Bret and Heather 47th DarkHorse Podcast Livestream\_ Butler D...

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**SUMMARY KEYWORDS**

point, hypothesis, process, radon, system, forests, fact, radiation, women, trapped, zack, problem, feminist, gender, rains, pacific northwest, judith butler, salmon, true, nitrogen

**SPEAKERS**

Bret, Heather

**Bret** 00:21

Hey folks, Brett here, I have a prediction. The prediction is the Dark Horse podcast will go live in about five minutes. But in order for that to happen, we need to know if the video is coming through if the audio is loud enough and in sync, if everything is working to your satisfaction enough that you will tune in and be, I don't know, occupied with content rather than the tech. That's what we'd like. So please tell us in the chat, whether everything seems to be working if there's anything you think we ought to know some kind of troubleshooting we should do in advance of the Dark Horse podcast.

**Bret** 00:59

All right. Hey folks, welcome to the Dark Horse podcast live stream our 47th if I'm not mistaken, you're not mistaken this time it is prime it is probably and you know what I discovered? Now it is September. Totally caught me by surprise but it appears not only to be September but we are now deeply into September.

**Heather** 07:15

Yeah, don't get used to it.

**Bret** 07:16

Really? Oh my god, you know something? I don't I do.

**Heather** 07:20

I have a calendar. Oh,

**Bret** 07:21

crap. Alright, I've got to get a calendar. I should put that on my to do list I guess. Yeah. All right. Well, we have a lot to talk about. We have. It's been a week since our last podcast. Am I correct? The week? It has been a week. All right. So we are back. I'm trying to recall you and I had a discussion about where to start. We are starting with you want to start with Unity unity, right? unity? Yes. All right, folks. So there is an update with respect to unity, which those of you who have been attending our campfires will know about, but the rest of you should know. So the Unity 2020 plan involved a proposal to draft candidates to elect to the White House, it came with a pair of fail safes to prevent it from spoiling the election. One of those fail safes was if as the election approached, we did not have a viable path to victory, we would pull the plug on the plan so that it couldn't spoil the election. And we have arrived the decision that this is that moment. Now we're there to be some sort of an emergency, that would cause the electorate to wake up to the danger that we are in all of a sudden and to go groping for a better plan than the major parties have delivered us. The plan could be rebooted. But that is not our expectation. So let me tell you a little bit about what this does and doesn't mean it means that we are not going to attempt to draft our ticket. But what we have recognized in the process of working on unity 2020 is that the plan is part of a larger movement, and the movement is one that stands against the things that have corrupted our governmental structure. And the need for it is as great or greater than it was when we started it. So the movement is going to continue we are going to look to the long term and attempt to figure out how it is that we can rescue our republic from the death spiral that its political class has inflicted upon it. So that's where we stand with Unity 2020

**Heather** 09:30

not the best news but not hopeless. Not an end

**Bret** 09:34

well let me say I'm not even it's not the best news the best news would have been that come

**Heather** 09:41

January 2021. We are welcoming a unity ticket to the White House. And it looks like got all the color metaphors you can imagine a light at the end of the tunnel blue skies overhead, all of this.

**Bret** 09:52

I mean as we said in our in our founding document, imagine that a pair of courageous capable paid It's we're ascending to be sworn in how what kind of, you know, sigh of relief, what relief would the country collectively breathe. And so that was always the objective. On the other hand, I would point out that, you know, you and I have talked a lot in the context of education and in the context of other phenomena about the importance of a prototyping mindset. And that's right, everything good. That is complex arises through an iterative process of discovery, right? I should look up whether or not Edison In fact, said that the point that he had succeeded, he had discovered 1000 ways not to make a light bulb or something to that effect. But the point is, we discovered a tremendous amount in this process about what needs to take place in order to fix the the corruption that has disrupted governments.

**Heather** 10:51

And there's there was a tremendous amount of goodwill and pressure and force in the right, in the physics a sense of the term behind this, you know, it was it was apparent that there is, as you and I and many others have long suspected a real, visceral, intellectual and emotional desire to see effects. And that fix might well look like this.

**Bret** 11:18

Yeah, it really lacked one thing, which was exponential growth, which, you know, in some sense, is the thing. On the other hand, what it did do was surface the, the underlying belief structure of a great many patriots. And so, you know, does it set the stage for us to do something in the future that could in fact, recapture the White House or other structures on behalf of the people? I think it revealed the path there. And so, you know, personally, I, I feel imperiled to know that what is very likely to happen is, you know, we are going to get one duopolies version, A or B, right? That's a very frightening prospect. And I wish we I wish somebody had figured out a way out of that mess didn't happen. So okay, that's frightening. On the other hand, I'm not the least bit disappointed at what happened here. I think we beat expectations by a lot, right? We ran a successful ranked choice vote, we had high level discussions with lots of people both, you know, on our campfires and behind the scenes. And so we did discover that the niche in question exists. And the question is, what do you do with it? So, we will see going forward, but if you have been following unity 2020 please know that what has changed is the Unity 2020 plan itself, the Unity movement still exists and is as dedicated as ever to the prospect of fixing our system. Perhaps something

**Heather** 12:50

like unity. 2020 is dead. Long live unity.

**Bret** 12:56

I like that. I wouldn't say dead it's a unity 2020.

**Heather** 12:59

Yeah, is dead. This was about a particular moment in time. Right? This is about a particular presidential election. appending the 2020 to it. So just like the king is dead, long live, the king refers to two different instantiations of the king. Unique 2020 is presumably not the name of the movement going forward, because it pinpoints the origin date, and it's a forward looking movement.

**Bret** 13:19

Right? Yeah, my concern was not with the end of 2020 parties with dead because the prototype mindset, you know, is it dead? It doesn't matter. It's a semantic question.

**Heather** 13:30

There are multiple there are multiple lenses with which to approach something, and I obviously agree with the prototype. lens, but using a phrase from history doesn't render the prototype lens. inoperable,

**Bret** 13:43

right, except that you have neglected the fact that history is itself a tool of oppression, and therefore we must

**Heather** 13:50

you know, that's cheating. I'm kidding. I know it was a joke.

**Bret** 13:53

Alright. So that's the Unity 2020 update. The unity movement continues this is

**Heather** 13:57

that we're trying to model this right? Like when people pull that shit on you. That's cheating stuff.

**Bret** 14:02

Right? And the way you really stop them is the eyebrows. The double raised eyebrow thing adds a shot across the bow. So

**Heather** 14:09

Alright, maybe a slight eye roll and a slack jaw. Oh, yeah,

**Bret** 14:13

I roll up to the right thing, man. Yeah, that is a that's a warning. Okay. So next topic was I wanted to talk about the technical difficulties. And again, you all probably don't care very much about the technical.

**Heather** 14:28

Yeah, we don't, you're not interested in talking about technical difficulties, because this is in service of understanding how to make sense in the world. So let me Before you start, we want to talk a little bit about this sort of how to take a problem that we haven't experienced and apply a careful scientific approach to it in order to try to make sense of the world. segwaying from there into how is it that so many of us are having a hard time making sense of what is being provided to us and what it looks like the other side is saying about who we are. That is to say, to what degree are the reflections being shown back at us actually accurate. And then I want to talk a little bit about the downstream effects of some of the, you know, batshit nonsense coming out of gender theory.

**Bret** 15:18

Cool. I wish it wasn't called batshit. Nonsense, but I get it. Yeah. So I need a prop for this. Can you hand me the cat? Yeah.

