Did your favorite NFL team win the Super Bowl?
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I'm Danny Heifetz and for now until the draft,
we are turning our fantasy football show
feed into the Ringer NFL Draft Show.
Every Tuesday and Thursday, we talk about
the top players and most important
storylines for the NFL Draft.
So join us on the Ringer NFL Draft Show.
Today's episode is a big one.
It's about the debate over media coverage of COVID.
Three years after a fateful March of 2020
when it felt like the whole world was shutting down,
we are revisiting two of the most
contentious debates in this space.
Number one, the lab leak hypothesis,
which is the debate over the possibility
that COVID originated at a laboratory in China
and not as the official story went
at a wet market in Wuhan.
And number two, the mask debate,
which touches on a seemingly simple question,
do masks work, which turns out to be
very, very, very hard to answer.
So why these topics and why now?
The answer is that news in these domains
simply won't stop breaking.
Last month, the Department of Energy
revised its prior assessment and announced
that the coronavirus likely did emerge from a laboratory.
The FBI shares that assessment for other agencies
and the National Intelligence Council
have come to the opposite conclusion,
that COVID likely started with natural exposure
to an infected animal at perhaps a wet market.
So if you're doing the lab leak math at home,
the lab leak theory itself is still an underdog
trailing five to two among these government institutions,
none of which, by the way, have reached their conclusions
with a high degree of confidence.
The lab leak is interesting to me for two reasons.
First, it's a pretty important question.
How did a pandemic that has killed millions and millions

and millions of people actually start?
That's a biggie.
Not just because we don't have perfect information,
or just because we don't have perfect information,
doesn't mean we shouldn't be curious about this.
Remember, as a polysine major at Northwestern,
I think I took four separate classes about why World War
I started, and the answer in every single class
was like, no one's really sure, but there's
a lot of interesting theories that
have informed political science.
Well, if we take the lab leak theory seriously,
as I think we should, it should make
us deeply skeptical about many policies
that are active in the world, like funding
gain-of-function research, sort of viral engineering,
that should it escape the lab, could
cause precisely the global catastrophe
that we saw, or perhaps something even worse.
The second reason the lab leak theory is interesting to me
is that this is really, in many ways,
a story about the media.
How I, we, the press, choose what to cover,
and choose who to listen to.
How we choose which stories are considered information,
and which stories are considered misinformation,
or disinformation.
For many months, especially in 2020 and early 2021,
a lot of journalists, smart journalists,
trying, I think in many cases, to do the right thing,
kind of assumed that the lab leak was a racist conspiracy.
In fact, many prominent journalists and outlets
simply said, scientists don't take this seriously,
neither should you.
But now, in 2023, I think if we're being honest,
and if we're really interested in the truth,
the idea that the lab leak was merely
discredited racist conspiracy theorizing,
that itself was a kind of misinformation.
It was a story that kept readers and audiences
from appreciating the actual uncertainty
of this important question.
There's another story that deserves a reappraisal,

and that is the media's treatment of masks.
I think it's fair to say the media and the science community
have been all over the place on this one.
In March, 2020, the Fauci famously
told us we didn't have to wear masks.
And then months later, of course, wearing a mask was a marker,
maybe the marker of how seriously you took COVID.
And some scientists very quickly seemed
to revise the estimation of the essential effectiveness
of masks.
But then a few weeks ago, in February, 2023,
a meta-analysis of masking research
published by the esteemed health organization Cochrane
was widely reported in the media
as proving that actually masks do nothing or close to nothing,
and mask mandates do not work, period, end of story.
But as you're about to hear, even that review, even that
summary of the evidence, is extremely misleading.
So what are you supposed to do about all this?
The lab leak is neither a fact nor a myth.
Masks work, except very often they don't,
and asking people to wear masks can work,
except very often it doesn't work at all.
You try to keep all this in your head, and it's a mess.
It is a mess.
Journalists sometimes like to clean up a story,
make for a simple headline.
I think we need to be better at reporting on uncertainty,
especially when there is a political or ideological
undertow that is pulling us to one side of that story.
When we see a mess, we have to call it a mess.
So don't trust people who, in their handling
of complex questions with imperfect data,
do this trick where they manufacture simplistic answers
with perfect confidence.
Trust people who get in the weeds.
Trust people who see the mess for what it is.
Trust people who change their mind
when the evidence changes.
Today's guests are Dan Engber, science writer and editor
at The Atlantic, who has chronicled the ups and downs
of the media's relationship to the lab leak,
and Jason Abeluck, a Yale economist who

has conducted some of the more famous trials of masking,
and who, as you're about to hear,
is actually not only objected to the Cochrane meta-analysis,
the famous Cochrane review, but has actually
talked to a member of the Cochrane team
and just maybe convinced him that he's right.
I'm Derek Thompson.
This is Plain English.
Dan Engber, welcome to the podcast.
Thanks for having me.
Before we start, a brief story.
I don't know if you remember this,
but I think you edited the first article that I ever
wrote as a professional journalist.
No, I'm sorry.
You were a slate.
I was an internet slate.
I was interested in writing an explainer
about how the government knows how many miles we drive
every year.
Is this an explainer that you have any memory of having
edited?
I mean, Derek, I edited or written hundreds, possibly
thousands of explainer columns.
No impression.
It's a good topic.
Congratulations to us both on producing that story.
Does the story hold up?
I believe it does hold up.
Yeah, and in a weird way, it kind of
connects to what we're going to talk about today,
because it's fundamentally about the question of epistemology.
How do we know what we know of whether it's miles
that Americans drive on roads or exactly where
a novel coronavirus originated?
So I've been interested in this question for a while.
And you, I think, have been one of the most careful
journalistic voices on piecing through the evidence
on both sides of this question and being really clear
about what level of certainty we should
have about answering this question.
But I want to start with 2020.
When did you first start following the lab leak theory?

When do you remember hearing about it,
having any emotional reaction to it?
So I remember hearing about the work that had been done
at the Wuhan Institute of Virology
before I heard about the idea of the lab leak hypothesis,
actually.
And so I think as most people would,
when they hear that in 2020, they go, that's weird.
Wait a second, hold on.
How likely is it that this kind of research would
be happening in Wuhan, China, of all places,
and now we've got this pandemic unfolding?
So actually, the blatant coincidence
hit me first before I was aware that there was this shadow
discourse happening about how likely it was.
And I will say, I was totally tuned out on the politics stuff.
I wasn't aware of Tom Cotton wrote an op-ed about saying
it was a Chinese bioweapon.
All of that stuff got folded in for me.
And I think also, we can talk about this for the media,
got folded into this Trump versus the science narrative
about the China flu and how Trump was blaming
all of these failures of his own administration on China.
So I slipped very easily into that story
of this was the thing that was happening
in terms of the politics of it.
And that was disconnected from any underlying scientific truth.
But I still wondered about that coincidence.
And I thought, hey, that's really odd.
And then I think I kind of didn't dig too deeply into it
until the Nicholson Baker story came out in New York Magazine.
And I remember feeling relief that someone had done that story
and gone big on it.
And then, of course, that set off a bunch of angry reactions
and we went from there.
But that was the very end of December 2020,
if I remember correctly.
And how would you characterize the media's reaction
to the lab leak theory in 2020 and early 2021,
say just before the Baker piece comes out in New York Magazine?
And to my recollection, really crystallizes this sense
that despite the fact that in the mainstream media,
there hasn't been much talk about taking the lab leak theory

seriously, introduces this idea that actually there's
been a kind of shadow discourse happening, where people have
been poking around and asking, can we
find smoking gun evidence that this came from the Wuhan,
from WIV?
Yeah, I mean, my recollection as an editor, editing stories
about the pandemic then, was that it was just incorrect.
We just knew it was incorrect.
There was almost like a copy-paste macro
you could put into a story if this were an issue.
Scientists say this is not the case.
And particularly what I think was missing there,
and I take responsibility for this as an editor editing COVID
stories at the time, was deep thought
about the different shades of what lab leak theory or hypothesis
could mean.
So again, this was all lumped together into the most extreme
version of it.
That was easy to dismiss.
That had been dismissed in prominent venues
by leading scientists.
And that would be the Chinese bio-weapon theory of this.
So once that was all swirling together in your head,
and the politics of it made it very easy for that
to be one's notion of what lab leak meant,
it just was like you just knew that was just a false narrative,
one of many false narratives that were swirling around
at that time.
And so it was just not something to cover.
The Baker piece really goes into much more nuance about what
kind of lab accident might have been in play,
what was the research that was going on,
and even just the history.
That was, I think, if you hadn't been paying attention,
you didn't have this in your head about lab accidents
in recent years, or the moratorium on gain of function
research that had been put in place during the Obama
administration.
So I just thought it was incredible
that Baker brought all of that to the fore,
told the story of these arguments about the dangers
of doing this kind of urology work,
and just forced everyone to look at this.

