

## **Redesign progress now!**

### **The use of knowledge for a re-conceptualised human progress**

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#### **Abstract**

Human activity has exercised an unprecedented impact on the integrity of the biosphere. In the era of anthropocene, the human species as a bio-geological force systematically transforms nature, causing climate change, soil erosion, loss of biodiversity, scarcity of natural resources, and water, soil and air pollution. After decades of furious techno-economic development, two main observations can be made: poverty and social injustice have barely declined or even raise again, and our planet approaches its limits. Therefore, a radical change, a 'quantum leap', is necessary in our conception of progress. Many factors are now gathered to allow such a leap - that is the ecological transition - provided that courageous decisions are taken to drive a multi-scale change within a short period of time.

#### **1. Why there is a need to re-conceptualise human progress**

During the 17th and 18th centuries, the Age of Enlightenment, rose an idea of progress quite simple, and easy to understand. Through the action of rationality, humankind would be able to master Nature, to improve well-being and production, to overcome disease and hunger, but also to defeat religious superstitions, lack of knowledge, and prejudices of all

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kinds (racial, social, gender, cultural...), which were considered to be the roots of exploitation and misery. Because the origin of the problems was seemingly so clear, the solution seemed obvious. By improving education, knowledge and intellectual skilfulness, by giving the power to philosophers, engineers and scientists, modern society would guarantee a better life for the majority of its citizens. From *the New Atlantis* of Bacon (1626) where "generosity and enlightenment, dignity and splendour, piety and public spirit" are ruling, to the *Esquisse d'un tableau historique des progrès de l'esprit humain* ("Outline for a historical picture of the progress of human mind") of Condorcet (1794), a large range of books expressed this faith in reason. From a European perspective and despite numerous contradicting facts (colonialism, growing tensions between European powers), the 19th century established the triumph and unchallenged domination of the idea of progress as it was born in Western Europe. The 20th century shattered it and witnessed the crisis and failure of the ideology of progress due to two major collapses: the two world wars and the planetary boundaries. The conflicts 1914-1945, which precipitated Europe in an unforeseen and inconceivable apocalypse, swept away the myth of a regular and irreversible step forward to Human Progress, and made clear that most intelligent, cultivated and "reasonable" people could become cruel killers. The illusion of a natural link between technical progress and moral progress was broken.

And yet, during the second half of the 20th century, in large parts of the world, an unprecedented technical development and economic growth continued to unfold by exploiting and polluting seemingly unlimited natural resources, be it oil, water or land. If first warnings rose in the nineteen sixties (e.g. *Silent spring* from Rachel Carson in 1962, *Limits to growth* from the Club of Rome in 1973), and if the environmental debate has been established at the highest international level notably through the Kyoto protocol, no country has up to now seriously taken into account what is identified since a few years as the *Planetary boundaries*. "Anthropogenic pressures on the Earth System have reached a scale where abrupt global environmental change can no longer be excluded... Transgressing one or more planetary boundaries may be deleterious or even catastrophic due to the risk of crossing thresholds that will trigger non-linear, abrupt environmental change within continental- to planetary-scale systems..." (Rockström et al., 2009).

However, *Progress* remains nowadays a prominent narrative in the world. It continues to disseminate all over the globe through the dogmatic vectors that are economic growth, competition, new technologies and communication.

For a long time, techno-scientific developments such as nuclear power plants, pesticides,

GMOs, air planes and space shuttles, big and fast cars, household appliances for all and everything, but also fashion clothes and faraway holidays, were presented as the ultimate marks of modernity and progress. The modern “hero” does not know limits, the world is his. We are told: this is in human nature - always reach beyond limits. And science does just the same. The modern mind does neither know nor accept boundaries. But if the mind of man cannot be constrained, his acts should (and indeed they are, e.g. by laws), and anyway physical planetary boundaries will, since they are not a frontier, that can be pushed back. Numerous countries will have to undertake major changes in their current or upcoming living modes to reduce the impact on nature.

We have to consider seriously the notions of sufficiency, prosperity without growth, and to redefine the role of technical development. We have to move from conquest to stewardship: to maintain before to obtain. This is the profound psychological background for the ecological transition - which has to be followed by accordant action. Therefore, the promise of an universal prosperity based on an unlimited production and consumption for all appears henceforth not only like an illusion but like a dangerous and unreasonable objective.

## **2. What has to be changed in our conception of progress**

Several questions arise: Which progress do we consider real and indisputable? What should be discarded? How do we assess and measure what is progress and what is not? Our model of society needs close scrutiny since “Patterns of power in society may thus be seen not only as outcomes, but also as determinants of our understandings of progress.” (Stirling, 2009).

