

The Great Simplification

Nate Hagens (00:00:02):

You are listening to The Great Simplification with Nate Hagens. That's me. On this show, we try to explore and simplify what's happening with energy, the economy, the environment and our society, together with scientists, experts, and leaders. This show is about understanding the bird's eye view of how everything fits together, where we go from here, and what we can do about it as a society and as individuals.

(00:00:33):

Today's guest is ecological economist, John Gowdy. I've come to know John over the past 20 years in my research on the human predicament, and every time I thought I discovered some novel aspect of our situation, be it our hunter-gatherer minds, energy depletion, climate change, cooperation, or the superorganism-like optimizing for surplus dynamic, which began with agriculture, I discovered that John had written about that same topic five to 10 years earlier.

(00:01:05):

Of all my guests, John's framing of where humans came from and how our society has self-organized via market system is most aligned with my own. As such, it's my great pleasure to introduce my friend and one of my intellectual mentors, John Gowdy, to discuss how humans got to this point.

(00:01:39):

Hello, John. Good to see you.

John Gowdy (00:01:41):

Hello, Nate. Good to see you in person.

Nate Hagens (00:01:43):

So when I worked on Wall Street, there were people known as "macro guys" and they were people in the hedge fund industry that connected interest rates and foreign exchange and equities and geopolitics until how everything worked and it would predict how things went in the financial system.

(00:02:08):

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Then when I left Wall Street, I started to meet people like you who connected an even broader macro view of the human system, the human ecosystem and finance. And the whole Wall Street thing is a tiny piece of how energy, human behavior, the environment, the future, all the different systems dynamics fit together.

(00:02:33):

And so with that preamble, I will say I'm very excited to have you on the show, because you are probably the only human being on the planet that knows my story better than I know it myself. So I want to dive into some of the underpinnings of The Great Simplification, the human superorganism, how our species got to this point and looking forward to the implications.

(00:03:04):

So let's start at the foundation. You have long been a student of evolution and how evolution guides our behaviors and our thinking. So let's start there. Can you summarize the revolution in evolutionary biology and its relevance for social evolution in our current predicament?

John Gowdy (00:03:23):

Well, I'll try. I can give it a shot. Of course, there's a lot going on in biology and the philosophy of evolution and so on. I think the main thing is this, biology has really gotten beyond the selfish gene, and one of the reasons, evolution, biological evolution is largely missing from the social sciences for a number of reasons. Part of it is the reaction against early versions of sociobiology, mostly led by economists, actually.

(00:03:55):

E.O. Wilson moved on from the selfish gene thing a long time ago, but when it first came out in the 70s, the people really pushing it were economists. There was a special issue of Business Week on sociobiology, and I think the headline was something like, "Why humans are programmed to be selfish and why socialism won't work?" Something like that. So a economists really jumped on that to say, "Look, aha, it's human nature to be selfish."

(00:04:21):

What's happening now, and really driven by a lot of experiments, it's still genetics, but it's way beyond the selfish gene. For example, there's something called epigenetics,

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which is the interactions of genes in the environment. So we have all kinds of redundancy in our genes and all species do, and sometimes parts of it are expressed and sometimes others.

(00:04:45):

There was a nifty experiment as study in Australia with, I think it was a kind of finch, but they discovered that the mother finches sing to the eggs and the song differs according to environmental conditions. Now, I don't remember the details, but for example, if there's an abundance of food, the weather is warm, then the eggs hatch out differently than if it's cold and there's a sparsity of food. So somehow this information and the eggs as adults developed differently. In some cases the chicks are smaller, in some cases larger.

Nate Hagens (00:05:22):

Well, it's been a long time since I looked at the details of this study, but wasn't there something in World War I or II, where they tested pregnant women on either side of the German border and those that were within Germany who were well-fed ended up having average size adults from the babies that were born?

(00:05:43):

But those that were born outside of the German border because they didn't have access to food and the mothers were really skinny, they actually became obese at a much higher propensity later in life because there was a trigger that said, you're being born into a world of scarcity.

John Gowdy (00:06:00):

Yeah. A lot of people, I had a friend actually who was, he was in World War II, he was Jewish, and as a child he was shuffled in and out of these horrible places and then practically starved. And anyway, I mean, he was a really big eater. So people sort of overcompensate.

(00:06:17):

A lot of people, prisoners in World War II later became cooks, for example, because they were obsessed with food. That might be a little different than this. I mean,

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because you could say that's because of their development in the womb and so on. But studies like that are sort of coming to the forefront now.

Nate Hagens (00:06:33):

Well, it's probably just a generalization because I think my mom was perfectly normal and look at how I'm turning out.

John Gowdy (00:06:41):

My mother was the world's worst cook, so it's why stayed skinny for a long time.

Nate Hagens (00:06:46):

Not mine. Okay. Carry on with the importance of evolution.

John Gowdy (00:06:51):

Again, it's a whole new field. There's even a sort of branch now called the evolution of evolvability. So, and organisms can actually evolve to be responsive to environmental changes. Again, it's just natural selection and passing on genes and all that. I think evolutionary biology is moved way beyond these crude representations of sociobiology, and social sciences really should take a second look at what's going on.

Nate Hagens (00:07:20):

So why haven't they? There used to be something called the standard social science model that treated us as blank slate creatures when we were born, and then everything gets dumped in from our parenting and our schooling and our environment, but we come born with prepared learning. So there actually is a human nature. Well, what is human nature? Can you expand on that?

John Gowdy (00:07:44):

Human nature is... It depends. In some societies, caring, cooperation comes to the forefront and other societies like ours, selfishness comes to the forefront. And as I talk about in my book, it has a lot to do actually with the economic base. There's another interesting study published in Science a couple years ago, and this study looked at two villages in China.

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(00:08:10):

One, they were similar in similar areas and so on, but one depended on wheat, the other depended on rice, a rice growing economy. And rice apparently is a more cooperative exercise. Harvesting and all that people work together and people that grew up in the rice-based community scored higher on these standard tests in terms of cooperation, respecting others and so on. In the corn growing areas, they tended to be more selfish, have more self-centered values. Again, I think that the surface is just being scratched on this.

Nate Hagens (00:08:44):

But there is a wide range of human nature. For instance, we are not solitary animals like leopards or jaguars, so we're incredibly social. I mean, you can tick off the list of things that is part of our nature. We care about the present more than the future. As biological organisms, we care about social status. We can be hijacked by modern technology, all those things.

(00:09:12):

But I'm just wondering why have you spent a good portion of your academic erudite experience looking at human behavior? Why does knowing about who we are and how we got here inform our situation and our possible paths forward?

John Gowdy (00:09:30):

I probably got into it, I guess, I've been trained as an economist. I've been an economist for 40 something years now, and it was a reaction against the standard model. Purely selfish, don't care about others in the standard, what's called Walrasian general equilibrium model, you can't have interpersonal comparisons of preferences to get technical about it. But my preferences can't affect yours if you act like a rational human being. You can take the information into account, but you don't care about my well-being whether I have more or less and so on.

Nate Hagens (00:10:02):

So that's what microeconomics teaches, is that I can't care about your well-being?

John Gowdy (00:10:07):

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Yeah. The basic microeconomic model, and it's the basic point of it is the mathematical proof for the efficiency of a competitive economy. And it actually works well in a very narrow kind of situation, like the financial decisions you used to make, you really want to get the highest return on the money or the money of your clients.

Nate Hagens (00:10:31):

So that's if we assume that the thing of value in our society is monetary representations of surplus and we parse everything of value into that digit, into that dollar, therefore if I help my neighbor or if I smile at a random person in downtown Chicago, those things are not included in the economist formula of success or utility or anything.

John Gowdy (00:10:56):

Yeah. And again, if you're making an investment decision for a client as a stockbroker or something, you shouldn't take those into account. Your job is to maximize the discounted rate of return on however much money your client has.

