

## The Role of Story in the Noosphere's Future: Part One

**David Sloan Wilson:** Okay, so welcome PJ and David, a pleasure to spend time with you today. And this conversation is part of a series called the Science of the Noosphere, which is inspired by Teilhard de Chardin. And the series is panoramic in scope from the origin of life to the future of the Internet. All of the other conversations are with scientists, technologists, and futurists operating in non-fiction mode and this is the first conversation to dwell upon the goal of storytelling in general and fiction in particular, and imagining the noosphere and bringing it into being. So, let's begin with some introductions. Both of you are well known, but our audience is also highly diverse.

So, allow me to introduce you and invite you to add whatever you like. PJ, you are author of the trilogy (R)evolution, (I)dentify, and (C)onscience where the beginnings of those words are cleverly encased in parentheses. You started your career in the film industry. You're a former chairperson of Humanity+ and helped to launch the magazine H+. And now you're involved with a group called the New Mythos. Is there anything you would like to add to my briefest of introductions?

**PJ Manney:** I've also just joined the board of the Institute for Ethics and Emerging Technologies, which I also think will become apropos to this and David Brin of course is one of the fellows.

**DSW:** Awesome. Okay. Well, David you are a legendary science fiction writer and social commentator, including your non-fiction books *The Transparent Society* and *Polemical Judo*. You started your career in academia, earning your PhD in space physics in 1981. Our paths crossed a little bit. We're both frequent contributors to the online magazine *Economics.com*, and you even have an article in a book that I co-edited titled *Pathological Altruism*. Your chapter is titled self-addiction and self-righteousness, and I expect that that might be part of our conversation today. So, is there anything you'd like to add to my briefest of introductions?

**David Brin:** No, my wife seems to approve of me after 30 years, and I think that's the best encomium that a man can possibly state. Other than that, I try to do fiction, non-fiction, and I'm running two series of novels for young adults, one in which aliens kidnap a California high school and live to regret it. So, there's a number on *Lord of the Flies*. So, we try to pay forward as best we can, and I'm mentoring a bunch of young authors in that regard. And PJ if you know any apprentices that you'd like to send over, send them over.

**PJM:** Indeed, I will.

**DSW:** Well, we can already see that this conversation will be laced in humor. Okay now, let's begin with what the noosphere means to you and the influence of Teilhard on your own thinking. I should stress that the other people in this series vary widely in the specific influence of Teilhard, and that the common denominator of this conversation is the concept of the noosphere that he articulated. And that we are now trying to place on a strong scientific foundation. PJ, let's begin with you on your thoughts on the noosphere and the specific influence, if any, of our good old Pierre Teilhard de Chardin.

**PJM:** I actually discovered Teilhard after I started writing *(R)evolution* and was doing research into who was interested in what I saw as a merging of humans with technology. Not just our use of technology as an externalized force where wheels make us faster and levers make us stronger, et cetera, but as an internalized aspect of our physiology. I discovered that there was people called transhumanists. I'd never heard of them before, and through having discussions with them and trying to understand where their points of view were, they had mentioned Teilhard. So, I started reading, and it was one of those things where for me the intuitions I had finally had a voice and a perspective that I would not have had.

I am not Roman Catholic. I'm not a priest. I'm not a paleontologist, so it was a really wonderful insight into a deep philosophical train of thought. That's why I want to continue exploring it because I think one

of the things we will discuss later is the New Mythos, I think that his ideas are such a powerful myth that we can use to tell stories. And I don't use myth in a pejorative sense. I use it in a constructive, how do we tell stories? Where are the underpinnings that touch us at our deepest parts?

**DSW:** Great. And how about a little more of the noosphere PJ? With or without Teilhard, what does the noosphere mean to you?

**PJM:** For the noosphere, for me again, it was one of those weird intuitive connections that he actually gave a name to. Ironically, I'd written a scene in (R)evolution before I had really gone in depth into the noosphere, where my character Peter Bernhardt notices the wires above San Francisco. And it's not just the cable car wires, but all the wires and this integration of a world above him that he now has access to because he himself has become connected to the Internet. And to me, the noosphere was something that has been developing for quite some time. It's not a new thing.