**Heather** 15:25

Oh, absolutely. Always.

**Bret** 15:26

Alright. The cat right now? Yeah, let's see Fairfax. Right, the cat is a complex system. Yes, this is a complex system with so much complexity, that it's very difficult to sort out what's going on, that drives it and causes it to behave the way that it does. Something like the apparatus we use to do podcasting is a complex system that is so many orders of magnitude less complex, that it actually lends itself to scientific problem solving more, simply write it doesn't, it's not going to require years of study to figure out how it works and to troubleshoot it.

**Heather** 16:00

Okay, you know, that I don't want to put an asterisk here and say, you know, as, as an animal behaviorist, I, will I constantly aspire to try to understand the complex system that is the cat Oh,

**Bret** 16:10

you and me both. On the other hand, we both know that we are a million miles collectively, scientifically, from understanding how a single cell in that animal works, right? And that animal is composed of at least hundreds of billions of cells. So in any case, there's so much mystery left in that complex system that it is still orders of magnitude short, even if we can skip to something like the behavior of the animal and say, actually, we know an awful lot about why it does what it does. And then there's, you know, the residual, the mystery that's still left, which is the part that you and I find the most fascinating. But all right, back to this mini complex system, that is our podcast apparatus. Those who were paying attention around livestream number 45, I believe, will remember that we were inundated by smoke, and that the cameras were all dropping out somewhat regularly. No matter what camera angle Zack put on us, the signal would drop out and you would see rainbow colored bars indicating the absence of signal. And as I said, last time, we did a ton of troubleshooting to figure out what might be going on. It was all three cameras, two other cameras did it. Ultimately, we discovered that it was many devices in the house that put out signal over HDMI and nothing that was uninvolved in HDMI. This led us to the question of Was there some kind of radiation that might be affecting the system and somebody one of our viewers suggested it could possibly be right on which would make sense because we had the windows closed due to the smoke here in Portland, and radon, which is the product of radioactive decay of isotopes in the soil. The radon is produced by that decay, larger, heavier elements breakdown. radon is one of the products it's a gas that floats up from your crawlspace. And if your house as well sealed, it can be trapped and if the levels rise too high enough degree, it can interfere, you know, with yourselves for one thing, it can cause mutations and things. So somebody suggested maybe our windows being tightly closed during the smoke period had caused radon to build up we have a radon problem. I tested the hypothesis, I got a radon detector, I've let it run for a week, we have low levels of radon. So that's not it. So that's again leaves us with this mystery.

**Heather** 18:25

And as as often with careful scientific investigations, you're left with some relief, that you haven't been poisoned within your home in this case, and some disappointment that you have not apparently Come on the hypothesis that is likely to be true. So right, not that falsified, radon false. So

**Bret** 18:46

hypothesis, it's radon buildup, and that would be consistent with the windows being closed prediction. If you test for radon, you will find levels of it falsified. No, we don't find high levels of radon. Well,

**Heather** 18:58

but so as we did last time, one prediction of that hypothesis is but it's not a exclusive prediction of this hypothesis is once you open your windows, the problems will be resolved. The problems were resolved once we opened the windows, so that was coincident with the hypothesis that it was radon being trapped in the house. But it also is also a prediction of other hypothesis, those other hypotheses, so it's not a strong prediction, on account of being a prediction that follows from

**Bret** 19:27

hypotheses. The problem is the multiple hypotheses are pretty exotic, right? So it does seem clear we have some kind of interference. It's some kind of interference that seems to register an HDMI and nothing else, which is interesting. A lot of searching reveals nothing of that nature. I don't find anything that there's lots of talk online about various kinds of electromagnetic interference, but HDMI does not seem particularly prone. Also, people noticed that there was a regular periodicity to the failures of our cameras. Which led many in our audience who were technically savvy to propose that it had something to do with a mismatch of frame rates between our computer and our cameras, which didn't make a lot of sense, because nothing had changed on that front. And if one camera had gotten out of whack, it wouldn't have been on the others. So it would have had to been in the computer. And if we swapped in a different computer, it didn't happen. So there were a lot of reasons to think that hypothesis was wrong. It is I think, possible, and maybe one of our technically savvy viewers will know, it is possible, that radiation of some kind, could disrupt the timekeeping of the HDMI process, which could result in a frame rate mismatch, that would then go away when whatever the radiation or interference disappeared from the system. So that would match the pattern. If that were true, that electromagnetic interference could disrupt or radiation, either one could disrupt the timekeeping, then at the point that that interference is gone, the timekeeping would go back to normal.

**Heather** 21:01

So just once again to lay out what changed. So you and Zack did a tremendous amount of troubleshooting inside with the system with the you know, manmade parts of the system. And nothing seemed to address the issue. We were in, you know, smoke lockdown for 10 to 12 days, depending on how you count. On Friday of last week, eight days ago, the rains came, the air cleared, we opened the windows. So really two big things, it was all of a system. But two big things changed at once, not only did the air quality in our house become much better, because we were able to open the windows, but the air quality in our entire environment improved. And you know, often often those will be coincident with one another. But they were explicitly happened within 24 hours of one another, right? So. So as that happened, all of the problems that we've been having disappeared,

**Bret** 21:52

every single one. And so I would I would remind people, we tried two other cameras that only gave us an HDMI output, a different brand, two different models. They all showed this flaw. So it was something very general. And the fact of the end of the smoke, the beginning of the rains, and the opening of the windows all being exactly consistent in time. And being consistent with the end of our problems. is very conspicuous. In fact, I think it's highly likely that whatever it was about the the rains triggered all those other behaviors, and one of them fixed our problem. So what's your new hypothesis? Well, I don't want to say your new hypothesis, because this new generated

**Heather** 22:34

this hypothesis, your new hypothesis does not mean although it is often understood to me in in journalism in common parlance, your preferred hypothesis, the thing you think to be true, the thing you want to be true. In this case, it is I think neither Yep. Right. And those, so there's three things, you generated it, you generated it, you generated it, you think it's true, you want it to be true. Often, often people will have hypothesis of which all three of those things are true. And frankly, the scientific method is the way of getting rid of the bias around I really want this to be true. The scientific method doesn't care if, if you generated it, or if you think it's true, it shouldn't. But the the the the bias that the scientific method, the careful application, the scientific method is supposed to remove is anything that you might be doing unconsciously or consciously in order to get a result that you think is true, or that you favor being true,

**Bret** 23:34

right. And so to put a finer point on this, you can generate and in fact, it is good practice when you are studying scientifically to generate every conceivable hypothesis that could explain an observation. And that means that you hold if we're going to say these are your hypotheses because you generated them all. The point is you don't hold one as the one you're rooting for or expecting, though you may be that's also possible. But in this case, we are left with a hypothesis that I find possible, whether or not I think it's likely we'll have to talk a little bit more in detail and I certainly don't want it to be true. But here it is. The hypothesis is that there was radiation that was trapped in our forests. Now at some level, that's automatically true, we already know that this will be true, because from any event that has released radiation when the weather carries the particles from that event over some landscape and then it rains we know that rain carries these particles to the ground right. So, after a meltdown, for example, the rains nuclear nuclear meltdown, you have you know, particles released you have winds carry them somewhere, which is, you know, often quite arbitrary and then rains which cause a very concentrated danger at the moment that the particles are carried to the ground and concentrated but the hyper thesis here is that radiation, possibly from something like Fukushima, which we do know blue to the Pacific Northwest, that's one of the places that it was that it landed in particular.