Nate Hagens (00:11:09):

So can you give me a short few minute summary of why microeconomics is flawed or wrong, because it misses these core aspects of evolutionary biology and how we got here? Or is it relevant at all?

John Gowdy (00:11:27):

Yeah. Well, let me give just a quick answer. Again, the problem is that the model has been stretched and applied to things that it shouldn't be applied to. For example, discounting the future. Economists do something called cost benefit analysis to calculate the cost and benefits, for example, of climate change mitigation.

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And if you have any sort of discount rate, the higher the discount rate, the more you value the present over the future. And the damages from climate change are going to be really severe going out years, decades, maybe 100 years from now, and temperatures three degrees Celsius warmer, and with any kind of positive discount rate, those costs of climate change disappear.

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(00:12:11):

So everything is sort of weighted toward the immediate present, which again, if you're an individual making a decision at a point in time, that makes sense, but not if you're making decision as a society, as a member of society, looking at the future well-being of two or three generations ahead.

Nate Hagens (00:12:29):

So does microeconomics reference evolution and E.O. Wilson's work on cooperation and multi-level selection at all, or is it just completely disregarded?

John Gowdy (00:12:40):

Well, they're different. I mean, economics is sort of fragmenting now, also, there's a whole field of evolutionary economics does take those things into account, but it's sort of shunted to the side in terms of the field. People like my chairman, "oh yeah, what you're doing is really interesting, but it's not economics." That was the standard answer I got.

Nate Hagens (00:13:02):

But economics treats us as self-interested actors, which means that all I care about is the utility that lead to my decisions, and I am not caring about other people at all. Yet evolution teaches that we are absolutely other regarding. We care immensely about other people. So the whole premise is missing a huge aspect of our phenotype. Yes?

John Gowdy (00:13:27):

Yeah. And that's why the recent stuff on group selection I think is important. And you can, according to the standard model, then altruism shouldn't exist because if I help you, I'm reducing my fitness, my chances of survival are less. And again, in a population of selfish people and altruists, the selfish people will win out, win the battle to pass their genes on.

(00:13:53):

But in terms of if you take it in also the group into account, if I'm in a small group, say a hunter-gatherer group 20,000 years ago, if my group doesn't survive, then I don't

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survive either. I'm down the tubes. So if there's say 20 people in my group, I cooperate, I help others, then my chances of passing on my genes are greater.

(00:14:17):

So there's a trade-off between individual selfishness and the benefits to the group. And that's really just standard genetics also, there's nothing in that model that goes outside genetics. There are other cases that it does.

Nate Hagens (00:14:31):

But that seems so clear to me. David Sloan Wilson and E.O. Wilson wrote about that I think over 10 years ago now, but it's still never been accepted really in economics or even biology to some extent.

John Gowdy (00:14:44):

Not really. I think, and David Sloan Wilson has done more than anybody else, so sort of resurrect group selection. I think it's on the verge of becoming respectable. Actually, it is respectable. He has a lot of followers, but also a lot of reaction against it.

Nate Hagens (00:14:59):

So for an economist, John, you also happen to be an ant expert and you do a lot of studying on the social insects.

John Gowdy (00:15:07):

Yeah.

Nate Hagens (00:15:08):

Why is the study of ants important or relevant to understanding our human situation?

John Gowdy (00:15:15):

That's a great question. There are three kinds of organisms that dominate the planet, and those are humans, ants and termites, more than any other. And people are obsessed with primate behavior because they're our closest relatives genetically.

(00:15:35):

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There is just a finding that came out, showing that I think it was a chimpanzee. They observed one chimpanzee actually using insects to treat a wound on another chimpanzee. And that, I mean, it's pretty incredible. It's a kind of behavior, "Wow, look at that."

(00:15:51):

But if you look at ants and termites and humans, those are only three animals that live in city-states of millions of people. They're the only animals that have agriculture in the sense that they produce their own food supply, which of course gives them a tremendous advantage. So they dominate the planet.

(00:16:11):

Ants actually, they have warfare among ant colonies, very organized warfare. There's a group, a very large colony in California that's been in this war with another group for decades. And millions and millions of ants are killed in battles each year between those two kinds, those two colonies. The Pentagon actually studies these ant warfare for tactics. They use them in training. So it's pretty amazing.

Nate Hagens (00:16:40):

Seriously?

John Gowdy (00:16:40):

Yeah. The ants even have suicide bombers. They have these ants that go into enemy lines and blow themselves up. They're the only animal, other animals, ants and termites with complex divisions of labor, dozens and dozens of different occupations geared to certain tasks.

(00:16:57):

I mean, for me, when I stumbled on this stuff, it was just amazing. How can we, every little tiny little behaviors of a primate, we ooh and aah, but all around us are these things that really operate just like human societies.

Nate Hagens (00:17:12):

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Well, I know the numbers are pretty scary right now that humans in our livestock outweigh all other wild animals, approximately 50 to 1 in weight on the planet, but we weigh around the same as ants.

John Gowdy (00:17:28):

Yeah, human. That's E.O. Wilson's estimation that the biomass of humans is about the same of as ants.

Nate Hagens (00:17:34):

So what is the concept of ultrasociality? Which is you use throughout your papers and your recent book. Can you explain what is ultrasociality?

John Gowdy (00:17:48):

Ultrasociality. This came from work I did with Lisi Krall, a colleague at SUNY Cortland, and we started this stuff I guess maybe 12, 15 years ago. And it turns out her background is very similar to mine. She also has an undergraduate degree in anthropology. She's very sympathetic to hunter-gatherers. Her stepfather was a guy named Paul Shephard who popularized the hunter-gatherer lifestyle and said it was superior to ours. She trained as an economist, concerned about social justice and the environment and so on.

(00:18:22):

About the same time, I started working with David Wilson, and we had a grant to do a series of workshops at Duke University. So I met a lot of biologists, including some ant biologists that sort of turned me onto this stuff. But ultrasociality, the way Lisi and I define it, we sort of center on agriculture. These are societies, and the pioneer in this was a guy named Donald Campbell who was start writing, most of the work of his I know, started in the 70s.

(00:18:51):

So ultrasociality, as we found, again, we focus on agriculture and cultivating crops. So as hunter-gatherers, we lived off flows from the environment, day-to-day flows. If you did something wrong, say, the economies were sustainable because they had to be. If you over harvested or over hunted, then the became right back to bite you. It was clear what you were doing. It also kept the population stable. It also encouraged

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egalitarian societies because it really was a knowledge economy. Growing up in one of these cultures you had the knowledge you knew to make a living, the plants together and the seasons and all that.

(00:19:38):

So ultrasociality with agriculture, we broke out of that and started, instead of living off flows, we started producing for surplus. So we took control of the production of food from beginning to end. Clearing land, tilling the soil, planting crops, eliminating species that threatened the crops and so on. It led to an incredible explosion in the division of labor.

(00:20:06):

And also with ultrasociality, let me just throw this in, we'll probably come back to it later. But humans have castes` and ants do not, which surprises a lot of people. Caste meaning hereditary wealth that's passed on. Only the queen breeds in an ant colonies, so the workers are sterile, so they don't have descendants. There's nothing to pass on. So that makes human society different and it's also created a lot of problems.

Nate Hagens (00:20:34):

How long have we had hereditary wealth? Just out of curiosity.

John Gowdy (00:20:37):

That's an interesting question too. These ideas probably go back to hunters and gatherers. One example that, a sort of a counter example to agriculture that people use are the Northwest Coast Indians. And they had subtle communities in the beginnings of hierarchies without agriculture. And that's because they had these techniques.

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They lived in, this is Northwest Coast, they lived off salmon, and certain times a year they had these really heavy salmon runs. They could harvest the salmon, smoke them and store them and save them to eat later. So it was a kind of surplus without agriculture. And there were the beginnings of hierarchical societies because certain families came to control the best salmon run sites, and so they had more. There were also all kinds of leveling mechanisms, like the potlatch and so on.