I mean, still, I would say it would be another five months
or so before, really, the mainstream media
was looking closely.
But that was the first one where it just, at least for me,
I was like, OK, I need to actually go beyond my initial
thought of, hey, that's a weird coincidence
to start taking this very seriously.
I'm really glad that you pointed out
that the media's reaction to the lab leak early on
was a kind of mess of conflation.
There's all these things that you
have to sort of keep in the air,
that Trump was explicitly anti-China in a way
that many liberals found to be racist, number one.
Number two, that many Republicans
were getting over their skis, suggesting that COVID was
a bio-weapon, and that it also was a bio-weapon that
emerged from a lab.
So right there, you have the conflation of lab leak
equals bio-weapon, plus lab leak equals normal virus,
or not engineered virus that comes out of a lab.
And I think that there was a liberal or mainstream media
leaning liberal eagerness to disprove the lab leak hypothesis
that was basically just displaced eagerness
to reject Chinese racism and bio-weapon rumors.
But this created a really weird discourse space.
I remember in the fall of 2020, I
was having a conversation with my wife and her friends.
I remember we were in the bathroom.
Her friends were on speakerphone.
And we were just having a conversation
at the end of some Friday, where my wife and I
had made dinner together.
And they said, we were talking about conspiracy theories.
They said, Derek, what conspiracy theory do you believe?
And I'm not a conspiracy theorist.
Like, I just don't dabble in them generally.
All conspiracy theorists say that, by the way.
But go on.
OK.
That's going to set up my next thing I'm going to say very well.
I said, I have a lot of time for the theory
that this virus came from a lab.

And the reaction was like, wait, we know you're not racist.
But that theory is kind of racist.
And my feeling was, you already articulated this.
Well, look, it's not racist to say
that a good candidate for the emergence of a bat
coronavirus is a local laboratory that
studies bat coronaviruses, right?
I'm not saying here's the truth and the doubters
are a bunch of idiots.
I'm saying we have a crime.
And this is a reasonable murder suspect
that we should consider in the investigation.
But it's really interesting to think back to that period
and remember just how strange it was to take the theory
seriously.
So let's continue the TikTok.
The Baker article comes out in New York Magazine.
It inspires a pretty fierce backlash among some people.
But in the months that follow, this approach of,
I want to describe this carefully,
taking the lab leak seriously without saying,
I believe it to be true in any kind of probabilistic, more
than 70% kind of way, that became more
common among certain journalists.
Would you agree?
I would.
I mean, I wonder if you wouldn't mind doubling back
for just a minute, because actually, in this last piece
I wrote about the lab leak, this little behind the scenes
thing, but I wanted to represent it
as having been so politicized from the start
that it was Democrats and Republicans
disagreeing fundamentally on this question from the get-go.
And then I went back to find, was there
a speech that Chuck Schumer gave in 2020
where he was talking about this?
And the answer was no.
This was something that Republican lawmakers
were talking about a lot, Republican and conservative
columnists and such.
But it's not something that Democratic lawmakers
were talking about.
It was sort of like not Republicans versus Democrats,

but Republicans versus the media, basically.
And then having been in the media at the time,
we were taking our cues from the scientists.
So I edit science stories, work with science journalists
who talk to scientists.
And so I think what was happening
was you were getting a lot of news stories
that reflected the quote unquote scientific consensus
as probed by journalists calling a bunch of people
who are scientists who are prominent on Twitter, maybe.
But in any case, and they were being told,
there's no doubts here.
We know where it came from.
And they were reporting that accurately.
And then it was the segments of society
that are distrustful of elite authority,
including scientists who are saying,
we don't know if we believe that.
So I felt like that was, I don't know if this is worth
bringing up, but I actually, I thought
it was interesting that in writing my last piece about this,
I realized I had distorted my own memory of what
had happened was distorted.
I thought it had been overtly politicized from the get-go.
I think, in a sense, it was.
But not in this explicit left-right way.
It was like this elite's right way, kind of,
which is, I think, a little bit different.
And I think important as it plays out now.
But we can go back.
I'm sorry to divert.
No, that's really interesting.
Let me just dig into that a little bit further.
What I said earlier is that a lot of left-leaning people,
left-of-center people in the media,
might have conflated their insistence
on rejecting Trump racism and downplaying the odds
that this was a bio weapon.
They conflated that with discrediting a lab leak entirely.
You're saying something that, to my ear,
sounds a little bit different, which
is that it's not that the media was necessarily or exclusively
biased against Trump or insistent,

upon disproving the bio weapon theory.
It's also that the media was taking their cues
from scientists who were prominent for whatever reason.
Maybe they had the most Twitter followers.
Maybe they were the co-authors of whatever
was just published in the Lancet the previous month.
But they were taking their cues from prominent scientists
who were insisting that the lab leak was
an improbable, if not impossible, theory
to explain the pandemic.
Is that right?
Yeah, I think that's right.
I agree with both parts of it.
I mean, I think this was over-determined,
and that's why you got this effective media
blackout on the idea.
You had both the political inclinations
were lined up with what scientists from Fauci on down
were saying, and so easy to make the judgment then,
if you're not being careful.
Have those scientists recanted in any way?
I know that Fauci in the last few months
has said at least something along the lines
of we don't know for sure whether this came from a lab.
We can't prove for sure if that it didn't come from a lab.
He seems to have walked back his 2020 position a bit.
Is it your sense that those scientists now
talk about the question of the lab leak in a slightly different
way than they did in 2020 and 21?
Yeah, I mean, I think for sure, Fauci's a great example.
But other scientists, too, there's
been a lot of cases of some new piece of information.
I remember when it came out that some of the key research
that was being done at WIV was being done at biosafety level
two instead of three or four.
That led to some prominent scientists saying,
hey, wait a second here.
If I'd known about that or when the DARPA grant proposal came
out, this was a grant proposal that involved WIV that
was outlined to experiments that sound, in retrospect,
pretty scary.
Now, there's no indication that these experiments were actually
done to be clear.

But just to have this stuff on paper in official grant documents, I mean, I interviewed scientists who were like, now I'm beginning to say, at the very least, there's such a lack of transparency here.
Why wouldn't this information have been put out there from the beginning?
It's so clearly relevant to the question of pandemic origins.
So I just, in the course of reporting on this since whatever, at the beginning of 2021, I've heard scientists describe one said to me, the delta is shrinking.
I remember that phrase, meaning his assessed probability of a natural origin versus a laboratory origin, he still felt it was more likely a natural origin, but the delta is shrinking.
So I think about that as the overall trend since the beginning of 2021.
What I love about your coverage at the space is that I think you're very good at pointing out how amazingly coincidental both theories are, both the lab leak theory and the natural origin theory.
And I want to just quote from your last article in the Atlantic, because I think it sums up something very important very succinctly.
Quote, if COVID really started in the lab when position holds, then it would have to be a pretty amazing coincidence that so many of the earliest infections happened to emerge in and around a venue for the sale of live animals, which just happened to be the exact same sort of place where the first SARS coronavirus pandemic might have started 20 years ago.
But also, if COVID really started in a live animal market, it would have to be a similarly amazing coincidence the market in question happened to be across the river from the laboratory of the world's leading bat coronavirus researcher, which happened to be running experiments that could, in theory, make coronaviruses more dangerous.
Dan, we are in the realm of crazy and likely thing one versus crazy and likely thing two, both of which require an extraordinarily unlikely role of the dice for them to cash out in a global pandemic.
Right, and we know for a fact that one of those two things is really just a coincidence.