**Heather** 25:11

So just just a reminder for people who don't, most people will recognize the word Fukushima but perhaps not have a two sentence description on it, you know, 2011 meltdown following a tsunami

**Bret** 25:25

triple meltdown. So the Fukushima Daiichi complex has six reactors and seven fuel pools. spent fuel pools are where the reactor cores that have been spent go and they for so nuclear fuel is loaded into these things. nuclear fuel is a purified radioactive material, mostly uranium. Although one of the reactors at Fukushima was loaded with what's called mixed oxide fuel, MOX. MOX fuel contains plutonium from weapons that have been decommissioned. So it's basically a process of using that it's, so one of the reactors was loaded with that. But the thing that is hard to Intuit is that they're the use of the uranium the enriched uranium in the reactors causes the production of a whole slew of isotopes that weren't in it to begin with, right? Including lots of really crazy bad stuff, like very long lived plutonium isotopes with very long half lives. And some very short live stuff too, right? It produces iodine bindings 152 that has a half

**Heather** 26:36

iodine it's tiny, it's not gonna be no

**Bret** 26:40

nevermind Yeah, one of the iodine isotopes and has an eight day half life which means that it degrades very quickly but

**Heather** 26:45

but it's actually the intermediate sized elements that are most concerning, right. So you're going to get there but iodine is so small and has such a short half life that it is you know, nine years later, it is mostly not mostly not around and concerning as a result of the Fukushima meltdown uranium plutonium etc. are still around but probably did not cross the Pacific Ocean in at least in any sort of large amounts, whereas it's those intermediate sized atoms like strontium and cesium which would have basically got you know, traveled on particulate matter attach themselves crossed dropped themselves on the in the Pacific Northwest. Why? Because as a as a friend of ours, who I was teaching with many years ago once said to me once described the Pacific Northwest as the windshield of the continent, the windshield of North America, it's a perfect description. And you know, out there hi from the Dark Horse podcast, yeah, it's just it's it's such an apt description. And it really does, it helps. It helps us understand so much about our climate, our weather, I buy our biota, to some degree, even our culture, and let's certainly pre Columbian cultures here. But, but I digress. So the windshield of the continent, collects all of this weather that's been blowing over the Pacific and nine years ago, that weather included a lot of radioactive strontium and cesium, that then got dropped in rainfall into our forests.

**Bret** 28:10

So strontium and cesium are both also front of mind because they each mimic an element that we use physiologically so if you eat something that has radioactive strontium in it, it's very likely I believe, strontium goes to bones and lodges itself there and cesium goes to muscle so these are bile biotic Lee dangerous because we metabolize them and build them into our, our bodily structure.

**Heather** 28:40

Iodine is obviously very biologically dangerous as well for thyroid. Exactly. So that's what you can replace. So this is the reason actually you can replace if you know that you might be at risk of being dosed by radioactive iodine. You can take non radioactive iodine effectively fill up your, your, your bucket and your iodine bucket and then leave the radioactive iodine no place to bind to and your thyroid until the risk has passed. Exactly. Okay. But you can't buy bottles of non radioactive strontium and cesium though you can buy bottles of non radioactive iodine,

**Bret** 29:10

well, it doesn't really work that way. Because the thyroid is functioning different, right? So building into bone is a long term process that you're constantly doing. And so anyway, cesium and strontium Oh, and also there's another way that these things could get into our forests, right, which is actually, again,

**Heather** 29:28

these things again, being radioactive isotope, radioactive isotopes of strontium and cesium, that's what these things means. Yep,

**Bret** 29:33

radioactive isotopes of cesium and strontium could get into our forests in the following way. They don't even have to come here by wind, they could wash off the shores of Japan, right, because a lot of the stuff landed in Japan as well. They could wash off the shores of Japan and into the Pacific. They could find themselves incorporated into fish, right, especially tuna were tested at the time and were Very likely to be containing radioactive isotopes from Fukushima. Also salmon. And the thing is, salmon have this obviously ecological habit of reproducing in these freshwater watersheds throughout the Pacific Northwest. Right? And

**Heather** 30:17

right, but, you know, populations that salmon ecology is fascinating. We should spend a couple of episodes probably talking about salmon at some point. Yeah. But even though there is some actual overlap in species of augur rancors, which is the genus of Pacific salmon we're talking about there aren't, it would be, we have a lot to say about what happens when salmon get lost and how they found new populations. But getting lost in Japan and ending up at the Pacific Northwest. No individual salmon is going to get that lost and survived. I

**Bret** 30:45

don't think it's a matter of lost. So the salmon typically spent something like four years at sea, and I believe we know that many salmon that come from our watershed do range as far as Japan and then come back in

**Heather** 30:58

Okay, I don't I don't know this to be true.

**Bret** 31:00

We will soon find out when all of the axiology types contact us. But in any case, the reason I mentioned it is that it is actually it's counterintuitive, but true that the riparian zones that is to say the forest adjacent to these watersheds,

**Heather** 31:18

for riparian zones specifically being forests adjacent to streams and rivers, fast moving water, as opposed to watershed is just the whole the whole area.

**Bret** 31:28

Right, but it's a watershed so they contain doesn't matter. The fact is, you've got these streams and rivers in which salmon move up and they actually change the ecology of these forests because they do materially alter what nutrients are available, they die in large numbers as a big animal, they die in large numbers, bears and other things drag their carcasses into the forest some distance, and then whatever it is, that was in those animals makes its way into the soil and then into the trees. So just

**Heather** 31:56

this was this was one of the real successes I think of ecology from the 90s and early aughts was this concept of marine derived nutrients in terrestrial forests, terrestrial forests is redundant, I guess kelp forests so I'm not talking about kelp forests I'm talking about recent marine derived nutrients and what all of us think of when we think of forests is exactly it happens exactly as you just described and specifically nitrogen was tracked Yeah, nitrogen was tracked. Because it because it like like everything decays at a certain rate and the the fact of nitrogen that had been the oceans now being visible, being definable and trackable in, in ferns and in in Doug firs in the Pacific Northwest and in bears and and other things that ended up not only eating the salmon directly as bears do in some cases, but being effectively downstream of the effects of the corpses of the salmon that decay and move their marine derive nutrients, including nitrogen into the soil, into the foliage, browse by deer, you know, so this, you know, this, this nitrogen that was in the middle of the Pacific Ocean not too long ago, is now living in some deer in Idaho. And we actually have a decent sense of how that happened.

