

Rethinking Things: A Call to Let Things Speak in a New Political Ecology

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Deconstructing Environmentalism

How can we respond to the urgent demand for environmental justice and the founding of a forum for global citizenship? I begin by going back to basics. I return to what is considered the oldest saying of Western thinking, the famous fragment of Anaximander on the topic of justice.

“The way all things come to presence is the way they leave presence, according to “gifting”, for things do justice to one another, honoring each other, thus bringing everything into harmony, according to the order of time” (translation modified) ([1](#)).

Anaximander speaks of justice in terms of all things. For things to be in harmony, to become a cosmos, justice must prevail. This occurs through things honoring one another. Justice ceases when honoring stops. We can locate the moment of the seizure of justice with the onset of the “scientific revolution”. Humans stopped valuing things when they began to wrest from nature her secrets, in order to dominate and control the non-humans as well as one another. Humans stopped valuing things and each human began to overvalue “the self.” This led Hobbes to observe that the “state of nature” was a state of war.

In a recent interview with the Guardian, Stephen Hawking epitomized the ascension of the scientific paradigm. In answer to a question about the implications of his recent talk “why are we here?”, he stated, “The universe is governed by science .We need to use the effective

theory of Darwinian natural selection and assign a higher value to those societies most likely to survive” (2).

Is the universe really governed by science? Did Darwin mean by natural selection that only the fittest or most powerful survive? How can we bring about environmental justice and global citizenship if we value only the strongest, and by that you might read according to Hawking’s, a society of scientists claiming governance over the universe?

I argue that as long as environmentalism tacitly operates within the scientific paradigm, no matter how deep, deep ecology claims to go, this movement is condemned to repeat the very injustice to non-humans that it wants to defend. Because it adapts a scientific epistemology, environmentalism reinstates, in its presuppositions, an abyss or an unbridgeable gap between humans and nonhumans.

Contained in the very word “environment” is an anthropocentric ethics. Environment means a surround world, an umwelt. The image of living from the environment resonates with prenatal overtones. The fetus in the womb is surrounded by a nourishing placenta. Birth inverts this surround yet restages the environment as the replacement placenta. We come to consider the environment as the source of our nourishment. Everything around us is fair game to be consumed. Things come to be seen as a storehouse which can be readily transformed into the availability of whatever satisfies our desires. This metaphor is perhaps best instanced by the World Wide Web. Our real desires become conflated with virtual ones and we begin to imagine we can download and access everything we want on demand on a 24-hour seven-day a week basis. As virtual worlds become more immersive so this phenomena will continue to grow.

If we are to extricate ourselves from the pernicious aspects of the scientific paradigm I argue that we must first rethink things. Real things are not “objects “nor do they depend on our subjectivity in order to be. In order to arrive at this realization we must overturn the embedded assumptions of scientific epistemology and deconstruct its teleportation theory of knowledge. We do not jump, as this epistemology would have it, from a disembodied mind, inside a vat, to knowledge of the real things outside.

Quinton Millassoux does a good job of deconstructing scientific epistemology in his recent book *After Finitude: The Necessity of Contingency*. He decenters the underpinnings of the epistemological paradigm or bifurcated worldview by dismantling what he identifies as correlationism (3).

What is correlationism? Kant is the source of the correlationist Ptolemaic counterrevolution. He holds that for things to be experienced they must conform to consciousness. Correlationism is the dominant philosophical orientation of our time whether in a Continental or an Analytic version. Both Heidegger and Wittgenstein express fundamentally correlationist positions in that they express the view that there can be no world without consciousness, human existence or language. Under the spell of correlationism things become the hostage of man and not just any man, but of scientific man. Correlationism takes for granted that only science can speak for things or about things as matters of fact or as following laws of nature. If only scientists are allowed to represent things they will in fact prevent things from being allowed to speak for themselves, to be heard in their own voice. So how can we let things speak?

There is no question that things speak. We need only look at the beautiful images of water crystals in Masaru Emoto's *The Secret Life of Water* to be convinced that water resonates to music, sadness and joy (4).

