Episoc **her Approach?**

Guest: Alex Epstein

WOODS: You've been doing some interesting stuff on *Power Hour,* and it's coming from a place that's quite similar, I think in the approach you're taking, that you've done with fossil fuels and climate change. The way you've handled that, obviously, there are a lot of similarities, the moral perspective you're coming from, the framework you're using. So it's been interesting to hear what you've had to say.

Now, first of all, let's get this out of the way. Regardless of how governments have responded, and regardless of the issue of whether certain models are correct or incorrect or they don't take enough stuff into account, what is your overall assessment as a layman of the seriousness of this virus?

EPSTEIN: I definitely assess it as serious, and in particular, I think it's serious to people who have vulnerable immune systems, and there's a lot of overlap between that and being elderly. So it's something that, if I could wish the world to be different, I would really wish that it didn't have COVID-19 and this new coronavirus going all over the place. So I mean, I think it's definitely not I think on the level where people should be in a state of panic. It's not as if Ebola became incredibly contagious.

And I know that there's a huge amount of uncertainty about the deadliness of it, mainly because when they're calculating the deadliness of it, what they're usually doing is they're saying how many people died divided by how many diagnosed cases there are. And yet we know this is something that's very contagious, in part because most of the cases are not diagnosed because they're asymptomatic and because we don't have enough testing, or there hasn't been enough testing to register that. So there are very credible estimates that there are 10 times, maybe even 100 times more cases than are diagnosed, and that would be very good news. But even in those cases, it's something that's deadly for a lot of people and damaging for a lot of people, so it's something of concern.

WOODS: I've been seeing, and I'm trying to track down the number, but something like it took this virus 85 days to reach I guess 20,000 deaths or whatever the figure was, and then to reach that figure again took only seven more days. And that that's the concern, is the speed with which it grows. So all this time, I haven't known exactly what to think about this. I mean, I more or less take your view, and at first, I was extremely alarmed at the potential for this. Now, sometimes I have some skepticism of some of the more outlandish claims, but that kind of figure is alarming. Regardless of whether it's actually going to amount to the wild figures that have been thrown around, that still is alarming. And I think one of the things we've been facing is this idea that if we don't accept the massive lockdown solution that so many governors are adopting, that we think nothing should be done. But obviously, as you've been saying and a lot of us have been saying, that's a false choice.

EPSTEIN: Yeah, it's a false choice, but also, you don't get to rewrite reality. So part of it is there is such a thing as a new thing comes on the scene that's deadly, that's really unfortunate, and you have to decide what to do about it. But the first step is really to recognize the reality. And you can say there's a lot of fault in terms of China, there's a lot of fault in terms of early detection, and maybe it was possible at an early stage to isolate ourselves from it. I think that's doubtful in terms of I think this is something that was inevitably going to spread.

And I think that's one thing we have to decide: is this something that's inevitably going to spread, where we can slow it down and that has some benefits, or is it something we think we can eradicate? And I think it's very dubious that we can eradicate it, and that's one thing we can discuss in terms of government has to be very clear on that. But I think there's this idea that we should eliminate or minimize this particular virus at all costs, because we don't like it and it's new and we wish it didn't exist. And I think you have to think very carefully, because a lot of the things that people are doing to reduce this at all costs are really coming at all costs, namely, the freedom and lives of hundreds of millions of people.

WOODS: I do want to talk about some things that private people have been doing, and I do want to talk about what may be wrong with some of the projections that have been made, because projections and models tend to be based on static assumptions, that nobody changes behavior and things like that. But I want to skip kind of to the end here, because I want to know, from what you can tell, what do you think the end game of this is, and what do you think the end game they're thinking about is? In other words, once they've done this, once they've locked us all down, on what grounds can they say it's safe to open back up if maybe it just leads to another wave of infection? Then we go back in our homes? Are we really waiting 18 months for a vaccine, according to some of these people? What do you think the reasonable people are saying the end game looks like, and what do you think we should think about it?

EPSTEIN: Well, I'll start with how we should think about it. It all depends on broadly what you think of the purpose of government as, and then what you think the purpose of dealing with this particular infectious disease is. And I think I unfortunately diverge from a lot of people, because I think the purpose of the government is to protect our freedom. And that's different from saying the purpose of the government is to prevent early death from any given cause.