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Nate Hagens (00:21:29):

The potlatch is when they would get social status by giving stuff away, by throwing big feasts, and rather than hoarding stuff and possessing it, they would show lavish displays of sharing. And that's what gained status for the potlatch Indians. Yes?

John Gowdy (00:21:44):

Yeah. And it's interesting too, because after contact with westerners, then they got more material things and the potlatch has become really got out of hand. They had these huge ceremonies where they would actually destroy wealth and burn blankets, burn possessions, and so on.

Nate Hagens (00:22:01):

Oh, really? Kind of Alexander Supertramp in Into the Wild, he burned his last dollars?

John Gowdy (00:22:06):

Oh yeah, yeah.

Nate Hagens (00:22:07):

So getting back to the main threat here, John. Were humans always ultrasocial, or is that just a new development with agriculture?

John Gowdy (00:22:15):

It was a new development with agriculture. That's what we argue.

Nate Hagens (00:22:18):

What were we before then? What term?

John Gowdy (00:22:21):

Well, there's a bunch of terms flying around. One is eusocial. We are very cooperative species. We function as members of groups and so on. Let me get back to a point made earlier about heredity.

(00:22:35):

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Humans are somewhat unique and most of our neurons are formed after birth. And so our brains are actually partially hardwired to become members of specific societies. And even infants, for example, can recognize the language of their mothers.

(00:22:53):

If a Chinese child or someone comes in speaking Chinese, the child will look up and look around, but not if an English speaker comes into the room. So in a sense, we knew we're programmed to be part of certain cultures hardwired, if you will.

Nate Hagens (00:23:08):

So what would be a bigger shock? A baby time machined from New York City today, back 10,000 years, or a baby from 10,000 years ago time machined to modern New York City? Can you hypothesize about that?

John Gowdy (00:23:23):

Probably not. Yeah, it would be, it depend on how old the child is. I mean, as the younger, the more adaptable, the more adapted the child would come particular culture. A newborn baby would be adapted to whatever society it was in. That's why it's so hard. I guess this is your point. It's why it's so hard to talk about human nature. Human nature varies with the material conditions and a bunch of other things.

Nate Hagens (00:23:46):

Well, and we are incredibly behaviorally plastic, our values emanate from how we make a living as a culture. You wrote about that in your new Superorganism book.

(00:24:00):

So surplus, energy surplus, which was agricultural surplus 10,000 years ago and then hit the jackpot with fossil carbon. We have this massive amount of energy surplus supporting our societies, and that kind of spills over into our value system. Yes? What do you think about that?

John Gowdy (00:24:21):

Oh, yeah. I mean energy, well, there were two. Tapping into solar energy with agriculture. We cleared land, we cleared forests and plants and replace it with our crops, which expropriated some of that solar energy.

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(00:24:37):

We also, with that, started using wood for fuel, and so on a massive scale. And then of course, just the energy bonanza that came with fossil fuels was another sort of jumpstart.

Nate Hagens (00:24:49):

Why is ultrasociality important to our current situation? The fact that we are ultrasocial?

John Gowdy (00:24:57):

Well, with ultrasociality, again, we started focusing on the production of surplus and storage. Again, it also sort of meant reorganizing production, complex division of labor. And we also got into this expansionist phase. Say you're growing crops, so you start producing surplus and you always plant more than you think you're going to need because you could have a bad year, something happens to the crops and so on. So most years you have more food than is required for that population.

(00:25:30):

What happens when any other species faces that their population increases? If it's a good year for grass, then you have more deer. If it's a good year for deer, you have more lions and so on and so forth. So I think it's that surplus production of food that really triggered population growth. And then of course, the population is larger. You have to plant more food. So you get into this cycle. And an interesting thing too is that after the beginning of agriculture, it really took thousands of years for city-states to develop.

(00:26:06):

For most of human history, the population was fairly stable, just a few million down to a few 100,000, maybe a few tens of thousands. But anyway, you didn't really increase. After agriculture, it didn't increase that much. It was 4 million at the beginning. I think it went up to, I don't know, 6 million, maybe 5,000 years later. And there's a lot of explanations for this. A good book to read is James Scott's *Against the Grain*. It's a great title.

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So it took a while for these city states to develop, and there may have been climate change. Scott argues that these early mixed economies were in estuarine environments. Agriculture was there, but it was really a supplement to the hunting, gathering, fishing that went on these very rich ecosystems.

(00:26:52):

We're in what now is what's called a Holocene. It's really characterized by a very warm and stable climate. Before that, the climate was just too variable to support agriculture. The year to year fluctuations were just enormous. I mean, you could have 10, 20 degree fluctuations, say in summer temperatures and just a few decades. So agriculture really couldn't take hold.

(00:27:14):

As the climate became more stable than these wild grains especially became more dependable, people started relying on them more. Maybe they started scattering seeds and then coming back every year to harvest them. They selectively harvested seeds. It had certain characteristics like non-shattering. People didn't choose agriculture. We just sort of stumbled into this very gradually, not noticeable from generation to generation.

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And again, the more dependent you came, maybe some people started staying behind. Sedentary females are more fertile than hunter-gatherer women who get a lot of exercise and are always on the move. So it was just kind of a step-by-step thing that we didn't choose. It's the quirk of history that we stumbled into.

Nate Hagens (00:28:05):

So there are some people that are taking this notion that we are ultrasocial, that we cooperate at larger units and kind of misunderstanding and misapplying this concept of ultrasociality. You're aware of the noosphere. Yes?

John Gowdy (00:28:21):

So the idea of the noosphere are these stages in evolution. I've heard you have the geosphere, the biosphere, and then the noosphere that's based on human thought,

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human ideas. So it goes beyond sort of the physical basis. And there are all kinds of underlying things there.

(00:28:45):

Let me just read a quote by a guy named Francis Heylighen. "In principle, the global brain can eliminate all the problems of poverty, pollution, resource exhaustion, conflict, ignorance, superstition, and work-induced stress. Moreover, it should be able to restore our physical and psychological environment to a more natural state without the need to abandon the comfort and security brought by technology. Thus it would create a new Garden of Eden, an inspiring, relaxed, and joyful life for all." This is another quote from that same paper by Heylighen. And he talks about the sorts of technology that would enabled us.

(00:29:26):

"Giants swarms of miniature sensors may be distributed ubiquitously across the cities, lands, oceans, ice sheets, and even atmosphere of the earth. By spraying them from robotic planes, they'd be so small that they could extract the tiny amount of energy they need directly from their environment, from sunlight or waves, thus function automatically. So these things would facilitate peer-to-peer communication and feed into this global bank." It's just crazy stuff to me. I mean, it just sounds insane.

Nate Hagens (00:29:59):

How does that contrast to your epic story of humans and the superorganism, et cetera?

John Gowdy (00:30:06):

Well, again, if you look at real ultrasocial societies and the role of individuals in those societies, the more complex the social organization, the simpler are individuals within that society. And again, the way I use superorganism or the way most people do, I think it's a misnaming in some way because it's not an organism. It's a self-organizing system with no self. It's just this system that came together to function and perpetuate itself through time.

(00:30:39):

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So members of these societies like ants, the simpler the information that they convey to the top, the better that information can be used. So if you're a group of ants, say your group of ants are assigned to find a new nest site. All the superorganism wants is this, which nest site is better, A or B, and they don't want to argue about why or philosophical reasons why you should choose this site.

Nate Hagens (00:31:08):

So with respect to the noosphere, the reason that that is incorrect based on our way of looking at how humans got here, is there is no hive mind in human societies. The superorganism is not like a Star Trek Borg with a higher collective intelligence. It's more like a body where individual humans are akin to individual cells in the body. Yes?