**Bret** 33:11

Yes, and it's an amazing story. Yeah, right. So you can imagine, you know, if you if the nitrogen were color coded, and you were looking down on a map, there's some big pulse in the fall as some you know, salmon species returns to a given river, and then it moves out into the immediately adjacent spaces, these dead carcasses get washed around and stuff like that. It gets moved farther by big animals, like bears that might drag the stuff farther than that, you know, the bear fits in the woods. Yes, they do. And they, you know, flies might carry a little bit, you know, a little bit farther afield. So you can imagine these nutrients moving out of these rivers, right, and that this is a process that actually has an equilibrium that replenishes the nutrients that are lost from all of the stuff that washed down streaming into the oceans. All right, beautiful. So there is all of that there is 2011 triple meltdown less beautiful, so much less beautiful triple meltdown at Fukushima dumps a lot of stuff into the ocean and a lot of stuff blows in the atmosphere due to the particular weather in the days following that blue into the Pacific Northwest right so here's the hypothesis a hypothesis and

**Heather** 34:24

and it is known Is it is it known that I thought you would also said that it was known that there was particulate matter including radiation from Fukushima that did blow into the Pacific Northwest and the weeks thereafter Oh, yeah, that was known and at some point, crazily and not reported on enough data actually stopped being collected on so like, but but but this was we know this to be true. Yes,

**Bret** 34:49

we know this to be true. We know this to be true. And if I recall correctly, the methodology involved the air filters of automobiles which trapped in Japan, Northwest that trapped radioactive particles. And so if you could get a filter from somebody's car that they had driven during those weeks, and then you, you know, I think the methodology involve laying it down on a piece of photographic paper that was sensitive than the little disintegrations, the nuclear disintegrations that happen would result in a black spot on the film,

**Heather** 35:23

right? And you compare that to the filters of cars that had not been driven during those weeks,

**Bret** 35:27

right. And the fact is, it varies based on very local weather patterns, you know, rains here, it doesn't rain there, you get a pulse, the air clears over there, and so the cars aren't inhaling up. So the particular weather matters a lot. But okay,

**Heather** 35:41

what we noticed fascinating that, that the methodology involved, effectively looking at the respiratory structures of cars, right?

**Bret** 35:48

The respiratory stick, and it's exactly what's going on, right? So and, you know, right down to the point, why does a car breathe, right? A car is breathing in oxygen in order to fuel combustion, which is what causes it to go and we could say the exact same thing about you the differences your combustion isn't fire, it's a chemical combustion without flame. But nonetheless, same damn process

**Heather** 36:13

that's respiration is gas exchange, gas exchange. So in animals, it looks one way and plants it looks almost the opposite. In cars, it looks a bit different yet, but it's all a kind of respiration, it's gas exchange

**Bret** 36:26

and exchange at the molecular level. When you burn fuel in your car, your book you're burning. You're burning carbon bonds that were forged in an ancient peat bog in general, by an ancient dinosaur, right something that peat bogs generate a lot more so most of the gasoline in your car comes from a peat bog that got buried and you know, turned into crude oil over time. But anyway, it photosynthesis captured the energy from the sun loaded it into these bonds between carbon molecules It was then underground for millions of years somebody you know, drills it refines, it puts it in your car, and you release the energy from the sun that was trapped in these molecules through combustion just the same way. If you eat a carrot, you then internally release the energy that was stored by the carrot plant, you know, in the carbon bonds, to fuel motion and other things that require energy.

**Heather** 37:18

It's, it's a lot less energy that you require and that you're released from the carrot.

**Bret** 37:22

Right? But I was when I was teaching, I love to talk about my fusion powered bicycle. Because my bicycle actually is fusion power as yours because basically the point is, it's fusion in the sun that releases the energy that gets captured by the carrot or the Cadillac of wheat or the cow. Well, I met late Yes, yeah. And then you know, you release it and so you're fusion energy in it. Yeah.

**Heather** 37:48

Sun to grass to cow to your plate to you to fueling your bicycle fueling

**Bret** 37:54

my bicycle, right bicycle. Okay, so we are now far afield from the tech failure and the hypothesis that's good, but the hypothesis is yes, radioactive material. It doesn't have to be from Fukushima it could be from an earlier event like

**Heather** 38:06

weapons tests, but we know there to have been a pulse we know that there wasn't from

**Bret** 38:10

Fukushima, right? Whatever pulses It was then drifted, rains dropped stuff onto the ground, which we also know happened, it happened in particular places and not other places, right, you would have to go back and look at the exact weather pattern to know where it landed and where it didn't, but a fire that then burns the plants that will have incorporated these radioactive isotopes would then release that radiation into the air and

**Heather** 38:36

so you just I think you've just skipped one piece that will be obvious to many but not to everyone which is that a pulse that that comes our way that drops to the ground is then pulled up by the roots of plants because it becomes part of the soil because it's tiny, it's it's it's atomic isotopes that are bonded to little pieces of dust there themselves incorporated into into the root systems because that is not the breathing, the breathing is through the leaves. But the eating is in some ways, not the sugars, which is through the leaves, but is is through the roots, right? micronutrients are pulled up.

**Bret** 39:11

Nutrients will be pulled up to the roots incorporated into the plants. You could detect it in the plants and I'm sure people have done that work occasionally.

**Heather** 39:18

Yeah, we should have looked into that I'm sure I'm sure they have

**Bret** 39:20

a parallel parallel piece of information just so people understand what these systems are like I remember Nalini who is actually so tool scientist in her own right so married to jack who was the source of the beautiful quote about this being the windshield of the continental

**Heather** 39:36

US Millenium that card and jack longin. Oh,

**Bret** 39:39

so Nalini who was an expert on mosses

**Heather** 39:44

and canopy enforced canopy

**Bret** 39:46

canopies talked about the event the Mount St. Helens eruption which had trapped a layer of ash in the mosses that persist to this day. In our trees and has effects if you go into the canopy of trees and you find patches of moss that are old enough, you've effectively got this layer of ash. And it turns out I think I learned this from Nalini that the ash got incorporated into the trees and the grit is actually causes chainsaw blades to wear faster here, you're cutting trees that were downstream of that event

**Heather** 40:25

downstream in time know that got Ash on a downstream and ash.

**Bret** 40:30

Yes, so an ash ash fell really hard in Olympia in Seattle in Portland,

**Heather** 40:37

Portland, more than more than Seattle.

**Bret** 40:39

Yeah, and so that ash fell in all of these forests. And somehow the grid is causing train stoplights to railroad faster. But anyway, and aside, so here's the hypothesis, the hypothesis is something maybe Fukushima released, nuclear radiation in the form of all of these isotopes that are created in the heart of a reactor could also be true from a weapon. The material fell here as a result of weather having blown this direction and rain having caused it to fall to the ground gets incorporated into the trees, a fire event releases this stuff, it will have then been floating in the air and these macroscopic smoke particles that were making it so hard to see, and to breathe. Now, I don't think the concentrations of those things would have been high in our house because we sealed off our house and we had a filter pulling the smoke particles out of the air at a higher rate. So there would have

**Heather** 41:31

been here over here like atomic radiation, like at the elemental level would not be trapped by default, it would be too small. But the particulate matter that would have been released in the form of smoke through fire would, would have been trapped by a HIPAA filter.

**Bret** 41:45

So let's be clear about this radiation won't be trapped in any circumstance. And atom or radioactive atom won't be trapped because it's too small. Right, right. And so we talked on our last podcast about radon, which is a gas which wouldn't be trapped at all by filter, right? But a particle or radioactive particle that is in wood or leaves, that then gets liberated into the air as ash that's now in a macroscopic particle. And that will get trapped by by a filter. So my guess is we didn't have high rates of that stuff in the house. And despite the fact that the air outside was absolutely choking, we actually did not have terrible respiratory issues in the house during that time, which suggests the our air was pretty clean. But there's a question about the radiation, the ambient radiation, could the ambient radiation, cause First of all, some radiation will get through things like walls and windows and some won't? So the question is, would there be ambient radiation that would be capable of disrupting our podcast system in here that would have almost immediately ceased or immediately ceased as soon as the rains pulled the particles out of the air and washed them into the stream streams? So that is a hypothesis? How would you test it? Well, one thing you could do is, and this is, in theory, doable, it becomes less practical every day, there are cars that were driven during that time, we drove both of our vehicles during that time, though not very much, those cars will have pulled in a sample of what was in the atmosphere, and it will decay at whatever rate the particular isotopes decay out whatever their Half Life is. So that would be detectable. And cars that were here, but not driven during that time won't have trapped an appreciable amount of it. And so you could test it in that way.