I think ultimately, if you really believe that, then you just believe the government should control your life for anything, and you're even seeing with locking people down, it's decreasing the death rate. Whether it decreases the death rate from coronavirus, it's definitely decreasing the death rate from, say, car crashes. And is that justified? Because the government can say, well, we want to save lives. And I think most people would think, no, there's something wrong with that. And the thing is, the government's purpose is to protect our freedom. And then with our freedom, we decide how to sustain our lives, including how to make different kinds of risk-reward trade-offs. So that's one thing I think is lost when people think, oh, it's the government's job to "save lives." I think it's to protect freedom.

And then with something like a pandemic or an infectious disease, I think there's a case that in certain circumstances, you can say, yeah, the government should forcibly intervene, because this if this continues in a certain way, it will really restrict everybody's freedom. And in particular, if there's a point of containment early or if you can quarantine certain individuals, I think that's when you can really call for something, or if there's a specific area where there's an outbreak.

But this goes to what's the purpose with this particular virus. If it really is that this is something that can't be contained and that's inevitable that a lot of us are going to get it, then the only kind of priority that's relevant is management, is managing the speed of it. And you see a lot of ambiguity from all the governments about this, because sometimes they say "flatten the curve," which is a management thing. But sometimes they say, I believe Fauci said yesterday we can start relaxing these controls when there are zero new cases.

WOODS: Yeah, I saw that too.

EPSTEIN: Yeah, so that is a call for indefinite totalitarianism. So unless he has a specific plan that you can eradicate this, and that contradicts everything that he's said and that everyone else said, then you have to think of it as management. And then if you think of it as management, you think of it as, *Okay, yeah, this is a new, unfortunate fact of life we have to deal with. How can we deal with that rationally and humanely?* And part of that I think and

I've discussed a lot is you want to isolate those who are most vulnerable to protect them, but also, if you're concerned about a spike in hospital resources, they're by far the biggest likely users of hospital resources. So that kind of thing can make sense.

And then you can talk about rational and I believe voluntary measures that most of us can take, that are low cost, that slow the spread of the virus. That's very different from eliminating it or eliminating its spread. And I do not think that eliminating it is at all compatible with human freedom or human flourishing, given everything we're told about its nature and, in particular, its contagiousness. That would be different from something like Ebola that isn't super contagious, so you can isolate a couple people and get rid of it, but nobody's saying we can isolate the flu, and this is supposedly much more contagious than the flu.

So this clarity of purpose about is the government supposed to protect our freedom, and then can protecting our freedom involve eradicating this — it seems like no — and therefore, it can only be it's protecting our freedom through managing this, and in particular, managing a really catastrophic spike in, I should say, the government-controlled health care system. And that's a big part of the problem, that the health care system is in many ways inept because of government controls. And I'm sure you've enumerated many of the reasons why.

But even given that it's government-controlled, you can say, yeah, maybe we can do certain things to slow the spread, and they should focus on liberating free people to produce more of the treatment. That's one of them. But then insofar as isolation is necessary, it should definitely focus on the most vulnerable, so it should be selective isolation, versus universal isolation, which is the dominant policy, and that is morally completely indefensible and cannot be the optimal way to achieve any kind of management.

WOODS: I've been listening to your podcast *Power Hour* on this topic, and one of the points you've been making is that it's wrong to proceed according to the assumption that people won't change their behavior, especially as they observe something like this taking place, that that's incorrect. And you said to your cohosts, the other people on the podcast, you were saying, Look we all have made changes in our behavior, and we all know people who are making change in their behavior. But I don't know. I mean, there are backwoods parts of the country where nothing's going to change. And so I'm with you most of the way, but I bet there would be skeptics of that claim, and they would say, that's why — because you know, it's the same old argument: you people are too stupid. You need to have overlords ruling over you telling you what to do, or this thing gets out of control.

EPSTEIN: But this depends, again, on your view of the purpose of government in general and the purpose in managing this in particular. I'm not saying that if you leave people free, they will optimize for the prevention or even slowing transmission of this disease. They absolutely won't, some for rational reasons and some for irrational reasons, just like people do not — this is, I think, considerably more serious than the flu, although I don't believe it's an order of magnitude more serious than the flu from the evidence we have. But with the flu, you can say, yeah, if you leave people free, some people will be irresponsible with regards to the flu, and oh, they're these backwoods people, or there are going to be people at certain kinds of gatherings who are going to do that.

