

SCIENCE OF THE NOOSPHERE

Marta Lenartowicz

with

David Sloan Wilson

David Sloan Wilson: Well, hello Marta, so nice to be talking with you.

Marta Lenartowicz: Hello David.

DSW: I want to begin with your personal journey, so tell us who you are as a person and how you got into this peculiar line of work that we're in?

ML: Yes, it's a nice question to start with. Indeed we are in an unusual space in terms of academic research as what we are doing doesn't really fit into any particular discipline. So, here we meet in between of everything. My background, I got a PhD in a particular type of management which is not coming from understanding management as a discipline of economics, but it's called humanistic management. So, rather than arriving at the topic of humans involved from the framing or perspective of first managing assets and managing economic reality, and then realizing that humans are involved. This humanistic management is flipping the perspective and thinking first in terms of humanity and what we are doing here together on this planet, and then realizing, uh-huh, so, we also need to coordinate and it has meaning for us, and it has personal meaning, it has collective meaning and understanding management from this perspective.

So that was my background before I joined the team here in Brussels, which then was working on the global brain concept and in the research group, which is called evolution, complexity, and cognition, but what is the path of interest that brought me to this complexity oriented research, was that I was studying social systems and I was very much curious about them. Because I was also involved in many, like really, really many different projects and startups and differently organized projects. And I was always interested in... Actually the point of interest, I realized was very precise. I was interested in this intersection, like, what is happening between what my mind, what I do, and how I act, and how I speak, and what I say and the ideas I have. And the particular social context that I'm involved in.

Starting from scouting, I was always leading the team and doing all sorts of things and saying, okay, we'll do this and we'll do this, and now this project will be about that, and so on. So, that was my preference or predisposition, but I was observing, okay, some ideas do fit and are very nicely followed, and some others... Here, everything goes smoothly and I'm able to contribute well, and here I'm basically working always cross purpose and this cross purpose was attracting me, and I was interested in change management, and I was living in Poland then and there was a lot of change management projects because of all the social transformation.

So, change management and leading change was the big topic and also this counter motion of not willing to change, obviously. So, I arrived at an understanding of social systems, which was very informed by second order cybernetics thinking in terms of distinctions and systems identities, and so on, and so on. And this is how I joined the team that I'm working at now.

DSW: Okay, so Marta, I wanted to focus our conversation on two key concepts and their relationship. The first concept is interdependence. So systems that are richly interdependent in their elements. And the second concept is functional organization, a system that qualifies as functionally organized in some sense. If it's a biological unit, then, of course, an organism is the quintessential functionally organized unit. An insect colony is a functionally organized unit. In human life, of course, a well run corporation is a functionally organized unit. And of course, corporation is derived from the Latin word for body.

And the position I want to discuss, I'll call it my own position, is that functional organization is a very special kind of interdependence. Of course, an organism or a corporation, or any functionally organized unit is richly interdependent. But there's other systems that are interdependent that do not qualify as functionally organized. So interdependence is a broader category than functional organization. And of course, whenever we talk about a brain or a global brain, or a super organism, or the ideas of Teilhard in terms of the whole world becoming some kind of a Noosphere, we're talking about functional organization, we're not just talking about near interdependence, we're talking about functional organization.

And so, the process that's required for something to become functionally organized becomes, I would say, the question, how do we take a system that's nearly interdependent, and turn it into something that's functionally organized? And also, it's very important for it to be functionally organized for the common good, because you can take something like a slave society, and it's functionally organized, but it's not functionally organized for the common good. So, we really have a very constraining set of criteria for what we're trying to create here. And I think that many of our systems are merely interdependent. And they are not what we want. And they're not what Teilhard meant by the Noosphere. So I'm staking out a fairly strong position, and now please take your turn and we can dive into this.

ML: I understand, and correct me if I'm wrong, I like to imagine why... And I understand a little bit more, where the particular framing of the question is coming from. And I imagine it's from this debate you also had with Francis Heylighen and the question of the description of the Noosphere. Is it a project or a vision we are working towards or basically another way of describing the human reality, human society as a complex system that you can do and you do already? So the question is like, are we speaking about the Noosphere in terms of the organism-like functional structure? Or are we just speaking about the fact that the communication networks have covered the globe and there is interconnectedness?

DSW: It's an important theme in your writing, Marta. Is the Noosphere something that already exists or is the Noosphere something that we have to bring into being, and much of what you write you say, "No, the Noosphere is something that already exists." So, maybe you could elaborate that in your own words. In what in what sense can we say that the Noosphere is something that already exists?

ML: Okay, so let's go from there and we'll reach this interdependence and functional differentiation. I don't know if it's even appropriate but I have this very, very clear comparison which... Allow me to use, but it's really out of context, but it's like a little bit in the context because it's in the context of the religious context, where also the notion of the Noosphere can be said to come from. You see, there is this notion about heaven, yes, and the thing that humanity we will reach the paradise one day, and then what you have as... I'm just bringing the similar structure to deliver the point. You have the situation, that you have people on the planet, killing each other, crusading over each other, because their religion needs to be the one that will win because they have a religious state.