I understood its existence before it had a name, and what I love about having a framework that now pre-exists is that we can have more conversations about it. This idea that the merging of human communication and human thought through technological means, we're swimming in it. And I think that there's an interesting aspect to humanity right now in that we are swimming in it. And like fish, we don't know we are in water already.

**DSW:** Okay. How about you David? Teilhard and the noosphere.

**DB:** One of the things that I specialize in is trying to put things in context, and one of the contexts that Teilhard lived in was the growing awareness that human interconnectivity was going to leverage human knowledge. Roughly about that time, maybe a little bit later after him, there was something that was well known to most science fiction people a generation or two ago, but no longer, J.D. Bernal's very influential essay, *The World, the Flesh and the Devil*, which really hit the intelligentsia really hard in the 1920s and was done as an essay. And yet, it was recognized as a great science fiction story because it talked about humans becoming parts of communities that in effect then had the cellular structure of a living cell, especially space colonies.

Now, pay no attention to the movie that bought the rights to that title. That's a pretty good movie, but absolutely it has nothing to do with it, but it's well worth looking at Bernal's essay as an example of the way people were thinking in those days. H.G. Wells as well was moving along such thoughts, but when the noosphere really had its biggest influence was after the atomic bomb when a large number of thinkers were saying there's no way that the knighted, nasty, brutish cavemen could ever navigate this future without destroying ourselves.

The arguments between Oppenheimer and Teller. Who would have imagined that the mad Hungarian would turn out to be right, that human institutions leveraged by fear of this new device would decide to do things differently than they ever did things in the history of the species before. Teller said the famous line, "This time is different." And whenever anybody says that, you put your hand on your wallet and yet Teller turned out to be right. This time was different, and we grew up more just barely enough as individuals, as members of an enlightenment society. Now, there are a lot of science fiction authors who still inveigh against this.

Orson Scott Card is the greatest propagandist, a brilliant, brilliant writer, greatest propagandist against the western enlightenment and in favor of return to demigods and ruled by feudalism, but the main point in science fiction where this all came to roost was Arthur C. Clarke, Isaac Asimov, a number of others who wrote stories that despaired of human wisdom and therefore, the solution was to subsume ourselves into a macro god-like connected single, unitary organism. Asimov called it Gaia, Galaxia in his *Foundation* novels and by the way, I finished Isaac's science fiction series, *Foundation* and *Robot* series with the approval of the estate tying together all his loose ends.

Arthur C. Clarke, *Childhood's End*.

So many others from that era took the attitude that we had to subsume ourselves, because no way a society based on individualism would work. I wrote an answer to that in my novel *Earth*, and we could discuss that because it just ain't necessarily so. We can have the noosphere without surrendering our individuality. David.

**DSW:** Yeah, I just wanted to add that the concept of society as an organism goes all the way back to antiquity. That's an ancient idea. Aristotle, Hobbes, it suffuses religious thought. And I mean it predates individualism by a long way. So, the idea that society needs to in some sense function as an organism in its own right and in another sense must respect individual rights and freedoms, is something that Teilhard got. He has a whole section on the value of the individual as that pearl beyond price. The idea that whatever we're reaching for with the noosphere really cannot just subsume individuals into some superorganism. It has to be a different kind of superorganism. That I think becomes clear from Teilhard.

And I know that David, you speak for that is as well. So it's not surprising with or without Teilhard and with or without the noosphere, that the idea of the superorganism is going to loom large in science fiction, as it has all the way back to the Greeks and before recorded thought, no doubt. Don't you think? Do you have any comments on that, either one of you?

**PJM:** I think the problem with thinking about the superorganism is that people have difficulties with frames of context and reference. They think of themselves as an individual. They don't think of themselves as a superorganism, of course which we are. We are superorganisms of superorganisms and as each of these frames expands who you include within the frame of context, I really love using the Eames' Powers of Ten film to visualize this. And yes, it's about exponential change, but really I like to use it as a tool to expand our concept of who's included within the frame and what choices we would make within that frame.

