then we make everything unisex, and we watch as men win. Yep, that's it, right? And the trans women won't win either against the men, but they will will win against the women. And sure, there are always going to be a couple of exceptions. And that does not disprove the rule. Because populations and individuals are different. And at a population level, men are going to be stronger and faster and fiercer, and all of this than women, and therefore the elite among them will be as well.

**Bret** 1:02:49

Yeah. And in fact, the tail of the distribution is what the competition ends up being about.

**Heather** 1:02:54

Exactly. And that that is why this this response from this. Whatever adjective you use for himself, the scientist is insane. You're talking about the tails of the distribution, encouraging men and women to spar with one another, as they're both learning to figure out, you know, maybe some of the moves that men and women do that are different. Yeah, I don't kickbox I don't do martial arts. I don't know what they would be. But that could be informative. That could be interesting. It's not the same as competition. You're not talking about the tails, that distribution.

**Bret** 1:03:23

Right. So I guess another way to look at it is the accusation that is supposed to limit, you know, you're not supposed to have permission to discuss the difficulty of trying to protect trans rights in the context of pre existing rights. So we don't have that permission yet, so we get stigmatized, and the stigma is one of bigotry. Now, how can it be bigotry? If the description of the position that you hold is Yep, I am open to granting any right to somebody to live as they want to live up until the point that it starts infringing on other people's rights. That sounds like a completely non arbitrary place. It does not sound like anybody trying to deny somebody something. Right. It sounds like trying to preserve something. And so you know, the solution here is that we actually have to stare down the accusation. Yeah, this has zero to do with bigotry. This is not about wanting anything ill for trans people or not favoring living authentic

**Heather** 1:04:23

lives. I'm going to go further. I think too often it has a lot to do with misogyny actually, why not only does it have nothing to do with bigotry, but the people who are claiming that those of us who are trying to defend women's spaces and you know all the rest of it, who those people who are saying you're bigots very often what they're engaging is massage and is massage and a and sometimes it's even conscious

**Bret** 1:04:42

well, so I think a good way to ask the question is given these two positions, where are the bigots right? Good, where are the biggest and in fact, this has been a theme of recent history because of course, that was the thing that made the the Evergreen story and all of the CRT stuff, so difficult for the so called mainstream press to deal with was that the bigots were on a side it wasn't used to them being on. And so it decided to pretend they weren't there or that they were on the other side. And that of course confused everything. But which side of the bigots on I think is a fair question. And when your position is non arbitrary, and is based on preserving preexisting rights rights that were hard won, frankly, that's obviously not motivated by bigotry.

**Heather** 1:05:27

You know, you used to say a lot. Something about the thing in the package is not the wrapping paper. So what's

**Bret** 1:05:33

the exact the label on the box does not match the contents? Yeah.

**Heather** 1:05:37

And so, you know, this is something I used to joke when I was teaching animal behavior for all those many years, that, wouldn't it be easier if the squirrels or the the butterflies or the monkeys could talk to us and we could just ask them, and you know, if you've ever thought about cultural anthropology, and ethnography, and what it takes to actually figure out what is true of human behavior, or if you've just ever been a human, really, you know, that we prevaricate all the time, we lie all the time. And so it's actually much easier. If you can, as we've also said, turn down the volume, and watch what is actually happening. And then if you can map, if it is an organism that actually communicates, map the conversation onto it, or map the explanation of what's going on to it, if it matches cool, very often, it won't, and then you have something to explain. And so you know, it's actually easier to do animal behavior than it is to do human behavior. Because they're very much the animals that you're watching are very much less likely to lie to you, you have to learn some different skills, and you have to learn different kinds of patience and all of this, but at least, they're not trying to convince you in exactly the mode of communication that you have as your most fundamental mode. And so this thing that people are doing, where they're like, Oh, I have to do is slap a label on the thing. And everyone seems confused. They said he was a racist, he must be a racist. They said she was a transfer must be a transpo. Like, you know, it's literally cost nothing to say that about someone. Right? There's there's just there's there's no fact checking, that is even expected behind the name calling. It's a simple episode,

**Bret** 1:07:10

right? And in fact, some of these things are, it just simply takes the form of a description of a moral failing, right, turf, turf is leveled as if it is a dire failure of character, when in fact, it doesn't even superficially add up to a description of what it's, it's talking about, right? trans exclusionary, radical feminist, a traditional minded person is not a radical, you know. So the basic point is, it is like saying, I you know, it's shook us with a kind of empty placeholder, and for some reason, people continually fall for it. Yeah.