You see when you put it like this, it's ridiculous, yes? What they are doing, they are fighting, they're killing, they're murdering each other, because the description and the logic, the social paradigm they are arguing for has this idea of reaching the goal of the paradise, and obviously they want the paradise. And then, you study this religion and what it says. I am not such a big expert on religion, but what it says about the paradise at least in the Christian, the Bible source, it says, "But the..." How is it exactly? "God's kingdom is already here." And there's this... Whenever we debate about the Noosphere being here or not being here yet, I am reminded about this quote, because it's not such a cheap notion that, okay, we have the paradise. Done.

And you see the suffering, you see the words, you see everything and you say like, "Yeah, but this is paradise." It's a little bit more complicated than that, because you see, descriptions are functional narratives. Social narratives have a functional power over how we act and how we behave. And this is what comes back to what I said before about the second order of cybernetic understanding of social

theories. Yes? So, what we understand what is, this is something that organizes our behavior and our interpretation of everything.

Compare those two scenarios. When you say that the Noosphere is a future, harmonious, wonderful, well organized, fully functional, interconnected, but also functionally working as one organism. The state of humanity on a horizon, and we are working towards that. What this description does to my ear, it creates this dichotomy, not only between now and then, which is powerful in our motivational structures, but also between us and them, those who want it, and those who don't want it, the social dynamics and processes which are not that. So then the question is, and it's a serious question, how do you implement that without all those things marked as not wanted, without them on board?

Okay, crusades used to be the old way. I understand that we have developed a little bit more sophistication already, but it is the same thing. Because when you say something is not wanted, and you say like, *this*. This thing that you are pointing to will immediately speak up and protest, and will consider itself not included and not belonging to what you are proposing? So, what I'm suggesting with this description of the news for being here, is that, yes, like okay, so if you take this as an understanding of what's happening, we are one organism, humanity, and as one organism, what am I doing?

And it's not so different from personal development. You are one organism, and then you look at yourself, and you will see, you smoke, you drink... I don't know, all the things you don't want to do. It doesn't mean you say, it's not me. You say, "Yes, it's me and actually I don't want to do that."

So it's not such a psychologically impossible scenario to say, yes, it's us humanity, and look what we are doing. But we are this organism. So I don't think it's such a dramatic distinction between saying that the Noosphere is not yet here or it's here rather than this-

DSW: I like that. I like that Marta. Let me try to play some of that back. So, I think that was very useful. And especially the comparison with an individual. So as an individual, we're not perfect, but we're still an individual. We can get better, but it doesn't change our status as an individual. And so, you're saying that the Noosphere could be like that. All of humanity is by far from perfect, but at the same time, is an organism in progress. But I wanted to highlight... this is very close to my own work and thought over many years. And the way I put it, is that every meaning system has to be evaluated according to three criteria. The first one is how does it motivate you as an individual? How inspiring is it psychologically? How much does it animate you as an individual?

Number two, what does it cause you to do? Because it animates you as an individual and then send you off on some crusade that involves slaughtering other people, that's not the kind of thing that we want. So how does it cause you to act? Is the second criterion. And then the third criterion, is how well does it accord with science? How well does it accord to the facts of the world as a scientist and a scholar would call it? And of course, many religions, all enduring religions score high on the first criterion, they're animating and you can't get started unless it's animating at the individual level. What they cause you to do is highly variable. And historically, Christianity and the other religions actually did a pretty good job of fostering cooperation within the community, often at a higher scale than before. Teilhard understood that. Christian love actually bound people together in a positive sense at a larger scale than before.

From the very beginning, the idea that basically Judaism was being offered to non-Jews was what the birth of the Christian religion was, but of course, that was not universal, by no means, but in any case, the second criterion, how does it cause you to act? And many religions of course, didn't need to pay much attention to the third criterion, and the idea that our meaning systems have to somehow be scientifically accountable is quite new. The idea that the way we think has to be accord with scientific knowledge is actually very new. But it's something that we need to strive for, if we're going to be scientists and humanists, and so if we act, we have to be able to justify it according to scientific

knowledge. And so, that's what we're striving for, is some kind of meaning system that scores high on all three of those.

And it strikes me as quite interesting that you and also, in my conversation with Clement and his writings, actually begin by saying, "One nice thing about the Noosphere concept is that it leads to global cooperation." First of all, it's inspiring, Teilhard is famous for being inspiring. So he does that really well. People, and including the founder of the Kacyra Foundation and the Human Energy Project, Ben Kacyra is inspired by Teilhard, his whole life. So score is high there, at least for some people. And what does it motivate you to do? Well, it motivates you to work towards some global, cooperative unit, that's great. And it does so better, as Clement put it. Better than then globalism as economists think of it. Better than Gaia, which kind of casts humans as the villain, better than techno futures, which is scary and can lead to technological dystopia.

So this is something that we should be paying attention to recording to the second criterion. It's hopeful. But then, of course, there's the third criterion, how well does this story that we're telling, the so called Third Story, how well does it accord with modern science? And there, I think that I really like what you've said, Marta. In fact, it's only during this conversation that I've warmed to it.