**Heather** 43:34

Yeah. And despite the admittedly very patchy, presumably patchy distribution of radioactive isotopes in the forests of the Pacific Northwest, and this hypothesis hinges on the idea that at least some of the forest means of such a giant swath of forests that burned that's at least some of those forests would have been high density, radioactive isotopes, but carefully in a controlled fashion, taking a couple of adjoining trees from each of these places and burning them into a container and measuring the radioactivity in that in that burn, or, you know, just burning them into a filter and then doing exactly the same thing. So it would not be testing what happened. But it would be a decent way of mimicking what happened. That doesn't depend on doing it right now doesn't depend on collecting data that are aging every day because the fires are in the past. And in

**Bret** 44:28

fact, now that you mentioned it, there's a very good method that you could deploy here, which is you could take a round from a tree, right? You could buck a tree, make a tree that was near the fires, but not in them.

**Heather** 44:40

There's gonna be plenty of that, right? Yeah,

**Bret** 44:41

cut it down. Take a round and now you have tree rings, which will tell you how long ago a deposit was laid down. So you could figure out actually if if there's appreciable radiation where it came from, where's the pulse? So anyway, that would be very interesting.

**Heather** 44:58

Yeah, no, and there, there are a lot have fallen and snag trees that are, you know, at risk of falling in the coming rains and causing mudslides and mudslides that are then more dangerous because they bring down trees as well. So there will be lots of such material available for such analysis, should someone have simply the time and the resources to do it? Yep, we just we don't have the we don't have the technology to do such analysis. But

**Bret** 45:24

right now, I will say the nice thing about the methodology that you point to, is that it doesn't it the ability to test this doesn't degrade.

**Heather** 45:34

Exactly right. Yeah. I mean, those the, to the degree that there are snags and fallen trees right now that might that might be beginning to be cleaned up so as to render the probably coming mudslides, less dangerous they might get disappeared a little bit. But there's there's plenty of stuff to buck up and, and and do this analysis on.

**Bret** 45:54

But even if you didn't, you could test it. So with my method of the air filters and the cars. You can't do this, the farther we get from the second fire event, the less likely it is to work because cars that were idle will have been driven you'll you'll pollute the data. But the trees that weren't burned, the ones adjacent to these areas that did burn just simply retain their level of radiation which will decay at its natural rate.

**Heather** 46:20

I do like the idea of pollution polluting the pollution data.

**Bret** 46:25

polluting it with noise. Yeah.

**Heather** 46:28

Okay, so noise isolation data

**Bret** 46:31

reminder. I am not saying that I believe that this is what happened to our system. The truth is, I don't know what I believe happened to our system. The reason that I am more likely to believe this hypothesis than probably anybody listening to this podcast, who is tracking this is that I know that Zack and I falsified just about everything that was more likely than this and several times over right, the number of things that we were able to eliminate by just simply swapping in a different piece of equipment, or testing, you know, something there rather than here. We falsified virtually everything we were left with, it has to be some kind of interference, and we do not have a source of interference that makes any sense. Nor do we have a source of interference that should have gone away at the point that the rains came in the smoke changed things

**Heather** 47:16

nor had had you guys made changes to the system in advance of the problems beginning

**Bret** 47:20

nothing at nor do we change anything back at the point that they were fixed. It was insensitive to for example, humidifying the room. So we falsified static electricity. So we falsified so many hypotheses almost

**Heather** 47:30

insensitive to applying tinfoil hats.

**Bret** 47:33

Right? Exactly, which, frankly, we discovered later needed to be grounded, they would have been much more likely to work. But

**Heather** 47:41

then it makes for a better visual to a grounded tinfoil hat. It's just even better. Totally Yeah,

**Bret** 47:45

it's not as good as a base to tinfoil hat. But Alright, so that's it. This is hypothesis predictions. We'd love to see a test would also love to hear from people who know more about these topics than we do I have, I have contacted one expert who I'm hoping will respond and tell us whether this is plausible or not. But anyway, people in our audience may know too. All right. All right. I feel good about that. What's next?

**Heather** 48:10

So it's a little bit of a strange segue, actually. Because it goes back into the explicitly political and that this what we what we just did, is exactly what the kind of thing that would emerge sort of organically in our classrooms, whether or not you know that that wouldn't have been a topic that I would likely have prepared content on. But it might well have emerged and those sorts of conversations that describe in real time how it is that you would go about trying to figure out if something is true, by using the scientific method and your own background knowledge and trying to figure out what else you would need to know in order to assess all this, this is, this is the thing that we do and that we bring towards all of the questions that that we try to address in life. And so I was remembering. You know, we did an event to live event back when live events happened in cash November of last year, maybe with some here in Portland, and I'm just not gonna remember any of the particulars. There was a there was a screening of a very short documentary that had an ad and strossen, the former president of the ACLU, and apologies to the the organization that put it on and the host I can't remember anything. I know that we were on stage with Katie Hertzog, who's awesome former journalist with the stranger now co hosts of the blogs and reporting podcast with Jessie single. And our host said to us, presumably there's other things you'd like to be talking about then kancil culture and wokeness and post modernism and all the stuff that we have spent a lot of time talking about in this podcast, and that we were talking about that evening and you know, we set out Yes, yes, actually, you know, we're working on this book, it's about using using evolutionary lens to understand modernity. And yes, there are so many things that we'd rather be talking about. But of course, it's also true that you can use an evolutionary lens to understand the modern the modern craziness. So that's all a little bit of a, a disclaimer to say that, a, I want to talk a little bit about the modern craziness with Judith Butler and gender theory and such. But first, I become really so worried I didn't think it was possible to be more worried about the state of political discourse, and you know, what looks like end of empire level actions on all sides. And what I'm seeing now, though, is scaring me more, because it looks like people on both sides, and you can define sides a lot of ways, but for the moment, let's just call it left and right. And the sort of not just the woke left, but almost all of the downs not all of us, to the degree that we're still Democrats. But almost all the dems See, or are willing to go along with the story that Trump and the far right, and white nationalists and all are going to usher in an authoritarian fascistic era, right? Like that is the analysis that you see and hear in wapo, a New York Times and CNN and MSNBC and all this. And similarly, many on the right are convinced intersectionality and post modernism and utopian and communist fantasies of a perfect unicorn filled future will usher in an authoritarian fascistic era. And it's really it's the same language. So I found myself a couple of times this week, reading, you know, an analysis of, for instance, a horrifying, true tale from Yes, Nazi Germany. And in one case, it arrived at sea, this is what's coming. If you vote for Trump, another case that arrived at sea, this is what's coming, if you vote for Biden, and they weren't exactly the same stories, but they were effectively the same stories. So

**Heather** 52:08

I don't think we know what we I don't think anyone now knows what they look like to the other. I think we are we are being we are being fed, not just untruths about the other. But we are seeing ourselves reflected in a way that doesn't doesn't even remind us of ourselves very often. And I this, this is this is a term that I guess Daniel shiocton Berger has used a lot but this, you know, the the decline of sensemaking, the inability to do sensemaking when we used to know how to do it from some combination of first principles and trust in particular authorities. And you know, there wasn't newspaper and record of record, and it did hold itself to account and all of these things. Without any of those, what we're left with is first principles. And even that, given that, aside from what you can actually see and feel and hear with your own senses, what do you trust? Like how do you how do you even know the basic things that are true? And then we land at male is female, and two plus two is five, and you know, all of this nonsense that really does suggest that we're at the end of have the ability to determine what's real and what's not. Yeah, it's

**Bret** 53:17

a The, the modernize the wheels coming off the applecart a mixed metaphor, or do I have it right, but so a couple things I would say is one, you know, in biology, homeostasis, right, the ability to continue on for a creature or a cell or anything, is the result of the maintenance of conditions between certain bounds right, so for us, endo therms, so called warm blooded creatures, our temperature is maintained within a very narrow scope, and all of our enzymes function on the assumption of that temperature. If your temperature goes up too high, then the point is, well, your enzymes are just molecules and their shape will actually change based on how warm and chaotic the environment is. So your temperature is not arbitrarily chosen, it's actually tightly matched to the enzymes in question.