John Gowdy (00:31:33):

Yeah. In some sense, I think I said that in the book, although there in sense like a beehive with bees is better than a body with cells, because you can send bees out for a mile away to find food, and you still have that individual initiative preserved, but to serve the higher superorganism.

Nate Hagens (00:31:55):

So the superorganism story, and as you're aware, I wrote a paper and you wrote a book on the topic, is we self-organized after climate stabilized to maximize surplus, which led to division of labor, storing of surplus, population and growth explosion. Fast-forward 10,000 years or so, and we found fossil carbon, which boosted our fuel and supply further.

(00:32:24):

Fast-forward a couple hundred years and we're no longer optimizing for surplus, we're optimizing for surplus markers like financial claims on surplus. And the whole thing is out of control. There is no one in charge, it's no one's fault. It was an emergent property of so many humans pursuing their individual goals under an overarching goal of economic growth and financial maximization. When was the inflection point of that? And can you expand on what I just said? Did I get that right?

John Gowdy (00:33:02):

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Yeah. I mean society, as you pointed out as hunter-gatherers, we were a social group. You can see, of course, everything has beginnings. You can see the roots of certain kinds of human behavior in hunter-gatherer societies. People came together to operate as a unit, whether it was hunting mammoths or gathering crops or whatever. (00:33:23):

It took on a different character with the production of surplus, the emphasis on growth and expansion, and especially took off with these state societies. But I mean, all these things were there before in terms of... Let me, and that there was kind of social brain caring about others and all that it developed when we were hunter-gatherers. So there's something there, but it took on a different character with agriculture.

(00:33:47):

And actually, I think I mentioned ants and the larger the group, the smaller the brains of ants. Ants that have agriculture, their brains are about 10% smaller. And the same thing happened with humans, their brains are about 10% smaller than they were its beginning of agriculture.

Nate Hagens (00:34:05):

Because we've outsourced a lot of our behavioral flexibility to the cloud, to the group to perform other things.

John Gowdy (00:34:12):

Yeah. That's part of the noosphere, the example they give, the internet is supposed to evolve into this global brain. Pornography and misinformation for everybody.

Nate Hagens (00:34:23):

When did the market become so strong that it became uncontrollable? I mean, I think we are outsourcing our decision-making to the market. And like it or not, it's kind of in control because we have to keep growing to maintain stability. So that reality obviates any paths of wisdom or constraint. Well, when did we cross that threshold where it was out of anyone's control?

John Gowdy (00:34:50):

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That's really hard to say. I think it took a leap with the whole growth thing, making people produce surplus. Again, this is James Scott said, if it really started with state societies, certain people in control. If you were the king or queen or whatever priest in a state, the more people, the stronger you were to compete with other states, the more troops you could amass to go out. And you had other choices. You could hunt and gather. You could practice agriculture. You could steal from your neighbors. So that was sort of another emphasis for larger size. Another impetus for larger size.

Nate Hagens (00:35:27):

So here is a quote from your book, "Today we face two broad existential crises. The rapacious economic exploitation, destabilizing the natural world and staggering inequality. Individual well-being and the health of the earth's ecosystems are being sacrificed to the needs of the global market, with agriculture, nature, and people became impersonal inputs to support the production of economic surplus." Can you expand on that?

John Gowdy (00:35:59):

Well, again, with societies we most admire, we talk about Ancient Greece, ancient Rome and philosophy and literature. I mean, two thirds of the people in those societies were slaves. There's kind of more to it than that, but again, individuals were put in the service of the hierarchy, the elite whose job it was to perpetuate this kind of superorganism.

(00:36:24):

I mean, it gets really complicated with people because of the notion of elites taking the surplus. And there's always this battle going on too, and it's going on now with the vengeance between sort of enlightened self-interest. Part of the elite says, "Look, we can't push. We can't take everything. We have to keep people pretty happy or they will vote against us." And so on, and then on the other side, you have these people just want to take the money and run, sort of steal everything that isn't nailed down. You see that playing out now on the world stage.

Nate Hagens (00:37:00):

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So what is the concept that you write about? And I believe Donald Campbell first coined this, the concept of downward causation.

John Gowdy (00:37:09):

Okay. Downward causation means that the higher levels in the hierarchy tend to dominate the lower levels. And so the superorganism, this thing, that's not a thing. Self-organizing system that has no self, the rules to keep it going and keep growing and keep operating, harness, that's us, the people that are within the system, the units that were in the system to do its will. And again, the words don't exist. It doesn't have a will. It's not a thing, but it acts as if it does.

Nate Hagens (00:37:45):

Well, civilization eats energy in my opinion, and it's doing whatever it can to access more energy by changing the rules or issuing debt or whatever it has to until it can't. But within that, there are levels of hierarchy. Go on, John.

John Gowdy (00:38:00):

Yeah. I mean in terms of energy, I mean you mentioned finance. I mean something like one or 2% of the total energy used now is made to mine Bitcoins. I mean, how crazy is that? I mean, their whole countries like Iceland is tapping its hydropower to mine Bitcoins.

Nate Hagens (00:38:19):

Well, in contrast, the way money comes into existence is actually much more energy intensive. Not the printing of the linen paper dollar bills, but the fact that the central banks and commercial banks can create money with no tether to biophysical resources with just a keystroke. And so the money creation itself doesn't spend a lot of energy, but all of a sudden there's huge more monetary claims that people can spend on energy.

(00:38:50):

So at least Bitcoin, there's only going to be 21 million Bitcoins ever. But it's not the answer to our society's woes, in my opinion. Can we ever get away from downward

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causation or is that a byproduct of the human superorganism, or why is that important?

John Gowdy (00:39:06):

Yeah. I mean there's something called the Great Acceleration, the period after World War II where the system really just took off. So this is really, within my lifetime, population has gone from two and a half million to-

Nate Hagens (00:39:25):

Billion.

John Gowdy (00:39:25):

... about 7 billion to seven and a half. So it's tripled. Economic output is quadrupled, energy use has tripled. It's just an amazing thing. And there are a lot of reasons for that. The breakup of the old order after in two world wars and a Great Depression and so on.

(00:39:44):

The same thing, in recent decades these ants, supercolonies have spread worldwide. And so for example, Argentine ants, there's a colony in North America, another one in Europe, Italy and Spain, another one in Australia, another one in Japan. And these colonies spread by the way, because of humans, increased commerce and trade and boats and so on. But you can take an ant from Argentina and put it in a colony in North America and it will be accepted.

Nate Hagens (00:40:16):

Why is that? Why is that?

John Gowdy (00:40:16):

Because it's when an ant colony moves into a new area, it's an open thing and has plenty of food, plenty of room to expand, it pays to cooperate because the larger the colony, the better it can tap into these resources.

Nate Hagens (00:40:32):

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So the ant colony that exists sees the stranger ant that was a stowaway on a ship or whatever, and says, "You're welcome here because it's free labor for us."

John Gowdy (00:40:41):

Yeah, right. "We can combine and make our ourselves better." It's sort of like the altruism group thing. It pays to be altruistic. If you get more resources, you can grow and be better off. And apparently it's a breakdown, again, I'm not a biologist, of a gene or allele that ordinarily would make an ant fight an ant from another colony, even of the same species.

(00:41:05):

So one Argentine colony fights another colony, and they still do, by the way, you have these super large Argentina ant colonies fighting each other. But anyway, so the breakdown of that individuality for cooperation makes sense when resources are abundant and so on.

(00:41:26):

Really interesting thing, I've just sort of stumbled on this the last few months, these supercolonies are starting to fragment and break down because there's one, I think it's bird island in the seashells, and this was a group of ants called crazy ants. There's several species that have these supercolonies.