But if your focus is freedom, the fundamental is people need to be free to live their lives. That's the thing that really matters. It's not just preventing people from dying from a particular virus; it's that ultimately we want to be free so that we are we can live our lives and we can flourish according to our ideas of how to best live our lives. I think there's a false standard of saying that acting like, well, if people don't optimize to minimize this particular virus, then they're acting irrationally, and then I get to control them.

And that's why it has to be really clear: what is the government's prerogative here? Again, it's not to eliminate the virus or to slow its spread to zero. It can only be, okay, there's a temporary thing that we can alleviate through certain kinds of measures. And I'm open to

maybe coercion is necessary very temporarily if it's clearly defined. But that has to be rational, and part of it being rational is it cannot be universal, just universal. It's just crazy to say, yeah, even though this virus is overwhelmingly targeting certain demographics, we're going to universally isolate everybody. That can't make sense at all. So there's no justification for the particular form of coercion that's being practiced.

And then there's also the issue that it's not at all valuing all of the other values in life that are achieved via freedom. And I've commented on this a lot on my podcast, that just hundreds of millions of people's lives being really destroyed — and by destroyed, I mean that people's plans and hopes and dreams have been disrupted for years and years and years. And I regard that, that's a kind of death. That's a kind of suffering, where people's lives are getting ruined. That matters, and if that doesn't matter to people and they think the only thing that matters is we don't die of this particular virus, there's something off with that.

WOODS: That's the way I've been thinking, that we have a finite number of years on this earth, and if you listen to some of these people, a not trivial chunk of that is about to be taken from us, or at least if we let them get their way.

EPSTEIN: Yeah.

WOODS: And so, I mean, is the idea that we're thinking that, well, if we slice off 1/75fth of everybody's life — this is crazy. And we get this dichotomy that you care about the economy and not about people. What about that?

EPSTEIN: Well, I mean, I think it's the exact opposite. I mean, the economy is an abstraction, so I think in terms of individuals flourishing and then individuals being free as a means to flourishing. And within flourishing, a big concept is livelihood, and that means individuals free to produce value and to live off of that. What you're doing by stopping human interaction is you're destroying or severely interrupting the livelihood of tens and even hundreds of millions of people in this country. So that diminishes their quality of life now and in some cases will drive people to suicide. It'll end their lives now. But it has years and years and years of negative consequences, including earlier death, but also just including mass suffering.

And this is part of the reason why, again, the purpose of the government is not to extend people's lives. It's to leave us free to live our lives as we judge best. And part of that is when we're free to do that, in general, we get really good at extending our lives. That's why kingdoms were a lot worse than having people live a long time and protecting them from infectious diseases than free countries. But I mean, I think of it as, for the individual, flourishing is the end. But freedom is the political means to flourishing, and so for the government, freedom should be the end. And it's really upsetting to me that there's so little talk about freedom, and instead, there's this talk about this government as this collective optimizer that says, Oh, well, we're just going to save these lives. But what that really means is it's sacrificing the whole livelihoods and freedom of hundreds of millions of people in the name of supposedly prolonging these particular lives. And I don't believe that kind of sacrifice is the job of government. I think it's supposed to protect all of our freedom.

WOODS: The trouble is, according to one of my friends, the way he looks at it: although you have states like California that were very much out in front of maybe where public opinion was at the time, now, it really does seem like it's public opinion driving some of these governors into these actions. People are begging to be locked down. *Please lock us down*. And that adds another wrinkle to the frustration.

EPSTEIN: I don't know about the polling there, but one thing is just the way this issue is being presented, is that this thing is just a complete catastrophe. So it's catastrophized, which, I have a lot of experience with that with different kinds of environmental catastrophes, although this is much closer to a catastrophe than those things. But again, it's not that Ebola is contagious or that a huge percentage of us are going to be wiped out. It's a really bad disease, but it's still just a really bad disease, but because people think it's the end of the

world and because there's this myopia that this is the only thing that matters, people are being panicked into saying, *Yeah, lock us down*. But I and a lot of the people I meet don't feel like that. They feel like, you know what, there must be a better way. There must be a way that most of us can be free to live our lives and we can take responsible precautions.

And if you want to talk about a kind of measure government could take if it's really on the bad side of possibility, it's much more rational for government to mandate specific virus protection practices than to lock everyone down. So for example, if it says, okay, we've determined scientifically that six feet is the right degree of social distance, then say, okay, venues can exist where there's six feet of social distance. Or if a mask is really helpful — which I think it's much more helpful than has been let on, which is another kind of distortion. They didn't clarify the difference between, yeah, we have a shortage of masks so the priority is medical personnel; they just kind of said, oh, yeah, masks don't really work, which, that makes no sense at all for something that transmits via droplets coughed out, primarily.