**Heather** 54:20

And for those of us who are into therms, which has evolved twice more depending on how you count but twice in on earth in the form of mammals and birds separate evolutions of endothermic. That temperature is mainly created and maintained internally. We can't look outside of us to to to to maintain our own heat and obviously we do you know, we do feel warm in the sun and feel cold in the cold but it is our bodies that are doing the homeostatic work. And you know, whereas if you're if you're if you're a lizard, you have a much wider range of possibilities and you know, at some level, I don't know if this is where you're going, but It almost feels like people are playing around with the homeostatic levers of society to such a degree that they're imagined that like, we're a lizard, it'll be fine. It's like No, you know what, we can't function within that kind of range. We're like we're this, our society is an endothermic society and an actor thermic. One, and we need certain bounds to exist within which homeostasis as possible, outside of which all bets are off, just you know, all systems start to go haywire. And they will act in unpredictable ways. And we know this with things like, we know this with things like climate, we know this is with things like policing, like both of them totally different systems. But, you know, you pull the levers too far. And you can't predict what comes next accurately.

**Bret** 55:45

So this, this is more or less, what I was gonna say is what we effectively are seeing are two sides that are advocating to pull the lever in their direction. Yeah, and the point is, the purpose of that lever is about homeostasis. Right? Yeah. And to the extent that the body becomes convinced that, you know, warmer is better, it's on the verge of collapse, right? It's no better to be convinced that colder is better, right? The point is, you want to maintain temperature in the functional range. And the attack that you point to on the very ability to detect what is even true, is evidence of a system that is in the process of unhooking the very things on which homeostasis is based. Yeah.

**Heather** 56:31

And just to extend the metaphor, I think, the people, the people on the left who are protesting, let's just let's just talk about the good faith protesters, which I think includes a lot of confused people, but the good faith people covered and kept for the good faith, people on the left who are demanding change now demanding change, due to what they see as a, you know, a systemically racist society that by some estimations hasn't changed since Selma, Alabama, which is obviously wrong. But you know, they, they see something that I and many others would argue and can compellingly argue from data isn't true. But they see that thing and say, if this is true, and we say it is true, then we need change now, because this is unconscionable and cannot stand. And so they're effectively acting as the fever, they're acting as the fever as the we're going to raise the temperature on the system, so that we can free ourselves of this infection. That has been the case in Western society from time immemorial. And then we can go back, but how dare you want homeostasis at a time like this. And then there are others of us who say, a lot of what you're saying is based on bad data and, and, and bad analysis, that is not suggested there is no is no racism and that there isn't a lot of correction to be done. Your framing of demographics of identity, be it race, or sex or gender, whatever the hell it is, as the thing that needs to be fixed right now. That's dangerous, that is dangerous, because we were moving in the right direction, we 100% are moving in the right direction, people on the left on the right, with the exception of a few crackpots at the edges of both extremes, where we're becoming more welcoming and embracing and inclusive, and actually honoring all of the diversity that humans are. And we need that in order to actually address the giant socio political, ai algorithm, climate, energy, you know, all of these other you know, and you know, ecosystem destruction, these actual issues that are real existential threats, and how dare they turn identity into an existential threat. Like, this actually really matters. How dare they

**Bret** 58:52

yet sidelines every other critical process? Yeah. And to your point about? I don't like the term end of Empire, because I would like to think that as much as we have behaved in an imperial fashion at times that we aspire to something better, just better than Empire. Yeah, justice. There's obviously a lot of racism in the history of the country, including its founding, but we aspire to something better. Yeah. But nonetheless, the end of whatever it is the end of Republic, right, that we may be seeing is I would argue the result of this process, which, you know, at 1.1 of the people I become friends with from my patreon discussions, posed the question, is there an analogy to senescence, that is the process of growing feeble and inefficient with age that happens to bodies? Is there an analogy for civilization and what I told him and I think I did a little video on it was that it was more than an analogy that there was in fact, the exact same process. And my argument was, for reasons I won't go into here The reason that we grow feeble and inefficient with age is that we are complex creatures with a relatively small instruction set. That means that instruction set contains instructions that do many things. One instruction does many things. And when that's true, there will be things that are good for you early in life, and they're bad for you late in life, and they will get collected by selection, they will be favored, because it's very likely that you will get the benefit of the early stuff, and you won't live long enough to suffer from the late stuff. And even if you do, most of your reproduction will be done anyway. So it counts less. So selection is constantly accumulating things that are good for us early and bad for us late. And here's the problem. Our political and economic system does the same goddamn thing. Right? If you come up with some new process, right? Social media, or internal combustion engines, and it empowers your society, reflash process, right haber Bosch process, right? Suddenly, boom, everything's great, we can do stuff we couldn't do before we can grow crops on. So we couldn't grow them on before we can go places faster without breathing hard. all this good stuff emerges from it, right? And then the point is, okay, later on the costs of these things done at some scale, that the people who invented them could not have imagined, become evident, and you can't do anything about them. Why? Because once they have become so ungodly, profitable, you can't tell them no, you can't turn them off. And at

**Heather** 1:01:26

the beginning of anything, it would be taken as such extraordinary arrogance to imagine that it would become a world dominant and force, the haber Bosch process, which allowed for the fixation of nitrogen into synthetically produced fertilizers and thus expanded agriculture, orders of magnitude more than it had been possible, the entire The, the originator of the internal combustion engine, the originator of social media, and those last two cases, there's more than two people but you know, whatever those early people were, if they had started thinking about, well, what, what do we have to put into place to make sure that this doesn't force the end of the world? Right? Like what do we have to put in place to make sure that there will be controls on it so that the naturally evolving processes don't actually take over most of the people in their startup or whatever the equivalent of the startup would have been back at the, you know, early 20th century, with a lot of them, you can't spend time there, you can't spend your resources there. We're trying to make a go of it. We're trying to get this amazing new technology out there into the world. You don't think about putting the brakes on it before it even has momentum?

**Bret** 1:02:31

No. And in fact, this is what the right fears about the left is at the point that you make an internal combustion engine and you've come up with something, I mean, crude oil literally used to sit as a nuisance on the surface of the earth, right? It was a problem sludge.

