David Sloan Wilson: I'd like to bring on Elinor Ostrom at this moment, I think you're probably familiar with her, but for the benefit of our audience, she studied the famous tragedy of the commons, the tendency of groups that are attempting to manage common pool of resources to over exploit those resources. And she showed that, actually, some of these groups are able to self manage their resources, they succeed at avoiding the tragedy of the commons, but only if they implement certain core design principles.

And so basically, she articulated eight principles, not just decision making, that's one, that I'll get to, that's required for good governance at this scale. This is typically at a pretty small scale. Just imagine a group of fishermen that are fishing a bay or something like that, or managing a forest or a pasture. And eight things were needed for governance, not just one. And so, here they are. And then we could relate that to your criteria. First of all, there had to be a strong sense of identity and purpose. So they definitely had to know that they were a group, what the group is for, who was a member of the group, in the case of a common pool resource, what was the boundary of resource?

And so, there, Marta, I think, this common narrative and so on, I think is going to come in quite strongly, that unless you think that you're part of a single group, a member of that group, and you're pretty clear about what that group is, then it's not going to work well for you.

So, that's in some ways the most important. Then number two is proportional costs and benefits, not sustainable for some members of the group to get most of the benefits and for other members of the group to do most of the work. Now that's not decision making per se, it's basically basic equity that's needed. And the group's not going to work well if it's not distributing its benefits in some fair manner. Number three comes decision making. Decision indeed, needs to be inclusive, and it also needs to be efficient. And so, not sustainable for some members of the group to be the kings or something like that and to be able to make the decisions without the input and the consent of everyone in the group.

In the first place, that's a recipe for unfairness. And in the second place, it doesn't make use of the wisdom of everyone in the group. And so, you'll see that fairness and equity are just penetrating this whole thing in order for the group to function well. The fourth is monitoring. Unless we actually can monitor, unless there's transparency, so that we know what everyone is doing, then more unfairness comes in. Then there's graduated sanctions, if you're not doing what you should, there has to be something done about it. But it can be friendly at first. Most people are trying their best, and so you don't have to be nasty and harsh at first. And yet it is necessary to escalate when necessary, when there's real predatory behaviors and things like that, then there must be the capacity to escalate and ultimately to exclude, and every religion has that exclusion clause.

And also let there be praise for good behavior, and support for good behavior, in addition to sanctions against bad behavior. So there's a whole piece there, conflict resolution is number six. Conflicts will occur, they need to be resolved quickly. And in a manner that's, once again, fair. Regarded as fair by all parties. Then there's local autonomy. The members of a group have to have some authority to manage their own affairs. If they're being bossed around from the outside, then, of course, that's not going to work. And number eight, is appropriate relations with other groups. Implementing the same core design principles. And so, these core design principles are scale independent, they're needed to govern relations between groups, in addition to relations within groups.

And all the way up, if you look at large scale problems, macro problems, like the European Union, or global governance, or climate change, or what do you have, but Leviathan organizations in the global village, the metaphor of a global village, and nations as some kind of actor in a global village is telling you

that actually, the conduct among nations should be nothing more or less than that. These are scale independent.

And so, this is so priceless, I think. And that's why we center everything we do on the Ostrom core design principles. So that's decision making plus more, and there's lots of empirical evidence, some that we're gathering, but there's so much evidence out there actually, that confirms what Ostrom showed for a particular kind of group, common pool resource groups. It holds for any kind of group, including business groups, is that if you actually measure whether a business or any other organization, any other group is functioning well or poorly, a very large amount of variation is explained by whether or not they're implementing those core design principles.

And so, I think that there's so much wisdom in there that we need to pay attention to as to what it takes for…back to my original point between distinction between interconnectedness and functional organization, and what's needed for functional organization is a very, very special subset of interconnectedness. Interconnectedness is everywhere. Everything's interconnected. But functional organization, that's a much more rare thing. And if we have some blueprint or recipe, in order to bring functional organization about at any scale, we really want to know about that. And we don't want to lose sight of that, against this much broader canvas of complex systems thinking, that of course is fascinating and important, but I think often it causes us to lose sight of the very special conditions that are required for functional organization, which is what we want and what's so often in short supply.