And we could say that humanity in its current form is a really imperfect individual. It's an individual that needs a lot of work, in order to get it to be more cooperative, but still, let's call it an individual. That's the unit there were selecting, and then the question becomes how do we do this? How do we actually work these improvements to get us to be more cooperative at the scales that we are? And at that point, I think that I'd like to do... There's about three things that I want to do, let's begin with appealing to your management background. So when you're a manager, or even you said that you did scouting as a young person, and they're presumably you were taking a group of people out into the wilderness, in the woods or something like that, and then you have to do the right things in order to... You're not going to die. But in order to set up camp and get to where you're going to go.

People have to do the right things, and they have to be led in some sense. But do you need an autocratic leader? Maybe not, there's some governance that's needed. But actually, maybe not that kind of governance, maybe it needs to be a more open governance, maybe more participatory, maybe more distributed. But some governance is needed, it's not going to just come together. And so, I think that one thing we can say from a practical management perspective, is that two things typically are not going to work. One is pure laissez-faire, if everyone just does what they want to do without any coordination, or any kind of governance or regulation or anything. No please, that's not going to work.

And the other thing that's not going to work is centralized planning. No, it's not going to work for some group of experts to figure out the grand plan, and the whole soviet experience speaks against that. In fact, every strong socialist experience has failed for two reasons, actually. One is the failure of centralized planning. The world is too complex for anyone to understand to that degree, and also, whenever power is concentrated in the hands of a few elites, then they just run things for their benefit. They don't run things for their common good. And so, we lead to a conclusion that some form of governance is needed, laissez-faire doesn't work.

So some form of governance is needed, but it can't be top down command and control governance, it's got to be something else. That's where we get to and you can call that humanistic if it's for the benefit of the people that are in this organization, and that's what it's for, then it's humanistic management. And maybe the way we might think about the Noosphere and Teilhard and the global brain, is basically... It's the humanistic management project on a grand scale and nothing more or less than that. So, your comments please on that?

ML: Thinking and going back to your question about function, it seems to me that, at least that was my line of theoretical development for a while, that one of the strongest governing structures which are

operating on our planet are actually narratives and you can describe and add descriptions of any organization as a narrative structure, and any, either political or economic and so on, that they are narratives. And I understand the search for the Third Story of the Noosphere, also has that. What kind of story organization of meaning can be proposed such that it will have power of coordinating those different functions and different positions in a society?

And you see the whole idea about the Noosphere being the development of consciousness and a cognitive structure, thus suggests and thus point to this very distributed nature of different points of cognition and different points of functional power that this story needs to be simultaneously appealing to, simultaneously motivating towards a greater coordination. So, to my mind this question about... Okay, so what do we do or how do you govern or how do you envision the governance structure of something that would work more like a Noosphere than how it works now. To me it's always a question, okay, but with whom we are speaking. Is the future president of the world asking or is the manager of one company asking, or is a school kid asking?

Because you see, each such person does influence the whole structure. It doesn't mean that the whole structure is just a loose interdependent mess of different factors. Because once you have a coherent story, motivating story, this organizing structure is present. But it will anyhow appeal and motivate differently depending on to... Whom do we have in mind? What kind of function in a society, we are considering relative to this narrative? So, I don't know if this is coming anyhow as a response to this, but I know that governance questions, questions about political structures, economic structures, reforms, political systems, and so on, those are the biggest questions, obviously, yes.

But it's not the case that the rest of humanity is just passengers and until people in those positions don't ask the specific type of questions, and want the specific type of answers, the Noosphere cannot get better every day, and every action, every step. So, governance... I have proposed we have written a paper together with a few people also Francis at the Global Brain Institute, which is called the human takeover. And it was a little bit more like a joke title responding to the threat of the AI takeover, but to my mind the more important part was the takeover of the individual mind relative to the meaning structures that are imposed on this mind. How do you do that and free the mind, as this humanity take over.

But there we have a whole section which is called what is governance? And it's a little bit I know controversial and daring but there we formulated the question that the answer is that the governance is the structure of decision making in a system, however, it is constituted. So if there is one world king sitting somewhere, that would be the governor, but when there isn't, it doesn't mean that there is no global governance. The global governance is precisely this particular structure of decision making, which makes the world go. So, it can be a bad governance, if it's so messy and distributed that nothing can change, or it can be a little bit better, and so on and so on. It is as it is. It is where decisions about particular things are taken on a daily basis.

And it's never as clear in charts that you can draw about the formal decision making structure, that when you have the President and you have United Nations, and you have this, and you have this, this is our governance, yes, it's institutions of governance. But where is decision making happening, and when, and who is making those decisions? Many decisions are distributed, basically taken by cultural narratives. Yes, because when you speak to a CEO or a general...general, maybe not, it's not a good example. But any politician, many of them will tell you that they are so constrained that they don't really have much decisions to take.

And then you ask, okay, so who is making decision? They will say media. You will go to... This is something in the systems functional approach, is called functional differentiation of the society, that you have those functions, you have the function, for example, the global media network has a particular

function, which, for example, for the official governors, which is the politicians, is the stronger power than them.

DSW: 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, what she did was 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.

ML: 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 holoptic 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-Paul..., 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 have 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.