So in any case, these rational protection measures, if they're really necessary to protect everybody for a period of time, then those should be what are legislated. But instead, what they're saying is, yeah, lock everyone down. And that makes no sense even on a virus protection level for optimizing that, because a lot of what you're doing is you're locking down older, vulnerable people with younger people who may be carriers but may be asymptomatic, and you're generally keeping people indoors, which is how all the worst cases of this spread.

So no matter what, no matter how serious you think this disease is, the way the government is responding makes no sense. It's unwarranted, and what should at least at minimum happen is selective isolation versus universal and kind of "best practices" laws versus blanket lockdowns. And on top of that, there should be clear explanations and plans and timetables versus indefinite terror.

WOODS: Alex, I was listening to an episode of your podcast recently where you were discussing this issue, and you and your fellow discussants were talking about what best practices we might adopt regardless, what sorts of things we ought to be doing not necessarily under compulsion, but that just make common sense. So I want to spend some time talking about that. We'll do that in just a minute.

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You were on your podcast laying out a series of things that you thought people could agree to, and then you were soliciting from your cohosts what they thought in terms of best practices that could be observed. So you were talking about, instead of absolutely shuttering everything, retooling it for the time being, at least, so that these best practices are complied with. And that could include the six-feet distance, it could include perhaps requiring patrons to have masks. Maybe it involves distributing masks to patrons, for all I know, if the supply gets to where it needs to be. I don't think that you or I are necessarily the exclusive source of these best practices, so I'm sure people listening could come up with others. But what would be a few more that you think would reassure a reasonable person that it's not an absurd proposition that he should go out and enjoy himself somewhere?

EPSTEIN: Well, I can give other examples, but part of this is the context has to be really clear that what we're doing is we're managing the spread of this so that you have a better chance of getting treatment when you need it. But we're not eliminating the spread of this, and this is a bad thing, and one should think about it and take precautions accordingly. So as long as there's this idea that, oh, this is a bad thing and we're at war against it in the sense of, yeah, there should be a way to just eliminate this at no cost and that shouldn't exist and the only thing that matters is for it not to exist — at this point, that world doesn't exist. We have this new thing in the world, and the fact is, as far as everything I've heard, this thing will go all over the place, ultimately. So we can slow it, but we can't eliminate it. Because if people think, oh, yeah, we can eliminate it, then it just leads to all of these kinds of distortions we're talking about.

But there are all kinds of things people are doing. So one thing they can do is they can extend the workday in order to space workers out more. You're having people do temperature checks, because even in the absence of good testing, fever is a really good indicator. Better sanitary practices. And we don't know exactly how much of a difference all these make, but they clearly make a difference, just understanding the physical nature of transmission. And I think that, yeah, the voluntary things that I've done, that other people do, these make a huge difference.

And one aspect that seems very true is that the load of exposure is a huge deal. This actually has fascinating applications. The amount of it that you're exposed to is a huge thing. So if you're a medical professional, you're not protected and you're exposed to a ton of it, it can be really bad. But if there's kind of a more minimal dose, then you're not going to get it as badly. That has a lot of implications, even it might make sense that certain people would voluntarily get infected with very small doses. But certainly, the kind of practices we're doing right now and that we could continue to do voluntarily, or even involuntarily but they're much better than lockdowns, these obviously make a huge difference in the amount of the thing you're exposed to. Getting it off a table in a small quantity is totally different than the way you might have gotten it a month and a half ago with no awareness, somebody coughing on you.

So there's so much we can do without ruining our lives, and I just want to keep stressing that this virus is bad, but the indefinite isolation of hundreds of millions of people for months on end and the destruction of their livelihood and plans and hopes and dreams, from an American human flourishing perspective, that is the most unimaginable catastrophe. So I think some people with this, they're afraid of death. I'm afraid of living death. I'm afraid of a decade or more where we lose, because we're just in this state of panic and we no longer produce value and we're no longer free to interact with one another and we're just perpetually terrified of this virus. That's what I'm afraid of most of all. So that's why I've put it in this context. I'm not unconcerned with the virus, but if you tell me we're destroying the freedom of a country in the name of this particular virus, that concerns me much more.