Marta Lenartowicz: Yes, it's a very nice set of criteria and those descriptions of well functioning groups and that analysis, it's a beautiful reality in such groups. And I think also such a primal longing of individuals to belong to such a well governed group where things are like that. And there is also this unfortunate situation that... One of our collaborators called it holoptical function, that when you have groups working together, when everybody sees other, basically sees where they are, what they are doing. For example, he gives an example of Jean-François Noubel, is his name, of a band playing together and improvising. It's such a wonderful feeling of belonging and coordination, and you can be spontaneous, and you can be free, and you can be creative, but you are doing it relative to a group of agents who are like that.

So this coordination then emerges spontaneously and of course, it can be messed up, I'm not saying it's always beautiful. It's not the case, but this wish for... Human reality and society to be like such well functioning groups is of course, it is the background of what we are doing. The bigger the society is in the global system, we are speaking about the gigantic system, it's of course granular. So, you have groups and groups and groups and groups. And one of the approaches to understand how this happens, is this notion of functional differentiation, that you have a particular function, let's say punishment or reward or monitoring and so on, distributed. You have several functioning processes of basically collective cognitive processes, which perform a particular function.

And also because this is so nested, one within others who have different layers and different logics to such functions. So, it's a wonderful framework to analyze and evaluate, and also develop recommendations relative to all those functions. But each such function if analyzed seriously, across the global society, you will find it implemented and deployed in a scalable manner. And then yes, the question between what is governance and what is good governance, as you said that this is good governance, is a completely different story, because you can say that this is the one we have, you can apply the notion of global governance and just say yes, it's governing itself. You can describe, you can map all those functions somewhere. Is it governing yourself well?

DSW: Absolutely not.

ML: No, it isn't.

DSW: So that's great. And then a couple points to tie back to Teilhard. And also biology and evolution that it's part of what we now know about human evolution, is so much founded on cooperation, that what distinguishes our species, from our closest ape ancestors, and most other social species is the degree of cooperativity within groups, always within groups, often in the context of between group conflict, let that be said. But nevertheless, the extraordinary degree of cooperation that took place in those little groups, those little hunter-gatherer groups, and that being mental cooperation, in addition to physical cooperation, it wasn't just hunting, gathering. It was truly a merging of minds that made such things as language and symbolic thought possible, and what that means is this feeling that we are part of something larger than ourselves, which is at the heart of the religious and the spiritual impulse is deeply biological.

We were part of something larger than ourselves, always have been. Individuals never ever, ever lived alone. They always lived in the context of small and for the most part, highly cooperative, and well regulated groups. If you look at hunter-gatherer groups, you see all of those core design principles strongly manifested. Those were egalitarian societies, no one's got to be bossed around in those societies, but at the end of the day, in the first place, you have this stubborn individualism, nobody's going to boss me around. But it was always in the context of this is what we are going to do. And the psychological experience of we-ness is deeply innate, is genetically innate, but it's sufficiently socially constructed, because our capacity for culture is innate.

And so, it turns out that we're so very flexible as to that group that we belong to. And that group can be larger and larger. And actually, that group could be the whole earth. But of course, we have to tell the right stories for that, so the idea that I think it's not the case that everything comes down to narrative, because you need these structures that we've just been talking about, but a whole bunch does come down to narrative. And so, we do need to be telling stories, for those stories to be common stories. And I think it's so gratifying to know that the sanctity of the individual, which Teilhard appreciated. Teilhard called the individual freedom and dignity that pearl beyond price, and he asked that question, "Are we going to lose that?" I mean, as part of the Noosphere, and the superorganism that the individual is going to become some skin cell that is easily sloughed off?

He says, no, but that the only kind of freedom worthwhile involves social relationships. There's no freedom in being all by yourself. So whatever it is that we want, and that we call freedom has to be in the context of nurturing social relationships. And I think that modern science, that third criterion... Let's go back to the point where we said there's three criteria we're trying to hit. It needs to be psychologically inspiring, it needs to cause us to act in the right way for the global good. And it needs to be in accord with modern science. That's the new criterion. We're getting close to that. And so that's what excites me about this project, is that we're actually getting close to something which scores high on those three criteria of a meaning system.

ML: This innate belonging of the drive to belong and the need to belong of humans... The problem I have is that all good traits or good motivations that you can describe beautifully are a part of the human nature which is like simultaneously can be seen as a good guy or some kind of bad guy. I'm very careful about this distinction, because you could really... If you take the wish to belong and the loyalty to the group and this wish to be all right, relative to the particular group you belong to. You could say that this... Let's call it love. Yes, let's call it love. This love is simultaneously a motivator and of all that you would like to see in the society as well as those things that you wouldn't like to see in the society, because when you have a polarized group, when you the social dynamics, set of beliefs that won't meet your criteria, why those people are insisting on that, because they are being loyal.

