

What's Wrong with Degrowth?

by

Clive L. Spash



Centre for Social-Ecological Economics

<https://seecentre.org>

Norway

November, 2025

Social Ecological Economics Discussion Paper SEE 25/1

SEECentre Publications

SEECentre discussion papers are written as independent pieces of research which are the sole work and opinion of the author(s). They have no association with any other staff or associates of SEECentre nor any employer, political party, Government agency or any other organisation. Papers remain copyright of the author(s) but may be under consideration for publication in a journal or book.

What's Wrong with Degrowth? © 2025 by Clive L. Spash is licensed under Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/>This work is copyright.

What's Wrong with Degrowth?

by

Clive L. Spash

SEECentre
Hurdal Økolandsby
Norway

Abstract

Is degrowth being sidelined by some of its highest profile populist writers? Is the term degrowth too negative and neo-Malthusian? Should degrowth be treated as a quantitative reduction in economic growth or GDP? Is degrowth drifting from its origins? What happened to degrowth's foundational concerns for limits to growth and stopping the imperialist spread of growth as development? Are pragmatic political alliances now creating fundamental contradictions? Answering such questions this article probes into the attempts to unify disparate theories and ideas and the rise of alliances under the banner of post-growth. The compatibility of four approaches is probed based on high profile advocates public speeches: degrowth (Giorgos Kallis), post-growth (Tim Jackson), doughnut economics (Kate Raworth) and steady-state economics (Timothy Parrique). The speeches are primarily the plenary presentations given at the two major conferences held at the European Parliament profiling the degrowth community within policy-making circles: Post-Growth 2018 and Beyond Growth 2023. Uncritical broad alliances are brought into question as conflicting with creating meaningful and coherent understanding. Three issues arising are then discussed further: conceptualising the growth imaginary, the reality of limits, and development within planetary boundaries. The analysis suggests a series of ways forward using critical realism as under-labourer. These include applying rational judgement to choose between theories, realism in conceptualisation, and investigating causal mechanisms and structure to identify potentiality for systems change.

Keywords: degrowth, post-growth, doughnut economics, steady-state economics, critical realism, growth imaginary, limits, post-development

Introduction

The opening plenary of the 2023 *Beyond Growth* conference at the European Parliament featured Jason Hickel, the author of “*Less is More: How degrowth will save the world*” preceded by Ursula Von der Leyen, President of the European Commission (EC). Sitting in the audience, I expected Hickel to advance a major case for degrowth. Instead, he gave a run of the mill account of eco-socialism. More astoundingly, he never once mentioned degrowth.

What became apparent, there and since, is how some highly influential scholars were sidelining degrowth, often in preference to post-growth. Hickel, Giorgos Kallis and Julia Steinberger are running a major research project entitled “Post-Growth Deal” presented with no mention of degrowth, a term appearing only under publications implying implicit coverage.¹ Kallis and Hickel published an article, without degrowth mentioned, that defines post-growth as having governments “actively manage lower rates of growth” (Slameršak et al., 2024: 52). They are also part of a broader collective advocating post-growth (Kallis et al., 2025), which includes Tim Jackson (post-growth), Kate Raworth (doughnut), Dan O’Neill (steady-state) and Peter Victor (ecological-macroeconomics). Three years earlier, an almost identical collective (excepting Raworth) published a similar article under the heading of degrowth (Hickel et al., 2022). So, why is degrowth being pushed aside or dropped?

Shortly after the first international degrowth conference, *Economic Degrowth for Ecological Sustainability and Social Equity*, Paris 2008, and publication of the Degrowth Declaration (Research & Degrowth, 2010), the term was subject to criticism as being negative (Scott-Cato, 2010). For some degrowth fell into the category of neo-Malthusian doomsaying, imposing limits and denying the benefits of technology. Degrowth was heavily criticised by Raworth (2015) along these lines; she prefers positive framing, promoting human innovation and new technologies (Raworth, 2017). In contrast, for leading originators, like Serge Latouche, degrowth was a missile word (Paul Ariès term), a provocation to the rhetoric of consumerist convenience society with its materialist hedonism, individualism, technology as inherently progressive and growth as saviour of the poor. Gershon (2018) notes that the term degrowth “sounds to many in the economic and political mainstream absolutely absurd. (Given Americans’ boundless love of all things material, it may not be surprising that the idea has taken off faster in Europe).” However, she recognises its provocative role. “Many Americans prefer to thinking about economic reform in positive terms—‘sustainability’, ‘green jobs’—but the negativity of the word ‘degrowth’ can be exactly what makes it right”.

¹ <https://www.realpostgrowth.eu/> Accessed 25/5/2025

She cites Sam Bliss who believes “Degrowth is clear—it can’t be co-opted by people who are trying to make money”.