**Heather** 1:02:47

You grew up near one of these problems, the Tirpitz and labrea, and LA,

**Bret** 1:02:51

but it used to be much more widespread than that the idea that you could fractionate that material and use it to transport goods, arbitrarily long distances, unimaginable. It's unimaginably awesome. And the idea of the buzzkill that's wagging their finger at such a process and saying, Don't you realize you could screw up the atmosphere with that? It's like, how much of this would you have to do before you even affected the atmosphere? And it's like, well, ultimately, we know they're right. So that very thing, the fact that you need a process that allows people to discover shit without people wagging their fingers at them and saying, you never know what the downstream consequences are going to be right? That voice has to shut up. But there has to be some process that recognizes you know what, you do enough of that, you will alter something that matters. And we have to be able to say no to you at that point, even after you become a tycoon. Right, yes. So especially at that point, right, we have to be able to say no,

**Heather** 1:03:45

we have to be able to say no to you more, so the more power you have. And and and yet, it's it's also true that some things that you set in motion, are incredibly difficult to unset in Marshall,

**Bret** 1:03:57

right? And how you even do it, I mean, you know, the social media one right at the point that somebody figures out how to connect a group of people who are interested in, you know, making models of famous battles, right? If you're making miniature models of famous battles, and you're gathering on the internet to talk to other people who are hundreds of 1000s of miles from you, right? And somebody is looking at that thinking, you know, this, this process, it could get away from us, it could deranged us we could stop being able to think collectively about how to behave as a society. That sounds nuts, right? But lo and behold, you start dealing with, you know, machine learning and search and feed algorithms and filter bubbles and all of this and next thing you know, there's like an honest debate about whether two plus two actually equals four.

**Heather** 1:04:47

Right? Well, what's the debate, but it's not honest.

**Bret** 1:04:52

Let's put it this way. Maybe that's even worse. Yeah, whatever debate it is that can catch a fire that has this debating that has this You know, looking at the question of whether or not to, you know, eliminate the police because maybe that would be better, all of these things are not. So my point would be, the senescence of civilization would sound exactly like this, basically, here's the point. What does senescence sound like in a person, and very often sounds like dementia. That's what happens when a brain is suffering all the downstream consequences of whatever made it vibrant, as in youth, right. And this is like societal dementia, and it has exactly the nature that you're pointing to you got two groups, we agree on what the failure mode is, right? It's some kind of authoritarian evil that we don't want. And both groups think the other one is going to bring it

**Heather** 1:05:41

except that it's also true that some members of both groups only don't like authoritarian regimes when they're not in power, right. And they won't say that out loud. But it's clearly true. And this is something that we've been saying since since before evergreen went public. But the goal is not about reversing oppression, it's about turning the tables of oppression. And you know that that is that is just true. We've we've seen that over and over and over again. And it has it has no place in this moment in history, and yet it is claiming the throne at this moment in history.

**Bret** 1:06:15

Well, and you know, I keep struggling for a better analogy than a ship. But it is as if we are on a ship on which our very survival depends. We're somehow in the middle of the Pacific, if the ship sinks, there's no one to come get us it just simply our ship, you know, two people, a Nazi and a Jew on the same ship in the middle of the Pacific auto agree that the ship is actually top priority, right? Because absent it, they're both doomed. So

**Heather** 1:06:43

well. At at one level in terms of individuals making bad decisions right now. A lot of the people who are very, very confused, are millennials, who were parented really badly not because their parents were mean or evil, but because they accepted a stupid parenting ideology of snowplowing, and parenting and helicoptering all risk and challenge away from their children. At the same time, that the elites in the West were grabbing more and more power for themselves. So now we arrive at today with a group of up and coming, you know, adults up and coming adults and adults, who have rarely experienced real risk and challenge in their lives, because just within their tiny family structure, they were protected from all of it, if they were of a certain socio economic class, as many of the activists were. And simultaneously, there was an abdication of responsibility for the common good at the higher levels. And so we have these people on the streets now, who are you know, fighting, fighting, fighting, you know, fighting against the man or whatever, whatever they imagine it is. Because someone has always been there to take care of their problems for them, someone has always been there with the with the juice boxes to get back to that. And in fact, the real power has walked away with their goodies, and has left a vacuum at the top. And the parents who created them, in part helped create the mess of a whole generation of kids who are now adults who don't know how to behave like adults, because they never had challenge or risk as children are breaking things in the streets. Because I imagine their senses that things always get put, right? There's no one around to put these things, right. They are breaking things that cannot be put right, especially by their Nimrod parents who protected the fall all risk in the first place.

**Bret** 1:08:34

Right? you're attacking the ship or whatever analog for it. There is Yeah, and the point is, look, kids, we may not be able to stop you from doing that. But do you know what happens if you succeed? Right? in attempting to stop you were actually you know, doing you a service, because you if you succeed, you'll you'll it'll do us all. And so I don't know, I don't know exactly how that message gets through. Yeah, we'll say hey, Zack, could you put up the New York Times article? So I just want to stop here briefly and say that we saw today, this article emerges. How pledged to dismantle the Minneapolis police collapsed and I was thinking of reading a few paragraphs but I won't I think the point here is that many people on the city council agreed to abolish the Minneapolis police and they are now discovering that a nobody wants this or at least nobody smart does and be that it's an insane thing to even consider and so they're trying to what

**Heather** 1:09:41

I have not seen this article is the idea that it this policy was enacted a few months ago and it started to come into play and lo and behold, it's not a good idea.

**Bret** 1:09:51

Yeah, it was like three months ago and the fact is, it's not popular people, you know, black people prominent among them, of course, because They need the police as much as anybody don't like this. And so what I've come to see is that, you know, the people definitely want us to abolish the police. The public does not right. And it's like, well, what do you mean? Well, the people is like this tiny little group of folks who are either confused or malevolent or a combination of the two, they're out of control. They don't know how anything works. Yeah. And so they're, you know, they are having a tantrum, and it is causing society to bend as if it is the public demanding these things which the public is not. And so somehow, the public needs to reassert itself because the people are going to get killed.

**Heather** 1:10:44

That's good. Yep. So I would just not a millennial, Judith Butler, who is the sort of spokesperson originator of gender theory, she's in her 60s, an academic just had an interview in the New Statesman, I'd like to just read a little bit from from this interview, she has given us a ton of the nonsense and the crazy that that we are living through today and then I want to provide a couple of examples of how of how nuts her ideology is so you really her book.

**Heather** 1:11:20

Lunch sack just keep an eye on both of us for a moment. Yeah, actually, you can put put the screen up for a moment.

