
Climate change and social conflict. Social change beyond the planet's limits and why systematic analysis has to be complemented by the humanities

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Our awareness of the ecological crisis is heavily indebted to systemic thinking. Fifty years have gone by since the first Club of Rome report, *Limits to Growth*, one of the most influential books of the second half of the twentieth century, even though it was initially received with a certain degree of hostility. *The New York Times* labelled it empty and deceitful. *Science* highlighted the opinion of an expert who claimed that the Meadows team had provided simplistic responses for fearful simpletons. Economists flocked to defend the sacrosanct growth and condemned the heretics who may have been computer wizards but displayed so little faith in technological progress. Despite the virulence, the initial reactions did not stop the book from making a major impact. For years, the discussion was heated, stirred up by the fact that it dovetailed with the oil crisis and the emergence of the environmental movement. However, the silencers worked more or less effectively, and the findings remained little more than faint background noise.

Despite this, half a century later, the thesis that there are limits to growth is more valid than ever, and this has to do with the content of the old critiques. Boiling it down to its essence, the Meadows report was rejected for being Malthusian and overly simplistic. The curious thing is that both accusations are true. The problem is that both are more right than they are wrong, and this is why they are coming back now like a boomerang.

1. Malthusian predictions: so what?

Critics noted that the claim that the finiteness of the planet imposes limits to growth, that nature does not let us do everything we want, had Malthusian roots. Thus, they took advantage of the fact that over time, the adjective 'Malthusian' had become an unfailing insult. The fact

is that discomfort with the basic idea that connects Malthusianism with environmentalism has never disappeared. One of the commentators on the report expressed this with utter clarity: “The irritating thing about Malthus and his followers like the Meadows team is that in the long run what they say about the finiteness of the Earth’s resources must be right” (Bellany, 1994: 421).

So, then, the question is: can 50 years be considered ‘in the long run’? It certainly does not seem like too much time. However, we have to recall Gurvitch’s wise observation that there are multiple social times. For sociology, not all half-centuries are equal, and 50 years during the Great Acceleration may be an eternity...

The expression ‘Great Acceleration’ was introduced as a homogeneous way to present data that had been collected over decades. In 1950, the world population totalled 2.529 billion; it has now reached 8 billion. Between 1950 and 2010, the gross world product multiplied by nine, the urban population went from 737 million to 3.5 billion people, the use of primary energy almost quintupled, the consumption of fertilisers more than doubled, the number of motor vehicles increased sevenfold, large artificial reservoirs quintupled, international tourism multiplied by 37 and telecommunication connections rose steeply. All of this has to do with anthropic pressure. On the other side of the process, the side about impacts on ecosystems, the stocktaking says the following: the concentration of greenhouse gases in the atmosphere has risen far above preindustrial levels, the average temperature on the Earth’s surface has risen almost half a degree in the past 50 years, the ozone layer has weakened dramatically, one third of the tropical forests that existed on the eve of the Industrial Revolution have disappeared, biodiversity is one third lower than what is found in non-degraded ecosystems, nitrogen additions are creating serious problems in coastal aquatic ecosystems and so on.⁸

In just a few decades, the many variables showing exponential growth have determined the shift from a planet that is half-empty to a crowded, tiny planet. They have made industrial civilisation enter a state of ecological overshoot, above and beyond the Earth’s carrying capacity. That is, we have entered a phase of unsustainability which cannot last. The Club of Rome report announced that this situation would become visible in the second or third decade of the twenty-first century. And here we are...

8. Anyone wishing to examine the figures can easily do so at <<https://www.igbp.net/globalchange/greatacceleration.4.1b8ae20512db692f2a680001630.html>> [accessed on 23/05/2018]. Checking the graphs that summarise the information on this website is very enlightening.

2. Walking with two legs: the power of systemic analysis and the *esprit de finesse* of the humanities

Let us now examine the second of the supposed causes undermining the report: it is true that modelling complex realities requires a strong degree of simplification. Stating this as a limitation is facile and in some ways guaranteed to be right because the inexhaustible diversity of social existence does not fit within a system of equations. What is not so easy is accepting that the power of a good model depends on this. And that is what happened with the Meadows report and the graphs on the Great Acceleration, which reveal things that no serious analysis of social dynamics can ignore. Therefore, we have to introduce categories that have never before been considered: overshoot, decline, degrowth...

How is all this manifested in social life? How can we recognise to what extent it is already manifested? What alternatives for social organisation arise? This is where the simplification inherent to system models can seriously err.

The leap from graphs describing the Great Acceleration to social life is risky. If we are not careful, we could create a picture in which the sole recognisable social actor is humanity as a whole, endowed with an insatiable voraciousness, and the only conflict that could be detected is the mega-clash between the sociosphere and the ecosphere. This kind of sociology is bound to leave anyone feeling rather cold. Many of the future scenarios outlined in the expert literature are theoretically possible, but ultimately we can expect the decline to go through much more geographically and socially diverse routes than those predicted by any model. Just as almost always happens with history, the paths to decline promise to be uncertain, confusing and multiple. Here is precisely where the dialectic of systems and humanities can be most fruitful. Georgescu-Roegen asserted that given that social change has qualitative dimensions that cannot be described with numbers, it can only be reasonably tackled with a certain dose of Pascal's *esprit de finesse*. He was spot on.

3. On the social manifestations of the decline

The social aspects of the decline are not difficult to cite: relocation, decentralisation, downsizing, slowdown, etc. The difficulty lies in the fact that these things can take on many contradictory shapes. In practice, they can be associated with all sorts of opposing effects which perhaps can only be managed by trial and error.

Relocation, for example, places greater importance on communities. And while communities are associated with higher levels of cohesion and solidarity, they are also tied with greater uniformity, control and restrictions on individual freedom. They open up opportunities for grassroots democracy, yet they also activate the dangers of local tyranny or bosses. They stave off

alienation to foster diversity at the expense of space. And so on. Nothing of this is unfamiliar to sociologists since Durkheim and Tönnies. Many initiatives are underway that respond to the new urge to reassess the local, like retail networks for local products, the 15-minute city and km-0 proposals. If initiatives of this type actually mature, they will nonetheless bear the marks of this dialectic along the way. Similar observations are needed for the other characteristics.

The downward curves in the models showing the limits of growth, as well as the visions of collapse that stem directly from them, describe a kind of quick, steep drop in a socio-anthropological vacuum without any ups and downs. It may well happen like that, such as if there is a large-scale nuclear war. However, it is also possible that the decline takes place in partial collapses, giving rise to occasional plummets via all kinds of obstacles along the way, that is, through multiple conflicts, uncertainties, ruptures and crossroads. No model can account for this kind of thing, and this is why it is best to complement systemic analyses with the humanities, through historical research, the creation of images and literary fictions or—if I may—“the specific analysis of a specific situation”.

4. References

BELLANY, I. (1994). “Malthus and the modern world”, in *Review of International Studies*, 20(4), p. 411–421. <<https://doi.org/10.1017/S0260210500118200>>