We value the freedom of consciousness and thriving of happiness, the sense of personal responsibility and compassion, the idea of improving living conditions by social, moral or technical innovations. We acknowledge that equal dignity between all human beings and equality of rights are important objectives. We know that no *natural* order of society exists and that we have choices.

But several assumptions should be strongly de-constructed: the idea that competition and greed are the sources of human progress, that there is a linear relation between consumption and happiness, that increasing power by technology will solve all the problems, that an unregulated market is the final path to prosperity, that unlimited property

rights lead to an optimised use of rare resources, that struggle for and accumulation of power is the law of nature.

However, if it is (relatively) easy to underline what is wrong and why, it is much more challenging to figure out what kind of society we can imagine and create.

## 2.1. On the nature of progress

Four fields of improvement can neither be confused nor reduced: truth, efficiency, good and beauty. It is *true* that we are able to kill. But this does not mean that it is *right*. Neither is it *beautiful*. Metallurgists of the early bronze age were *efficient* enough to create *wonderful* masterpieces without having a concrete idea of what happened *exactly*. Scientific *truth* and technical *usefulness* can say nothing about the *value* of a flower. And so on. *Truth* is the issue of science, *efficiency* the issue of craft, *good* the issue of moral and justice, and *beauty* the issue of art. Our modern societies are characterised by a shared confusion of what relates to truth, efficiency, beauty and good, and their respective importance for societal life. Not only modern societies pretend to be science-based, they also merge science and craft, science and good (where 'technical progress' is inextricably positively connoted).

Real and balanced progress can only occur if we restore both the clear distinction and the constructive dialogue between Beauty, Good, Technology and Truth. We need a better and different comprehension of nature and society, more social and environmental justice, smart production and beauty in our common life. But, as Plato already pointed out in his text *Protagoras*, if a society can fulfil its technical and artistic needs through specialised people, the sense of justice must be common to all people. We need doctors, farmers, engineers... but we need them first of all as citizens! Thus (higher) education should not only train engineers but citizens engineers, not only researchers but citizens researchers, not only lawyers but citizens lawyers and so on. Knowledge can be used to any kind of (political, economic, legal) target, be it bad or good. But who can say what is bad or good, what we need to know or not, what is just or unjust? Kant gave three moral imperatives: "Act in such a way that you could will that the maxim of your act become a Universal Law.", "Act in such a way that you treat Humanity, whether in your own person or in the person of another as an end in itself and never merely as a means.", "Act so that through your maxims you could be a legislator of universal laws". The German philosopher Hans Jonas added a fourth one: "Act so that the effects of your action are compatible with the

permanence of genuine human life". Those four principles frame the essence of the ecological humanism we need now.

### **3. A multi-scale transformation**

Every existing societal system builds its own coherence between the individual and the collective level, the local and the international level. A quantum leap - the ecological transition and a shift in the *cosmovision* - requires simultaneous changes at every scale in a limited time period.

*At the individual level*, reappears the question of the meaning of human life. We have to (re)learn to appreciate what is useful rather than what is big, to enjoy what is fruitful rather than what is powerful, what is close rather than far, what is supporting rather than dominating us, what is given and vital rather than rare and expensive. We should abandon the race to power. We should teach our children how extraordinary ordinary life is. We have to teach them self esteem, self respect and esteem and respect for others. If mind capacities of children, such as needed for mathematics or natural sciences are today highly valued in the (Western) school system, abilities that call for artistic and craft skills or social and collective behaviour suffer from lesser consideration. Solidarity, creativity, critical thinking and collective acting should gain ground as central elements of education. In other words we need a « *Wiederverzauberung der Welt* » ("re-enchantment of the world") as a response to the « *Entzauberung der Welt* » ("disenchantment of the world") through science (Weber, 1917). There is no reason why the knowledge of reality through science should lead to a disenchantment of the world. Modern sciences like ecology or evolution of life tell us pleasant narratives.

**We need to change our figure of the modern hero from the warrior to the gardener.**

What exactly is a society? What kind of society do we wish to build? Just a few short reflections to underline the purpose. In the last century, the domination of Nations States and limited liability companies led to both the loss of consciousness in individuals and the loss of their capacity to cooperate in societies. In both cases obedience to a leader or struggle for power seemed to be the only viable behaviours. If the model might be efficient for the purpose of mobilizing very quickly a lot of people for a single objective, it however shows its limits in the management of a complex reality and may (or surely does) even

prove to be counter-productive.