WOODS: Well, one thing that will be interesting to see is some of the people who today, they think they're great patriots because they're staying home, and they couldn't be happier with the restrictions being placed on them. And again, I understand the thinking behind the restrictions, but we get all these people talking about their enthusiasm for it, and they're going to snitch on their neighbors and all that. But I wonder how these same people are going to be four weeks from now. I wonder how they're going to be eight weeks from now. Are they really going to be the same, or are we going to start seeing in the fashionable press the occasional dissident article sneaking out? *Hey, you know, on second thought, maybe there might be another strategy we could approach*. And as long as the person saying that is somebody these people feel comfortable with, maybe they'll start saying it. I mean, not we can't know that. We can't know that.

But what I do want to talk about, though, before we finish for today, is this issue of trying to model the spread of a pandemic. Now, I don't know anything about this. This is not even close to my field. But I have seen the way meteorologists try to model the path of a hurricane, or a lot of different things, sometimes economists with a lot of hubris have tried to model the economy. And a lot of times these models, I think there's a lot of hubris in them, and I think there's excessive confidence in them, and they make a lot of unstated assumptions. And they can lead to really, really unwise decisions, particularly on the part of government officials. So what's been your thought on that in particular?

EPSTEIN: I need to make one quick comment about the snitching and the shaming, because I find this so upsetting. You mentioned something to the effect of "there must be another way." And I think that any — this is mean, but like any legitimate human being who cares about human happiness needs to be looking at this situation and thinking there's got to be another way. It can't just be that we're locking ourselves in and stitching. As one of my friends put it,

there has to be like a door number three. And I have articulated, you know, I think of it as: don't stop living, live smarter. There's definitely like selective isolation, these rational practices. So I believe it's pretty clear what we can do even with these really scary scenarios with the virus. But if people aren't even thinking of that, that's a problem.

Okay, so let's jump to the models. So I've pointed out a bunch of issues, and what I want to focus on is not necessarily the models, but the popular account of the models, because sometimes people will make a model and then it will be distorted as a policymaking tool. So for example, one thing that's distorted is you see model projections of what happens if human beings continue to spread this virus just sort of indefinitely, like they don't change their behavior at all. And then the problem is, whether the modelers are trying to do this or not, that's equated with freedom.

So freedom is literally — I'm laughing, because we should know how stupid this is — freedom is *individuals will not adapt to feedback*. That's the whole assumption, even though all of economics is based on the exact opposite. So it's the idea that, oh, yeah, even if we start to get infected and the hospitals start to get overwhelmed, we are just going to keep doing all the stupid things, and we're all going to die, and it's going to spiral out of control. Now, it can be legitimate to model that, or you might want to know that, but to equate that with freedom and then to say, *Oh, yeah, unless we lock you all down, then this is going to happen*, that's bogus. I mean, that's more than bogus.

Another aspect of this is that's really bad, and this is some of the modelers but definitely a lot of the commentators, is the combination of, you can call it like lethality, or what's often used is "death rate," but how lethal this is, but then claiming certainty about death rates that are clearly too high and that may well be hyper inflated. And there's some really good people on this. There's a guy named David Katz from Yale, and there's a guy named — I don't know exactly how to pronounce his last name, but —

WOODS: From Stanford? I don't know how to pronounce it either.

EPSTEIN: [Jay Bhattacharya], so if you search those letters on Google, you'll find him. He had a fantastic interview yesterday, or I saw it yesterday, with Peter Robinson.

WOODS: Yes, I'll link to that interview. That was excellent. Yes.

EPSTEIN: Yeah, if you want a model of — so I diverge from him a little bit. I think he thinks of things more collectively than I do. But leaving that aside, I mean, he's a model of objectivity about here's what I think, here's what's known, here's what's not known, here are the consequences of these kinds of lockdowns that need to be considered. And what he and others have argued is, in the cases where we have the broadest data of not just people who are tested because they're presenting as sick, but where we test something close to a random sample of the population, including those with no symptoms, there's a lot more people who have it than we think. And therefore, the death rate and the lethality are much, much lower than we think. And so when people make models and they equate the death rate with the number who have died over the number who have been diagnosed affected, that could inflate the death rate easily by 10 times, maybe even 100 times. And so part of it is it's clearly really inflated, but also they're not acknowledging the uncertainty.

