

David Sloan Wilson: Well, let's talk more about the global commons, your concept of the global commons. And a point that I'd like to begin with—I think that you'll agree with it, and you can say—is the necessity of a whole earth ethic. Part of our story needs to be the recognition that it's the whole earth system that we need to be working towards. And if we don't do that, then we're not going to get there. And so, this story in my life, requires a whole earth ethic. I think that's what you mean by the global commons, but I'd love to hear more about it in your own words.

John Arquilla: Absolutely. I think that's precisely the point, is to think of ourselves as, all the seven billion of us humans as, if you will, individual cells of one great living organism. And I think that certainly was Teilhard's view of humanity, the biosphere that grew from the geosphere. And if we don't take such a view, we risk the destruction of the biosphere. And I think many realize that there's, to some extent, denialism that's going on. But I think certainly among the scientific community, this tie, this understanding that the whole system must be seen as integral in nature.

And that, I think, is something that...it's a view that cannot be reached or sustained if your fundamental paradigm is that of realpolitik, of hard power politics. You're going to look at the high north, which is opening up more because of climate change. And you're going to see it in terms of territorial disputes and resource extraction, rather than as something that has to be treated with great, great care, lest global consequences, dire consequences unfold.

And the same, I think, Antarctica, we are a little better about being less territorially and resource competitive over the high south, if I can call Antarctica that. So we see these things. We know that the world is integral economically. 90% of the goods that people buy, enjoy, et cetera, are moved by water, and often over great, great distances. And unless this commons is treated with tremendous respect...and that means in military sphere, this commons is often talked about in terms of areas where you can deny access to others or to control.

This truly has to be seen as a shared commons if the whole world system is to continue to have any kind of economic viability. And looking at the atmosphere, that's another commons that we need to think about. Orbit, what we call outer space, which is mostly in a low Earth type orbit, it's a commons where we have a treaty that speaks against the militarization and weaponization of space. And yet the realpolitik paradigm is driving many countries toward an arms race so that they can destroy or seize satellites.

And the problem there, of course, is with the commons, is that if you begin a war in space, which would go against the treaty that we all have virtually every nation has signed, if you do this, you will create debris fields that will orbit for decades and decades and really degrade the communications of the world overall.

DSW: That's the ultimate tragedy of the commons, to have done that.

JA: Absolutely. And there's a deep commons as well in the roughly 400 fiber optic links at sea that move about 97% of all the information internationally in the world today. And yet, we have the example of Russia developing robotic mini-submarines that can go to the depths that their regular submarines can't. These things deploy from a regular submarine. And they're artificially intelligent and able to locate where these fiber optic lines are. To some extent, they have an ability to tap into them to spy, but they also have the ability to destroy them.

And it seems to me that is another of those things that's highly inimical to the interest of this notion of a whole connected Earth, of a Noosphere. And it seems to me that there is room for a kind of arms control that is behavior based, not just in terms of we're going to reduce the number of missiles. That's a structural basis of arms control. We need to move more in this area of behavior.

And we've seen, to my mind, there are examples of Noopolitik in play in arms control with things like the chemical and biological weapons conventions. Where nearly 200 countries have all agreed they won't...most of them have the capacity to build chemical or biological weapons, yet they agree not to do so. And the world has been largely free. 100 years plus ago in World War I, there was a lot of use of chemical weapons. Since then, chemical weapons used by militaries against other militaries have very, very little of that. And even just a small amount of the use of chemical weapons against civilian populations, excluding, of course, the Holocaust where they used a lot of chemicals to exterminate people.

But the fact of the matter is, there are examples, hopeful examples of behavioral-based controls, and the only way to protect the high commons, the deep commons, the freedom of the seas, and the effects economic, environmental, and strategic. The only way to do this is through Noopolitik-based form of behavioral arms control. And I think that is a central challenge for statecraft today.

DSW: Well, John, a very fundamental distinction, which I think we all know about, because it's so familiar. And it is so fundamental that we experience it in our lives, especially at a small scale, is the distinction between dominance and reputation, that there are two paths to power. One is just sheer exercise of power, and the other is to cultivate a good reputation, whereby power is bestowed upon you. And in order for reputational mechanisms to work, there's an entire apparatus that needs to be in place. It's essentially a social control apparatus.

And once again, these are things that happen relatively easily at a small scale. Although it's the signature human adaptation, the reason that our species is different from other primate species is because those mechanisms did evolve at, initially, a tiny scale, those tiny grains of thought. And then those mechanisms, again, increase in scale. So the idea, for example, that a nation might advance its interest by cultivating a good reputation, by becoming an exemplar, a light upon the world, and so on and so forth.