(00:41:45):

The ant colony took over the whole island. I think they were introduced in the 1990s. By 2004, they took over the whole island. Three years later, the whole thing fragmented. The population crashed by about 99% into these sort of tiny, little fragmented colonies. Resources became scarce. It didn't pay to cooperate. So when that happens, the system fragments.

Nate Hagens (00:42:08):

So it was a reindeer on St. Matthew's Island sort of situation?

John Gowdy (00:42:12):

Yeah. Except, again, this was a social group and reindeer didn't cooperate with each other. It was just resource abundance. Ultrasociality is something different. And

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interestingly, the same thing, and this is a point I'm trying to make in a paper. Same thing is now happening with globalization. I think it's starting to break down. Global trade is actually starting to decline even before COVID.

(00:42:35):

Now it's hard, you can't say, "Is this going to continue? Is this a trend that's going to happen?" But you can certainly see it all over the world and certainly in the United States, groups that used to cooperate are fighting each other, people at each other's throats. I mean, we've just never seen the hostility now between political parties, between groups and so on.

Nate Hagens (00:42:55):

So you're making a similarity between crazy ants and fire apes? So to speak.

John Gowdy (00:43:02):

Yeah. I think I'm onto something there. Again, now we have to wait a few years to see what happens.

Nate Hagens (00:43:07):

So do you have insights on whether human societies decentralize or continue to decentralize during the late stages of the superorganism being able to grow?

John Gowdy (00:43:20):

It should, it is grow slows down or starts to reverse, then there should be a decentralization, which I argue would be a great thing for the human species.

Nate Hagens (00:43:31):

Why?

John Gowdy (00:43:31):

Well, the most, the periods of the city states were actually very rare. I mean, past history societies were characterized by collapse, overshoot, collapse, whatever you want to talk about it. Most of the time was these in-between periods, what we call

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barbarians. James Scott makes a really strong case that most people were much better off as barbarians than they were as members of these states societies.

(00:43:57):

You had regional economies, you had more autonomy. You didn't have the state imposing these heavy taxes and burdens and military service on the public. So I really think that's where we're headed again in the next, it could be two, 300 years. But I think it's super, the human superorganism disintegrates, we'll go back to regional economies probably without agriculture because of climate change.

Nate Hagens (00:44:22):

So another term you use in your book, which I had not seen before, is totipotency. Does that apply here at all?

John Gowdy (00:44:31):

Not directly there. Totipotency is from the ant literature, and it means something like the ability for members of society, in this case ants, to perform all the tasks in society.

(00:44:44):

So in ultrasocial society, for example, you have doorkeeper ants. Their only job is to, they have these huge heads, they stand by the door and block it and to keep enemies out. That's their only job. They can't do any of the other tasks like cut leaves, carry leaves, and so on. So the more complex society, the simpler individuals get in the sense that they can't perform all the functions that society's needs to keep going.

Nate Hagens (00:45:11):

That's absolutely human society.

John Gowdy (00:45:13):

Yeah.

Nate Hagens (00:45:14):

I mean, and you could disagree about the math, but fossil, coal, oil and natural gas do the work of around 500 billion humans, relative to 5 billion real humans. So what is the real relationship between jobs and work?

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(00:45:31):

Because we're paying pennies on the dollar for most of our laborers who are fossil armies. So I'm just good at doing podcasts and playing tricks with my dogs. I couldn't build something or do art or construct a house or anything like that.

John Gowdy (00:45:50):

Yeah. And if you're a member of a hunter-gatherer society, say in the Upper Pleistocene, there were specializations, but it mostly had to do with age and gender. You did certain things when you're young, other things older, but you had the knowledge to survive in that society. And the important thing there is you weren't dependent on specific others for your well-being, the way to make a living. You knew where the plants were, you knew where the animals were. You could go out and hunt them.

Nate Hagens (00:46:18):

You've often told me that with the exception of the last 100 years, where we had the massive advances from medicine and medical care, that humans in the 19th century were in many ways worse off than we were 10,000 years ago, because we had been all this downward causation and everything. Can you explain that for a minute or so?

John Gowdy (00:46:43):

Yeah. There's been a lot of really good research on that. The main guy whose articles I read and I actually emailed him was Clark Spencer Larsen. And he documents, he had this massive grant from NSF or something.

(00:46:57):

He documented the decline in human health after agriculture. People are shorter, they didn't live as long. They had more teeth and bone abnormalities compared to hunter-gatherers. And they were also sort of pawns in this system that they didn't have the freedom to do what they want. And hunter-gatherers actually apparently had a lot of freedom.

(00:47:17):

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I mean, they were in small groups of 20 to 50, but at least in Europe, in the summers when times were good, they came together with groups of maybe a couple hundred. You could leave one group and go with another group. Wives could leave their husbands go with someone else if they felt like it. So a lot more autonomy than they have.

Nate Hagens (00:47:37):

Yeah. I read *Sex at Dawn*. I thought that was a very interesting book.

John Gowdy (00:47:41):

That's a great book. Yeah, obviously.

Nate Hagens (00:47:42):

Yeah. To me, it's obvious that humans can live differently than we are now, and we're going to have to. This podcast is called *The Great Simplification*. I think we're going to have, and across the board, lower living standards, at least for material throughput in coming decades. And we're going to have to figure out how to navigate that.

(00:48:00):

But why does how we lived 10,000 years ago or 5,000 years ago, why does it change what's coming in the next 10 or 20 years? Or is it getting back to what you said before, that it gives people hope that we can construct a different society? What do you think?

John Gowdy (00:48:16):

Yeah. I mean, for me it's important. The more I read about hunter-gatherers, I was a student of anthropology, I was on archeological digs when I was a student. But you do see, you start looking at how the people lived, the capacity, the mental capacity they had to have to make a living, the interaction with each other, they depended on each other. It just seems to me to be a more harmonious, environmentally stable way of living. And I think we're going back to that.

(00:48:44):

I mean, it's obvious that this society can't continue. Whether it lasts a few years, a few decades, or a couple of centuries. I'm just trying to look beyond and see what's likely

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to come next. If we're lucky and fossil fuels run out as soon as I hope you're right, and they run out soon. My only problem with peak oil, I mean, where is it? A lot of us in the 70s were hoping that it would change the system and there would be energy pinches that would make us start living a different way.

Nate Hagens (00:49:14):

But then we went to globalization and we went to credit, which allowed us to get the next tranche. By the way, just for the record, John, I have never said we're running out. I've said the amount of cheap energy to afford this level of complexity and scale is...

John Gowdy (00:49:31):

Is going to start to pinch. Can I follow up on that in just a minute?

Nate Hagens (00:49:35):

Yes. You can do whatever you want.

John Gowdy (00:49:38):

So I was lucky enough in the 70s to study with a guy named Nicholas Georgescu-Roegen. It was just another accident of history. I'd just gotten out of the army. I went to, it wasn't a particularly good school, West Virginia University. And my advisor said, "Wow, the first day you ought to check out this guy is Georgescu-Roegen." And I picked up his book, the Entropy Law and the Economic Process that had just come out. And he really took me under his wing for the next few years. He was there every other semester.

(00:50:11):

So that book just came out. Everybody was talking about peak oil. There were long gas lines, so you're probably too young to remember, but everything was falling into place. It looked like it was going to be a real sea change. And in some sense it was. I mean, certainly energy prices quadrupled I think in the 70s with Iranian revolution and all that. But it didn't really crash the system. A lot of us hoped it would.

Nate Hagens (00:50:39):

Well, it wasn't peak oil, but it was peak music I think, the 70s.

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John Gowdy (00:50:46):

Oh, yeah. Yeah.

Nate Hagens (00:50:47):

I mean, that we'll have you back for another podcast for that. That's a very complicated story on, I mean, because the United States did peak in 1970 and we never pierced that peak. If you look at the breakdown of the provinces, except when we started to access the source rock, which is light tight oil and the shales. And then there was a boost that again, peaked in 2019.

