**Bring on the Stupid: When does it make sense to judge a person, a group, or an organization by its worst?**

Posted on [June 26, 2025 9:35 AM](https://statmodeling.stat.columbia.edu/2025/06/26/bring-on-the-stupid-when-does-it-make-sense-to-judge-a-person-a-group-or-an-organization-by-its-worst/) by [Andrew](https://statmodeling.stat.columbia.edu/author/andrew/)

We were [discussing recently](http://stat.columbia.edu/~gelman/research/published/healing3.pdf) how a couple of Harvard psychology researchers published a bad paper on mind-body healing–part of a series of bad papers on the topic–which was promoted by Harvard and some of the more credulous corners of the science media, including [Freakonomics](https://statmodeling.stat.columbia.edu/2024/10/28/freakonomics-does-it-again-not-in-a-good-way-jeez-these-guys-are-credulous/) and the podcast of physicist [Sean Carroll](https://statmodeling.stat.columbia.edu/2024/10/19/carroll-langer-credulous-scientist-as-hero-reporting-from-a-podcaster-who-should-know-better/).

When apportioning the blame for this fiasco, I found it difficult to feel much annoyance at the authors of the work (presumably they’re so deep into it that it’s hard for them to see the problems in their own work, and for better or worse it seems that scientists are not so good at seeing what they could be doing wrong), or to be annoyed at Harvard (they’re kinda stuck with the tenured faculty they have), or even to be annoyed at Freakonomics (at this point they’ve promoted so much B.S., we should just be glad that now they’re pushing junk psychology/medicine rather than climate change [denial](https://statmodeling.stat.columbia.edu/2023/08/08/freakonomics-and-global-warming-what-happens-to-a-team-of-rogues-when-there-is-no-longer-a-stable-center-to-push-against/)). That physicist, though . . . shouldn’t he know better??

To return to the title of this post. I’m sure Carroll has done lots of good things, and it would not make any sense at all to judge the totality of his work by the stupidest thing he’s ever done in public, any more than it would make sense to judge the totality of my work by [the four papers that I’ve felt the need to correct](https://statmodeling.stat.columbia.edu/2024/11/24/those-correction-notices-in-full-yes-its-possible-to-directly-admit-and-learn-from-error/) (including the notorious false theorem).

I remain bothered, though. Harvard has a wide collection of students and faculty; it stands to reason that some of them will do bad work. Sean Carroll, though, he’s just one person. If you’re a physicist and you have a public platform and you use it to promote junk science . . . really, what’s the point of it all?

**Junk science used to promote arguments against free will**

Posted on [June 18, 2025 9:18 AM](https://statmodeling.stat.columbia.edu/2025/06/18/junk-science-used-to-promote-arguments-against-free-will/) by [Andrew](https://statmodeling.stat.columbia.edu/author/andrew/)

Jessica Riskin wrote [this interesting review](https://www.nybooks.com/articles/2025/02/13/turtles-all-the-way-up-determined-robert-sapolsky/) slamming a book by biologist Robert Sapolsky. The book in question argues that people and animals have no free will, and Riskin does not find Sapolsky’s argument convincing.

The interesting angle to me in this story is that it seems that Sapolsky backs up his argument based on unreplicated studies of social priming and the like. I haven’t looked at Sapolsky’s book, but just as an example, [here’s a](https://archive.nytimes.com/opinionator.blogs.nytimes.com/2010/11/14/this-is-your-brain-on-metaphors/) New York Times article he wrote in 2010 where he refers to multiple “brilliant studies” by John Bargh, author of the elderly walking study that later notoriously [failed to replicate](https://statmodeling.stat.columbia.edu/2014/09/03/disagree-turing/). It may be that Sapolsky has moved on from Bargh, but if you read that NYT article you’ll see he’s leaning very heavily on the social-priming paradigm.