And the other thing that goes along with this is what's called the comorbidity issue, where they don't distinguish between deaths that are primarily from coronavirus versus deaths *with* coronavirus. And a lot of the people, I think the stat was from Italy, 98% of the deaths were people with at least one serious chronic condition. So if something is the final nail in the coffin that makes you die a week earlier rather than later in a really bad state, that's totally different than just knocking someone off who's 25 years old and in perfect health. And so what you get is the numerator of deaths gets inflated, and then the denominator gets shrunk, and so then the ratio overall becomes much lower.

Now, there can be distortions in the other direction. There are some claims that some of the deaths are underreported, so you need to look at all these distortions. But what's generally happening with the reporting on the models is it's a combination of dramatically overestimating the maliciousness or lethality of the virus, and then it's dramatically underestimating human adaptation under freedom. And that's where you get the narrative that says, if we leave people free, then a catastrophe will ensue; therefore, we have to restrict their freedom. And I regard actually the restriction of freedom as the catastrophe and sort of any plausible worst-case scenario as very bad, but not anywhere near as bad as what's being proposed as the solution and, very likely, will be much less bad than is catastrophized.

WOODS: I'd like to read for you just a few paragraphs from an article in *The Atlantic*, just to get your thoughts about it.

EPSTEIN: Sure.

WOODS: It's kind of in defense of epidemiological models. And by the way, when I was reaching there for examples of other kinds of modeling, I don't know why I didn't think of climate change modeling with you here as the guest. But anyway, here's what —

EPSTEIN: Well, I should just say, I think these are much better than climate models. I think the modelers are generally better. But I mean, climate models, it's just so hard to model climate and nobody can really do it, and so there's a lot of dishonesty about that as such. With these kinds of models, I think there are people who can model — I mean, they can model it pretty well, but the question is" what's the purpose of modeling? So is it to kind of understand certain kinds of broad scenarios, and hey, what happens if people — like if you really knew, for example, how much masks made a difference, then you could run a model that would tell you something important. And it might be, hey, that's the high leverage point. We can do that.

So I'm what I'm concerned about is really that the broader what I would call knowledge system, including their trusted news sources and many political people, what they are doing is they're taking catastrophic interpretations of models, which includes embracing some of the most irresponsible modelers. But I think that there are many very responsible people whom I do not want to throw under the bus, and I think they're doing important work.

And to some extent, there are responsible climate modelers, but the problem is that most people in climate modeling, it's just, again, not something we can do very well. And so there's an inherent dishonesty in people who are acting like we really know this. But even with those, they're just the same problem where, even if they were accurate, about, oh, it'll warm two degrees by 2100 or 2050 or something like that, they don't integrate in the benefits that come from leaving people free to use fossil fuels. And just like here, people are not integrating what are the benefits of people continuing to live their lives and be free. And conversely, they're not modeling enough what are the harms of restricting the action of really billions of people indefinitely. So it's the abuse of the models and the privileging of the most irresponsible modelers.

WOODS: Right, right, right. Okay, that makes sense to me. Let me read you just this this passage: "The most important function of epidemiological models is" — by the way, the name of this article, you can tell from the URL it was originally going to be "Coronavirus models aren't supposed to be right." So here's what it says:

"The most important function of epidemiological models is as a simulation, a way to see our potential futures ahead of time and how that interacts with the choices we make today. With COVID-19 models, we have one simple urgent goal: to ignore all the optimistic branches and that thick trunk in the middle representing the most likely outcomes. Instead, we need to focus on the branches representing the worst outcomes and prune them with all our might. Social isolation reduces transmission and slows the spread of the disease. In doing so, it chops

off branches that represent some of the worst futures. Contact tracing catches people before they infect others, pruning more branches that represent unchecked catastrophes.

"At the beginning of a pandemic, we have the disadvantage of higher uncertainty but the advantage of being early. The costs of our actions are lower because the disease is less widespread. As we prune the tree of the terrible, unthinkable branches, we are not just choosing a path; we are shaping the underlying parameters themselves, because the parameters themselves are not fixed. If our hospitals are not overrun, we will have fewer deaths and thus a lower fatality rate. That's why we shouldn't get bogged down in litigating a model's numbers. Instead, we should focus on the parameters we can change and change them.

"Every time the White House releases a COVID-19 model, we will be tempted to drown ourselves in endless discussions about the error bars, the clarity around the parameters, the wide range of outcomes, and the applicability of the underlying data. And the media might be tempted to cover those discussions as this fits their horse-race, he-said-she-said scripts. Let's not. We should instead look at the calamitous branches of our decision tree and chop them all off, and then chop them off again."