And we are not just individuals and ourselves clusters of superorganisms, but we are in community, we are part of nations, we are part of a globe, we are part of a universe. And at each one of these larger frames, we need to adjust how we see ourselves in it and realize that simultaneously, we're in each of these frames. And I think that's a problem that people have with this notion. Transhumanist critics love to say, "Oh, we're becoming part of the borg." No, we're not. We have always been in community. We have always been in communication. The difference now is that we're in community and communication with ever larger groups of people. So, our circles of empathy have to expand, our circles of communication have to expand.

And we're doing it already, that's the irony. This notion of being part of a superorganism is again, we're the fish in the water. We are part of the superorganism and the idea that we're not is simply a limit of imagination.

**DB:** Yeah, I agree with everything PJ said if I may. I think that one of the problems is that people tend to forget that all the way back to Thucydides when Pericles led the first experiment in an alternative to feudalism, 99% of our ancestors lived under brutal pyramids of power enforced by strong males with one objective, and that was to ensure the reproductive rights monopolies of their sons who never earned anything. We see this barging at the door right now, trying to reclaim control over human society. Orson Scott Card is a major propagandist for that and to try to return to this, and this is viewed, this pyramid of power is often portrayed as being a healthy organic thing, because the organism needs a brain and the brain is the priests and the barons and the kings at the top. Who else? Who else are you going to have?

Well, the enlightenment experiments starting with Pericles and then Locke and Adam Smith helping to—and Paine—helping to rationalize this enlightenment experiment which flattened it out into a diamond with a confident middle class, whose children can all in theory and increasingly so with each generation

compete fairly. And that's the keyword that's missing from a lot of these noosphere concepts, and that is competition. In nature, you have level after level.

James Grier Miller's living systems theory showed this extremely well. David's aware of that, and that is that at every level of life, there are these basic interactions inside your living cells, organelles apparently compete with each other to gain status as the most important communication organelles. The result is a cell that when viewed from the outside seems an utterly cooperative entity. A fetus when it's growing in its mother's womb, and I talk about this in my novel *Earth*, the proto neurons compete with each other in fierce ecologies within the skull.

**DSW:** Neural Darwinism it's called.

**DB:** Exactly. The result is something that is unitary in the sense that it moves towards a common goal. In nature, the animals that compete with each other appear to be individually ferocious and yet a healthy ecosystem derives a larger cooperation out of this, the circle of life. What we have found is that the right and the left, both are right and they're both wrong. The left tends to hold in suspicion the word competition, which is the fundamental creative force of the universe. The right holds in suspicion regulation of competition to keep it from being toxic, because we're new at this level. When in fact regulated competition is what Adam Smith spoke of, and it's the only thing that ever worked and its track record is better than anything else.

And that's how you get a competitive society individual by individual, but a society that overall has been vastly more successful than all others combined.

**DSW:** Okay. Well, now I'm all primed and ready to go here for this conversation. Love what you all said. And of course, it's what the series is all about, but what I find if I could just take my turn here for a second, in all the other conversations and basically in all my interactions, this is in the world of non-fiction science and non-fiction is that the best of our current scientific knowledge about all of these matters is quite recently derived. I often say that for most of the 20th century, the study of evolution was confined to genetic evolution and had little to say about such things as human cultural evolution and so on.

Let me just recount some of the things that some of the other conversations we've had in this series, which covers such thing as human origins and human history. People such as Peter Turchin which I know PJ you're already familiar with, and David, I'm glad to see that you're nodding your heads. So, here's a very capsule version of what we know from human origins to the present. And of course, this is right in the spirit of Teilhard and the noosphere. Point one, human origins is very much a major evolutionary transition. The first human, societies, small-scale human societies were already superorganisms. They were highly cooperative, much more cooperative than their ape ancestors, and that was thanks to social control and regulation.