Indeed this came up on the blog [a couple years ago](https://statmodeling.stat.columbia.edu/2022/05/17/do-celebrated-scientists-have-the-free-will-to-admit-they-are-wrong-not-always/), when we discussed [this post](https://twitter.com/wiringthebrain/status/1367124019015798788?s=21) by Kevin Mitchell, who wrote:

*Gotta hand it to Sapolsky here . . . it’s quite ballsy to uber-confidently assert we do not have “the slightest scrap of agency” and then support that with one discredited social psych study after another . . .*

Thinking about it now, though, I have some sympathy for Sapolsky. Sure, he got conned by all that social priming stuff, but a lot of people got conned: the editors of Psychological Science and PNAS; the staff at NPR, Ted, and Freakonomics; Daniel Kahneman, Larry Bartels; . . . indeed, I assume that Bargh etc. themselves were conned, in that they were presumably true believers in their theories. Sapolsky’s a biologist–he’s not a psychologist or a statistician and would have no particular expertise in the theory of social priming (such as it is) or the quality of the evidence behind it. So it would seem unfair of me to expect that that he would’ve escaped this particular mass delusion of academic and public social psychology.

Now it’s 2025 and Sapolsky should know better, but, hey, he’s a busy man and probably does not have the time or energy to rethink his premises. That’s too bad but maybe is to be expected.

Amusingly, if you follow the links, you’ll see that Mitchell was pointing to a podcast where Sapolsky was being interviewed by . . . junk-science-promoting physicist Sean Carroll ([see here](https://statmodeling.stat.columbia.edu/2025/01/27/does-anyone-actually-expect-meaningful-insight-to-come-from-a-study-like-this/))!

Put ’em on NPR or Ted all at once and we’ll have achieved the black hole of junk science, from which no bad idea, once it enters, can ever escape.

Riskin’s review is interesting for its historical perspective and also in that it connects Sapolsky’s arguments against free will with his credulity regarding junk psychology experiments. This is interesting–I hadn’t thought it about this way before, and I think Riskin has a point. If it were really true that people were so easily manipulable by subliminal signals, then the world would be a much different place. Conversely, now that we know that that people *aren’t* so easily manipulated–you [can’t really](https://sites.stat.columbia.edu/gelman/research/published/ChanceEthics12.pdf) cause large shifts in people’s attitudes on immigration by flashing subliminal smiley faces on a screen–, this should cast doubt on the anti-free-will position.

Also relevant is [our piranha paper](https://sites.stat.columbia.edu/gelman/research/published/piranha_ams_notices.pdf), which explains mathematically why all these large effects cannot coexist.

To return to the general topic addressed here: It makes sense to use scientific findings to inform philosophical ideas. Science will not determine your philosophy but it should constrain it. The error made by Sapolsky and others is to choose a philosophy based on false or unsupported claims as if they were true. Given the problems with that social-priming research, I think Sapolsky etc. should either revise their philosophical views, or else explain why their views remain unchanged after removing the scientific evidence they were using as support for these views.

**P.S.** There’s only one thing in Riskin’s article that seems wrong to me. She writes:

*Sapolsky’s solution to the problem of what to do with those convicted of crimes is radically at odds with this definition of humanitarian policy. He recommends that society regard them as the passive objects of their fate and commit them to a medical-style “quarantine.” He gives few details, but does mention a familiar array of practices, from physically confining people to requiring them to register with the local police and wear tracking bracelets. It’s hard to see how this would be better than, or even very different from, being punished in the existing system.*

Are you kidding? Being constrained by having to being requited to “register with the local police and wear tracking bracelets” seems **a lot** better than being put in jail or prison. You can see your friends and family, you can go to work, all sorts of things, within whatever the restrictions of your sentence. From what I’ve read, jail and prison can be barbaric, also it puts you in constant contact with other criminals and isolates you from civil society. I get that Riskin disagrees with Sapolsky’s philosophy and his politics, but that’s no reason to say that non-prison confinement or restrictions on freedom are no better than jail or prison.

**It’s Sapolsky time: About that bogus claim that “chess grandmasters” burn 6000 calories per day**

Posted on [June 30, 2025 9:55 AM](https://statmodeling.stat.columbia.edu/2025/06/30/its-sapolsky-time-about-that-bogus-claim-that-chess-grandmasters-burn-6000-calories-per-day/) by [Andrew](https://statmodeling.stat.columbia.edu/author/andrew/)

This one hits two topics we’ve been discussing lately:

– [Reckless disregard for the truth](https://statmodeling.stat.columbia.edu/2025/06/24/reckless-disregard-for-the-truth-coming-from-cops-doctors-and-scientists-a-rant/)

– [Bring on the Stupid: When does it make sense to judge a person, a group, or an organization by its worst?](https://statmodeling.stat.columbia.edu/2025/06/26/bring-on-the-stupid-when-does-it-make-sense-to-judge-a-person-a-group-or-an-organization-by-its-worst/)

