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Improving understanding on degrowth pathways: An exploratory study using collaborative causal models



FUTURES

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ABSTRACT

Degrowth has been put forward as a transition pathway towards a socially and ecologically sustainable future. Many diverse actions have been proposed in the context of degrowth. To the outsider the debate might seem somewhat unfocussed. This article reveals the links and complementarities between emblematic degrowth proposals, and provides a toolkit for developing a more coherent picture on how overdeveloped societies may make a transition to more frugal and convivial futures. We use the method of Causal Loop Diagramming in a collaborative setting involving researchers and activists engaged with degrowth issues. First we derive collaboratively the dominant feedback processes in the current social, ecological and economic systems and we identify leverage points for systemic interventions to facilitate degrowth. By explicitly representing the main causal chains of effects it is possible to reveal insights on the consequences of a given proposal and explore "what-if?" questions and future pathways. In addition we construct a compatibility matrix to identify the possible synergies between emblematic degrowth proposals. The results from these two exercises are integrated to provide plausible pathways for the implementation of degrowth policies, with a systemic identification of risks, uncertainties and leverage points of intervention. Participatory systems thinking tools have much to offer in envisioning contractional, macro-pathways towards sustainability.

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1. Introduction

"We do not claim to have a recipe for the future...", stated the Barcelona degrowth declaration, subsequently challenging: "...but we can no longer pretend that we can keep growing as if nothing has happened". This declaration synthesized the results from the Second International Conference on Economic Degrowth for Ecological Sustainability and Social Equity, which took place in Barcelona in 2010. The conference followed an innovative and participatory process that stirred the development of tens of proposals offering a fertile ground for exploring alternative degrowth solutions and future scenarios (for the full list of proposals, see: http://www.barcelona.degrowth.org/Results.125.0.html). During the event, more than 500 attendants, collaborating in 29 thematic groups, jointly worked out hands-on policies for degrowth across many

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topics, and elaborated on research questions to prompt further investigation. Numerous initiatives followed-up on the conference results, which are being discussed in public debates, research publications [1,2], political programmes and conversations, and have fed into subsequent degrowth conferences (Montreal, Venice, Leipzig) and ecological economics conferences (Istanbul, Lille). This journal was one of the first to host a debate about the degrowth transition and its politics (see volume 44, issue 6–special issue on Politics, Democracy and Degrowth). We advance this literature by exploring further with new tools the dynamics of such a future transition.

While there are expectedly objections to the thesis that economic degrowth is necessary for ecological sustainability (e.g. [3]), nonetheless a research agenda on degrowth has been firmly established in the scientific community as evident in the proliferation of recent publications (among many see [1,2,4–11]). However, the sheer number of the proposals coming from the degrowth community and the wide and diverse areas they intend to cover might give to the outsider the impression of an unfocussed, if not cacophonous, debate. Van den Bergh [3] for example is critical of the degrowth debate precisely because it is unclear on what has to degrow and because degrowth advocates refer interchangeably to a variety of proposals that are not necessarily consistent one with another. Others however have argued that the lack of monolithic definitions or unique policy pathways is a conscious choice of the degrowth community, which wishes to avoid the traps of the reductionism it confronts [12]. In this paper we use a systemic perspective and an innovative collaborative tool, to provide a more integrated overview of some emblematic degrowth proposals and plausible transition pathways. These are diagrammed to facilitate the identification of interconnections and to explore plausible futures. By adopting a systems perspective, characterized by closed loop thinking and depicted through cause-effect relationships, we aim to create a more holistic understanding, investigating critical feedback loops, complementarities and coherence between degrowth proposals.

Section 2 sets the background for our study and an overview of degrowth proposals. In Section 3 we describe the methods that were deployed and the stages of the exploratory research process. Sections 4 and 5 present the causal loop diagrams and compatibility matrix developed at the Barcelona 'Mapping Degrowth' workshop and at a special session of the conference of the European Society for Ecological Economics, respectively. In Section 6, results are distilled and integrated into an outline for degrowth pathways and future developments. Finally, Section 7 concludes with the main lessons from this study.

2. A systemic approach to degrowth proposals

(Sustainable) Degrowth has been defined as "an equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions at the local and global level, in the short and long term... [and which is] offered as a social choice, not imposed as an external imperative for environmental or other reasons" [4]. From an ecological-economics perspective degrowth entails a socially sustainable and equitable reduction of society's throughput [12]. But ecological economics is not the only stream of thought that has influenced degrowth thinking [13]. Degrowth ideas draw also from critical culturalist-anthropological takes against utilitarian thinking in the social sciences, or from debates about alternatives to development in Africa and Latin America [13,14]. For Latouche [15] degrowth refers to a multi-dimensional "exit" from the capitalist economy [16], meaning both an intellectual and symbolic rejection of the imperative of growth, as well as the development of non-capitalistic practices that defy the logic of profit and accumulation (e.g. local currencies, urban garden, consumer-producer cooperatives of organic products). Degrowth therefore represents "not an alternative, but a matrix of alternatives" [15].

Many of these alternatives were discussed in the Barcelona 2010 conference, which followed an innovative grassroots collaborative approach between activists and researchers (described by [1]). Participants worked in thematic groups motivated by stirring papers and a preliminary list of questions. Participants from different groups came together in a mid-work assembly to exchange information and provide feedback on one another's work. The practicalities of the working group process are described at http://www.barcelona.degrowth.org. Table 1 summarizes the main topics and overarching questions that were explored in the Barcelona 2010 conference.

Out of the working group discussions emerged a list of diverse, albeit still fragmented, proposals on "how to degrow". This created a problem of synthesis and of visualizing the links between different proposals, which were arranged in a collection of so-called degrowth "bullet points" (http://www.barcelona.degrowth.org/results.125.0.html). From this list, it was not immediately clear how, and under what conditions, may different proposals in combination lead to concrete degrowth pathways. This is the aim of the current study, where our broad research motivation is to create a holistic understanding of degrowth proposals, to deploy a long-term vision and to investigate critical feedback loops, complementarities and coherence between those propositions. More specifically, this research project aimed to:

- Define variables from the results of the working groups;
- Understand the links between the working group results;
- Identify possible synergies and contradictions between the proposals;
- Identify leverage points for future interventions;
- Set the basis for work on future scenarios, questioning the coherence of proposals and identify further work to be done.

A systems thinking approach is appropriate for several reasons. Systems thinking (ST) developed over the course of the twentieth century, based on the feedback concepts in cybernetics and servo-mechanism engineering theory and across different fields such as physical and social sciences, engineering and management [17]. ST practical applications have

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