And then finally, "Sometimes when we succeed in chopping off the end of the pessimistic tail, it looks like we overreacted. A near miss can make a model look false. But that's not always what happened. It just means we won. And that's why we model." What do you think about that?

EPSTEIN: I mean, I agree with about a fifth of it, maybe. So one thing is when we're modeling — so it is definitely true that with infectious diseases, there are huge benefits to being early, and so there's a number of criticisms that can be leveled on not dealing with it early. Even if it's something that can't be contained, which I don't think this can ultimately, in terms of slowing it, yeah, you can slow it a lot more at the beginning. You can take targeted action. So there's a lot to that. So I agree with that part of it.

But two things I don't think are represented here is, with any of these things, you have to have some objectivity about what's the cost of the policy. So this person just seems to think — and you could put Bill Gates as a stand-in here, because he seems to have this view. He just said, lock everyone down for at least ten weeks. And like, that is just such a profound destruction of people's lives in ways that will carry out for decades, really. And you're already seeing these mass unemployment numbers. We know all these stories about the opioid epidemic beginning after the last big recession. If you don't regard it as a catastrophe to lock people down for ten weeks, not just because of the ten weeks, but because of the disruption and the destruction that will occur starting at the beginning of the ten weeks and then from that point on, there's something way off.

So you can't ignore the costs and act like, oh, yeah, well, I'd rather go to the restaurant but I'm just going to sit in my house. They trivialize the costs. And a lot of these are people like us who have primarily mental labor where we don't need to be around to others, or at least it doesn't seem like we need to be very immediately. So one thing is they're not acknowledging the catastrophic costs.

And then in terms of the benefits of these restrictions, the alleged benefits, you need some objectivity about the worst-case scenario. So I believe in thinking of the worst-case scenario, but if you're hyper inflating the death rate, then your worst-case scenario is way, way worse than it needs to be. And so if you imagine, hey, we're going to all be in a living hell, and that's not even remotely the worst-case scenario, it's infinitely worse than the worst-case scenario, then you're going to impose catastrophic costs on people.

So it's true that there's just this idea that — and people have this view with climate too. They think like, oh, we should reduce CO^2 emissions to zero at basically all costs, because I have a model that says that if they don't go to zero, then the world is going to end. And it's

legitimate for me to say, okay, let's really look at that worst-case scenario, because that's not very plausible. Maybe it'd be something bad, but it's not "the world is going to end." And your solution to the world ending is actually the end of life as we know it. In the case of energy, it's depriving billions of people of machine power and, therefore, a modern life, and that would be a true catastrophe.

So in this case, these kinds of, I wouldn't say most of the COVID scientists at all because I think most of them are really good, but if you take the catastrophists who advocate catastrophic restrictions on freedom in the name of avoiding this unlimited catastrophe, if that's how they convey it, they are being really, really distorted, and there's going to be a lot of blood on their hands.

WOODS: Wow. All right, listen, I want you to tell people about *Power Hour* — it looks like you release it every week — and what kind of topics you discuss on it.

EPSTEIN: Sure, so *Power Hour* is a podcast I started — it must be — gosh, it was nine years ago now, and I've sort of intermittently — it's mostly had it, but I've resurrected it recently with the weekly format, and I'm doing it and I'm bringing on different guests. And I talk mostly about energy issues, but I think that this is a really crucial issue for human flourishing and human freedom, and I think that looking at it from a human flourishing perspective, but also an integrated, what I would call full-context perspective, is something that I can bring to the table, as well as being aware of how catastrophizing often leads to catastrophic restrictions on freedom. So that's a reason why I've gotten into it. And if people are interested in learning more about it, you can just go to our website, IndustrialProgress.com. And then just sign up for the newsletter, and then you'll get an email every Wednesday, and you'll learn about *Power Hour*, and you'll learn about everything else. So that's IndustrialProgress.com.

WOODS: Okay, I'll have all that stuff also on the show notes page, TomWoods.com/1627. All right, thanks a lot, Alex. I appreciate your insights. I had a number of people saying, "You've got to get Alex back on. He's on fire on these topics." So I went back and I said, doggone it, these people are right. So I'm very glad we did this. Thanks again.

EPSTEIN: Thanks for having me.