The example comes from a dubious claim promoted by Stanford professor and media star Robert Sapolsky, investigated in [this post](https://open.substack.com/pub/strandbergbio/p/chess-grandmasters-do-not-burn-6000) sent to us by Adam Strandberg:

*I [Strandberg] work on metabolism and have some interest in neurons, so I have on several occasions run into the claim that chess grandmasters burn 6000 calories per day during tournaments. I found this implausible and decided to investigate where it came from. While I am not the first person on the internet to express skepticism of such a large number, nobody seems to have worked out the precise source of the claim. I assumed when I dug into it that I would find a specific methodological error. But while methods enter the story, the real problem is that the number was completely made up.*

Statistics that [come out of nohwere](https://sites.stat.columbia.edu/gelman/media/decorative.pdf), huh? Strandberg gives the scoop:

*As far as I can tell, the “patient zero” that caused this claim to become so widespread is this 2019 ESPN article:*

*Robert Sapolsky, who studies stress in primates at Stanford University, says a chess player can burn up to 6,000 calories a day while playing in a tournament, three times what an average person consumes in a day. Based on breathing rates (which triple during competition), blood pressure (which elevates) and muscle contractions before, during and after major tournaments, Sapolsky suggests that grandmasters’ stress responses to chess are on par with what elite athletes experience.*

*This story was then picked up by many outlets, such as CNBC, Men’s Health, Inc, GQ, Marginal Revolution, and Joe Rogan.*

On the plus side, some of the Marginal Revolution commenters [called B.S.](https://marginalrevolution.com/marginalrevolution/2019/09/the-chess-diet.html?commentID=159982297) on this one.

Strandberg does some digging:

*The earliest reference I could find to the 6000 calories number was in Sapolsky’s 2009 Class Day Speech at Stanford 10 years before the ESPN article, with no caveats:*

*So you got two humans, and they’re taking part in some human ritual, they’re sitting there silently at a table, they make no eye contact, they’re still, except every now and then, one of them does nothing more taxing than lifting an arm and pushing a little piece of wood, and if it’s the right wood and the right chess grandmaster is in the middle of a tournament, they are going through six to seven thousand calories a day, thinking. Turning on a massive physiological stress response, simply with thought…*

Not just 6000, but “six to seven thousand calories”!

Strandberg summarizes:

*A grad student took physiological measurements of 11 ordinary chess players (not grandmasters). They reported in a summary in a chess magazine that the maximum chest movement rate they measured in a 10 second period was almost three times that of an average measurement from a different study. Robert Sapolsky then cited this thesis in his popular book, dropping the distinction between maximum and average to give a 3X breathing rate. He later took the 3X number and multiplied that by 2000 calories per day to get the number 6000, adding the “grandmaster” rhetorical fluorish along the way. He spread this fact through his own talks at Stanford and through interviews with journalists, who accurately repeated him. When questioned about the source of the number, he then claimed on multiple occasions that the number actually came from someone else, and that journalists had distorted his argument.*

*Suffice it to say this is unbecoming of such an esteemed professor.*

Ahhhh, but that’s the sort of behavior that gets you esteemed, it’s what gets you on NPR, Ted etc! Big claims with no evidence. Sure, big claims with evidence would be even better, but, in the absence of evidence, big claims with made-up evidence will do just fine. Sapolsky also seems very genial, so nothing ends up being his fault.

Maybe next time Freakonomics or Sean Carroll or Joe Rogan or Andrew Huberman or some other fount of gullible masculinity interviews Sapolsky, they could try asking him about all this. I don’t think anything useful would come from such an interrogation, though. My guess is that Sapolsky would engage his genial manner, the interviewers would immediately fold, and then that would be it.

Kind of like when they do features on health benefits of cold showers or mind-body healing. Whatever. It’s all good. As long as some professor at a prestigious university is getting fawning press, we’re all winners, right?