Do we know for sure that it can either
be only natural origin in Wuhan or a lab leak at WIV?
Is it conceivable that the actual origin of the pandemic
is some category three phenomenon?
Frozen fish imports into China.
I mean, sure, it's conceivable.
But I mean, I'm stuck on those two coincidences personally.
So I think it's got to be related to one of those two things.
I would also say just while we're
stating where we stand on these things,
I've said in the past the fact that there
are these two enormous coincidences that
have to be reckoned with doesn't mean that it's necessarily
the evidence is a toss-up, it's a coin flip.
There are many other things to take into account.
And probably the most significant for me
would be what's the history of pandemics?
I mean, basically every single one
has started with a so-called natural origin, with one
possible known exception.
So I mean, if you're using that to decide to judge the tie,
tie goes to natural origin, right?
And I don't even know if the evidence really
is quote unquote tied otherwise.
But that's the backdrop here, and I
think that has also contributed to the attitudes in 2020
and attitudes today amongst scientists, right?
We know this story.
It's a story we've heard before, and the evidence
is consistent with that story, so why not?
Aside from the fact that, as you said,
almost every pandemic for which we
have a high degree of confidence in the origin,
the story is always animal to human spillover.
Other than that, what do you consider
the most persuasive facts or maybe even most interesting
rumor that should make a reasonable person lean
toward this pandemic started from natural spillover
from a wild animal?
OK, aside from that fact, which I do think
is a very significant fact, right?
Again, it's going back to that coincidence, this market.
Why should, everyone agrees, even people

who think it started in a lab, everyone
agrees that this market was one of the first, if not
the first major cluster of infections, right?
So that's fine.
Maybe a scientist left work infected with the coronavirus
and then went to pick up some groceries at the market.
You can tell that story.
But again, this is a market where
we have photos of these wild animals, live wild animals
for sale from 2019 from a paper that
was published much subsequent to the start of the pandemic.
There are many other places in the city
where that first big outbreak could have happened.
We don't think about in the, since then,
we haven't thought in the US about market, big markets
as being a place, as the place where super spreader events
happen, we think about it as like conference centers
or concert venues or restaurants or bars or airplanes
or whatever.
Those are the stories we keep hearing.
So why was it a market selling live animals in Wuhan?
I find that the most compelling part of this, aside from,
again, the long history.
And on the other hand, what would you
say is the single most compelling fact or most
interesting rumor that might make a reasonable person,
let me be careful here, either lean toward the lab leak
theory or dramatically increase in their own minds
the odds that this was a lab leak?
I mentioned the DARPA proposal before.
I don't know how useful that is in particular,
because again, we don't know that those experiments were
ever carried out.
But I do think as an elaboration on the mere fact
of there being research on bat coronaviruses in Wuhan,
1,000 miles away from caves where closely related
viruses were found.
And we know that samples were carried from those caves
back to Wuhan.
So we have all that stuff.
We also have all this evidence that experiments were
being done at that institution to tinker with the viruses
and see what happens.

What if you combine this bat coronaviruses with that one
or with some element of the MERS virus?
So again, we don't have any evidence
that such experiments were done using viruses that could
conceivably be a precursor to SARS-CoV-2,
the one that caused the pandemic.
So there's no direct evidence that research
was being done of the type that could lead to the pandemic.
But there's lots of evidence that research
that's kind of in the realm of mixing and matching viruses
was being done right there.
So I find that just in, again, going
past the initial giant coincidence thing,
that extension of it, I find worrisome to say the least.
I really like the way that you set up those coincidences.
And it makes me think, John Stewart
had a very famous segment on The Late Show with Stephen Colbert,
where he put forth his theory for why he thinks
the lab leak idea is probable.
And he said, I'm butchering it, but I
think this is an OK summary.
If you hear that there's an outbreak of chocolatey,
gooey goodness from Hershey, Pennsylvania,
you have to be an idiot to not rule in the fact
that it came from the big chocolate factory at Hershey.
But what you're saying is actually takes that joke metaphor
and usefully edits it.
It's more like we have an outbreak of gooey chocolatey
goodness from the nation of Switzerland.
And there's many possible points of origin,
whether it's Lint or Nestle, Toblerone.
There's a bunch of different chocolate factories
that would be absolutely ideal candidates
for the origin of an outbreak of chocolatey gooeyness.
What you're saying is, it seems to me,
Wuhan has these two points of origin
that one might reasonably rule in.
A research facility that researched
exactly these kind of viruses and a wet lab, a wet market
that we know from the history of pandemics
is a plausible place of origin for viruses
that spill over from a bat to a pangolin to a human.
So actually, I hadn't thought of it in exactly these terms,

but it's more like the chocolatey outbreak
came from Switzerland than the chocolatey outbreak
came from Hershey, Pennsylvania.
Yeah, I don't think that got distracted
by all the different chocolate manufacturers you mentioned.
But just to complicate it a little bit, two things.
First of all, it's not like there are 100 wet markets
like the Huanan market in Wuhan.
There is a small handful that were
known to be trafficking in these sorts of animals.
So I think that's important too, just to kind of build out
in your mind an understanding of what kind of coincidence
this would be if it didn't actually start there.
Similarly, the Wuhan Institute of Virology
is not the only place in the city
where potentially dangerous research might
have been carried out.
In fact, though the details are mysterious and classified,
it has been said or has been reported
that when the Department of Energy
updated its assessment of the source of the pandemic
and said with low confidence that they think it's a lab leak,
that had to do with some idea that it took place
at a different lab, a branch of the Chinese CDC, I think,
which is rather close to the market, I'm told.
So this is sort of like a quality of this whole conversation
is that as soon as you can sort of say, oh, well,
there are these two big coincidences.
And then everything gets parsed a step further.
And now it's complicated.
Now maybe it's not this institution, research institution.
It's this one, which is not really across the river
and so on and so forth.
I think that the overall structure of the debate
is still the same, two big coincidences.
But I'm just bringing this up.
I don't know how to work this into your chocolate analogy.
But I do think it starts to get pretty complicated pretty
quickly when you start adding in these other pieces
of information.
Yeah.
I'm going to stick with the Switzerland metaphor,
because what you're basically saying

is there's a bunch of chocolate manufacturers
in the analogy.
There's a bunch of different plausible origins
for this virus in the same city.
And that just makes it difficult, especially
in the absence of anything approaching
a agreeable and open Chinese government to arrive
at a final truth.
I want to bring in that as the last piece of evidence.
Do you consider the reluctance of the Chinese government
to play ball a useful piece of evidence
for either side of this debate?
I don't.
I don't.
And I will say that from the beginning,
it has seemed to me not great from China's perspective
for the answer to come out in either direction.
I mean, as we said before, if SARS started 20,
SARS-1 started 20 years ago, possibly through a wet market
like this, and now it's happened again,
and this time it's killed millions and millions of people,
like why the hell was this allowed?
Who's responsible for that?
So it's not like the natural origin
has the Chinese government off the hook for this.
So it seems to me that leaving it undetermined
is probably the best possible outcome,
as far as China is concerned.
So that has always been my assumption for what's going on
here, that there's really no interest in resolving it
one way or another.
It doesn't look good either way.
So why do it?
Why let the studies happen?
Put on your media professor hat.
You're teaching a class at wherever, Columbia,
Medell, about the lessons that responsible young journalists
should take from the lab leak frock us.
What's the lesson?
That is a fantastic question.
And I think it goes back to there are some easy lessons
I could, I'm tempted to draw.
But I really want to grapple with the fact that, again,

you're a science journalist in summer 2020.
You want to know what's the thinking on this.
And every scientist you call tells you the same thing.
How are you supposed to arrive at the,
do you then call Tom Cotton?
Like, it just doesn't make sense.
You want to report the science of this.
It's really tricky.
And I would say because of that I'm, and this may be self,
self-interest here, but I'm not,
I have trouble blaming science journalists at least
as much as maybe I ought to.
It just, it's tough.
Like there's a lot of interesting work on this was done
by this ragtag group of independent researchers
communicating on Twitter through anonymous handles.
It's like, as it putting on my, my journalism professor hat,
am I going to tell students to reach out to, you know,
lab leak seeker 10 on Twitter?
Like, you don't know who the person is.
You're going to quote them.
Like, it's, it's tricky.
I mean, I think the, the, the lesson here as far as I'm
concerned is more about what we do next,
which is continuing to cover this doing accountability
journalism about the lack of transparency from the start,
about the lack of transparency that still exists,
not entirely due to, you know,
a Chinese coverup of some kind,
but also due to the lack of transparency
in terms of what was happening here.
I mean, I think we're going to find out in a couple of days
when these hearings start in the house.
There's probably going to be a lot of crazy shit thrown
around at those hearings,
but I think there are substantive questions about
what ideas were taken seriously behind closed doors
and how those conversations related or didn't relate
to what was said in public by, you know,
science officials within the administration
and by scientists in the know.
That's a really interesting lesson.
One thing that I took from it is that

it's hard as a journalist to keep in mind
two things, one, your sources are smarter than you,
they know more than you, you have to rely on them,
but also they're not smarter than God.
People with PhDs and fancy resumes are just people
and people are wrong all the time
and consensus is within industries or disciplines
can be wrong all the time
and you can be captured by sources.
The same way we're familiar with the fact
that some writers are captured by their audience,
their audience expects them to be, I don't know,
anti-trans and so all they do is write just bullshit
about being anti-trans.
I'm reminded of two different events
that I'm not trying to directly analogize
to the question of the lab leak,
but there are a lot of reporters around 2003
who I think were captured by their sources
around the issue of the Iraq war
and they reported that WMDs existed
because there were a lot of people
in the Bush administration around the Bush administration
who were going to tell them that
if that's what your roster of sources was,
then you were just going to hear one message
over and over and over again.
You could be captured by those sources
to report that which was not true.
To a certain extent in my own,
the closer to home and my own sort of domain
in economic analysis,
it was something close to an article of faith
in mid to late 2021
that inflation was just not a serious problem,
that it was gonna go away very quickly,
that it wasn't gonna pose much of a problem to people,
that it wasn't gonna get that high,
that there were just a few blips
in terms of supply chains,
but everything was gonna come down
to normal relatively quickly.
And the next year, 2022,