**Heather** 1:08:02

So, let's talk about an aunt named Jay. Of course, of course. Okay. So you may show my screen, Zach, this was covered in a lot of places. This is a popular version of a story called for those just listening entomologists discover new species of trap jaw and to Ecuador. That seems, you know, classic taxonomy somewhat dull, perhaps. Not that relevant. But what it turns out it is called is strim. Magennis ears they ears they sounds like Pig Latin. Yeah, it does. And so if we go Actually, I'm just gonna go to the actual the actual paper that was published in zookeys. And we scroll down, it's, you know, classic taxonomy, just morphological data index is this, all of these measurements really not that interesting, until you get to this description, Misa Soma. Interestingly, here we have a description of this is all of the workers. And then when we get to description of the queen and male unknown, so that's pretty typical. But this is this is a description of a new species of species new to Western science, where you find the workers but it's much harder to find the queen, which is there's one in a colony in most cases, or the males were very often there just aren't any at the moment and that you know, that gets into interesting ad bee and wasp eusociality and genetics, which we won't go into now. But right after the queen and male unknown section, we have etymology which I will, which I will read to us if I can make it just a little bit bigger so I can see it. Many cultures have recognized a spectrum of genders between them beyond the binary of male and female, not a sentence I was expecting in this paper. Okay to continue However, by following a rule exampled in the international code of nomenclature for how to name species after individuals, one might conclude only binary gender assignments possible when assigning new species names derived from Latin. Dubois 2007 provides clarification to this rule stating that there was no need to amend or latinized personal names, and therefore no need to assign gender. In contrast, the traditional naming practices that identify individuals is one of two distinct genders we have chosen a non latinized portmanteau honoring the artists Jeremy errs and representing people that do not identify with conventional binary gender assignments strew Magennis errs day that they recognize as non binary gender identifiers in order to reflect recent evolution and English pronoun use they them and their and address a more inclusive and expansive understanding of non neutral gender identification. It goes on and talks about who this artist and activist was and why. And it turns as it turns out, sort of the PST resistance in this is that we learn in the acknowledgments that, quote, we thank musician and artist Michael Stipe for contributing to the etymology and honor of a hero to many and a dear friend to those that know him. So Michael Stipe helped write that entomology description which, boy, I would have thought I would have hoped for more from him. But

**Bret** 1:11:24

are we sure that's not an oblique reference to a song or something? Which the the, the credit given to Michael Stipe clearly indicates that he participated in thinking through how to name the sample

**Heather** 1:11:37

that is yes. And that is described in the various the various other articles about this that aren't the scientific article. I will point out that the article that they claim finds, finds note that basically sets the stage for them to name this specific epithet. They, in fact does no such thing. Here we have, again, just super tedious real taxonomic literature. The Dubois 2007 article called genitives of species and subspecies Nominet derived from personal name should not be amended. This is this is a taxonomy for you guys like this. This is this is you're really getting into the nitty gritty of how it is that you name things. Because there you know, there are rules and there are expectations about how you follow you follow them. And from the abstract. Article 31 of the code allows to form a species or subspecies from a personal name, using a nominee in the genitive case, some zoologists have construed this rule as meaning that such nomina should always end an eye dedicate to a man or an A he dedicated to a woman, cetera, et cetera. A detailed analysis shows that the latter is wrong, that the original spelling, including its ending of any new Naaman, based on a personal name should not be modified. So the article they cite to excuse they're adding they to the end of a Latin name of a new ad actually says No, you shouldn't do exactly what you've just done. And just one more thing before we riff on this a little bit, we have I pulled up. I pulled up but now have lost on ant wiki.org. One of your favorite sites and mine, okay. Yes. I remembered that two of our friends when we were faculty at evergreen, who left before we did, jack longin, oh, internationally renowned aunt, amps taxonomist, and his wife Nalini Nadkarni, internationally renowned canopy expert and, and to ecologist ecologists, yes, he had found jack and found a new species of ant that he had the honor of naming and he in fact, name it. Pro SEPTA Saras. I'm probably butchering that pronunciation of the genus, but the specific epithet that is the second name in the Latin binomial, which is the scientific name of the species is millionaire he named it for his wonderful wife, and he did not add the Latin ending, which had become fairly popular to add. He knew back in I think this was early This is 2002 that you needn't and that it would have distracted and certainly your Alenia is no vey, but it would have been absurd to add an English pronoun to the end of a Latin specific epithet

**Bret** 1:14:25

and aleni is so hard working that she could be evey in the sense of being many people.