I mean, that's not new at all. And with your historical depth of understanding, I'd love to know how this very intuitive idea at a small scale, that an agent becomes powerful and well known and achieves high status by basically contributing to the common good is something, of course, that needs to be expanded so further. I think part of the Noosphere is to establish that, the mechanisms whereby people can succeed through cultivating a good reputation as opposed to the exercise of raw power. But what do you have to say about all of that?

JA: It's difficult to build reputation. It's very easy to lose reputation. It seems to me that's the fundamental equation. And I guess another thing I would say is that reputation is highly dependent upon a consistency between what is said and what is done. And so, let us take the example of the United States in recent decades. In 1994, President Clinton established a national security strategy that he called, based on engagement and enlargement of democracy, spreading democracy.

And of course, George W. Bush used that as a springboard for saying, we're going to invade Iraq to turn it into a democracy and that will make other democracies. Much of the rest of the world and a lot of the United States mass public and some people in defense, like me, said, that's a very terrible idea, and it is inconsistent with our declaratory beliefs about democracy. Simply because we're quite happy to work with authoritarians in Saudi Arabia and Pakistan and Egypt and elsewhere, as long as it's in our interest.

And so, reputation is ... I think the United States has sullied its own reputation. I think COVID 19, provided another of those opportunities to do some reputational repair, but vaccine nationalism has, I think, gotten in the way. Again, what I have seen has been a realpolitik answer to COVID in terms of the hoarding of vaccines to the point of them spoiling. And millions and millions of doses spoiling rather than being shared. And in a Noospheric approach, a Noopolitik approach would have, from the

beginning, mobilized societal resources in all the advanced countries to create as much of these mRNAs, whatever vaccine works to create as much of these.

This is the great global challenge, and it hasn't entirely slipped away from us. We can still reverse course, and it was good to see the European Union and the United States, in particular, with President Biden suggesting the need to get a billion doses out quickly. That begins to shift the dial a little bit away from vaccine nationalism. But I think, to me, I've looked at this response and seeing, ah, this is still the persistence of realpolitik thinking. And it's terribly short sighted.

Because, well, I mean, you're a better biologist than I am. You know that biological security is integral in nature, it cannot be walled off. And if large parts of the world, if Delta spreads to the unvaccinated parts of the world, it will make its way as well further mutations. And so, it seems to me that in this case, a Noopolitik approach to vaccine cooperation is not just an idealistic point, it's actually the most pragmatic solution. And I think this is one of the ways we're going to see the Noosphere gain more traction in the years to come, as people realize, wait a minute, this is actually the more efficient. This is actually the more effective way to operate.

But our discussion here is about reputation. And again, I think it is important to recognize that even a few missteps can destroy a good reputation that will then take decades, if not, centuries to repair. And it seems to me that is one of the greatest tragedies of American foreign policy over the last 30 years. And it's, first of all, inconsistency. And second, simply the sheer amount of suffering caused in places.

We've spent much of our military efforts in Iraq and Afghanistan and have created untold suffering in both of those countries. And to some extent, there was war contagion that then spread to Syria as well. And it puts paid to the whole fallacy about solution through military force. A lot of people, and certainly in the world I inhabit think that your reputation is cultivated by the size of your military. And what we know from history, is that big bloated militaries often don't intimidate the people who have the more innovative ways of operating.

Rome was brought down by barbarian tribes who didn't even have countries and governments. And the Mongols were outnumbered by...even though they were called Hordes, it was simply the term for a military organizational unit, the Orda. They were outnumbered in all their major battles, and yet won them all. They were not intimidated by the empires of the day. So I think that the tie of reputation to hard power measures is less and less persuasive.

And reputation building and sustaining can only be done through actions that reflect humanitarian values, that aim at the sustainment, protection of the global commons, and in seeing ourselves as part of this great global thinking circuit. And again, I don't think this is simply altruistic or idealistic. I think it is actually the most pragmatic way to move forward in statecraft.

DSW: Well, I think, John, that all of this is so scale independent, and I love taking big problems and shrinking them down to smaller problems, and then expanding them back. On what you said about reputations being easy to lose and hard to gain, and especially hard to regain, that's true at all scales. That's true for an individual as well, when they do something that smirches their reputation. But on the other hand, I think, it is possible at any scale for an agent to genuinely commit to all of this, and then walk the walk. That involves being transparent, and so on and so forth. That a reputation actually can be restored quickly.

It doesn't have to take hundreds of years or anything like that. It's based on events, basically. And it's based on walking the walk. And it's also based on how you look at it. And back to the story that when we tell the story, and we tell them with scientific authority, which we can, then we more or less capture the intellectual and scientific high ground, in which it all makes much more sense than against the background of other stories. So the narrative goes along with the action.