So, at the bottom of all those motivational structures, we are really the same. So it's really contingent and this is the cultural evolution, that for a particular set of people, particular group of people, this configuration of meaning is what they will be loyal to, because they are being loyal to the people they

love. So this is very complicated with this goodness and the badness. The criteria you have. You said those are the criteria to evaluate meaning structure and is it the right meaning structure to have? But you see, those criteria are your meaning structure. Because for a person for whom science is not a criteria, they have a prior meaning structure, it doesn't nominate this particular consideration as something that gives meaning.

And they will be loyal to that tool. So those narratives are proposing narratives that come not in collision, not in a division instituting way, but in some incorporating way that appeals to different meaning structures and goes under them, appeals to shared values rather than the ones that are already like chosen as the ones we need to be loyal and against. This is the power that I understand is available or at least desired in this attempt to propose a narrative of the Noosphere. But to my mind, we really need to be careful for the narrative to be different than the typical structure which is there will be the something outside that is not wanted…

DSW: This is where I feel the science becoming eminently useful and clarifying something that we already know from our common experience, but the science, very specifically, multilevel selection theory adds clarity to what you just said. Because what multilevel selection theory shows very clearly, is that in a world of groups, within groups, within groups, virtue at one level permutes to vice at another level, goodness at one level, permutes to evil at another level. Self preservation is good until it leads to self dealing, helping friends is good until it leads to cronyism, helping family is good until it leads to nepotism, on and on, and on.

And so, it speaks so clearly to the fact that almost everything that we recognize as pathological in life, is based on this dynamic that is actually adaptive at some lower scale, and then permuting into something that's disruptive at a higher scale. It is specifically multilevel selection theory that clarifies that and it also leads to a conclusion, which is for everyone, the whole earth must be the superordinate entity. That we must somehow one way or another, and no matter what your belief system, if it's religious, or secular, or whatever, you need to regard yourself as first and foremost citizens of the earth, and then all your other identities at all scales, national, religious, personal, needs to be coordinated with that citizen of the earth.

And this is happening, I think one thing we can say that's happening all by itself, it didn't have to be organized is because things are getting so interconnected back to interconnectedness.

A few centuries ago, nobody thought of themselves as citizens of the earth. And now it's like, the most natural thing to do because things have become so interconnected at a global scale. So it's actually not hard to think of yourself as first and foremost a citizen of the earth. Thanks to just this inevitable increase in scale which has been taking place. Nobody designed that. So I think it was the Baha'i Faith, that was the first religion that was explicitly inclusive of everything. But now we have the Dalai Lama talking about beyond religion and ethics for the whole world. We have the pope talking about our common home, speaking for the whole world, not just for Catholics, it's just the only way it can be, increasingly. And so that story that's needed is progressively an appealing story, progressively an easy sell, I think, no matter what your current identity. That's my optimistic prognosis.

ML: Yes, I agree. We don't know what it will be 100 years from now, but I would like it to be just the basic human identity. I'm a human on earth. And it's growing, and it's so attractive, and it's so beautiful and it's also what does make sense. And also I'm thinking about this because there is a lot, a lot, a lot of dissatisfaction, and this human shame about what we are doing to the climate and everything. So many people are depressed about it. I have this almost like a perverse attitude to this dissatisfaction that it's good, that it's not that I'm saying yes, yes. It's good that we are so bad. It's good that we are realizing it. So, the structure of this belonging and also owning the problems has changed, where before you would have, we are the good guys, we are the good group, we want well.

There is another group that is a problem here by this admission of humanity as a primary identity, people need to say, yes, this is what we are doing. And in terms of them of maturation, this is a gigantic step because before you own something, you cannot change it. It's beyond your control, it's somebody else needs to change it. But once you admit that it's your doing, that for example, let's bring it back to the example of one human individual, until you realize that what you are doing, you actually can influence how your life looks like, this is your doing, you won't change it. It's better to be dissatisfied with it and own it than say, no, I don't have an influence I'm just like this is is you who's making me act this way. So this can go on forever, and I won't change my response to you.

DSW: All right. This is wonderful. So thank you so much. I had a great time with this conversation and I'm really happy to share it through the Human Energy Project in that Third Story.