inflation and rising interest rates
were probably the most important phenomenon in economics.
And you could create a roster,
a bank of really, really smart academic voices
who for whatever reason,
their rooting interests in Joe Biden,
the fact they were a little bit more left leaning,
they were a little bit more captured by MMT,
just did not believe that the US was anywhere near
an inflation crisis.
And I think it's really hard and important to remember
that even the people that you talk to as sources,
even they feel kind of like little gods
when you're reaching out to them
to dig yourself out of ignorance for peace,
they can be catastrophically wrong as well.
Might just be an important piece of intellectual humility
to keep on your shoulder.
I think that's exactly right.
I mean, I think there's even a specific way
which this relates to science journalism,
so that if I were putting on my science journalism
professor hat,
which is a little different from just journalism,
professor in general.
There is this way in which there is kind of
an ideology among science journalists
that they hold in alignment with many of their sources
that you should follow the science.
There's an elision between small S and big S science, right?
And this gets really snagged on political divides as well,
especially in recent years.
But even leaving the politics out of it,
there's this, the difference between science communication
and science reporting can kind of fade.
And one can get confused about,
am I, is what I'm doing good for science
as opposed to getting at the truth.
One can forget that science, capital S science,
which your sources are almost always representing,
is an institution of its own accord
that needs to be held to account,
that has its own motivations and its own biases.

So I think, again,
putting all the politics aside, putting China out of it,
there was in the background,
this sense that the idea that scientists
cause the pandemic is bad for science.
That's like, it's in the same world
as anti-vaccine sentiments.
It's like fanning the flames of conspiracy theorists
that don't want us to listen to science.
And so as a science journalist,
I think a lot of science journalists feel like
it's part of the mission of their job to promote
rational thinking and rational thinking,
in this case, is aligned with what the scientists are saying
and what's in the best interests of further study.
And like, I think in 2020,
probably there was an idea of,
not science got us into this mess,
but we need to be as science-y as possible
to get us out of this mess.
Like, we need those vaccines.
We need to figure out as soon as this is over.
We need to use science to figure out
how to prevent the next one.
So the idea that, oh, the scientists
who are trying to prevent pandemics,
because that's what the research we're talking about
was about, they actually cause the problem.
I think it's just sort of on this deep level,
politics aside, when against the core beliefs
and inclinations of most of the journalists
who are covering that question.
So totally agree with you.
Breaking out of that mindset is crucial
and not just in covering pandemic origins,
but in doing any science coverage,
you need to understand that it's not a big business,
but it's kind of like a big business in a lot of ways.
Science is hard.
It's the simplistic, but unfortunately,
entirely true conclusion.
You cannot just be so much of a contrarian
that you become a crank,

but you also just cannot simply believe someone
by virtue of the fact that they have credentials
with more initials than you have.
It's a very, very difficult thing to get right.
The truth is changing constantly
and that at the end of the day is what this episode is about.
Dan Engber, thank you so much.
Thanks a lot for having me, Derek.
That was Daniel Engber, writer and editor at The Atlantic.
And next up, we have Jason Abeluck of Yale University.
Jason Abeluck, welcome to the podcast.
Great to be here.
Jason, before we talk about masks,
tell me a little bit about what it is
that you study at Yale.
Sure, so I'm a professor of economics
at the Yale School of Management.
Most of my work is in the areas of health economics
and public policy.
So I do a lot of work about different ways
that we can evaluate the quality of people's choices
and how we can design institutions
like health insurance markets, for example,
in light of the fact that people often might not be
well-informed about what impact choosing
different health insurance plans
would have on their health outcomes.
So questions of that nature,
when people sort of make mistakes,
how can we design institutions that still work well
in light of mistakes?
And what is your recollection
of the conventional wisdom in 2020 around masks?
Because to me, when I think back,
and I do not pretend to have perfect recollection
about that incredibly chaotic year,
this is a really chaotic question to answer.
My recollection is that the WHO and Fauci came out
initially in the middle of March and said,
masks, not so sure that they work.
And then for some reason within three to six months,
the fact that masks did work became an article of faith
among people that share my general ideology

and proclivities.
And then later you had this backlash among people,
some of whom are firmly in the science community,
who said, nope, masks actually don't work at all
and all you people covering your face
are participating in some kind of apocalypse cult.
What is your own memory
of the pendulum swinging on the mask issue
during the pandemic?
So I can tell you a few stories
about what I was involved in in 2020,
but I think the way you described it sounds about right
that the pendulum swung back and forth many times,
but basically my introduction to this,
I think in like March of 2020,
when there were maybe a few dozen cases of COVID
in the United States,
one of my colleagues came up to me and was like,
Jason, there's this debate on Twitter
about whether people should start wearing masks about COVID.
Like, what do you think about this?
And my initial response was something like,
well, we probably should,
like in the sense that it's a super low cost thing.
It's like at the time,
I didn't realize COVID would be endemic
and this would go on for years.
At the time there was some possibility that it's like,
oh, there's just going to be this wave of cases
over the next six months.
And maybe we should wear masks to do something about this.
And the idea was, well, it's super low cost.
It might be effective.
Why not?
So then I sort of started to look into it a little bit
in March and April of 2020.
And I looked at some of the existing evidence,
which I believe actually included an earlier version
of the Cochrane report, the Cochrane review,
which was an article, basically a summary article written,
and there were several summary articles.
And I might, by the way, be misremembering
whether it was a Cochrane review or other similar reviews.

But basically the upshot of those reviews was typically
that like there's been a bunch of studies of masking
in hospitals and in what's called community semics.
And in hospitals, they would do things like,
oh, let's randomize people to surgical or cloth masks,
or let's randomize them to N95 or surgical masks.
And typically they would find, yes,
when we gave people the higher quality masks,
they were more protective against, in those cases,
like influenza.
Then there were community studies.
And the consensus in most of these articles at the time
was something like, well, masks worn by people
in hospitals work and community mask wearing doesn't work.
And that's kind of a weird thing.
And it's like, what does it mean to even say
like community mask wearing doesn't work?
Like what were they basing that on?
And what they were typically basing that on
were studies that would do things like,
oh, you know, we went to a college campus
and we wanted to see if masks were protective
against influenza.
So we did a randomized experiment
where we took people in the intervention group
and we sent them masks and we gave them instructions
about how masks can protect you against influenza.
And we said, hey, can you wear this mask
during the flu season?
And typically they would do those studies
and they would find, hey, there's no difference
between the people we sent masks
and the people we didn't send masks.
Now, when I looked at this initially,
my reaction was like, well, that's kind of a weird study
because they don't tell us how many people actually wore masks.
So given that masks were effective in hospitals,
presumably they'd be effective in the community as well
if people actually wore them.
And in these studies, they just don't wear them.
But of course, now that we have this COVID epidemic
that's gonna kill millions of millions of people,
people will actually wear masks and that would be protective.

So I actually wrote this paper in March and April of 2020
where I was like, look, I don't think that a lot
of these existing studies actually tell us much about masks.
So what we're gonna do is compare countries
with historical mask norms like Japan or Taiwan.
And we're gonna see if COVID is spreading
at a different rate in those countries.
And the answer was, yeah, it seems to be spreading more slowly
in the countries that have historical mask norms.
Although of course, things are difficult.
Why is it difficult?
There's many reasons to have.
One reason it's really difficult is
because those countries might be different
in lots of other respects, right?
So it's like, in Japan, sure they wear masks,
but also maybe they do more testing
and maybe they do more contact tracing
and all these things like,
and maybe they were just more cautious
and all these things could have led to slower spread.
So it's not totally clear if that was a tribunal to masks,
but there was some indirect evidence that it was.
So that was kind of the early 2020 period.
I wrote that paper.
I actually went to the Yale COVID task force.
My colleague and I, and we were like,
hey, why don't we put out an announcement
that suggests in light of this,
that we would recommend that people start wearing masks
as COVID is spreading in the US.
So this was, I believe, in late March of 2020.
And the Yale COVID task force, there were two groups there.
There were epidemiologists who were like,
yeah, this seems like a pretty reasonable idea.
And then there were clinicians who were like,
you economists, this is crazy.
Like the FDA would never approve this,
given the existing evidence.
We can't recommend that people wear masks
if the FDA would never approve it.
And also they were like,
but we know they're important in hospitals.