Well, I want to cover, John, two more points with you at least. My next point has to do with the environment and such things as biodiversity, and it's here where I think Teilhard is a little bit vague. It's hard to know where we stand. And so much of when we talk about this, including our own conversation, it's human centered and technology centered, that it's easy to lose sight of the fact that at least some people's version of the Noosphere, including my own leaves room for the rest of life.

And Teilhard has this passage in Chapter 10 of *The Future Of Man* when he says, he envisions a time when the entire Earth is inhabited only by people and their domesticated plants and animals. It's not clear that he wants that or that he sees that as a good thing. And in that sense, he was quite prophetic. But from our standpoint, as we work to create the Noosphere, with your scholarship, I'd like to know, what's the full picture of what Teilhard thought about the rest of life on earth? And what should we be thinking in terms of the importance of preserving all of the wonderful life forms that have evolved over so many hundreds of millions of years.

JA: In the appearance of man, he talks about this problem as well, that most life forms have a period of flowering, of senescence, and then decay and extinction. And I think the most hopeful thing that he wrote about that is, if mankind figures out how to break that cycle for itself, it will necessarily bring other biological forms along with it and creates an ability to break the cycles of mass extinction. And so, I find him a little more hopeful on this. And in the *Future of Man*, of course, there are other biological forms there over which man is the steward.

And I think his position is largely biblically driven by the notion of stewardship, that creation is, is that mankind's role is as the steward of nature. So I see him in a somewhat more hopeful light in this area. But the fact of the matter is, we're seeing tremendous extinction of species every day, given the actions of humankind, particularly over the last two centuries of industrialization. And I think we are in a race between extinction and transformation, which is how Teilhard put the matter. So it's a near run thing, and it will only play out over time.

Much as I think reputational issues for nations will as well. I agree with you that individuals can find redemption within their lifetimes and maybe turn that around fairly quickly in terms of years or a few decades. I think the timeline for nation-states is much, much longer. And when, for example, I think about the Middle East, the very fact that the United States invaded and basically destroyed Iraq as a modern nation state when it did invade in 2003, is something that is going to tar every American action for a very, very long time to come.

And if you are to reduce the time it takes to repair a reputation, it will only be reduced if the change in behavior is absolutely radical. If the United States stopped talking about spreading democracy wherever it wanted to or that it was the steward of a new global order, a new world order, there would have to be a wholesale change in behavior if we were to shorten the timeline. But the trajectory of the United States is one in which its reputation is in very, very sad disrepair.

And the current path we're on—even with some of the more conciliatory policies internationally that President Biden is seeking to pursue—is only the beginnings of a movement back. And I come back to this point, because I think it is absolutely essential to Noosphere building and to the emergence of Noopolitik. It is ironic that the United States is, I think, among the best positioned nations in the world to foster this perspective, this movement, and actually to accelerate the progress of humanity in this direction. And yet its actions have done most to actually retard and reverse progress that that has been made. And I find that a real tragic irony of American power in the world.

DSW: You mentioned Switzerland as an exemplar, what about the Nordic nations or any other nations, which you think are basically better exemplars of Noopolitik?

JA: Well, I think the Swiss goes back to our point about governance. And they have shown that with the technology of our time, pure democracy, as opposed to necessarily representative or republicanism is a

viable option. One sees a little more movement in that direction in the Scandinavian countries. But again, I speak to California as a place where they really are trying to do a lot of pure democratic processes. I think the Scandinavian countries are especially attuned to issues of the global commons, Norway, in particular, global maritime commercial power.

But also, they're all tied to the high north and understanding how this affects strategic affairs across the number of great powers. Even China says it has a role up in the Arctic. This is a great area of competition, but it also, as the Scandinavian countries, the Nordic countries have noted is an area where one of the first great examples of global cooperation could come into play with protection of the environment of the high north, which then will have effects, beneficial effects on the whole planet.

And if we lose the high north, we will lose a lot of the littoral areas, the coastal areas of the world, including places like Miami and such. And so, the other point about the Nordic countries is that they are much more attuned to communitarian values. And so, there is something very interesting afoot there. I'm glad you brought them up. I think they're natural players in Noopolitik.

DSW: Yeah, we've said quite a bit about that. We've studied Norway at the Evolution Institute for a long time. And one point to be made, back to power, is that it's a very common social dynamic at all scales, that it's the less powerful agents of a community that base our actions on reputation, because they don't have an alternative. I mean, if they're a relatively minor player on the world stage, what other choice do you have and then do you basically cultivate a good reputation and so on and so forth? The realpolitik option is really not available to you.

Or you could even say that about early Christianity, and so on. So there are some very general principles at play as to who endorses reputational mechanisms and so on.