(00:51:13):

Okay. Some tough questions to remain. You have talked about, and well, I get many people in my sphere blaming our current problems on capitalism. And I think that is overly simplistic. Let me read a quote from your recent book. "Some societies were able to change the course of their histories, but most did not. Agriculture did not inevitably lead to global capitalism. Many agricultural societies followed different paths. But today's global socioeconomic system arose directly from the early state societies of the Middle East." So can you unpack the relationship between capitalism, surplus and the superorganism?

John Gowdy (00:52:05):

Oh, wow. That's a tough assignment. Nate, let me just pick up a couple of points. The early state societies, the economy was really organized by governments, by the state. Okay. Society organized the military, it organized the agricultural production, especially through taxes. And that leads me to what's happening today.

(00:52:27):

This dichotomy between the free market or the market and the state I think is totally fictitious. If you look at every industrial economy, the developed economies. The state represents somewhere between low 30s, high 40s. No, yeah. Even low to high 30s, most of them in terms of percentage of state spending on GDP. So the real question is just how, where does the money go?

(00:52:56):

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In the Scandinavian countries, a lot more of it goes for public welfare. Countries like the US, a lot of it goes to military and private corporations. But these corporations could not exist without government spending. And that's what's so annoying about, some of the sort of nouveau riche billionaires.

(00:53:16):

Well, let me name names. Elon Musk. Tesla got going with almost half a billion dollar loan in 2009 under the recovery package, Obama and the Senate, I think it was \$440 million. And now of course, Tesla, Musk is running around and saying, "Oh, free enterprise, get the state off our backs." And all that. I also read that a half of Tesla's profits come from selling carbon credits to other, which is another government state boondoggle.

Nate Hagens (00:53:48):

Well, there's a deeper layer than that, which is we pay pennies on the dollars for the main input to our economies, which is coal, oil and natural gas. We just-

John Gowdy (00:53:57):

Heavily subsidized by government.

Nate Hagens (00:53:59):

Well not only that, it's subsidized by 10 million years plus of earth geological process.

John Gowdy (00:54:04):

Sunlight. Yeah.

Nate Hagens (00:54:07):

So what I usually tell people is that what's happening isn't the fault of capitalism, but capitalism is in the service of the superorganism. What do you think about that?

John Gowdy (00:54:16):

Yeah. And especially the ideology of capitalism. There's a chapter in my book, a neoliberal ideology. It's really interesting. Probably the father is Friedrich Hayek, and he really believed in the concept of the superorganism and group selection. He was

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friends with a biologist, apparently, I think it was at Cambridge that turned him onto this stuff.

(00:54:36):

But he describes the market as being a kind of superorganism, the supreme information processor. The more things, more decisions we turn over to the superorganism, the better society will be. And I think one of the main things that come out of the work that Lisi Krall and I did, it's the superorganism, the ultrasocial system is not benign and it works against the well-being of the individual members, namely us, of that superorganism.

Nate Hagens (00:55:06):

Can you give a few examples?

John Gowdy (00:55:08):

Well, yeah. Well the early on, the decline in health when the superorganism started. I mean, you sort of look at the... Well, the shrinking brain, that's another, the human brain has shrunk by 10%.

Nate Hagens (00:55:22):

And the fact that people have to work 40, 50, 60 hours a week to pay for basic needs that we're marketed to, and we don't have healthcare to pay for everything.

John Gowdy (00:55:33):

I mean the system creates work, creates needs that we have to fall in line for. And how much choice do we really have? You have to be a part of the superorganism. I mean, there are people that leave and sort of break off and are self-sufficient in the woods somewhere, but it's hard to do that.

Nate Hagens (00:55:50):

So that leads to another question on choice. So here's a quote from your book, John. "The superorganism doesn't care about fairness or the environment because it is not a conscious, morally concerned entity. As we look around, we tend to see everything as examples of human choices. As individuals, we make choices every day, sometimes

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life-changing choices. But what if the social we, does not choose? What if blind evolutionary mechanisms are largely responsible for human civilization and its consequences?"

(00:56:25):

Can you unpack this, John? How does this jive with people saying, for example, "We need to consciously redesign our living systems." What are the boundaries of humans choosing or primarily responding?

John Gowdy (00:56:36):

Yeah. And again, if you step back, and that's actually this sort of line of thought can be applied to a lot of things. There's another good book, a Short History of Progress, Ronald Wright. He has this great quote now that I've used in several places, but he talks about Cortez landing in Mexico.

(00:56:57):

You had these two cultures, hunter-gatherer, they evolved from simple hunter-gatherer cultures. Not in contact for thousands of years. And what did Cortez see when he landed in Mexico? He saw kings, queens, courts, markets, roads, bridges, literature, art, music. I mean, it was almost a carbon copy of what was going on Europe, although probably a little better.

Nate Hagens (00:57:19):

It evolved independently-

John Gowdy (00:57:21):

And independently.

Nate Hagens (00:57:21):

... on two sides of the Atlantic.

John Gowdy (00:57:22):

So there must be some drivers going on that underlie that. The same thing with ultrasociality, why do humans, ants and termites have these complex systems with the vision of labor production of surplus and task differentiation and all that?

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Nate Hagens (00:57:37):

Do we choose or not?

John Gowdy (00:57:40):

I don't think cultures choose. And I had in there there are examples of cultures that change. There're not too many, I can only think of one. And that's a culture called Tikopia in the South Pacific. I think I got that from Jared Diamond too.

Nate Hagens (00:57:53):

Yep. That was in Jared Diamond's. And Tokugawa Japan also an example of where they navigated some resource challenges.

John Gowdy (00:58:02):

Yeah, right. That's right. That's another one. But they're few and far between.

Nate Hagens (00:58:05):

So if we don't choose, then we have to react to what's coming.

John Gowdy (00:58:09):

Yeah, and you can, again, that example sort of a fragmentation of the global economy. I think one thing, if you want to have policies go with the direction that evolution is going and not against it.

Nate Hagens (00:58:26):

So in the epic breadth of your knowledge of human history, anthropology, energy, climate, resources, systems, what are some possible ways forward? If in the very unlikely event you would be advising top level politicians, what is the solutions or mitigative steps given this framing? I know that's not an easy question.

John Gowdy (00:58:54):

Yeah. One thing, I wrote a paper for Futures, the journal Futures, something called Our Hunter-Gatherer Future or something like that. And I got one really good review, which is rare, I mean not positive, but really useful review.

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(00:59:10):

And he or she argued on, he said, "Just forget about the near future. What you want to do is look ahead 100, 200 years. You don't want to predict." And it's somehow, if you go out 200 years, it's actually easier to predict things. It's easier to predict the effects on the climate, for example, of a certain level of CO₂. After the environment adjusts, we come back to equilibrium and so on. So that to me was a real breakthrough sort of focusing on that distant future.

(00:59:41):

So in terms of policy, what are the implications? And really, I mean most of them are common sense and people, we should say they should do this anyway. You want to preserve as much of the natural world. Large tracts like Wilson's, E.O. Wilson's Half-Earth. So there'll be something left for hunter-gatherer descendants.

(01:00:03):

In terms of climate change, the thing you really want to focus on is agriculture. The stable climate made agriculture possible because of, well the stability, the lack of fluctuations and so on. We seem to already be going back to a period where the climate really affects... And I know the climate always affects agriculture, but you seem to have these sort of really massive crop failures because of climate change, floods, droughts and so on. It that's starting a lot faster, a lot sooner than I thought it would.

(01:00:37):

So how can we put in, again, you want to make the transition as painless as possible. I'm sure it will be painful, but the more we can establish mechanisms to move food back and forth when the stuff hits the fan with crop failures of wheat, corn and so on. And obviously the lower we keep temperature increases, the better off we'll be. It makes a big difference whether it goes up by three degrees Celsius or six or eight as some of the models predict.