**Heather** 1:14:31

She is a she's a badass tree climbing tropical ecologist. Incredible Yeah, completely incredible as his as his jack. But may I have my Thank you. So especially in an ant, especially in an ant, right, where actually the distinction between female and male is so clear that females literally have twice the genome that males Do there is no, there's no there's no vai in. And so

**Bret** 1:15:03

not only that, they didn't find any males, which is not surprising they probably weren't present at the season that this was discovered. But would it have been all right for them to declare some of the ants that they found male on the basis that that would have been? More? I don't know. equal,

**Heather** 1:15:22

I find the sex ratio unfair, right? What if What do you mean there's 100% females they found that so the work so for those of you who aren't intimate with anthropology, when they say workers, it's all females,

**Bret** 1:15:33

it's all female. Yeah. So the point is, they're making grand claims about biology being non binary, that they're making absurd claims about the fact that recent evolution of language Well, okay, there, yeah, maybe Tekken

**Heather** 1:15:48

with the sociology of epistemology, frankly,

**Bret** 1:15:51

right? And so you know, okay, if this is evolution, let's be technical here, right, you've got two things going on, you've got noise and maladaptation on one side, and then you've got adaptive changes, which will stick and be augmented over time. And they have leaped to the conclusion that the absurd embrace of new probe pronouns which are not necessary, right, you can be perfectly honoring of trans people with the existing set of pronouns right? This

**Heather** 1:16:20

I don't think this is even about trans This is this. This is this further nutty, you know, for even nuttier than trans ideology, right? Not saying trans money, but trans ideology is nutty. And this non binary thing where, well, I don't fit 1950s era gender norms, therefore I'm are they What the hell? I hope none of us exactly fit 1950s gender norms at this point. And that doesn't make any of us have a

**Bret** 1:16:45

right, it doesn't make any of us have a and there's useful information in the plural pneus or singular ness that is lost. So you're actually degrading the capacity of language to convey things and to Yes, yeah. So anyway, there's something so troubling about this, some, you know, people who, on the one hand understand biology well enough to realize that they only have female amps. And that that's not that surprising, right? For this video

**Heather** 1:17:08

sufficient to make a whole new species rise, it's it's fairly common, because

**Bret** 1:17:13

the males are implied, right? We know that they're there. I just didn't see them, right? males are behind the males are implied. Right. But, you know, yeah, the absurdity of this and you know, I guess the the arrogance of people using the scientific voice, and indeed, the scientific literature and the scientific form, in order to make an absurd and obviously political signal of their own virtue for which I'm certain that they were heralded by people, right? This is not the place, right? This is not the place, not the place, right? If you want to have that discussion about whether or not we should change the language, all right, we can have that discussion, but you're borrowing the scientific literature to, you know, to pull a fast one, and you're doing so in the context of creatures that frankly, you know, so predate any of this human absurdity, that the idea of sort of imposing it on them as if it's their obligation to broadcast your virtue is just absurd?

**Heather** 1:18:15

Yes, it is. Yes, it is. To finish up I wanted to share a poem that I saw in Northwest Portland this week and then you wanted to have us do two quick what we're calling pro bono

**Bret** 1:18:30

ad pro bono ads and these these are these enhance your life that's the key.

