PLEASE NOTE: This transcript has been auto-generated and has not been fully proofed by ISEOF. If you have any questions please reach out to us at info@thegreatsimplification.com.

[00:00:00] **Nate Hagens:** Good morning as a podcast host, there is one answer that I love to hear when I ask my guests a question, but I rarely ever do. To me this answer is a signal of maturity and nuance and honesty, and it's not trying to give an answer to all the world's problems. That answer is, I don't know. Why is hearing, I don't know.

So refreshing to me, and I'm guessing to many of you, which is why I'm doing this, frankly, we are all members of a social species. In a modern culture that's turbocharged by energy surplus and social technology. But in this modern setting, we still seek. Status and respect, a product of our evolutionary wiring.

And because of this, in most public settings in today's society, including, and especially the media, we value, and I would argue, overvalue, confidence, bravado and certainty. So saying, I don't know. It is now seen as a sign of weakness, not of wisdom. So when you hear it in a public setting, it's like an antidote to our cultural consensus trance.

And I'm beginning to think that the reluctance to express, I don't know, or it's equivalent out loud, is a fatal flaw. In our culture as we begin to discuss our vastly complex and risky and rapidly approaching future. And so today I'd like to unpack this a bit.

so back in the day 20. Five years ago, no longer ago than that, 25 years ago is when I left, when I started at Salomon Brothers, in 1992. So over 30 years ago, Salomon Brothers was one of the coolest places on Wall Street and in the training program, which was much revered and respected. They kicked our asses.

and a lot of times they would ask you a question about simple bond math, like what's the duration of a 30 year note? and then they would ask you a little bit harder question, what's the ticker symbol of, some stock? And then they would ask you a really hard question and after you answered the first two questions, like, yeah, I know that it's Yahoo, YHOO, or whatever.

Then they would ask you a question that you weren't supposed to be able to ask. And what ended up happening, especially as we wanted to impress our bosses, we would make something up our guests, and they would come down on us so hard, like no, what you were supposed to say as eventual sales people who would be talking to billionaires and institutional managers is, I don't know.

But I will find out and get back to you. So that concept was drilled into me, in my early twenties. But in the intervening 30 years, I don't know, is not spoken, in our culture. And I want to try to understand why and what it means. So there's, many levels of this. and our culture today doesn't merely tolerate and accept overconfidence, but I think we actually prioritize it and, basically pay a premium.

For overconfidence, in our culture, social media feeds boost, the really bold claim that then goes viral as opposed to the nuanced one that is more accurate. And I feel that dynamic in spades hosting the content on TGS the past few years. TV and news producers, they book the guests with the crisp and sharp take, not the careful, qualifying one.

And in classrooms the quick hand beats the methodological thinker. and I know this because even in third grade I had the fast hand, in boardrooms, in C-suites, it's the fast, confident answer ranks a lot higher than the humble hypothesis. So our modern status economy runs on conviction and nuance and caution, slow us down.

And there are three, at least three intertwining reasons why confidence and lack of humility. Rise to the top in our current culture, first at the physiological level, within an individual uncertainty itself feels bad because uncertainty is more than just an abstract concept. It's actually a bodily state.

Within us human brains are prediction engines, always guessing what's gonna come next, and then checking that guess against the reality in front of us in the, when the world becomes more chaotic, these prediction errors. Spike and kick in our sympathetic nervous system, AKA, our alarm network. And so when our stressed system releases cortisol and things happen like a tight chest or a fluttery stomach and increased heart rate, these inform our gut that something is off here.

Even before we can explain why. And furthermore, being uncertain by definition occurs when we build multiple mental possibilities and hold them all at once. And doing this requires more energy in the form of glucose. But when we're now running parallel mental scenarios and models inhibiting quick answers.

Context flip-flopping. Our bodies don't like all this energy use and inefficiency, and as this stress increases, our bodies push us to pick some story, sometimes to pick any story to shut the alarms off. So evolution wired us. As this way on the planes of Tanzania, back in the day, it was safer to assume that the rust in the bushes was a lion than it was to assume it's the wind.

'cause it was better, a false alarm than a fatal pause. or maybe fatal C clause, C clauses in clause. and now today a modern society reinforces this. groups reward decisive signals over caveats. So, I don't know, can professionally feel like a status risk? You put that all together and at the level of the individual human physiology, uncertainty feels both uncomfortable and potentially costly.

So it's no wonder that fantasy and doom often become our defaults rather than sitting with the unknown. open to learning. Okay. That's the first level. So building

on that at a higher level. Beliefs, once they're formed, develop antibodies to change. We all carry, what's been referred to as an ideological immune system, which is once a worldview works for us, we defend it.

And importantly, especially the smart. among us who get better at arguing their own side rather than testing it. And there's lots of modern research to back this up, on highly charged and divisive topics. Smart people aren't necessarily right, more of the time, but they are better, at rationalizing their own positions.

This is called motivated reasoning, and it's very effective at preserving our personal blind spots. Then a layer above that. There are the cultural wide human cognitive phenomenon like authority bias, and many other related biases is our built-in tendency to trust and comply with confidence signals of what's perceived to be, high cultural status titles and uniform forms and expert credentials.