Basically, the bully wins. Chimp society is a despotic society and in order for an egalitarian society to take place, there must be the means to basically resist bullying. And that was the transition that took place in the origin of our species, and we became so cooperative that we became mentally cooperative in addition to physically cooperative. If you look at all of the mental facilities, decision making, perception, memory, all of these are much more group level properties, from the very beginning, than people have appreciated. But of course, only at a small scale. And then following Peter Turchin, we learned that. So it looks like despotic primate society to egalitarian human society, and then with the advent of agriculture, despotic human society, pretty much David what you recounted. And then thanks to between-group competition, so David you're properly emphasizing there's always competition. Whenever cultural change occurs, that's a competitive process, one thing replaced another thing. The question is whether that thing is a cooperative thing, or a disruptive, competitive thing, leading to the mega societies of today which are definitely a glass half full when it comes to cooperation and competition, but I mean a

scale of cooperation which nobody could have imagined 10,000 years ago, including global cooperation which nobody could have imagined 300 years ago, the idea that the earth is the unit that needs to be the organism.

So, that's the scientific story that we're in a position to tell and in a position to update. And I'd love to know whether some of the people that you've become familiar with PJ and David, people like Peter Turchin, myself, maybe Joseph Henrich, other people that are at the forefront of the science of this, how much they're known to the science fiction writers and to the people in your neck of the woods.

**PJM:** I seem to be the person introducing other people like Turchin and yourself David to the rest of the science fiction community. I don't hear it spoken of much. I have some fans who are themselves scientists who are aware of these people, but I don't see it as something that's part of the dialogue in science fiction at all. It's ironically why I created the New Mythos, because I wanted new ideas and new ways of looking at how we eventually tell stories, because you have to remember that science fiction fans read science fiction. And yes, they're curious about things. They'll look at things on social media. They'll do a little deep dive in an Atlantic article, but they're not going to sit and read an entire academic paper.

And that's for David Brin and I to do and then translate that into storytelling. I think that it's the job of authors like ourselves to look at some of these new ways of thinking and try to make them part of the canon in a way that is easily digestible, but also doesn't give up the complexity. Complexity is one of the things we're talking about, and that's the hardest thing to get people—who I would refer to as civilians—to understand, is what complexity science is, and how it affects your everyday life, how the moment you start looking at. And again, it's like those frames of context. Once you start looking at a single issue through complexity, you're never going to look at the world the same way again.

And I think that both David and I tell stories that are actually designed to present complex ideas in ways that people don't even realize they're there. I mean we may mention it's about complexity, but they're so wrapped up in the story and so taken along by plot and character that they don't realize the spoon full of sugar we just gave them to give the information to go down.

**DB:** That's a very good summary. Now, I have had Peter Turchin over to the house here, and he's a nice fellow. And I think he's making real contributions at pointing out things. I'm less impressed when he says I have now, weaving all those things that I've pointed out, together into a model. Generally speaking, I channeled Hari Seldon. I was the guy who completed Hari Seldon's story and Janet Asimov was very happy, but generally speaking, such efforts to do or to weave a story about the future are better when they're illustrative thought experiments than when they say, I know this pattern and the worst of all these patterns is the notion of the society having life and death cycles, decadence.

This is the great cult incantation of the right, is cycles of history. And I'll provide a link to where I write what I believe is a devastating rebuttal of this cult incantation in its simple form is a complete lie. These cycles do not exist. Attractor states do exist, but I want to mention that again reiterate, that the way in which we have dealt with an increasingly complex society that could not have been managed from above. It just can't. Now, the Chinese and I'm going to provide you with a link for this as well, where I respond to one of the thousands of screeds being issued by the court intellectuals in the Beijing imperial court is saying basically that we have the best form of the pyramidal structure, and that's completely true. The Chinese always had the best form because it was meritocratic.

It had a lot of meritocracy to it. And therefore, we are the ones who can deal with technological obsolescence of labor with paternalism. We are the ones who can deal with AI, with fierce control from the top. We are the ones who can plan an economy, and it all sounds very good. And it's completely proved false by all of human history and all of human nature. The way we deal with it, and we're doing it badly right now, but the way we've done with it very well, for the last 200 years increasingly so, is by

expanding the circles of inclusion, flattening hierarchies, and sacking powers in our society against each other in highly regulated competitions.

So, that unlike nature, there's no blood on the floor, but a lot of positive sum output from the competition. And those positive sum outputs if cooperatively regulated, make for dealing with the complexity because then small groups can deal with this portion of the complexity. Small groups can deal with this portion, unhindered by some great theory by the king or the priests. So, I think it's terribly important when we talk about the noosphere, or these layerings and layerings and layerings and layerings to remember that each layer is internally highly competitive. And that's the creative force, but there are systems in each of these layers, the cell, the brain, the small society, the large society.