**Heather** 1:18:36

Yeah, he That's right. So Zachary, you may show my screen. I, in one of these situations, that's that might sometimes be a free library and exchange library on a street corner. I found this poem this week. And I'm going to know I've got a different picture here. When this is over. It's called by someone named Laura Kelly for nucci. When this is over, may we never again take for granted. a handshake with a stranger. Full shelves at the store. Conversations with neighbors, a crowded theater, Friday night out. The taste of communion, a routine checkup. The school rush each morning, coffee with a friend. The stadium roaring each deep breath, a boring Tuesday. Life itself. When this ends, might we find that we have become more like the people we want it to be? We were called to be. We hoped to be. And may we stay that way? Better for each other? Because of the worst. That's a really good ball. Yeah, yeah. And I was struck by it when I ran into it. Delightful that you found it outside. Indeed, yeah, I was out getting a little brisk walking outside and I found that poem. Yeah.

**Bret** 1:19:52

That's great. That's great. Yeah. Yeah, I have the sense of the person who wrote that as a wise person.

**Heather** 1:19:58

Indeed.

**Bret** 1:20:00

Call the figure out who they are.

**Heather** 1:20:01

Yeah. Well, if anyone here in Portland knows knows her, tell her we talked about her and consider getting in touch. Great, beautiful poem. I think it's a natural segue to apoxie party.

**Bret** 1:20:16

Oh man, is it yes so so this is this is

**Heather** 1:20:19

now pro bono ads. We're not being paid for these but we wanted to just talk about a couple little thing. Yeah,

**Bret** 1:20:24

not being paid don't enough people who make this stuff are decent people or not, but we do know something about the products that they make. And we think you should do so. In our family. We have a I guess it's an aphorism. Okay. And the aphorism goes like this. epoxy. It's the adhesive for when you're done fucking around. So I believe in this and coxy is really

**Heather** 1:20:50

had me take epoxy and epoxy putty, I believe when I was out in the field of Madagascar. I mean, it'd be

**Bret** 1:20:56

crazy to go into the field. Without it I would have been you really would no secret you should all know are the epoxide bonds, which happened to be triangular, which makes them very strong, really called epoxide. Bogside bonds,

**Heather** 1:21:07

he didn't just make that up, kind of thing he did,

**Bret** 1:21:09

oh, I'm pretty sure I didn't, if it's not true, I was lied to. But no triangular bonds are the key to making the stuff so darn stable. And it is available in so many different kinds that are useful for all kinds of crazy things. I am a huge fan of five minute epoxy, because very often, you can't figure out how to clamp something, but you can hold it still for five minutes while it hardens. And so you can accomplish things with five minute epoxy that are can't be done any other way. But what I want to talk about today is epoxy putty. And this is the you know, this is a sort of professional version, you find this in the plumbing section, it's not in the adhesive section. In general, it's in the plumbing section of a really good hardware store. And it's a very interesting substances Heather mentioned, it is something I take a lot of into the field because it solves problems, you can't solve any other way. So I was trying to figure out how to demonstrate what this stuff can do.

**Heather** 1:22:06

It appears that you've destroyed one of our bowls. Well,

**Bret** 1:22:09

I wouldn't say I would say I have enhanced one of our bowls. Hmm, there's supposed to be a clamp here that I don't seem to see where the clamp gone. Well, I'm not gonna be able to demonstrate it with the clamp, which is true to the cat here. unfortunate.

**Heather** 1:22:26

Have you seen a clamp here, I don't see a clamp, here comes our producer, it comes back looking for.

**Bret** 1:22:32

Alright, describe here, suppose that you had this bowl. And for some purpose, you needed to fix it to one of these arms, right so that you could do something cool. Like suppose you decided to take your podcast and embrace a busker model for funding it. And you needed a a bowl

**Heather** 1:22:54

that is an extension arm on your bowl, need your

**Bret** 1:22:56

bowl to be able to attach to your microphone stand, for example, but how the hell are you going to do that you can put a hole in the bowl, but then you breach its integrity. So you know you could try to weld something to it that had threads that would allow you to connect to a tripod fitting like that, but who has the time to weld these day has. And you know, let's suppose that the fitting that you want to attach happened to be aluminum and your bowl happened to be stainless steel going to work, you might be able to solder that but you can't weld it. In any case, epoxy putty this stuff is a putty that comes in two parts which are in a basically it's got a outer and an inner core, there are two different colors. So

**Heather** 1:23:38

the distinction apoxie comes liquid in two tubes, and you mix them and this is a solid, of course you mix them together.