Over any actual evidence. To the contrary, it shows up over and over. famously in the Milgram studies, ordinary people kept delivering what they thought were painful and nearly fatal shocks because some guy in a lab coat told them, please continue. there was another classic hospital field study where 95% of nurses prepared an excessive unauthorized medical dosed.

Based solely on a stranger's phone order, claiming to be a doctor. Even though the rules forbade this, there's many other studies have shown that humans are more likely to obey requests from persons in authority or perceived authority. This all doesn't seem surprising, but it does help explain why a lot of us tend to go on autopilot at times when we probably most need to be thinking critically.

And these examples are all from different settings, but they show the same pattern, signals of authority, lower our skepticism, and they raise our compliance. And this also partially explains why misinformation, in today's world works so well.

Throw some money at a confident spokesperson, and you distill some non-science based message, good for your business or whatever.

This is a high leverage, return proposition. So lastly, we can see why in our culture, people in authority rarely say, I don't know. 'cause if they did, they'd be replaced by some other leader or some other person who's more perceived to know what they're doing, so basically confident guesses rise to the top and almost if as if by, compulsion from.

what I refer to as the global economic Superorganism, we have learned to speak past uncertainty and to round off any error bars and ultimately culture wide. And this is a global phenomenon to confidently act first and check later. And these incentives shape the outcomes we see around us. projects start with rosy baselines and then end up with, invariably with cost overruns.

Politicians will campaign on certain guarantees and then walk 'em back, when they're elected and actually have to govern. even science gets pulled towards headline ready narratives. Okay. Even in choosing guests for this show, I lean towards the articulate, confident, charismatic spokesperson for topics over the best scientist.

So overconfidence in our culture is rewarded at the front end and punished if at all, only in hindsight, which means the person who benefits is rarely the person. Or culture who pays, the public and the environment pay in trust in money and time and obviously to those following this show, in ecosystem stability.

What about ai? Well, Al adds an interesting wrinkle here. Al also rewards confident responses, turbocharging what is already a human tendency. naturally because humans created ai. So in competitions, large language models are trained on what wins. Not on what's true. So you've heard of the concept of hallucinations.

This is when a model, a large language model confidently generates an answer that isn't true. chat, GPT five, main, software hallucinates around 10% of the time with internet access and about half of the time without the internet. So why do chatbots make stuff up? It's because they were trained. To answer, not to pass.

It's a fundamental logic difference. So if you think of, a quiz show where guesses get points, but saying, I don't know, gets you nothing and you play that a million times over time, such a system with lots of iterations, that system would learn to speak smoothly and confidently even when it's unsure.

In a recent paper, OpenAI, who makes, Chad GPT even stopped referring to hallucinations as bugs and referred to them as statistical destiny. So you combine humans and ai and you get even more overconfidence and, less humility. There was a new Stanford, paper that just coined the term malos bargain for what happens when large language models start competing for attention sales or votes, and the results were.

Striking though, perhaps if you followed this far, not unsurprising. Every gain in the model performance came with a bigger loss in honesty, in effect, more deceptive marketing, more disinformation in political campaigns and more fake and harmful, social media post. Then as is an aside and, not one I enjoy thinking or talking about, I worry a lot.

About the merger of AI with military capacity. I've been informed by people who are in a position to know that we've actually avoided perhaps a dozen or even more potential nuclear wars in the last 50 years, and mostly because at the time a single human was. and they chose to. That's, something's not right here.

Let's wait for more information. And the rational speed. Bumps of uncertainty and waiting might disappear if large language models trained on worst case possibilities, eventually replace the human interface and the, human decision

making and judgment. This is one of the few things that, that, wakes me up, at night.

of course you're aware this is not just a machine AI problem, but really a mirror into our cultural values and behaviors because we train ourselves the same way. as I mentioned before, media cuts to the confident clip and companies promote decisive, confident talkers, and. Politicians prioritize simplicity and easy to understand things over truth and complexity.

economists tell stories of infinite growth and that technology will be able to solve any challenges, along our way. The result is human hallucination. Stories we tell ourselves and act on that wildly outpace our energy ecosystem and time constraints. And then we're shocked, when reality shows up, to stare us in the face and remind us.

So what are the costs of overconfidence? people following along this platform are well aware of the modern cost of overconfidence, and certainty on the environmental side, but beyond the ecological impacts, that we're learning more and more about. Think of examples like, the challenger space shuttle launch.

So managers waved off the engineer's caveats about the O-rings and, low temps. And it resulted in seven Lives Lost. I watched that live, by the way. at Cranage Hall at University of Wisconsin when I was at college. Strange how the amygdala, has these little emotional memories, during the, lifespan of a human brain.

what else? the housing bubble ratings and models said This is safe. leverage and optimism said, let's party. and that all again resulted in another global crisis. The deep water horizon shortcuts looked efficient until they weren't. Governments do this all the time. Big projects are sold as on time and on budget and important, and they morph into years of, overruns.