Nate Hagens (01:01:09):

Yeah. All futures are not equivalent as far as that goes. Here's a tough question for you John. Why are so few people, you and I, and our colleagues talking about this framing of humans self-organizing as individuals, families, small businesses, corporations and nation states to optimize surplus.

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(01:01:34):

And there's a superorganism that's overarching, it's not a real organism, but since it optimizes for growth, it acts as if it were an organism and we are going to go pedal to the metal until we have no longer any cans to kick. And then there's a decline that's inevitable. Why is that just absolutely not in the public discussion? Do you have any speculation?

John Gowdy (01:02:00):

I think it goes back, Marshall Sahlins used the term "cosmologies" to sort of describe these overarching worldviews. Today, its progress. Growth is everything. And this, I mean this philosophy of growth or the necessity for growth. I mean it's everywhere. You've been involved in ecological economics, so am I, but what do they say?

(01:02:23):

Well, like a new person running for president, maybe I said the same thing when I ran for president a long time ago, but we have to grow the society. We need more members, we have to increase membership and bring in more money so it could have more outreach programs and so on. I'm not saying that's not a good thing, but everywhere you look it growth is just built in. That's how you succeed.

Nate Hagens (01:02:43):

Is growth built into the human genome? Are we optimized as individuals for growth?

John Gowdy (01:02:49):

No. I would say no. I think growth really came with the focus on surplus. Maximizing surplus.

Nate Hagens (01:02:57):

And before that there was a level of sufficiency. By the way, what was the name of the book 25 years ago? I bought that book when I was still on Wall Street. The one that you edited with Richard Lee about hunter-gatherers.

John Gowdy (01:03:14):

Limited Wants, Unlimited Means.

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Nate Hagens (01:03:17):

Right. Right. I'll put it in the show notes. So because there are a lot of people that take our biology too far and say as biological organisms, we will always want more. And I think that's probably 20 to 30% accurate. And I think the 70 to 80% is the culture that we reside in.

John Gowdy (01:03:36):

Yeah. And again, some of it, again, human nature, it's just a matter of which part of human nature is emphasized by particular cultures.

Nate Hagens (01:03:45):

On that topic, one thing that I wanted to ask you is inequality natural? Is inequality a natural product of economic energy surplus? Or are we naturally unequal? I have an opinion on this, but you've looked at it a lot more.

John Gowdy (01:04:02):

Yeah. Again, the word natural, there's something in biology called the naturalist fallacy, which basically means just because something is natural doesn't mean it's good. I'm sure they were... Again, all these things, you have the beginnings of all these things in Upper Pleistocene hunter-gatherers, I'm sure there were people who had higher status and other and so on. You had some women who were better looking, men, better hunters.

Nate Hagens (01:04:25):

So we always had differentiation on status, but consumption was equal pretty much.

John Gowdy (01:04:32):

Yeah. And there were always checks, very severe checks on one person gaining an advantage. For example, in a lot of tribes, they're people who are going to be really good hunters, but the hunter that killed the animal doesn't get to distribute the meat. It's the person that owns the arrow that killed the animal. So again, it's the separation from production, from distribution, which I think is critical.

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Nate Hagens (01:04:57):

We don't have those checks anymore. And part of the reason is all those ancestral conditions of shame and pride and respect and reciprocity, we're sitting in our own little castle ordering stuff from Amazon, and we don't feel those things because we're not in a hut or a village or a house with 10 other people that we're having to depend on every day. So I hope that some of that reciprocity will come back as we are forced to deal with less energy surplus.

John Gowdy (01:05:27):

And apparently money really has a negative effect on cooperation, there's some really interesting studies there too. There's a really ingenious study. They had an old car, this guy had an old car, and he pretended to be broken down, needed help, and then he'd kept a record of the cars that stopped to help him. The more expensive the car, the least likely it was that the occupant would stop. So Mercedes, BMW, Jaguars, they go right by.

Nate Hagens (01:05:57):

How would you explain that from an anthropological perspective?

John Gowdy (01:06:01):

It seems like money gives people independence. The more money you have, the more independent you can be from other people.

Nate Hagens (01:06:08):

Oh my God, that's so profound and simple. I think that's right. And then unfortunately, I think with what's coming, people see the blue skies today, but they know there are storm clouds on the horizon in our culture. And so we live in a culture that has optimized our values around growth and pecuniary measures.

(01:06:31):

And so when we get stressed, I'm afraid people are going to try to even make more money and be more individualistic so that they have a cushion to support them and turn that money into things, whatever. "I don't know what I'm going to need, but I'm going to need something." So paradoxically, right before we're going to massively

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need more social interaction and a network of friends, people are going to be overly focused on monetary hoarding.

John Gowdy (01:06:59):

Yeah. And that really seems to be happening with the vengeance. Now I mean, what did Trump do? That major piece of legislation was the tax cut for billionaires. Those are the people who are funding campaigns. Actually, I read somewhere where 40% of campaign funding comes not from the 1%, not from one tenth of 1%, but from the 100th of 1%.

Nate Hagens (01:07:27):

So is the inequality today kind of like a power law that is a byproduct of the growth-based superorganism, that we are so rich as a culture and that over time, every year, every decade, those chips, those claims on real resources, digitally accrue in a smaller and smaller portion of people. Is that just energy surplus combined with time and it's just a power law that, or what do you think about that?

John Gowdy (01:07:57):

Yeah. I'm always just kind of leery of applying equations to these things. There's a great book by Walter Scheidel called The Great Leveler. And he looks at, again, 10,000 year history of China, Middle East, Europe and so on. And he says, the longer a culture, an economy, as society is stable, the more unequal it becomes because the powers that be has time to consolidate. They get to control the courts, the laws, the legal system, and they take more and more until the system crashes.

(01:08:30):

And if you think now, it's been 70 years since a major world war, depending on what happens in Ukraine, but there hasn't really been a major world war for that length of time. Before that, you had a breakdown of the elite, the aristocratic families in Europe, especially, again with World War II, the Great Depression and all that.

(01:08:53):

And that broke up, the old autocrats paved the way for new blood, new thinking to come in. I mean, there's so many levels to these things, but that might be happening

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now. Again, it seems like inequality is getting worse by leaps and bounds, and it has to break sometime, but who knows what form it'll take.

Nate Hagens (01:09:15):

Well, given all the conversations and emails we've had over the years, we packed a lot into this, and I'm sure we skipped over a lot. So let me ask you some closing questions that I ask all my guests.

(01:09:30):

What kind of advice, John, would you give to young people who discover your work and understand that they're alive during the time of the superorganism and all the risks that you outlined to economies, politics, climate change, and the general human predicament?

John Gowdy (01:09:46):

My first comment would be just enjoy life. Try not to let this, just everything that's happening get you down. Stop watching the news as much as you can. I mean, I'm trying not to, but the focus now is just any negative story that's what they report. And get out and enjoy nature. The world is a wonderful place. I mean, there are wolves and bears and a lot to see.

(01:10:10):

Take care of yourself, take care of your family and friends, and you have to find some job that you enjoy and can obviously support yourself. But there are a lot of choices out there. There are a lot of opportunities if you're just starting out for, I think, really meaningful, successful careers that you can do what you want.

(01:10:30):

I would point to climate change in food, climate change in fisheries, it's going to be a times of turmoil, but they're always, people need things in times of turmoil.

Nate Hagens (01:10:39):

So you suggested people go out and spend time in nature. There's wolves and bears, that's not exactly what most people want.

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John Gowdy (01:10:49):

Most people want, yeah.

Nate Hagens (01:10:50):

But you just went, what do you do for fun? I know you just got back from a trip where you saw some wolves.