**Heather** 1:11:30

This is the New Statesman from a couple days ago, and being interviewed on the culture wars, JK Rowling and living in anti intellectual times. So she published a book 30 years ago called gender trouble, in which she introduces the idea of gender as performance, and asks how we define quote, the category of women. Okay, so I'm gonna read a little bit from this, but Zack, give me my screen back so I can have some quotes. She says, I find it worrisome that suddenly the trans exclusionary radical feminist position is understood as commonly accepted or even mainstream. I think it is actually a fringe movement that is seeking to speak in the name of the mainstream or that our responsibility is to refuse to let that happen. So the New Statesman says one example of mainstream public discourse on this issue in the UK is the argument about allowing people to self identify in terms of their gender and an open letter she published in June, JK Rowling articulated the concern that this would, quote, throw open the doors of bathrooms and changing rooms to any man who believes or feels he's a woman, potentially putting women at risk of violence. Butler responds. If we look closely at the example that you characterize as mainstream we can see that a domain of fantasy is at work, one which reflects more about the feminist who is such a fear than any actually existing situation and trans life. The feminist who holds such a view presumes that the penis does define the person and that anyone with a penis would identify as a woman for the purposes of entering such changing rooms and posing a threat to the women inside. It assumes that the penis is the threat or that any person who has a penis who identifies as a woman is engaging in a base deceitful and harmful form disguise. This is a rich fantasy, and one that comes from powerful fears. But it does not describe a social reality. Trans women are often discriminated against in men's bathrooms and their modes of self identification are ways of describing a lived reality, one that cannot be captured or regulated by the fantasies brought to bear upon them. The fact that such fantasies pass as public argument is itself cause for worry. She uses the word fantasy or a billion times in this paragraph, and she engages in really crappy logic in a lot of places. And the idea that someone who calls herself a feminist and is actually this like, icon in a way that, you know, Ruth Bader Ginsburg actually is, and this woman has no business standing for women in any way. But her work is in women's studies programs across the country, you know, probably almost every class that calls itself gender studies or women's studies. The idea that, oh my god, I just I can't I can't even believe that she would say some of this stuff. And you know that anyone is arguing that all people who are trans caused problems No, right? No one is saying that, you know, maybe maybe a handful of extreme extreme bigots, maybe. But really, no one is saying that so just one more little quote here. Butler feminists know that women with ambition are called monstrous, or that women who are not heterosexual are pathologized. We do that's when since when we fight those misrepresentations because they are false and because they reflect more about the misogyny of those who make demeaning characters and they do about the complex social diversity of women. I say Butler's the misogynist here, but okay. Women should not engage in the forms of phobic caricature by which they've been traditionally demeaned. And by women, I mean, all those who identify in that way. New Statesman says how much is toxicity how much is toxicity on this issue a function of culture wars playing out online. Butler, I think we are living in anti intellectual times, and that this is evident across the political spectrum. To which I say Judith Butler, you created, you really helped create these anti intellectual times like this, this is on you, and all of your comrades and your peers and your colleagues, and you indoctrinated an entire generation of students who looked around for my majors and thought, oh, women's studies, that sounds interesting. We know people who majored in women's studies, they're not loons, you weren't inherently alone if you go into that field, but it it lumify as people, it has a hard time not and you have some people have resisted, but it's hard not to win. This is the kind of garbage rhetoric that you that you see. And so I just want to point out to just two tiny downstream effects of this kind of this kind of garbage. And my links not gonna work. Okay, Zach, if you would show here's just a tweet. From a couple weeks ago, let's stop angrily denying trans girls experiences of period symptoms. This person says I get almost 4000 likes, people like to bring up science to discredit us, but studies into our biology are still grossly underfunded. What?

**Heather** 1:16:15

So that is a direct intellectual descendant of Judith Butler, right there. That is incoherent science denying, biology denying female and male difference denying nonsense. If I can have my screen back, Zack, please. And another one. Is comes out of the Harvard originated gender science lab. So this is sac, thank you. This is out of Harvard, the gender side labs, a collaborative interdisciplinary research lab dedicated to generating feminist concepts, methods and theories for scientific research on sex and gender. That might sound to most people like okay, fine, but they are a tiny step from saying they're trying to do feminist science. And there's no such thing. There's no such thing as feminist economics. Like it's not a thing, you can't do science, when you already have a lens, and therefore a set of answers that you're trying to arrive at in advance. That's not science. That's the opposite of science. And so just to have a particular example from here, but just an anecdote, which I was reminded of reading that just now, years ago, when I was looking for a publisher, for my first book, Antipodes about my life and research in Madagascar, my agent got a bite from actually a small press here in Portland long, when we lived in the Midwest, we lived in Michigan at the time, I'd never lived in the Pacific Northwest at that point. And this little press, which called itself a feminist press, was really excited about this book of mine. And in their description to me of what they were excited about. They said, this is going to be feminist science, you're a feminist scientist. And I said to them, and I was I was probably foolish at one level to reject an offer of publication when I'd never had a book published and I was just a graduate student at the time. But But I politely said No, and I said, I can be and do like to identify as a feminist, this was back in 2000 2001. And I definitely am a scientist. But those are two different things and science cannot have an adjectival label attached attached to it and remain science. It cannot. That is not what science is.

**Bret** 1:18:32

Yep. No, I and you can you and I both made this point repeatedly that if you attach an agenda label to science, you are invalidating it, you know, you know, if somebody said democrat science, right, you'd know there was a problem if I'm in a science makes exactly as much sense.

**Heather** 1:18:51

Exactly. So one more thing on my screen. Zack, the people associate with the gender Psy Institute include a lot of people who many of whom I hope and presume are doing good work. Here we have, of course, the obligate pronouns she her, he him, she her. Here we have Katherine Jillson does not use pronouns, does not use pronouns, not even they them, which itself wraps us in knots and disables normal conversation, but does not use pronouns. And so I was reminded, Zack, thank you of what Douglas Murray said. In his recent excellent Joe Rogan appearance. When he was talking about people coming out as non binary, he said, it's people declaring themselves look at me, it's just it's just an attention grabber. It's a narcissistic little way to claim something of meaning in a universe that seems probably big and fraught and anonymous, and like it won't pay any attention to you. But for God's sake, figure out something interesting about yourself. Something interesting about yourself, I'm sure there's something that doesn't involve Don't use pronouns with me. That's not who I am. Now actually, if you're going to speak English we're gonna use pronouns

**Bret** 1:20:07

I must say, I don't need to look at this person who doesn't use pronouns but I'd like to talk to them I cannot overcome my curiosity as to what that would sound like.

**Heather** 1:20:16

No, right? So I mean when we go next level for sure, when we were at evergreen, we had to write these narrative evaluations as you know at the answer that didn't have grades and people will laugh at that but this was actually a very interesting and important part of of the experience for the students. And so we would write these narrative evaluations of them and are proud the pronouns that we used had to match the pronouns of the gender that they had on file and occasionally we had actually legitimately trans students Yes, who had not transitioned officially with the school yet and so we were in a position of saying look I I either have to use the pronouns you have on file or every time I want to refer to you I have to use your name and that's going to be you know, that's going to be very awkward but I'm here you're here are the choices here are the choices I've been given by the situation that by the combination of the college and what you are declaring yourself as and what you have done with the college at this point, and frankly those few cases where they said okay, no pronouns use my name. It reads it reads super awkward. Yeah. Right. And do it be respectful of course, but But boy, it makes communication difficult.

**Bret** 1:21:26

Yes. Yeah. It's almost as if language evolved for the purpose of communication rather than this look at me knocking whatever it is. Yeah. P Hanning, I don't know what it is. But yes, it's it's awfully awkward.

**Heather** 1:21:41

I guess it has to be P chickening, because that's the only gender neutral term.

**Bret** 1:21:45

Whoa, I don't even know what that means. I'm going to take some time. reparse that? Yeah. All right. Well, where does this leave?

**Heather** 1:21:53

You think? Yeah, I think this leaves us just about ready to take a 15 minute break, too. But before we go on to say a few things about what else we've got going on, which is that our private Patreon q&a is tomorrow at 11am. Pacific for those who are patrons of mine at the $5 and up level. And probably before we meet again next week for our next live stream. If we don't come back Until next Saturday, you will have had your first of the month long form Patreon conversation with the patrons at the $100 level. Yep. Next Saturday from 10 to 12. Pacific. And you can also get access to the discord server on our Patreon thumbs. Ups channel for clips. What else what else? What

**Bret** 1:22:44

else? I don't know. Maybe Maybe that's that's it? All right. All right. So that means we are facing this intermission. And we will see you in

**Heather** 1:22:54

15 minutes and we'll answer your super chat questions.

**Bret** 1:22:58

All right, be well