**What harm is done?**

Who cares? So what if some fake statistics gets passed around through the news and social media? Why should we be bothered (other than the [usual reason](https://xkcd.com/386/))? I can’t answer for everybody on this one; I’ll just say that I see this kind of thing as a sort of debasing of the currency of discourse. Part of this is a simple crowding out: the NPR and ESPN segments devoted to this crap, the episodes of Freakonomics and Sean Carroll and all the rest, represent time that could’ve been spent on real science. But also it degrades the notion of science itself. All sorts of people–NPR listeners, Andrew Huberman listeners, the students at Stanford’s Class Day–are told that this stuff is science. And now [look what we have](https://statmodeling.stat.columbia.edu/2025/06/20/nih-plan-to-remove-ideological-influence-from-science-how-does-this-fit-in-the-junk-science-being-promoted-by-the-u-s-dept-of-health-and-human-services/) at the U.S. Department of Health and Human Services: reliance on discredited fraudulent research and citations of fake papers.

As with other fake claims we’ve discussed over the years, this 6000 calories thing is [big if true](https://statsandstories.net/methods/big-if-true). Just as it would be big if true if they faked the moon landing, or if I found a chunk of the True Cross in my backyard, or if I came across a proof that pi is a rational number, or if someone were to demonstrate that elderly-related words caused slower walking, or . . . all sorts of things.

Good on Strandberg to track down the claim, and the mistaken reasoning underlying it, and the way that the Stanford professor promoted the fake number and then misrepresented the story. I’m reminded a bit of the dubious claims of mind-body healing that Nick Brown and I [investigated](https://sites.stat.columbia.edu/gelman/research/published/healing3.pdf): it wasn’t just a single experiment presented misleadingly, it was an entire literature that was being garbled. There’s a paper trail, if you care to follow it.

**Can this guy do good science?**

I can’t be sure, but maybe the answer is yes. Stephen Pinker [describes](https://x.com/sapinker/status/1723038526508310785?lang=fr) Sapolsky as “a great scientist and writer.” I don’t really care about the “great writer” part–if you’re purportedly writing nonfiction but you’re actually making things up, then your writing skill is kind of irrelevant if we want to evaluate your work on scientific grounds–but it’s possible that on the days that Sapolsky is doing science, rather than bullshitting, he’s doing good science. It’s hard for me to say. The fact that he won lots of awards does not imply in itself that he did good science–unfortunately, there are lots of award-winning scientists who have ultimately made no useful contributions to scientific understanding–; on the other hand, the awards are evidence that *somebody* thought he was doing good work.

Looking at Sapolsky’s wikipedia page, it seems that his scientific contributions, such as they are, have come from observing animal behavior. And his mistakes with the 6000 calories thing–setting aside the immorality of claiming any implications to “grandmasters” and of blaming journalists for his own b.s.–come from some combination of complete innumeracy and a willingness to say things that are false but sound impressive.

Can a great scientist be completely innumerate? I think so. There are many mental skills and abilities, and it seems plausible to me that you could be a complete idiot when it comes to math (getting that 6000 calories number by imagining that a chess player playing one game is tripling his normal caloric expenditure over an entire 24-hour period) and still be excellent at other aspects of science, such as the ability to sit very quietly in the woods taking careful observations of baboons.

One reason I say this is that I’m kind of the opposite: I’m really good at math but I’d be absolute shit at that baboon thing, partly because I can’t sit still to save my life and partly because I don’t really understand animals so I don’t think I’d take any useful observations. If I can contribute to science even while having no patience and no understanding of animals, it seems reasonable to assume that someone else can contribute to science even while having no understanding of what it means to take averages or multiply.

What gives me more concern about Sapolsky is not so much his inability to think in quantitative terms as his extreme overconfidence in that domain. How hard would it have been for him to say, “I read some research that people are under stress when playing competitive chess–their hormone levels change, their pulse rate goes up, etc.–but I can’t say how many more calories they consume, I’ll leave that one to the experts”? But noooo, he has do the stupid thing and say that silly overconfident 6000 calories thing.

But . . . had Sapolsky been open about his innumeracy–or even just willing to contract out his numerical statements to a qualified colleague–that could well have hurt him professionally. Suppose he’d come up with something like, “There’s some evidence that chess players experience physical stress while playing . . . the best estimate is that this increases caloric load by 20% during a game . . . also in a tournament a player might be too nervous to eat well, leading to temporary physical deterioration . . .” OK, that’s not gonna get you on ESPN, indeed they might not even ask you to deliver the Class Day speech at your university.