There are systems that keep it from getting out of control and cancerous and destructive that make the competition positive sum. In any event, PJ I'm looking forward to hearing more about the New Mythos.

**DSW:** Well, if I could just immediately respond to you David, just to confirm that our visions are very highly aligned. What you just said is more or less what I would.

**DB:** That's what Adam Smith said.

**DSW:** Well, to a degree, but I mean nobody can foresee the future. But what I want to do, I mean there's so much to talk about and it's really lovely that there is this alignment. I think there's a strong scientific justification for what you just said David, but I want to get to the storytelling element. First PJ, back to you and then I want to add in the dimension of storytelling and fiction, but first PJ, please how you'd like to respond to what David just said.

**PJM:** I think David knows that I'm a bigger fan of Turchin's models than he is, and that's fine. My actual major in college was American history and American studies. So, his modeling of political violence and cycles of discord, I actually do concur with for a variety of reasons, which we don't have to go into it here. But beyond that, I do understand how it has been used by people for not so positive ends, the concepts. So, I can understand David's reluctance to want to agree with that. And I too am a friend of Peter's. He actually proofread my clear dynamic section in (I)dentify, but otherwise, I'm happy to talk about storytelling.

**DB:** Well, let me just ask you one quick question PJ, do you know about what Howe and Strauss called The Fourth Turning? It's a huge cult popular thing on the right and they point out to a lot of, what is it called, pareidolia, the seeing of patterns, the human tendency to see patterns.

**PJM:** It's not just Peter Turchin. We have hundreds of researchers now working on these models. And when I see the work being done around the world, Seshat alone is a fascinating project, where they just keep on adding information to the models, and the models seem pretty sturdy. This is a data conversation, that again, I'm happy to have maybe at another time.

**DSW:** So, first of all Peter is part of this series. So, Peter and Daron Acemoglu, author of Why Nations Fail have a conversation in this series. Peter began his career as a biologist, a population biologist studying such things as bark beetle populations and lemming populations. And they cycle, not because cycles are fundamental, but because that's what happens with complex multi-variable systems. They don't come to an equilibrium. They go up and down and it's often they're chaotic cycles. They're not like clockwork. It's not like a pendulum, but they go up and down. History is complex. And when Peter shifted his career from population biology to human history, he just brought this whole toolkit with him of complex systems dynamics, and human phenomena often go up and down.

And American history is an example. You can't deny the peaks and valleys of egalitarianism in American history. They exist.

**DB:** I don't deny it, but I think that it's because we have a recurring co-joined twin that gets angry every 30 or 40 years. I have an essay describing what we're in right now as phase eight of the American civil war. Phase four is the one everyone's familiar with from the 1860s. What I think is a more valid approach is attractors, and the fundamental attractor in agricultural human societies has always been feudalism because those who have power, whether it's from swords or money will try to cheat, not all of them, but a large faction will try to cheat in order for their sons to get maximal reproductive power. We're all descended from the harems of those SOB's, which is why males have the fantasies that they have probably.

But in any event, we found another attractor state. And I think this is relevant to what's called the Fermi Paradox. I think my number three hypothesis for why we haven't seen aliens is that the same attractor state that pulls in sea lions, elephant seals, stallions, male elephants, bull elephants and so on is actually fairly moderated and under some degree of control among humans. And I think that's probably rare in the cosmos, but that's bringing in a noosphere at a completely different level. I think the galaxy's waiting for us. I think we're the rescuers, and we better not blow it, but I do believe that it's very important. PJ's historian which I think it's necessary to point out that almost all science fiction authors grew up reading mostly history, more than science.

And it should have been named speculative history, because the great drama of our clawing our way without any help out of the caves in the muck and the mud through horrible misunderstandings and stupidities and sacrificing babies, because we thought it would save other babies. This is the story and science fiction extends it a little bit in thought experiments, or thought experiments to the side. So, I perfectly honor the whole notion that science fiction is a lot more about history than it is about any particular scientific gimmick.