For Millassoux the fossils of paleontology speak eloquently of a before man, a before consciousness, as do the planets, galaxies and universe. All attest to the existence of real things before man.

Reverse Engineering Science

Bruno Latour in his science studies, the sociological and anthropological study of what scientists actually do, debunks the scientific epistemological framework. Latour argues that things evolve through time just as our knowledge about things evolves. It is a myth to believe in an absolute ultimate fixed object out there that is the supposed target of scientific investigation.

According to Latour there are rather two distinct modes of existence, one which strives to subsist and the other which strives to know. He calls them subsistence and reference. These two modes of existence substitute for objectivity and subjectivity, the main protagonists in the impossible teleportation scenario of traditional epistemology. It will never have been or be possible to jump from subject to object.

Latour illustrates his two mode theory in a commentary on a visit to an exhibition at the New York's Museum of Natural History. At the museum there is a presentation of two parallel versions of horse evolution as well as two parallel versions of the history of how horse evolution has been interpreted. We see both the transformation of horses and of our understanding of this transformation. Horse evolution was once understood in a linear fashion

but now is seen to be much more of a multiple series of branches or evolutionary struggles by horses to survive in a variety of conditions. The exhibition reveals that there is no straight line evolution of the horse nor is there a straight line of developing understanding of horse evolution. Many newly discovered horse fossils do not fit in to the straight line theory and can only be placed on a series of branches all of which show that horses struggled to subsist in various places which favored various evolutionary developments. In the same way that there were multiple struggles for existence or horse subsistence so there have been multiple struggles in regard to the best theoretical interpretation of horse evolution(5).

Latour extrapolates from this exemplary exhibit a general understanding of all so-called scientific objects and claims that all things have a history. This means that we can only retrospectively understand the scientific object at any given time in the light of the dominant scientific reference of the time. When debates are settled, facts go into encyclopedias until the next outbreak of disputes. What this means is that Newton has to come along to speak for gravity and Pasteur for microbes to find themselves on the map. Looking at what scientists actually do Latour enables us to realize that the scientists job is to establish facts. They are engaged in ongoing controversies to identify newly discovered entities and to name, classify and of course take credit for them.

Latour revisits Plato's Gorgias to understand the origin of scientific hubris and to overturn scientific conceit. He shows that Plato's two house theory was constructed, as a way to protect aristocratic values from fear the of multitude or from mob rule. Based on the metaphor of the cave only philosopher/ scientists went outside the cave to grasp the truth of reality. Only they

could come back into the cave to tell the cave dwellers what was the out there. Only philosopher/ scientists then could pronounce on truth. Yet looking at the constructs of Greek Mathematics Latour shows how the formal diagram was never intended to be used as a general theory of forms which Plato develops (6,7).

By deconstructing both ancient and modern versions of the scientific two house theory or in other words of scientific reductionism, Latour opens the way for an irreductionist understanding of things. On this way we may be able to return to honoring things and creating a more harmonious and just assemblage of the humans and non-humans.

Following Latour's ANT or actor network theory we can remember that we humans and non-humans are all in it together. We are all in assemblages of networks. These networks move at parallel and frequently crisscrossing levels of subsistence and reference, as things evolve and interact. These networks are assemblages of things both human and non-human. Assemblages are composed of multiple subsystems and units. All the things that we take for granted like automobiles, computers and space ships are such assemblages. The subsystems are black boxed and hidden from view, like the engine under the hood of an automobile. Apart from multiple subsistences these networks connect multiple referential networks of policies, governmental agencies and the rules and regulations that govern the assemblages of what eventually become products for distribution.

An Assemblage in Meltdown

Jane Bennett in her book *Vibrant Matter* gives an excellent case illustration of the practical application of Latourian theory when she analyzes the famous East Coast blackout which took

place in December 2003. Bennett defines assemblages as follows:” assemblages are ad hoc groups of diverse elements, of vibrant materials of all sorts. Assemblages are not governed by any central head , Effects are generated by an assemblage around emergent properties, emergent in so far as they make something happen for example , hurricanes or wars . What happens as an outcome of an assemblage is distinct from the sum of each thing considered alone by itself (8).