**Bret** 1:23:45

Yeah, you mix them together, and it will get into the the grooves in your hand, but it wears off pretty good. Anyway, it's this party stuff and it's you, maybe you can see it's got it inside of one color and and outside of another color. And you mix them until the colors become uniform, that's when you know you're ready to go. And then you can, you can make a very powerful attachment point like this. Let's say you were lacking that fitting, you could also put a little grease on to your threads here and you could wrap the epoxy putty around and you could make corresponding threads, you could do anything you want. But the point is that allows you to take two things that nobody envisioned you were going to connect like this arm here and this bowl and make a very fine connection, very strong stuff. Because those epoxide bonds, you know, triangular epoxide, I was paying attention you were paying attention, which is awesome. Right? But for example, you know, there you go. Voila, you You're now in a position to do busking with your busking? Is it busking?

**Heather** 1:24:48

I think it's busking? I don't know.

**Bret** 1:24:50

Okay, well, busking. You could do busking, you know, and people could throw coins in your microphone stand attached. bowl, but anyway, Here's the thing this is not a very good demonstration of what you could do with it but you can extrapolate from what I've done here which isn't all that useful the things that you might do which would be super useful and the basic point is look you know you will seem to the outside world at least 20% smarter for having this stuff write

**Heather** 1:25:19

one recommendation Yes. Ask your partner or whoever else you live with before you start applying it to their balls

**Bret** 1:25:28

we'll talk about that later but look you know, as you know,

**Heather** 1:25:31

this book is not precious to me.

**Bret** 1:25:33

The ball the ball was not frayed I'm fine with it. I can recover that bowl enhanced as it may be I believe I could downgrade it back to where we were not easily Of course because a proxy party is very very hard sticky stuff, tenacious. It is tenacious but you know anyway this stuff it does wonders. I swear if the professor had had this stuff Gilligan and his friends would not have been stuck on that island they would have I don't know we all would have been the better boy it would have flown off in a coconut airplane bound together with epoxy putty or something like that. And I guess the last thing I will say is remember, Rome wasn't built in a day but it's only because they didn't have epoxy putty maybe we should stop there. Really? Yeah. Okay,

**Heather** 1:26:19

I think I think that's good I think you know we had we've you know, maybe we're ready for another pro bono but I think we should save it save it. Alright, yeah,

**Bret** 1:26:25

okay, well that I think that's great you guys you can start extrapolating then now extrapolating with epoxy putty yeah but how they're going to enhance their own lives with this

**Heather** 1:26:34

is yes do do extrapolate but do so carefully. Yes. Always

**Bret** 1:26:38

safety third, as you like to say I do I do

**Heather** 1:26:41

like to say that. And I know students whom to my have said that have have suffered great harm. So so far, it's worked. Yeah. All right. Do we have a thumbnail for this week or not yet? Boy, no worries. We don't need one. Yeah, I

**Bret** 1:26:55

mean, we're gonna need one, but I don't know what it is. Yeah. Oh,

**Heather** 1:26:59

someone knows we're ending Okay. Yes. For those of you just listening, our deputy producer who's sitting on the table the whole time has just stood up and revealed his ears to the audience. All right. We will be back next week for Episode 82. If you are watching, we will be taking a 15 minute break and coming back when our live q&a during which we will answer your super chat questions. We also every week answer one question that's been voted on from the discord server every week you can get access to the discord server at either of our Patreon. Other things you can access at our Patreon are right now right now you can go on to mine and at Levin dollar up level, and pose a question to be considered in the q&a the two hour q&a that we do on the last Sunday of the month. And at Brett's there are higher dollar amount conversations on the first Saturday and Sunday of the month. in the morning. We encourage you to subscribe and like and share this, this channel and videos on this channel and also from the clips channel Darkhorse clips, which is really taking off and we are we're thrilled about that you can always send logistical questions, not super chat questions, not content questions, but logistical questions. To Darkhorse dot moderator@gmail.com our moderator also share for instance, a PO box that we have we have we have been receiving some really remarkable things from people and I we appreciate those those things. And maybe, maybe that is it. As always, I will advise that you be good to the ones you love and that you eat good food and that you get outside. Get outside,

**Bret** 1:28:33

get outside. Alright, see you soon