So:

1. Conditional on being willing to bullshit, many people have positive career incentives to do so.

2. Unless you’re a real psycho, it can be easier to bullshit if you don’t know what you’re talking about, which gives people who are willing to bullshit a positive incentive to maintain their ignorance–or, in Sapolsky’s case, innumeracy. It gives you a kind of plausible deniability whereby you can portray yourself not as a calculating deceiver but rather as a head-in-the-clouds big thinker–the kind of person who can be featured on Freakonomics, Marginal Revolution, Carroll, Rogan, and all the rest. Ignorance and innumeracy serve as a sort of buffer state to protect your reputation.

But . . . is it truly ignorance if you have to work so hard to maintain it?

Remember [Clarke’s Law](https://statmodeling.stat.columbia.edu/2009/05/24/handy_statistic/): Any sufficiently crappy research is indistinguishable from fraud.

**P.S.** Some searching on Sapolsky [turned up this](https://x.com/literalbanana/status/1938400096657543663). The man seems to have a positive attraction to junk science. I’m starting to think he has to work pretty hard to avoid the boundaries of reason. But don’t worry–all this posting counts approximately zero compared to the reputation of [Stanford](https://statmodeling.stat.columbia.edu/2025/05/09/back-before-he-was-a-vaccine-denier-law-professor-richard-epstein-was-a-cliche-spinning-dispenser-of-misinformation/) (also [here](https://statmodeling.stat.columbia.edu/2023/08/23/why-does-education-research-have-all-these-problems/)) and the combined audiences of NPR, Ted, Freakonomics, Rogan, etc. I think the only way skeptics such as ourselves could appear on such shows would be if go all-in on climate change [denial](https://statmodeling.stat.columbia.edu/2023/08/08/freakonomics-and-global-warming-what-happens-to-a-team-of-rogues-when-there-is-no-longer-a-stable-center-to-push-against/) or we declare that we have [haunted radios](https://statmodeling.stat.columbia.edu/2014/12/12/saying-things-place/).

**Carroll/Langer: Credulous, scientist-as-hero reporting from a podcaster who should know better**

Posted on [October 19, 2024 9:19 AM](https://statmodeling.stat.columbia.edu/2024/10/19/carroll-langer-credulous-scientist-as-hero-reporting-from-a-podcaster-who-should-know-better/) by [Andrew](https://statmodeling.stat.columbia.edu/author/andrew/)

*tl;dr. To the extent that healing is important, I think it’s important not to overstate evidence for speculative claims about what works. Individual and societal resources are limited. If you want to say something like, “Sure, this is pie-in-the-sky research, but if it works it would be wonderful (‘kind of amazing,’ as Carroll might say), so it deserves our attention, respect, and funding as a high-risk, high-return possibility” . . . go for it. That argument could be made. But then that argument should be made. Don’t fudge it by acting as if there’s evidence that isn’t really there.*

Pointing to a podcast of Sean Caroll interviewing psychologist Ellen Langer, commenter Mark [writes](https://statmodeling.stat.columbia.edu/2015/03/10/the-illusion-of-the-illusion-of-control/#comment-2374317):

*I [Mark] found myself wanting very much to ask her to substantiate the grand claims she was making about how mindfulness (as she defines it, which itself was a bit squirrelly) makes people heal faster, reverse age, and feel perpetually alive and happy.*

*Sean Carroll is a physicist, so I was hoping for a more rigorous dive into the science and data that Langer asserts is overwhelmingly supportive of her claims, but was notably absent from her explanations. Lots of anecdotes and stories and pithy phrases, though!*

*“Brash and unscientific” indeed. Also alarmingly overconfident in her views (in direct contra to her description of the “mindlessness” – lack of curiosity and doubt – that she alleges virtually all humans have about their own views). Frustrating to listen for so long with no substantive response by Carroll.*

I agree. We’ve written about Langer before (see above link), and more recently [Nick Brown and I did a deep dive](http://stat.columbia.edu/~gelman/research/published/healing3.pdf) into a couple of her papers claiming to find evidence of mind-body effects. We concluded that those papers are fatally flawed in the sense of not providing evidence to support their strong claims.

Carroll’s [podcast is here](https://www.preposterousuniverse.com/podcast/2024/06/17/279-ellen-langer-on-mindfulness-and-the-body/), and it conveniently has a transcript, so I could find some of the relevant parts.