Well, John, there's some versions of the Noosphere, at least there's some versions of large scale collective society that many of us don't want. Certainly, we don't want what Nazi Germany represented. Many of us don't want what China represents, maybe, although you might have greater knowledge on that score than I. So how did Teilhard distinguish between his conception of the Noosphere and something like Nazi Germany, which, of course, was something he lived through? And how do we proceed, given forms of large scale collective society which is not democratic and which is highly manipulative and controlling and so on. So how would you address that issue?

JA: Well, I know that Teilhard had faith that the light would overcome the darkness of fascism. Of course, communism was still in full flower at the time of his death in 1955, but I'm positive in my own mind that he felt that the light would ultimately prevail. Vernadsky, of course, came out of a Soviet system, was more attuned to the idea of this cataclysmic clash. And we know it from scriptural readings, there's an Armageddon in Christian theology, as well as an ultimate climactic civilizational battle in Muslim theology as well.

And, of course, in the Indian sacred texts, there are these cataclysmic struggles described in the Mahabharata and such. And so, the question is, whether this cycle will be repeated and in increasingly destructive ways or whether the cycle can be broken. And that is the challenge. And for David Ronfeldt and me, the cycle will not be broken if we remain within the realpolitik paradigm. That's not to say that Noopolitik does away with these tensions. Noopolitik exists and competes with realpolitik.

And so, Vernadsky and Le Roy and Teilhard all anticipate the possibility of this Titanic clash between the two. And I think we're seeing some of that underway in the world today already. I prefer to see in the rise of civil society, of the efforts to build and sustain a global commons, and even in the system in which I inhabit many believe in the importance of the global commons and the need that the American role is in many ways to help build that, and to increase the practices of commoning throughout the world.

And I think that's a much better and more Noospheric type task than trying to spread democracy. I have to tell you that governance systems mean a lot less to me. What matters are the larger questions of the quality of human life and the protection of rights. And I think that even in a democracy like the United States, there are questions about human rights underway. George Floyd is a sort of avatar of that question and the movement to help resolve that question.

And so, I really think we have to live in a world as it is and respect that the currents of culture and history cannot and should not be altered by an armed force, and can only be better understood and dealt with on the basis of a Noopolitik approach that is designed to identify common—across regime types of governance—common interests of humanity. And we see this in areas like arms control, both structural nuclear and behavior based, chemical and biological. We see it in the worldwide revulsion toward terrorism.

We see it in many different ways with the rise of humanitarian assistance and disaster relief. So let's consider those all poking holes in the darkness and creating more room for light. And again, it took 500 years for the nation—state to supplant the empire. I think it's probably going to take 500 years for the noospherically-oriented social networks, if not to supplant at least to transform the nature of governance under nation-state structures. But I think what we view as today's nation states will probably be much loosened as a form of governance in the coming centuries.

And if anything, what Teilhard leaves me with the most is the sense of having to see ourselves as individuals cells in an organism that's now comprised of seven billion of us. We are stewards. We have a responsibility to both the geosphere and the biosphere that we must undertake and we will be replaced by other cells. And hopefully, if not our genes, at least our memes, our ideas can be transmitted to those new cells in that living, thinking circuit, and will not only propagate, but will increase.

Robert Axelrod did a wonderful study many years ago called *The Evolution of Cooperation*. And indeed, he uses biology as a leading metaphor in his work. And what he found is that even small areas of cooperative behavior tended in an evolutionary sense, and he was able to do this through computer runs of simulated systems, even small areas of cooperation were able to crowd out the darker, more conflictual systems over time. And I think, we three are unlikely, and those living in the world now are unlikely to see the endpoint. But Teilhard was one who believed in the telos, the end of humanity, the purpose in it. And that great purpose is to avoid the patterns of extinction, and really to instantiate the pattern of transformation.

DSW: Well, John, that's a great note to end on. And as for my own ending, I'm a great believer in the concept of catalysis for rates of cultural change, in addition to rates of chemical change. And so, how long this will take in an optimistic stance need not take centuries. I think, actually, it could actually take place very substantially within our lifetimes if you really appreciate the concept of catalysis and apply it to rates of cultural evolution. But of course, time will tell. So I think that this has been a wonderful conversation, John.

And I'm so happy that we've captured it, and that we can make this widely, widely available. And your work is so brilliant, along with David Ronfeldt. And so, I'm so happy that you filled out this dimension of Teilhard and the direction of pragmatic statecraft. The only thing that makes sense against the background of the correct stories. So thank you, John.

JA: It's been a great pleasure. And I will light a candle and say a prayer that you're right about the timeline of transformation. It would be lovely, lovely to see it.