And, then bailouts. so it was the optimistic baseline that was the mistake from the beginning. This is a repeating pattern in our culture. Certainty beats caution, and the costs come later, and the costs come later, and the costs come later, might actually, currently be a good mnemonic tagline for homo sapien sapiens.

and we're, starting to see the costs, that are coming later. So what do we do with this? I almost said, I don't know, but I have some directional ideas. One could argue that overconfidence and lack of humility and caution. Is one of the core underlying drivers of the maximum power principle, which itself is underpinning global human ecological overshoot and the impending great Simplification, which I suppose is itself, maybe, its own frankly, in the future.

But we have a Trump card, which is self introspection learning. And the fast pace of culture change. So injecting, I don't know, as a culturally accepted phrase, could be impactful in my opinion. I don't know. Shifts the dynamic back to curiosity and the possibility for change. It reengages our prefrontal cortex.

It widens our time horizons, and it makes cooperation with others easier because we're no longer defending an identity whose scaffolding was certainty. if you can't admit that you don't know. Then you can't really hear anything else. admitting uncertainty lets us run experiments instead of arguments, and it creates room to develop scenarios and more importantly, extend conversations with people, who we might otherwise disagree with and not talk to.

So, How do we put this into practice? in some ways this human authority bias phenomenon dovetails, I suspect with the psychopathy dark triad story that I've been, talking about recently. now I'm gonna think on that more. I think there, there's an important overlap there that I need to muse on, but what do we do in practice to shift this dynamic?

I don't know. but here are a few directional suggestions. So Al itself is evolving in emergent ways and open Al in their why. Al models hallucinate paper. They proposed a fix. To hallucinations, not more data, or the size of compute or the model sides, but merely a change in the rules on how models are trained and they're considering rewiring the benchmarks.

So I don't know specifically, I don't know, is rewarded instead of punished and if this works and, confidence thresholds are added to calibrate behavior. The thinking is that models will stop bluffing when they're uncertain. And this is really encouraging, I think. but of course a big caveat is that downstream from what OpenAI is doing are all their customers, the corporations and the confident individuals, and convincing them to embrace new models that favor, I don't know, over accuracy porn is, perhaps a harder challenge, than just patching the chatbots themselves.

But what they're suggesting is to change the scoring. So humility wins, or at least has more equal footing, in effect, to penalize confidently spoken errors more than they penalize uncertainty. And also to give partial credit for appropriate expressions of uncertainty. So open ai. Is doing this in training their next versions of ai.

What if our society did this? so what else? what about us as individuals? again, these are. somewhat confident guesses on my part. I'm, into the, I don't wanna, highlight a problem and then just say goodbye. so I'm putting some things I'm uncertain about that might directionally apply to the, you, the, viewers.

So maybe pay attention to yourself and notice when you're giving an answer that you don't fully understand or know to be true and recognize this, and call it out to your version of Little Nate sitting on your shoulder. Of course, it would be little Kathleen or Little Joe or, little Fg Lee or whoever is watching this, and then fact check it.

Get in tune with your gut, feeling, and you might find by listening more and more to the little part of you that says something is off with this guy, something is off with this story, something is off with what I just heard. It may become more and more accurate and sensitive to when others are trying to sell you something that's only half baked, actively.

Consciously calibrate, put probabilities on your own claims. I think this is going to 60% happen this week, 30% next week, 10% the week after or, something like that. And then score yourself, when reality arrives. I think this could be super helpful, but of course this gets into the collective action problem.

If you're the only one or one of the only ones that are doing that, then. Then it might not be that helpful if a lot of people do this. I think it would be helpful. and then the concept of red teams, make dissent and uncertainty a formal role in your work as opposed to a risk, and then rotate.

The, whoever's tasked with being the skeptic, rotate that role and, thank these people publicly for playing that role on your team. Whether that's at your community board meeting or at your organization or, even your family. if it works for machines, rewarding, honest uncertainty, why couldn't it work for us?

so in conclusion, today in a society that has assailed from all angles with social and environmental problems. And too much information, in addition to gambling, pornography, and shopping, and new Al videos of some Sasquatch looking creature, selling a new tech gadget. And all of this is available 24 7 on the internet to increasingly, overly full minds, we are moving further and further away from the cultural ability to express, I don't know.

Because such an answer in today's world implies weakness rather than wisdom. And someone on tv, someone testifying to Congress or someone publicly asked for answers to our financial ecological problems, replying, I don't know, but I can

find out and get back to you in our culture, would quickly be replaced by someone with a pithy, witty or confident answer.

And with all three, they'll be branded and expert and, invited back. So yes, modern human culture rewards, overconfidence and over rewards.

Overconfidence, what's the answer? I don't know. But I suspect if we're able to change how we keep score at home, at work, in media, in decisions about the future, so that truthfulness and humility get equal time as performance and, posturing.

I expect our systems would naturally get smarter and kinder. So what if those three magic words aren't the end of the sentence, but the start of learning, Thank you, talk to you next week.