A good example of an assemblage is the power grid. This assemblage is composed equally of human and non-human elements .The human elements are for example the legal and linguistic constructions and decisions around this assemblage and the nonhuman elements are powerful active electrons, trees and electromagnetic fields.

The story the blackout brings up the implications of actor network theory for practice and theory as it crosses the usual divide between human and non-human action, ethics and politics..

The international Herald Tribune reported on the day of the blackout, “the vast but shadowy web of transmission used by power generating plants and subsystems known as the grid is the biggest gizmo ever built. On Thursday 14th of August 2003 the grid's heart fluttered.

Complicated beyond full understanding ,even by experts the grid lives and occasionally dies by its own mysterious rules.”

In what follows I give an abbreviated account of Bennett’s Latourian oriented case history.

Bennett explains, “what happened on that August day was that several initially unrelated generator withdrawals in Ohio and Michigan caused electron flow patterns to change over transmission lines. This in turn led to the successive overloading of a lines and a series of generator disconnects. One generater plant after another separated fromthe grid resulting in a cascading event that affected over 50 million people.”

Looking further into the case we know that non-human electricity is a stream of electrons. In power generators they usally move in two currents, ocellating in waves that are in sync and producing active power , the type of power used by most appliances. But some devices such as electric motors, refrigerators and air conditioners operate on reactive power. Reactive power is vital to sustain the electromagnetic field of the generator system as a whole. Because of the US Congressional approval of legislation that separated the production of electricity from its distribution, companies could now buy electricity from power plants. As Benett coments, “These plants are technically capable of producing extra amounts of reactive power but they now lacked the incentive to do so since reactive power production reducesd the amount of salable power produced . Reactive power became a commodity without profit and thus became in short supply. At this point we can say that it suffered the tragedy of the commons. It was free to everyone who used it until it was used up. As a result individual power generators began to uncouple from the grid.”

This occurrence surprised everyone, as no one anticipated it. In this case electricity spoke. It was active and produced unexpected effects.

“So in August 2003 after the transmission lines along the southern shore of Lake Erie disconnected, the power that it employed along that path dramatically and surprisingly changed its behavior: it immediately reversed direction and began flowing in a giant loop counterclockwise from Pennsylvania to New York to Ontario into Michigan shutting down power along the way” . Electricity is not always entirely predictable, sometimes it goes where it is sent and sometimes not. Given a quirky flow of electrons, members of Congress and their passage of free markets regulations and a myriad of other occasional events such as fallen trees and brush fires, there is not a simple agency to blame as the cause of the New York blackout. An assemblage, the grid, at least at one point in time showed it had a mind of its own.

Bennett’s unpacking of how the blackout happened showed that it involved an investigation of the policies of the federal regulatory commission, the energy policy act, the nature of electricity, the demands for power, the summer economic manipulation between electrical companies and a phenomena known as tragedy the common, the use of the free commodity of reactive power until it was used up as a finite resource. As she concludes, “ultimately it was the unanticipated depletion of reactive power that produced the unintended consequence of the blackout”.

There is no one set of individuals to be held responsible or accountable for an event such as the blackout. We are left with an open question regarding ethics, policy, politics. and justice in relation to human and non human assemblages and their citizenship. As we no longer have

the luxury of holding anyone accountable or responsible for failure or catastrophe on whom or what can pin the blame? How can we arrive at justice?

Reassembling Global Citizenship

This leads us to the question with which we began, how can we found a forum for a just political ecology, given our new understanding of the unpredictable and non-responsible effects of human and non-human assemblages?

How do we return to a just and harmonious relation between humans and non-humans where we remember how to honor one another. How do we bring about global citizenship in which the voice of things can again be heard ?