Here’s the key bit from Carroll, right at the beginning of the interview:

*Ellen came out with a new book at the end of last year called The Mindful Body: Thinking Our Way to Chronic Health, which is about the physiological, the health benefits of mindfulness. And it’s very interesting, she has a lot of studies, right? This is very data-based, and some of the results of these studies are kind of amazing. . . . You can think of it as kind of like the placebo effect. You take some pill that really isn’t anything at all and your mind coaxes your body into getting better. But turning that on its head to make it much more intentional and cognitive and active rather than tricking yourself, just thinking yourself into feeling younger, healing faster, generally being more healthy. So I mean the data are there. . . .*

I don’t think the data are there. To be precise, *some* relevant data exist, but, from the published papers, I don’t see these data providing good evidence for many of the claims being made.

More generally, statements such as “This is very data-based” and “the data are there” are nothing but empty hype if you can’t point to the actual data and their relation to the (justly) controversial scientific claims. Otherwise, you’re just bullshitting. You could just as well interview someone about the Loch Ness Monster or whatever and say “This is very data-based” over and over and hope your listeners don’t go and check.

From the podcast interview, here’s Langer:

*All right, we take chambermaids, and we first ask these chambermaids these are people who are cleaning hotel motel rooms, whatever, how much exercise do you get? Well, because the surgeon general describes exercise as what you do after work, and they just too tired, they don’t think they’re getting any exercise. All right, so we take lots of measures, the study is very simple. We divide them into two groups, and one group we teach them that their work is exercise, making a bed is like working at this machine at the gym, and so on. So we have two groups there. One group that knows their work is exercise, the other group that is unaware of it. We want to make sure they’re not eating any differently, they’re not exercising any more, they’re not working any harder, everything is the same except for they change in their mindset. Now that they saw their work as exercise, they lost weight, there was a change in waist to hip ratio, body mass index, and their blood pressure. Which is remarkable, right?*

Carroll responds with complete credulity:

*Oh, yeah.*

That’s a bad response! [Nick Brown and I looked](http://stat.columbia.edu/~gelman/research/unpublished/healing.pdf) into that paper carefully and, no, there’s no evidence that “they’re not eating any differently, they’re not exercising any more, they’re not working any harder, everything is the same except for they change in their mindset.” The most “remarkable” thing about this podcast is that the interviewer just accepts these claims.

And here’s Langer with another example:

*So we have people, we have three groups of people. Unbeknownst to them, to all of them. For a third of them, the clock is going twice as fast as real time. For a third of them, the clock is going half as fast as real time. For a third of them, it’s real time. The question we’re asking is, will that wound heal based on perceived time, what the clock tells you, or real time? And the answer is perceived time.*

Again, no.

On the plus side, they didn’t mention the so-called “poison ivy” study (see section 3.2 of the above-linked article with Brown).

**P.S.** The webpage for the podcast has a comment section, and most of the commenters express strong skepticism of Langer’s claims, picking up on the lack of persuasive data and the potential risks of taking these speculative ideas too seriously. It’s an interesting example where the commenters are much more grounded than the main post.

I wonder if Carroll will read those comments and reassess.

My recommendation is that he conduct do a followup interview with Nick Brown, a person who, unlike Langer, has not received her Ph.D. from Yale, is not a professor at Harvard, has not had multiple gallery exhibitions, and has never received a Guggenheim Fellowship or a Genius Award—but who is careful not to exaggerate what can be learned from data.

[**A suggestion for Freakonomics and Sean Carroll: Interview Nick Brown**](https://statmodeling.stat.columbia.edu/2025/08/26/a-suggestion-for-freakonomics-and-sean-carroll-interview-nick-brown/)

Posted on [August 26, 2025 9:15 AM](https://statmodeling.stat.columbia.edu/2025/08/26/a-suggestion-for-freakonomics-and-sean-carroll-interview-nick-brown/) by [Andrew](https://statmodeling.stat.columbia.edu/author/andrew/)

[17](https://statmodeling.stat.columbia.edu/2025/08/26/a-suggestion-for-freakonomics-and-sean-carroll-interview-nick-brown/#comments)

Last year we discussed the problem of scientists who host podcasts in which they credulously and uncritically interview celebrity scientists who are promoting junk science. There was Sean Carroll, a physicist who should know better, [fawning over](https://statmodeling.stat.columbia.edu/2024/10/19/carroll-langer-credulous-scientist-as-hero-reporting-from-a-podcaster-who-should-know-better/) a Ellen Langer, Harvard psychology professor who was making wild claims about mind-body healing and also [uncritically pushing](https://statmodeling.stat.columbia.edu/2025/06/30/its-sapolsky-time-about-that-bogus-claim-that-chess-grandmasters-burn-6000-calories-per-day/) the ridiculous claims by Robert Sapolsky, a Stanford biology professor who’s [notorious](https://statmodeling.stat.columbia.edu/2025/06/18/junk-science-used-to-promote-arguments-against-free-will/) for relying on bogus science.