And if you recommend everyone wear masks,
then we're not going to be able to have masks
for people in hospitals.
So we were like, okay, what about if we recommend
they wear cloth masks so that they still have enough masks
for people in hospitals,
although surgical masks are really cheap to produce.
Anyway, so we got some people to sign on to like a statement
like everyone should wear cloth masks.
That was like April of 2020.
I think by, you know, May or June,
like there was this rapid shift
in sort of the conventional wisdom about this,
where all the public health agencies went from basically
being like, oh, you know, we're skeptical of masks
to basically saying like, oh, actually this is something
like we're going to start recommending everyone wear it.
And that sort of like changed the polarization.
And then for I'd say the next like year and a half
that was the conventional wisdom
among public health agencies,
I still think that is mostly the conventional wisdom
that they've kind of public health agencies.
If you talk to people like the World Health Organization
or whatever, or the Center for Disease Control,
they're still pretty much, yeah,
masks are probably pretty effective against COVID.
Although I agree with you,
there are some people like the authors of the Cochrane Report
who are, you know, epidemiologists and legitimate scientists
who have reached a different conclusion,
although we can talk about, let's talk more about why.
Let's hold the Cochrane Review for a few more minutes.
I want to ask you about this study
that you did in Bangladesh.
Tell me about the study.
Tell me briefly why this study was importantly different
than the community studies that you have just blasted
in the last few minutes.
And what did you find in the Bangladesh study?
Yeah, okay.
So there are a few major differences.
So basically what we did first of all,

is we went to Bangladesh, we went to 600 villages,
and in 300 of those villages,
we did a really intensive campaign
to try to get people to wear masks.
So we sent everyone masks,
we gave them information about masks,
but then we also worked with a bunch of community leaders,
like imams and like village leaders
to try to promote mask wearing.
And maybe most importantly of all,
we had people walking around in every village
in crowded public areas and in masks,
saying, hey, suppose you see someone who's not wearing a mask,
walk up to them and be like,
hey, here's a mask, can you please put this on?
Right, so it's not like they're arresting them
or something, but they're just applying social pressure.
They're being like, hey, can you please put this on?
And if people say no, they say no,
but like there's not that much militant resistance
to mask wearing.
So most people say yes.
Okay, so we did this experiment.
How is this different from what came before?
First way it's different is we actually observed
whether people wore masks in crowded public areas.
So we can see if we changed their behavior.
In our initial pilots,
we didn't change their behavior very much
because we just sent them masks and gave them information.
And mask wearing increased by something
like nine percentage points,
which is actually high relative to other studies
that have done similar stuff.
There was one study in Kenya
that found like a one percentage point increase
from giving people information and handing out masks.
So we felt like a nine percentage point increase.
So then we're like, we need to do more than this.
So then we started doing the people walking around
asking people to wear masks,
that got us to a 30 percentage point increase.
Okay, so that's a pretty appreciable increase.

So what else is different about this study
relative to all the other ones I was talking about,
including my own earlier study?
Well, it was randomized.
So I mentioned before the problem
that it's like Japan, Taiwan, et cetera.
We see lots of mask wearing,
but they might do lots of other things differently.
In these villages in Bangladesh,
the 300 villages where we did this campaign,
those were randomly chosen.
There's one thing that's systematically different
about those villages,
which is we did this campaign
to get a bunch of people to wear masks.
Okay, so then we could see
what's the impact of mask wearing?
And the answer is we saw basically a 10% decline
in COVID symptoms.
And we did blood tests to see if it was actually COVID.
And we also saw a 10% decline
in what's called symptomatic seropositivity.
So people who are symptomatic for COVID
and also their blood was seropositive for COVID.
So what does 10% mean, by the way?
How do we interpret that magnitude?
So we're saying a 30 percentage point increase in mask use
led to a 10% decline in COVID.
So how do you extrapolate that
to what if everybody wore masks, right?
It's not completely obvious,
but a back of the envelope simple thing to do
is just to like assume everything scales.
So if 30% wearing masks gets you 10%,
maybe 100% is about three times,
maybe you get like a 30% decline in COVID infections.
Is a reasonable conclusion to draw from this study?
Because I know that there are some mass skeptics
that read your study and they say,
okay, it took Jason and his team
an unbelievable amount of money.
You guys got millions of dollars from GiveWell.
It took you an unbelievable amount of money,

extraordinary amounts of enforcement,
like annoying amounts of enforcement.
You're there on the streets pointing at people saying,
uh, mask, uh, mask, and all of this,
all of this only increased mask wearing by 20, 30%.
I mean, that's not, that suggests
that the typical mask policy
is not going to be very successful.
So do you, how do you feel about the critique of this study
that says that the effect size is not large enough
to prove to us that the average mask mandate
is going to do anything?
Yeah.
So first of all, it's a really good question.
So one thing we need to keep in mind is,
so one takeaway, you might be like,
oh, well, it's just impossible or just really hard
to get people to wear a mask.
But of course, we know that there are some places
where lots of people wear masks.
So first of all, it's like Japan,
like almost everyone wears masks.
Now you might say, okay, fine.
In countries with historical mask norms, it's possible,
but it's just too hard everywhere else.
But even in the United States,
there were places that had really, really high compliance
with mask use.
There were places where 90% of people
were wearing masks in 2020 and in 2021.
Now, it's important to draw the distinction
between can you change behavior
and how many people do with it?
So what is hard about doing this type of study
that we did and what is a major deficiency
of the earlier studies is getting people
who aren't motivated on their own to wear masks
to change their behavior, that requires doing something.
Now that's something might be that you mandate masks.
You make it a rule with different kinds of enforcement.
Like in the United States,
a lot of states mandated mask wearing, what did that mean?
Well, typically if they saw you in public,

not wearing a mask, it's not like they're arresting you
and dragging you to jail immediately.
It's kind of like this recommended thing
that's variably enforced, right?
Like maybe in the post office, they say,
hey, sir, please put on a mask.
And if you're just adamant that you won't,
then they say, please leave and they'll take you out.
Right?
So those kinds of things do,
if you have a church or a post office
or whatever, a public area
and you ask people to please put on masks,
most people actually comply with that, right?
So what we're trying to do in these studies
is to figure out the answer to two separate,
but both important questions.
One question is just what would happen
if people actually did comply and wear masks?
And then a second question is like,
what kinds of things are actually effective
for getting people to wear masks in practice?
So my answer to the second question first
is if people actually did wear masks,
yeah, you probably get something like what we found
in this study, if in public areas, people wore masks.
Now that doesn't mean you're wearing a 95,
24 hours a day, right?
You go home, you're probably not wearing a mask, right?
What we see in the studies is this 30% point increase
in wearing masks in the mosque
and wearing masks in the crowded market
and things of that nature, right?
So if people wear masks in these public areas,
but not necessarily at home or anything,
you get this 30% decline in COVID in the medium term.
Now, what does that mean?
That's actually complicated
because one thing we can revisit is okay,
you have this 30% decline.
One thing that might happen is R was greater than one before,
now the rate of transmission is less than one.
And so instead of COVID spreading to everyone,

it doesn't spread to anyone
because they have a war mask all the time.
Or alternatively, it's so contagious,
it still spreads to everyone
and then our masks doing anything.
Let's revisit that question.
That's an important question, okay?
So one question is,
what are the long-term impacts of this 30% decline?
But the question we posed a moment ago was,
what about other policies
to try to get people to increase mask use?
And my answer is, well, it really depends.
It's like if Alabama today said,
hey, we're recommending everyone wear a mask.
Probably no one would.
Nothing's gonna happen.
It does nothing, right?
But on the other hand,
if we have another respiratory pandemic
and tomorrow in two years, there's new COVID
and New York state is like,
hey, new COVID is killing a tremendous number of people.
We recommend that everyone put back on masks.
Like probably you get reasonably high compliance,
at least among the people who aren't politically resistant.
And there's a further point,
which is even today, what about symptomatic people?
If you're coughing and sneezing
and you have to go out in public,
maybe you should be wearing a mask.
What about the elderly people?
People with comorbidities.
Maybe they should still be wearing masks.
So we definitely still wanna understand
if when you successfully wear a mask, it works.
And I think our study strongly suggests in light of,
especially some additional other evidence
from all the other studies that like it probably does.
Two rapid fire questions about this study
before we get to the Cochran meta-analysis,
which was the subject of all these news stories
for the last few weeks.