John Gowdy (01:10:55):

Yeah. My wife just went on a winter wolf watching trip in Yellowstone for about a week. That was really wonderful. And there are one of the, God, the high points of my life was last spring, seeing a mother and two bear cubs right in my backyard. I mean-

Nate Hagens (01:11:11):

Oh, really?

John Gowdy (01:11:11):

Yeah.

Nate Hagens (01:11:11):

In New York?

John Gowdy (01:11:12):

In the upstate New York. Yeah, near-

Nate Hagens (01:11:13):

Oh, my gosh. Wow.

John Gowdy (01:11:16):

But I mean, something like that just sticks with you. And actually another studies have been done sort of well-being. They looked at what if people get a windfall, say you get, I don't know, \$5,000 tax return or something. A couple years later, people are happiest spending their money on things like vacations and not a new TV or whatever people buy now.

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Nate Hagens (01:11:38):

So experience is over financial.

John Gowdy (01:11:39):

Experience, over material things. I'm not the first person to say this, of course, because it goes back to Buddha and Jesus, remember?

Nate Hagens (01:11:48):

No. And I think everyone intuitively feels that.

John Gowdy (01:11:52):

Yeah. And it's hard to do sometimes. You have to force yourself.

Nate Hagens (01:11:56):

So what other things do you do for fun and get those experiences?

John Gowdy (01:12:00):

One of the main things that makes us human is music. So I try to, I'm happy now that things are opening up. I can go out to concerts. I play the guitar. Not particularly well, but I do. I play old time acoustic blues stuff. I'll go up to Fats Waller, and that's about as late as I get.

Nate Hagens (01:12:20):

I did not know that. I did not know that. So John, what do you care most about in the world?

John Gowdy (01:12:27):

I guess, just the things that typical sort of progressive. I care about the natural world, preserving nature. Some of the things I've worked on might be of interest. I did some work with the United Nations a few years ago, trying to make a case to protect the Sudd wetland in South Sudan.

(01:12:46):

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I bring this up because I just got a call from the UN today wanting me to do some stuff, apparently. So the Sudd wetland is this vast area. It's the second-biggest wetland in the world, next to the Pantanal in Paraguay. But there's a plan to drain it, to pump more water in the Nile to help agriculture downstream in Sudan, and especially Egypt. (01:13:10):

I mean, this would be an environmental catastrophe. It's really a stupid thing to do because they have all these rich cultures and traditions. The animal migration there may be larger than the one in the Serengeti.

Nate Hagens (01:13:21):

So the Sudd is running straight into the superorganism?

John Gowdy (01:13:26):

Yeah, right. Yeah, it's really being pushed by Egypt and the Chinese. It's a complicated thing. There's a dam in Ethiopia called a Renaissance dam that just started producing electricity. That will cut some water flow to Egypt, and they're really scared about that. So they're trying to buy off the leaders in South Sudan to make it go forward.

Nate Hagens (01:13:47):

So other than some of the things you mentioned on this conversation, what issue or event or trajectory are you most worried about in the coming 10 years or so?

John Gowdy (01:13:59):

I guess it would be the sort of the disintegration again, not to pick on Republicans, but many in the Republican Party seem to be giving up on the idea of democracy, subverting elections, even setting up mechanisms to nullify elections after they happen. And I see this as, I don't think it'll happen, but I see this as being a real threat for the next two elections. And I mean, it only takes one time. If dictators cancel elections and stay in power, then that's pretty much it. It never goes back.

Nate Hagens (01:14:34):

Is democracy synonymous with an intact superorganism? Have you thought about that?

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John Gowdy (01:14:40):

I think, well, yeah. I mean democracy, I began talking about the individuals within this superorganism. No, it's not democratic. I mean, the superorganism. That's also, interestingly in Hayek's work, also in the thing called the Mont Pelerin Society that got him going, but I mean, they talk very openly in their writings. This is back probably 50, 60s, 70s, about keeping people stupid, not spending much on education. So people won't be able to understand what's happening. Keeping people as dependent as possible on the functioning of the system.

(01:15:20):

And I mean, you think about that, the people who are most vulnerable to the system dying out are those at the bottom. They don't have any room to spare. Their income falls by 10%, they're screwed. You and I could take it, probably most listeners of the podcast. But if you're on the bottom, you can't and that seems to be where a lot of the reactionary forces are coming from.

(01:15:45):

Although, those at the bottom did vote overwhelmingly for Biden in the last election under a \$100,000, it was something like 55-45 or 56-43 for Biden. Above a \$100,000 income it was all Trump or mostly Trump.

Nate Hagens (01:16:04):

So what are you most hopeful about? What any trends or possibilities in the coming decade or so?

John Gowdy (01:16:10):

The coming decade? I guess I'm most hopeful that this fragmentation will keep going and take a positive direction. And the good thing about it, the right wing is fragmenting. It's fragmenting from globalization, but it's also fragmenting within itself. And you have conspiracy theories, sort of pushing out other conspiracy theories. It's really fascinating to watch this if you don't read too much of it.

Nate Hagens (01:16:38):

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Yeah. I mean, the social algorithms are just optimizing for extreme on the left and the right.

John Gowdy (01:16:45):

Yeah. Yeah. Right. Yeah.

Nate Hagens (01:16:47):

Which is ultimately one of my biggest worries because your story and how humans could live differently or better is just not, like the science story, is downvoted on the social media algorithms because it's not inflammatory or novel, and it's also a little scary, which is why it's being suppressed.

John Gowdy (01:17:08):

And again, and heavily funded by far right billionaires.

Nate Hagens (01:17:13):

Do you have any other words of wisdom, advice, or closing thoughts for our listeners?

John Gowdy (01:17:18):

Well, I guess one thought is just, we've talked, we've hit on this a couple times, but just try to look at what's happening underneath everything. For example, there's a lot of talk about inflation, it seems, on the news I watch, I do watch the business channel a lot, and it's always blamed on sort of specific things.

(01:17:38):

Well, it's this policy, the Federal Reserve is doing too little or too much. But the inflation is happening all over the world in very different economies, no matter what the external policy is. So just dig down deeper. Why is it happening? It's supply chain woes. It has to do with probably energy shortages. But try to get away from the sort of proximate causes and look at the ultimate causes. Dig down to the bottom.

(01:18:09):

Like the thing with ants, termites, and humans. Why do we have city-states with millions and millions of people? It's not because humans decided to practice agriculture and decided to build cities. It's these economic forces that really drove that

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outcome. And that, I think can help you put things in perspectives and again, put policy solutions where they might do the most good.

Nate Hagens (01:18:35):

Could we ever have a human culture where anthropologists and systems ecologists were the high status men and women as opposed to economists or as economists by definition riding high on the superorganism, so they almost have to have high social status? Do you have any thought on that?

John Gowdy (01:18:56):

Yeah, probably not. I mean, again, that brings up a lot of things too. Again, economists, the job of mainstream economics is to justify market capitalism. Again, as we've already said, that capitalism is not the deep underlying cause. It's just kind of the latest manifestation of growth and exploitation and all that.

(01:19:19):

But I mean, the job of economists is to protect the status quo to a large extent. And that's not to say that there're not a lot of dimensions to the status quo with different factions having their own economists. But it'd be hard to imagine like a president's council of sociologist, just it's laughable. Right?

Nate Hagens (01:19:40):

We can dream.

John Gowdy (01:19:42):

Yeah.

Nate Hagens (01:19:42):

Thank you, John. And thank you for all of your work over the decades, and as you're well aware, you had a big influence on my unpacking the core situation of our human predicament.

John Gowdy (01:19:54):

All right. So *Ultrasocial*, Cambridge University Press, October 2021.

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Nate Hagens (01:20:01):

Excellent. We'll put a link in the notes.

John Gowdy (01:20:03):

Okay.

Nate Hagens (01:20:04):

Okay. Thank you so much, John.

John Gowdy (01:20:06):

Okay.

Nate Hagens (01:20:07):

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