One preliminary action we can take is to rethink things. This involves reframing the Darwinian notion of survival and our understanding of natural selection. Recent studies on deer herds enable us to rethink survival in other terms than survival of the strongest. It was discovered by closely observing herds of deer that they make the important decisions, such as choosing between alternative watering holes, in a democratic fashion. It was by continually observing numerous herds that researchers realized that when 51% of the herd turned in the direction of one hole rather than another, the herd started to move and in the direction where the majority pointed. The large male bucks, apparent leaders and certainly the strongest followed the herd, bringing up the rear. The same democratic principle is found in almost all groups, insects, fish, birds or mammals. The group seems to be wired at a subliminal level to respond to one another and move in the direction that is best for the survival of the group as a whole (9).

This phenomena is also seen in humans and is known as group wisdom. Crowds have an uncanny ability to collectively reach amazingly accurate numerical answers such as guessing the number of beans in a jar at a fair. A new study of crowd wisdom, where individual biases cancel each other out and distill uncannily accurate average answers, showed that crowd wisdom failed to work when researchers told participants about what their peers guessed. Groups were initially wise but knowledge about the estimates of others narrowed the diversity of opinions to such an extent that it undermined collective wisdom. Speculating on this finding we can imagine that overvalued scientific opinion may be disrupting the wisdom of democratic group decision making, especially in ecological politics ([10](#)).

Looking to the future, we are seeing the exponential acceleration of technological evolution and a convergence in genetics, nano-technology and robotics trending toward the development of strong artificial intelligence. If such intelligence emerges human intelligence will be enhanced and humans and non humans will in effect marry. We will become hybrids or cyborgs. At this point virtually all things will become interconnected and collective intelligence will be able to be instantly shared for better decision making. Enhanced humans and AI's will have immediate access to one another's findings in what will amount to a fully integrated emergent global intelligence network([11](#)). This hopefully will bring about a justice to come and global citizenship of mutual respect among all things.

Until such time we must learn to attune to our subliminal bond with things and one another in order to let things speak so we can return to honoring one another. Only in this way will we begin the journey of establishing a forum for global justice and global policy formulation. Bruno

Latour has laid out a provisional plan for setting up such a forum for reassembling citizenship in his book *Reassembling the Social: an Introduction to Actor Network Theory* ([12](#)). The second part of my paper, expanded for inclusion in our *Global Citizenship* volume will be titled *Reassembling Citizenship: A Global Forum for Political Ecology*.

Reference Notes

1. http://www.amazon.com/Presocratic-Philosophers-Critical-History-Selection/dp/0521274559/ref=sr_1_1?ie=UTF8&qid=1306341900&sr=8-1-spell
2. <http://www.guardian.co.uk/science/2011/may/15/stephen-hawking-interview-there-is-no-heaven>
3. http://www.amazon.com/After-Finitude-Essay-Necessity-Contingency/dp/1441173838/ref=sr_1_1?ie=UTF8&qid=1306337844&sr=8-1-spell
4. http://www.amazon.com/Secret-Life-Water-Masaru-Emoto/dp/B0016HMC3Y/ref=sr_1_1?ie=UTF8&qid=1306338087&sr=8-1
5. <http://www.bruno-latour.fr/articles/article/99-HANDBOOK-FINAL.pdf>
6. http://www.amazon.com/Pandoras-Hope-Reality-Science-Studies/dp/067465336X/ref=sr_1_1?ie=UTF8&s=books&qid=1306339191&sr=8-1
7. <http://www.bruno-latour.fr/articles/article/104-NETZ-SSofS.pdf>
8. http://www.amazon.com/Vibrant-Matter-Political-Ecology-Franklin/dp/0822346338/ref=sr_1_1?ie=UTF8&s=books&qid=1306339558&sr=8-1
9. <http://www.imdb.com/title/tt1741225/>
10. <http://www.wired.com/wiredscience/2011/05/wisdom-of-crowds-decline/>
11. http://www.amazon.com/Singularity-Near-Humans-Transcend-Biology/dp/0143037889/ref=sr_1_1?ie=UTF8&qid=1306341467&s
12. http://www.amazon.com/Reassembling-Social-Introduction-Actor-Network-Theory-Management/dp/0199256055/ref=sr_1_1?ie=UTF8&qid=1306341611&sr=8-1