Question number one,
there was a difference in your study
in the effect size for older people versus younger people.
And it's hard, or at least my read of your study,
says that it's hard to explain exactly what happened there.
Maybe older people were more conscientious
because they were at higher risk.
But does that gap make you concerned about confounders
that you can't explain in this study,
that something else happened
that's just not being captured
by the variables that you've talked about?
I mean, I find that gap especially concerning.
I agree with you.
There's many possible explanations
we could give for why it happened,
many that have nothing to do with confounds
or anything like that.
Like it could be, for example,
it could be elderly people were massed at similar rates,
but what happened was that elderly people
have like fewer social connections.
So wearing a mask is more likely
to sort of cut off the transmission vectors.
And therefore, it has a bigger impact
on the likelihood of getting COVID.
Or it could be that elderly people
are more vulnerable to low viral loads.
And so, and that's mass, you know,
turn low into nothing or whatever.
And then it prevents them from getting COVID.
Or it could be that elderly people,
we actually couldn't observe by age.
We could have in retrospect, I wish we did,
but we didn't observe by age,
whether the elderly people just increased mass use by more.
That's certainly another possible explanation.
So, but it's an interesting finding
because obviously the elderly bear the bulk
of the morbidity and the mortality from COVID.
So if it is generally true,
for example, the explanation I gave earlier
that elderly people get infected by low viral loads

and mass prevent that,
then that would be a huge thing to know.
But I think from the study, it's hard to,
like we would want sort of multiple studies of this type
before we concluded that, yes,
mass are definitely more effective
in the elderly or something like that.
Second follow-up question, when we say masks,
most people are referring to a bunch of different things.
Some people wear bandanas, some people wear cloth masks,
some people wear surgical masks, some people wear N95s,
some people wear K and 95s.
What is just briefly,
because they really do want to get
to the conference stuff in a second,
what's the difference?
Is there a major difference between these categories
that we use the noun mask for?
So in terms of the effectiveness,
so in our study, we had in one third
of the treatment villages cloth masks,
and in two thirds, we had surgical masks.
We find stronger evidence
for the effectiveness of surgical masks,
although both cloth and surgical masks
appear to have reduced symptoms.
We have a much more precise estimate
for the impact on the blood test of COVID for surgical masks.
For cloth masks, it's actually, it's just imprecise.
Some can't rule out that they're about
as effective as surgical masks,
but from other studies, like studies in hospitals,
it seems like surgical masks are better
also from just laboratory studies
when people cough into a petri dish.
In our study originally,
the reason we did both surgical and cloth,
surgical are actually cheaper,
but people at the time, this was, you know, 2021,
especially in countries like Bangladesh,
they sort of regarded surgical masks
as these cheap throwaway masks.
And so we were worried that people wouldn't bother.

They would wear the surgical mask once and throw it out
and they keep the cloth mask.
In fact, we found they wore the surgical masks
as much or more, so it's not really,
that wasn't really a concern.
So like if you can, higher quality masks
are more productive when you're looking for protection.
And by the way, another point I should make
that I realized we haven't made yet,
we haven't talked about like,
what I think are the actual policy consequences
of this or anything, but just to be clear,
I'm not saying, oh, mass work,
therefore everyone should be wearing masks all the time,
everywhere they go, everywhere in the world.
Like there's a different question
of when are mask mandates called for?
You know, COVID fatality rates are 20 times lower in the US
than they were in like July of 2021.
They're 40 times lower globally.
That makes a big difference to the cost benefit analysis
of when we need mandates.
But anyway.
And we're gonna get to the difference between masks.
Do they work as a product and mask mandates?
Should they be implemented as a policy
at the very end of our conversation?
But all right, let's finally turn to the Cochrane meta-analysis.
This famous or infamous meta-analysis
that was reported in the New York Times,
probably most prominently in a column
by Brett Stevens and opinion columnist for the Times
under the headline, the mask mandates did nothing.
Will any lessons be learned?
He quotes journalists saying
that masks don't make any difference, full stop.
He quotes co-authors of this meta-analysis saying
that masks make no difference, none of it.
Tell me, let's go into it this way.
What is the question that the Cochrane analysis
was trying to answer?
And why do you think the studies that it used
don't provide a high quality answer to that question?

Yeah, absolutely.
So there's a difference between the question
they were trying to answer
and the question they did answer.
So it's hard for me to speak to the question
they were trying to answer from some of the quotes
in the study and some of the quotes
I've seen publicly from the authors.
By the way, I have some anecdotes about that.
I've now spoken at length to one of the authors
and I'm trying to speak to others.
So we'll get to that in a moment.
But from their public comments,
it seems like they wanted to get at this question
of basically, are masks effective against COVID?
If a person wears a mask,
does it make them less likely to be infected?
If a population wears a mask, does it slow this,
or wears masks more, doesn't slow the spread of COVID?
That's not the question they answered
because the vast majority of the studies
that they are summarizing
are the studies that I was talking about earlier,
which are the studies that, for example,
send people on a college campus mask
and they ask, hey, please wear this mask during flu season
and then they don't check if you actually wear the mask.
And can I just jump in here
because you pointed me to a couple of studies
that make this point very, very clearly.
There's a famous Danish study
which was often used in the media
to suggest that mask interventions did not work.
When those researchers reached out to the participants,
they found that fewer than half of the masking group
said they, quote, wore the mask as recommended,
end quote.
There was a study in Uganda, 2022,
that when researchers called the participants by phone,
97% said they, quote, always or sometimes wore a mask,
but these researchers also observed people in Uganda
on the street and only 1.1% of the people they observed
were seen wearing masks correctly.

That suggests that the share of people saying
they wore masks versus the share
actually wearing them correctly
was a factor of 88, 88 times more were likely to say
on the phone they were wearing masks than actually were.
It's very difficult in studies like this
to know what you are actually measuring
because what you are measuring is a failure of adherence
and a failure of self-reporting
rather than a failure of a product.
In terms of policy, we'll get to that in a second,
but I was very motivated by that finding.
Back to you.
So I totally agree with you, I would say there are three
big deficiencies of the data study in this regard.
So the first deficiency is exactly what you mentioned,
that it's like probably, yes,
whatever half the people said they wore masks,
but we know that self-reports vastly overstate
the fraction of people who actually wear masks.
Now, the second thing about the data study
is if you actually look at their bottom line,
they find that there was like 18% less COVID
in the treatment group than the control group, right?
Now, that's not a statistically significant difference.
In science, we care a lot about statistical significance
for good reason, because if it's an insignificant thing,
it could have just happened by chance.
But what you absolutely should not infer from that study
is like, oh, the mask didn't do anything
because just the best estimate they have granted
being very imprecise is pretty similar
to what we end up arriving at in the Bangladesh study.
Now, why is it more imprecise?
Well, because the sample size was much smaller
and because probably they got a lot fewer people
to actually wear masks, okay?
So what should we infer from this?
Well, if anything, we should say,
here's one very imprecise signal
that suggests potentially similar effects
than what we see in the Bangladesh study,
not like, oh, masks don't work.

That would be a crazy inference to draw from this
because even the imprecise point estimate
suggests that masks work.
And of course, the true effect
would have been considerably larger
if you think that only a small fraction
of the people in the treatment group actually wore masks.
So that's like the second deficiency.
The third issue with this study,
relative to our study in Bangladesh,
is that it is only designed to figure out
mask protect individuals.
It doesn't tell you even in principle
if mask prevent infected individuals
from transmitting the virus to others.
Our study in Bangladesh,
where we increase mask wearing at the village level,
identifies the joint effect of mask protecting individuals
and preventing them from transmitting the virus.
So even in principle, if all the other problems were solved,
the study in Denmark can only get the protective effect,
which nonetheless, very imprecisely,
suggests might be there.
But this highlights another answer to your question earlier,
of why is this hard?
Well, it's hard because as common as COVID is,
most people over any several months period
are not infected with COVID.
So if you do a study where you monitor people
for a couple of months,
it's not like 70% of people are gonna get COVID.
It's like, oh, maybe one to 2% are gonna get COVID.
And then if you do an intervention,
such that you increase mask wearing
by even the 30 percentage points that we managed to get,
how much of that COVID do you think
you're gonna be preventing?
Well, maybe you prevent a 10th of that.
So now you've gone from one and a half percent
to a 10th of that 0.15.
And then you actually have to do blood tests
and not everyone is gonna consent to have their blood drawn.
So now you get an even smaller number.

So you need a really giant sample
if you're going to detect any impact of any policy.
So look, you have done the mass research.
I have not.
You have now spoken to the Cochrane authors.
I am so interested to know how that conversation went
because at least in terms of their statements in the media,
they seem very clear on what their position is,
which is that masks don't work the end.
You're telling me the exact opposite thesis.
So how did this conversation go?
Okay, so I've now spoken to one of them
and I'm trying to schedule a call.
There's the lead author, Tom Jefferson,
who I have not spoken to yet,
who is the main one making these remarks.
But I will hopefully speak with them in the next few days.
Maybe we'll do a two minute addendum
if you need an update on that.
But for the author that I did speak with,
so first I'll tell you the way I expected
the conversation to go before it went,
which is when I was in grad school,
I had a professor, Jerry Hausman.
And Jerry Hausman told us the story where he's like,
when there's a Nobel Prize winner, Clive Ranger,
and he met with Clive Ranger
and they had this technical dispute
and Jerry Hausman was like, yeah,
we had one of these long drawn out academic conversations
where I pounded him into the ground.
Right?
And I was like, oh, this is what's good.
But in fact, it was the exact opposite.
So I talked to the guy from the Cochran Report
and I was like, hey, here's what I think the issues are.
And he's like, yeah, those are really good points.
And I was like, oh, and I was like,
would you be willing to co-author an editorial
like making these points that sort of the Cochran Review,
I keep calling it the Cochran Report,
we'll just stick with that.
I like that more.