Both these academic science superstars–the one from Harvard and the one from Stanford–have also been featured uncritically on the Freakonomics podcasts.

As I wrote [a few months ago](https://statmodeling.stat.columbia.edu/2025/06/26/bring-on-the-stupid-when-does-it-make-sense-to-judge-a-person-a-group-or-an-organization-by-its-worst/), If you’re a well-trained physicist or economist and you have a public platform and you use it to promote junk science . . . really, what’s the point of it all?

I mean, really, what’s the point? I can think of three reasons:

1. You’re invested in the scientist-as-hero narrative ([which I hate](https://statmodeling.stat.columbia.edu/2020/07/09/the-scientist-as-hero-narrative/)), and these people are NPR and Ted-certified heroes with great stories to tell.

One reason why these celebrity scientists have such great stories to tell is that they’re not bound by the rules of evidence. Unlike you or me, they’re willing to make strong scientific claims that aren’t backed up by data.

So it’s not just that Sapolsky and Langer are compelling figures with great stories who just happen to be sloppy with the evidence. It’s more that they are compelling figures with great stories in large part *because* they are willing to be sloppy with the evidence.

2. Once you have a podcast, you want more listeners. (I have a blog here, I get it.) You get more listeners with good stories. The truth or evidence of the stories is not so important.

3. You outsource your judgment to the academic community, peer-review process, NPR, Ted, and other podcasts. If someone’s a decorated professor at a top university, with papers published in top journals, further validated by top-grade publicity, then it’s gotta be solid research, right? These science-podcasters are too busy to actually look into the evidence that purportedly supports the wild claims they’re promoting.

The question then is, what to do about it?

My original thought was that, if you’re gonna interview people who make outrageous-but-wow-it-would-be-amazing-if-true claims, you should grill them a bit. Express some skepticism and don’t let them just wave away objections.

The trouble is that if you do this your interview would not go well. If you had *me* on a podcast and asked me tough questions passed along by skeptics who don’t trust Bayesian inference or don’t like polling or whatever, that’s fine–I [can respond to such things](https://statmodeling.stat.columbia.edu/2025/03/05/no-an-election-forecast-thats-50-50-is-not-giving-up-no-the-election-forecasters-in-2024-did-not-say-whatever-happened-it-was-supposed-to-be-razor-thin/). That would be fine. But if you push hard against people who have the habit of stretching the evidence, I don’t know what would happen. I’m pretty sure they wouldn’t just collapse and admit that their claims are unsupported. My guess is that they’d refer to other studies that they claim would back them up, to which the podcast host would be able to instantaneously respond. So it would just push things back one more step. Either a waste of time or a disaster if the person being interviewed gets angry.

So I don’t think the strategy of pushing harder in the interview would work.

I’ve listened to lots of podcasts, and I’ve never heard a single one in which the interviewers really challenge the people being interviewed. It’s just not done. I don’t recall even soft questioning, of the form, “People sometimes disagree with you regarding X . . . how would you respond to that?” For better or worse, podcasts just don’t do that.

But here’s something that Carroll and Freaknomics could do. They’ve already done podcasts promoting the work of notorious science exaggerators. Follow this up with interviews of skeptics.

In particular, I recommend interviewing Nick Brown, my coauthor on [this recently published paper](https://sites.stat.columbia.edu/gelman/research/published/healing3.pdf) and an articulate explainer of the problems with junk science in psychology.

Nick isn’t an Ivy League professor, but . . . you’re not gonna tell me that Carroll and Freaknomics are status-obsessed, right? If anything, it’s a great populist story, that Nick Brown, this guy from nowhere, was able to puncture the bubbles of so many highly-credentialed purveyors of junk science. It’s the emperor’s new clothes!

So, Sean Carroll and Freakonomics, here’s your opening. Invite Nick Brown on to your podcast. Go for it.