19th century federalists like Proudhon pointed out the weaknesses of centralised systems and dreamt of a 'federation of free communes of the world', thus meeting the thoughts of Aristotle, Locke, Condorcet or Tocqueville. They claimed that the commune was the basis of all civilised world not least because local economy is closely connected with social and environmental issues, and because they encourage direct participation of citizens (active and responsible citizenship). A third reason could be added: the commune (or community) is the ideal place for innovative answers to overcome commonly identified problems. Reinforced communities are thus a pathway for progress.

A decentralized organisation would also bring change in the production and use of knowledge. It would make techno-scientific innovation subject to democratic scrutiny, open new paths through a cooperation between academia, citizens, non for profit civil society organizations and local companies, lead to sharing and co-production of knowledge and thus sharing of power, strengthen the local dimension and relevance of research while valuing different forms of knowledge be it local, professional, empirical, women's, traditional, indigenous.

Regarding the economic sphere, at least three policies have to be deeply overhauled: the status of *limited liability* of companies, property rights, and the currency system.

How can we achieve a society with a high level of responsibility if we admit that one of our major activities – economy – is managed through organisations with “limited” responsibility? Which in fact often leads to no responsibility. With “unlimited” responsibility (both economic and legal) of companies, stakeholders would rather focus on how money and profits are made than on their return on investment.

During centuries *property rights* have been mostly limited. A large part of human activity was managed according to the « right of use ». Later, property rights were enforced to secure the improvement people could bring to their properties. However, what was meant to protect individual property became an unlimited property right dogma resulting too often in monopoly and misuse. “Because property rights define relationships between people in respect of things, and almost all things are subject to some form of property, the regulation of property has a fundamental role to play in the management of the world’s resources.” (Barnes, 2013). If state and private property are nowadays the dominant property forms, their use and importance would have to be reconsidered in relation to common property and open access, and to effects on the capability of property to sustain social, ecological

and economic resilience. We need to re-develop the notion of the 'Commons', (common pool resource management) (Ostrom, 1990) and a broad range of property rights according to the nature of the resources, the community concerned and the local situation. Last but not least, *currency*. How to manage a diverse world with a single unit: the dollar? How long will the earth accept the dollar as a counterpart of its deregulation? Some economists (e.g. Kirk Barrett, David Fleming, Mayer Hillman and Tina Fawcett, Suryapratim Roy and Edwin Woerdman) suggest the creation of a carbon-unit. Beside a labor-currency (what the dollar is), wouldn't we need a water-currency, an energy-currency, maybe a bio-currency to measure what our ecological footprint is (William Rees and Mathis Wackernagel)?! Also, local currencies (re)appear already in numerous places all over the world to enforce local economies.

Instead of GDPs and stock exchange prices, we need human well-being in reinforced democracies and in unison with nature (and respective indicators to measure this) (UNDP, 2002 ; Sen et al., 2009).

*At the global level*, we learned from history that institutions tend to become corrupted, and a mighty corrupted universal state would be a dreadful thing. However, we do need a worldwide harmonised system that would be mainly responsible to go as far as possible in the definition of common objectives, whereby the means to reach them should be left to the discretion of lower levels. Unity of the questions, diversity of the responses. To make this power transparent, limited, binding, and the most democratic would require powerful means of control, systematic collegial and transparent decision taking, and a huge level of accountability of those who decide. Between unbearable dependency and impossible independence stands interdependency. For man, by nature, is a Zoon Politikon.

#### **4. Conclusion: from natural order to natural limits**

The Enlightenment refused an order which was presented as « natural », according to the law of God. Natural the right of the king to abuse his people, natural the right of a man over his wife and children, natural the right of Man over animals, natural the superiority of the winner over the looser, the right of the master over the slave. The Enlightenment claimed that only the right of people was natural and not their submission. Nevertheless the great ideologies of the following centuries - both liberalism, fascism and communism - pretended that they were ruling society according to scientific « natural » laws. It would be

very dangerous to consider ecology as a new set of « laws ». We have to manage the City of Men not according to the laws of nature but according to its limits. The earth is not a fierce master but just an exhausted and weak tree carrying all of us and giving us shelter. But as Charlie Chaplin said it at the end of his movie *The great dictator* (1940): “In this world there is room for everyone. And the good earth is rich and can provide for everyone. The way of life can be free and beautiful, but we have lost the way. Greed has poisoned men’s souls, has barricaded the world with hate, has goose-stepped us into misery and bloodshed. We have developed speed, but we have shut ourselves in. Machinery that gives abundance has left us in want. Our knowledge has made us cynical. Our cleverness, hard and unkind. We think too much and feel too little. More than machinery we need humanity. More than cleverness we need kindness and gentleness. Without these qualities, life will be violent and all will be lost...”.

We should remember that we are all human in the deepest sense of the word. Ultimately the choice in front of us is between life and death. We should choose life!

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