The Cochran Report is that, you know,
it's been misinterpreted in the press coverage
and it's kind of the conclusion that mass don't work,
just isn't warranted given the studies you've included.
And he was like, yeah, sure,
I'd be happy to sign off to that.
Wait, this feels like breaking news.
This feels like breaking news.
An author of the Cochran Report slash Cochran Meta Analysis
is about to co-author an op-ed with you
saying that the report broadly interpreted by the media
and quoted by some of the lead authors of the report,
saying that mass managed to work,
he's about to say it didn't actually show that.
Yeah, I feel like now you have me
making such a big deal of it,
where it makes me worried that he's gonna like,
hear this podcast.
This is coming on Tuesday morning, I think.
That is the plan right now,
where I sent him a draft, we're chatting more at five,
so hopefully that'll happen.
Jesus, well, it is for, listen,
it's 2.37 PM Eastern Standard Time on Monday.
We'll see what happens tomorrow
and if he responds to that email by saying, nevermind.
So give me a sense of what you think
the smartest mask critics get wrong.
Because I'll say this, we emailed,
I talked to an aerosol researcher,
Professor Jimenez about how masks actually work.
His, the fact that he's very persuaded
by the lab reports that, look,
if COVID is an aerosolized disease
and we know clearly that masks reduce aerosols
going in and out, they have to work.
This has to be an issue of adherence
rather than an issue of public policy.
So I wrote this up and I got a really nice response,
frankly, from some conservatives and some mass skeptics.
And I got what I would characterize
as a really not very nice response
from some mask critics and mask skeptics.

I would say there were two kinds of criticism
of my attempt to synthesize some of your research.
One line of criticism was that
perfect mask adherence in a community
is kind of like telling everyone they have to just like,
like trying to like banning sugar
or like mandating that babies eat broccoli
or mandating that people just sort of fast
when the sun is out every single day.
It is, it's not that those things won't be,
won't like reduce weight.
It's that it's almost impossible to enforce.
So why are we even heaping
in the arsenal of public policy interventions
something that we broadly understand to be unenforceable?
Let's start with that.
Do you agree with the contention
that maybe masks work, but mask mandates don't.
And we should just acknowledge
that that's the state of the world.
Yeah.
So let me first just draw a distinction
between if everybody wore masks,
what mask mandates do
and what the studies in the Cochrane review do,
which is the studies in the Cochrane review,
it's like, oh, we're going to send people masks
and give them information.
We know that that has very little impact on adherence.
What about mask mandates?
Mask mandates, I would say,
that is one name for a wide variety of different things
that sometimes increase mask use and sometimes don't.
Like when airlines are like, hey, please put on a mask
or we'll kick you off the plane, they're really good
at getting people to wear masks.
When the post office is like, hey, please put on a mask
or we'll kick you out, they're really good
at getting people to wear masks.
If the governor of a state is like, hey,
we're recommending that everyone put on masks,
you're not going to get to 100%, right?
Like there's going to be resistance

depending on the state.
It might be that you get in some states very little effect
and in some states more of an effect.
Like one study I saw, just a correlational study
looking across states that has its own deficiencies
suggested maybe like a 25 percentage point increase
in mask wearing from mask mandates.
That's comparable to what we saw
from our intervention in Bangladesh.
So my view is not mask mandates don't do anything.
They sometimes get people to wear masks more,
but it's hard like at a national or a state level
to suddenly change norms and get every person to wear masks.
Now there is nonetheless the question of like,
I think there are things depend
on the underlying objective circumstances.
If there were new respiratory disease
that were five times as deadly as COVID, I would predict,
people would see their relatives dropping dead,
they would want to do something about it.
Now it might be just because the way politics have worked
that the US would be weird in Alabama,
they still wouldn't wear masks.
But in most of the world,
people would pretty rapidly adopt masks
if there were a situation like that
with such high fatality rates.
So I think the answer is,
depends on the circumstance, it's certainly possible
sometimes to get people to wear masks.
And I mean, I don't think the analogy with like,
vegetables is even that great, maybe for infants,
it's kind of weird, but it's like, you know,
we do research, we try to figure out what foods are healthy.
I bet that people eat a lot more vegetables than they would
if there had never been any research showing that, you know,
vegetables were healthy and help you live longer,
help you have fewer heart attacks and cancer and everything.
And it's like, you know, that's why we do the research
to figure out what it does,
not because we think that tomorrow,
everyone is suddenly gonna start eating only vegetables,
even not even because we necessarily think

they should do that because we wanna know,
what should they do in different circumstances?
The other objection that I've heard from the mass skeptics
is that they look at a country like, say, Japan,
and you talked about how, you know,
you look at the COVID transmission rates in the West,
in Europe, in the United States,
and you compare it to Japan and Taiwan in 2000,
and it's not even close.
It's astonishing how much more it was transmitting in the West.
But then Omicron comes around
and Japan, Taiwan, Hong Kong,
they definitely had Omicron waves,
even despite the fact that, and look,
I'm not on the ground in Hong Kong, Taiwan,
but I'm guessing that there was still
a decent amount of mass coherence.
Do you have like even a stylized door in your head
of how these things can both be true?
It's so funny, because I often see this argument on Twitter,
and then I'm like, okay, so when I see an argument like this,
my instinct is to be like, well, you know,
let me look at the numbers and try to do a comparison.
So it's like, so then I like look up the fatality rates,
and it's like vastly lower in Japan than the United States.
If you look at like how many people have died
of COVID per capita, I'm trying to remember offhand,
I'll probably get it wrong,
but maybe it was like five times lower,
10 times lower, something in Japan than the United States.
So it's like, are we saying that if everyone wore masks,
no one would ever get COVID?
Like, no, what the studies say
is that it probably protects you.
Now, we haven't spoken much about the question
of the long-term consequences yet,
where I think there really is a lot of uncertainty
about a number of factors
of what the long-term consequences of more mask-wearing is.
But like, I think the conclusion that, hey,
these East Asian countries,
the conclusion we drew in 2020,
that the East Asian countries had slower COVID growth

is born out even more so today
when you look at the long-term fatalities
for the countries that had historical mask-wearing norms.
Let's get to that right now.
In the article that I wrote for the Atlantic,
I concluded going through all this mask research
by saying, you know,
there's still a cloud of uncertainty here,
but we have to make discreet and irreversible decisions
sometimes, even in clouds of uncertainty.
So I'm just gonna tell readers what I'm going to do.
And what I'm going to do is,
especially during periods of high COVID transmission,
that, and I would not necessarily consider
this moment to be one of them,
I'm gonna wear N95 masks in public indoor spaces.
Furthermore, I think that Washington DC, Northwest Washington DC,
which is my neighborhood,
would probably benefit from a mask mandate
because I have observed the social norm
of mask-wearing in my neighborhood.
And there are a lot of high-quality masks
worn well in this area.
And I would expect that if more people
wore high-quality masks well,
it would probably reduce levels of transmission
within this neighborhood.
Even as I suspect that you're right,
that mask mandate policies are not gonna do much
in, you know, Alabama.
But what are the risks?
What are some of the costs that are important to consider
when we're evaluating mask mandates as a public policy?
Because, you know, you and I have both said a couple of times now,
like, this is not something that's risk-free.
And I've written about, you know, all these debates
about masks in schools.
Tell me about some of the costs
that are most top of mind to you
when you think about masks as not a product,
but as public policy.
Let me first rewind to April of 2020,
where I was trying to convince the epidemiologists

that the ones who were reticent to recommend mask wearing,
one of the biggest arguments they made was,
oh, if we recommend that people wear masks,
they will think they are fully protected
and they won't socially distance anymore.
And what we think they really need to do
is socially distance,
which I thought was a very interesting argument.
Like in Bangladesh, we actually found the opposite.
We found that in the villages where we did the mask promotion,
they socially distance more.
We think we can separate the effects.
We talked about that.
That's a separate issue.
But I mean, I think that's an open question.
It might vary across contexts.
There's different effects that go in different directions.
I'd be surprised if the risk compensation
were enough to outweigh the direct effect.
Like in many settings, like with seatbelts and airbags,
this is something people have brought up in economics.
It's called a Peltzmann effect, that it's like,
oh, you know, because you wear a seatbelt,
you're not driving this carefully
because you know your protection.
Yeah, maybe that happens a little bit on the margin,
but probably people are gonna be safe
for wearing seatbelts and not wearing seatbelts.
So yeah, okay.
That's one thing, but that was the big issue,
like during large COVID waves,
more generally, what are the costs?
I mean, the biggest, most prevalent cost is just,
it's kind of uncomfortable to wear a mask, right?
I don't mean to be poo-pooing that.
Like it's like, how big would the benefit have to be
for it to be worth, you know, wearing a mask in,
first in like public areas.
Suppose you're just going there for a few hours, right?
During the day, you know, you're going to a mall
or something and you're gonna wear a mask in that mall.
It's like, well, if you get the equivalent of, you know,
$100 worth of benefit, it's probably worthwhile to do it.

