

How should degrowth address the issue of “planetary boundaries”?

Planetary boundaries can be understood generically as a notion describing our recognition of the Earth's biophysical limits e.g. in ecological economics and the limits to growth literature. However, it has recently become heavily associated with an article by Rockström et al. that appeared in *Nature* in 2009. This is probably the first time that the notion has been used as an exclusively ‘scientific concept’. That is, the concept has been presented with operational definitions and the expert analysis has presented quantification of thresholds specified for nine essential Earth-system processes. This paper aims to deconstruct the understanding being attributed to biophysical limits by such an approach and to question how a degrowth perspective might do better. A key part of the concern here is the divergence between a conceptualisation of limits (i.e., planetary boundaries) in terms of human instrumentalism from one recognising Nature’s intrinsic value. The latter is argued to be more akin to a degrowth perspective. Can these perspectives be reconciled?

A presupposition of the recent article is that there are hard limits imposed by biophysical thresholds in the Earth system which will soon be breached (Rockström et al.). A long standing counter view is that human ingenuity will always find new ways to adapt and respond to problems (the techno-optimistic view). These are the two main positions upheld in the public debate. Both positions are inherently utilitarian and instrumental. This paper argues that this leaves no room for Nature to exist on its own terms and that the question posed by the Degrowth conference organisers - about how we can respect planetary boundaries (in the sense of how to create a social and ecological economy which respects them) - acknowledges the need to consider the issue from a different, distinctively degrowth, perspective. This will be topic for the first part of the paper. I will then turn to the related question about how to foster relations between society and Nature. The aim here will be to develop an understanding of limits that avoids treating Nature as a mere instrument of society. This question needs to be explored from different perspectives in an open fashion.

Rockström et al. present a figure showing nine essential Earth-system processes, their current state and their thresholds. The figure has been highly cited. It has been praised for focusing not only on climate change, but also incorporating other Earth systems in a easily understandable way; for trying to pull together the knowledge we have in a simple and systematic matter. There seems to be an underlying justification for this presentation based in a form of political pragmatism. That is, there is a hope that when presenting ‘numbers’ in black and white people will finally wake-up and politicians act. This shows a faith in expert scientists presenting factual information as unquestionable truths without questioning the political system into which that information enters.

Yet there are clear ground upon which such ‘facts’ can be questioned. All data suffers from uncertainty and some more than others, some of the indicators are weak, the proposed boundaries are arbitrary and ignore feedback loops, the focus is global but several of the systems covered are more interesting to look at from a local or regional level (e.g. freshwater use), and looking at sources rather than sinks may be more useful to deal with issues of resource scarcity. From the social side, the concept has been claimed to be a social construction, meaning the limits are not only biophysical, but also political as they depend on “perceptions of risk, on public debate and powerful lobby groups, and on international political power” (Raworth 2012:12).

Alternatives have been put forth such as creating political institutions that follow social activities, rather than planetary boundaries (Biermann 2012) or moving beyond a focus on biophysical limits and global scale analyses, towards solution-oriented research from household to global scales (DeFries et al. 2012). Some of these alternatives might resonate better with degrowth ideas. The paper will explain how. Yet some may counter that issues that are truly global, such as climate change require a concept such as planetary boundaries. Is this really so?

In addition to the critiques so far mentioned, the concept has also been accused for providing a false sense of security that may comfort decision-makers, by allowing for prolonged misbehaviour when action is required now (Allen 2009). An interesting aspect of this critique is that it uses the same logic as those advocating planetary boundaries. That is, Allen is claiming to somehow have the knowledge that action is required now. Which knowledge is that, where did he get it from, who produced it?

I support here the need for and belief in such a thing as objective knowledge. I will outline what this might look like using the examples based on a critical realist philosophy of science. This discussion also opens up for using the concept of planetary boundaries but in a more nuanced way.

References:

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