You would probably do it for $100.
But if you get $3 worth of benefit,
maybe you'd just be like, no, I'd rather be comfortable.
I don't wanna wear a mask.
So it is really important the magnitude of the benefits.
So when I was saying earlier, you know,
fatalities from COVID are 20 times lower
than they were in July of 2021.
You know, if the magnitude of the benefit
was $100 in July of 2021, now it's $5.
So that changes things, right?
So my general view of public policy is, hey,
we should do calculations to see
if the benefits would see the cost.
Now, these calculations are very, very hard to do.
As soon as you sit down
and you try to actually quantify costs and benefits,
what you find is you have to make lots and lots of assumptions
for which you don't have good data.
And one response that people have to this
is anyone who does a calculation, everyone yells at them,
because everyone's like, oh, look,
your assumption about X, Y, and Z is not supported
and I disagree with you about this, this and that.
But guess what?
The alternative to doing a calculation
is making shit up and guessing.
And that is worse.
That is even harder than making assumptions
and trying to do a calculation.
So my view is, you know, we should sit down.
So what are the costs you talked about?
For elderly people, or for most people,
maybe the biggest cost is just mask wearing is uncomfortable.
Now, the other, in some settings,
what we worry about is communication.
So for example, if you're wearing masks in classrooms,
does that make it harder to speak?
If the teacher is wearing a mask,
can you not hear them as well?
If the students are wearing a mask,
are they less able to focus?
Like if you're wearing masks in indoor business areas,

are they harder to focus or you're less productive?
I honestly think we just have poor quality evidence
on these questions.
We just don't know much about how big those costs are.
And then of course, in younger children,
we worry about various developmental things,
where again, we just have poor quality evidence
and we don't know much about the magnitude of the cost.
So I think we know more about the magnitude of the benefits,
but only in the medium term.
The long-term benefits are hard to assess
for reasons we can get into.
Earlier in the episode, I had my colleague, Dan Engber,
who's a science journalist who's written a lot
about the lab leak.
And we talked a little bit about how the media's treatment
of the lab leak in the last three years
is an interesting lesson for science writers and journalists
in dealing with clouds of uncertainty.
Not ruling out candidates, not ruling out stories
simply because they seem like they might be racist
or it seems like it might give credence to a side
that you don't belong to,
or that it seems like it might undercut
the benefit of science.
It might have been hard for scientists in 2020
to say that actually maybe this pandemic started
because of scientists making a mistake.
That might have been a hard thing for some people to admit.
I'd love to ask you a similar question,
which is, what do you think the debate about masking
reveals about the way science
and scientific communication is conducted today?
Like, do you see ways in which this fight that we're having,
not you and I, but that we as a country are having,
this way, a way that this fight is a microcosm
of a really important story about how science works
in America?
So my view is, I don't think there's anyone
making an obvious mistake.
My view is kind of like doing science properly
is really, really difficult.
There are lots and lots of things you can get wrong.

And so when you have a highly politicized topic like masking,
the world is always just gonna be flooded with bullshit
and the signal from the actual signal from the truth
is always going to be kind of weak.
And what happens is like,
maybe over the very long span of history,
as more research accumulates and everything,
then eventually sort of people figure out what's what,
but it's just kind of the nature of things
that like doing science properly is really, really difficult.
And there's just a lot of subtle distinctions
that are gonna get lost in any political discussion.
So you don't, journalists have a super hard job too.
So it's not something where it's like,
oh man, everyone's being so stupid.
Why don't they just do this?
It's kind of like, yeah,
that's the way the world is gonna be
when you have a highly politicized issue.
It's just really, really hard
to figure out what the truth is.
One thing I would say is there are certain communities
that have like really good norms
and it's those norms that sort of allow science
to progress over the longterm.
Like there are communities where,
and I would say like, I think like people who do,
I consider my field of being
what's called like applied microeconomics.
Like we try to do empirical research
and we try to design studies
to sort of tease out the truth of things.
I think it actually has very good norms
in the sense that if you go to a seminar in our field,
of course, everyone is political.
It's not like people are perfectly objective
and can get away from all the kinds of things
you're talking about.
But there's just a norm that it's like,
we're really trying to figure out what's true.
And so if someone has sort of like a counterintuitive result
on like a hot button political issue,
the questions aren't like, how dare you say this?

And I can't believe you would say this.
It's like, the questions are really going to be focused
on like technical questions of methods.
Like, could you do this to maybe,
maybe you should do this additional check
because it might suggest whether this thing went wrong
or you could get this additional data to try to do that.
So I think there are some communities like that.
And the more of those there are, the better.
And like one thing journalists can try to do
is to like figure out where those communities are
and try to get a little bit of signal from those.
But you guys don't have an easy job
because of course, there's a very hard meta problem
in the world of how do you decide who has expertise
and who you listen to?
And that's hard to do.
A part of me wants to make fun of you for,
like saying like, microeconomist colon,
the world should be much more like the field
of microeconomics.
At the same time, in all honesty,
and this is not just like blowing smoke up your ass,
I'm in a lot of different communities on Twitter.
I dabble in politics Twitter, I dabble in COVID Twitter,
I dabble in entertainment Twitter and media Twitter.
Economics and finance Twitter is one
of the best bubbles to be in.
And I don't know why the people,
at least that I follow in that space,
are so not perfectly unideological,
but so curious about understanding problems with numbers.
Like it's a lot of people posting graphs
of the direction of used car inflation
and saying, what do you think that is?
And then there's like a list of theories
and some of them get retweeted.
And then someone's like, actually,
I don't think that this theory holds
because if you refer back to something
that Abeluck wrote in like 2020,
it actually turns out that it's a lot of numbers detectives
that are kind of just trying to like be little,

number Sherlock Holmes and solve numbers mysteries.
And that leads to some problems.
The economics Twitter misses a ton of shit
and has a ton of problems,
but it's better along this vector,
I think, than a lot of alternative communities.
Last question for you.
You said, you know, studying this is hard,
figuring out exactly how masks work
and how especially they work in community settings,
it's really hard.
What do we need more of for this question to be easy?
So I think one thing that I would like
to generally see more of in the world,
and I think that public health agencies
as currently structured are not well equipped to handle
is sort of like rapidly funded,
but very large scale experiments.
So similar to what we did in Bangladesh for masks,
but it's like there's similar kinds of things
you could do for ventilation
and for all these other things
that we really just have not done
because like public health agencies are not equipped
to do these in the short run
and they're kind of ill equipped
to do them in the long run too.
So we got the funding for our experiment
just from a private funder give well, right?
And it's like, you know, we managed to convince them.
It's like they're trying to do good in the world.
We managed to convince them
that this was a useful source of funds.
But it's like, if we had tried to get that funding
from the National Institutes of Aging, the NIA,
you know, it would have taken a four year application
or something like that before any funds materialize.
So I think setting up agencies
that basically encourage two things.
Like one is making decisions quickly.
So instead of being like,
you apply and in two years you might get some funding
being like, there are certain types of problems

where we need to respond more quickly.
And second, funding more like large scale projects
instead of like a hundred smaller projects.
So instead of like a hundred people being like,
oh, I need a hundred thousand dollars
so I can spend this year doing,
I'm gonna try to survey people and do this sort of like,
I know it's not the best study
but at least it'll be kind of suggestive,
doing more things which are like,
no, we're gonna get a hundred people together
to do the best possible study,
to really get the best data to answer this question.
I think that is like, there are much higher returns
to doing like the large scale ambitious thing
that collects the right data
and really answers the question you care about
as opposed to writing many, many low quality studies
that don't necessarily have data on the outcome you care about
and aren't necessarily designed
to answer the right question.
And then doing what the counter review did and saying,
oh, let's aggregate up a hundred of those studies
or something instead of doing a handful of the studies
that are really well designed to do that.
Yeah, more speed, less bullshit, more big studies.
That seems like a pretty interesting
and promising formula for the future science.
Jason Abelik, thank you very, very much.
Yeah, this was great.
Thank you for having me.
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