Despite being derided as unacceptably negative for policy relevance, degrowth became a widely recognised social movement. A decade after Paris, degrowth researchers were invited to debate in the European Parliament and five years later they were back at the *Beyond Growth* conference, engaging with policy advisers, union and business representatives, researchers and NGOs. A younger generation of environmental activists joined, motivated by such negative framings as extinction, catastrophe and emergency. Degrowth is common sense for a generation seeking plain speaking truth about the reality of social-ecological crises and appealing to scientific understanding to confront politicians, post-truth, environmental denialism and corporate marketing of techno-optimism and eco-modernism.

However, when being established, Latouche (2004), for one, explicitly rejected degrowth becoming a scientific paradigm that would produce a theory of contraction equivalent to economic growth theories. More recent attempts to do exactly this, by converting degrowth into ecological macroeconomic models (e.g. Jackson, Victor, Kallis), have resulted in conceptual mainstreaming and loss of degrowth's essential messages (Morgan, 2017; Spash, 2024). Similarly, Liegey et al. (2025) reference “economistic reductionism” in the position of Hickel, attributed to ecological and heterodox economic theorising. However, the grounds on which to distinguish between good and bad theories, and make valid knowledge claims about economic structures, appear lacking from degrowth.

After Paris a new generation of degrowth advocates started reconceptualising some of its basic constructs along post-modernist lines. As Pellizzoni (2021: 89) notes, while the lineage is complex (see also Muraca, 2013),

“the original standpoint, eminently represented by Serge Latouche’s writings between the 1990s and the early 2000s, is that it is necessary to stop growth, shrinking energy and resource throughput. Yet, partly in reply to mounting criticism, [...] a significant drift in the argument has been taking place among the second generation of scholars.”

Pellizzoni (2021: 91) notes, the original position was “unequivocal about the growth machine”, based on naturalism, but inadequate. Limits were converted into subjective conventions justifying growth under sustainable development, ecological modernisation and eco-efficiency. Some second generation scholars countered with denial of non-volitional limits and deconstruction of scarcity as a fictional discourse of capitalism, based on Georges Bataille. The “drift” Pellizzoni identifies is advocacy of “solipsistic self-mastery” when degrowth scholars “argue that limit should be conceived as self-limitation, rather than

material constraints” (Pellizzoni, 2021: 82). The two opposing positions both made limits internalised subjective human conventions.

Discussing objective biophysical limits is then no longer *de rigueur* in some degrowth circles. A paradoxical position has appeared whereby economic growth is both recognised as harmful *and* recommended for development. Some turn degrowth into nothing more than a temporary downturn in the global North's economic activity to allow growth in the global South (see discussion of Parrique below). This is a further drift from the original critique of development as well as degrowth's anarchistic political radicalism (see Dunlap, 2024). Liegey et al. (2025) note similar concerns with Hickel's treatment of degrowth as a throughput reducing step to an eco-socialist development agenda, and denial of its role as a social movement (see also Gregoletto and Burton, 2025).

Degrowth had combined prominent critiques of growth and development (Escobar, 2014; Romano, 2014), applicable across regimes, e.g., corporate capitalist USA, ordoliberal Europe, eco-modernist Scandinavia, state socialist China. The operation of technology and inherent features of capital accumulation were recognised as including exploitation, extractivism, environmental destruction and militarised interventions to secure supply chains. The critique, while diverse, was informed by realist scientific concepts. When André Gorz first used the term *décroissance* in 1975 the context was Meadows et al. (1972) *Limits to Growth* (Gregoletto and Burton, 2025). When French scholars' first promoted *décroissance* they identified Georgescu-Roegen's (1971) work on entropy and limits as foundational and did so explicitly in Paris 2008. This provided strong connections to ecological economics, evident via such concepts as social metabolism and unequal exchange.

However, ecological economics has itself been a contested field of knowledge fighting the naive objectivism of mainstream orthodoxy and post-modernist radical relativism (Sayer, 2010). Degrowth actually helped revitalise critical perspectives, especially in Europe. Social-ecological economics also emerged as a heterodox economic response informed by a critical realist philosophy of science (Spash, 2024). This offers degrowth activists causal explanations of economic growth, its biophysical basis and how it structures society. The two are complimentary. Emphasis is placed on recognising the potential to actualise alternatives. Economics is redefined as social-ecological provisioning to meet human needs within an ethical framework of care and justice for others, both human and non-human (Spash and Ryan, 2023; Spash, 2024). In the struggle for social-ecological transformation structural analysis of causal mechanisms helps identify institutional potentialities denied by orthodox economists and backward looking empiricists.

Premising science on a preanalytic vision that identifies the necessity of radical transformation is very different from pragmatically working within existing hegemonic institutions (Brand, 2016). Recognising potentiality means asking, for example, what would firms have to be like to create a degrowth economy and society (Nesterova, 2020; Johanisova and Fraňková, 2017). Contra Bliss, degrowth can be co-opted, for example, by seeking institutional co-creation with business schools and incorporating ideas into existing business models (Roulet and Bothello, 2020). Realising alternative potentialities requires avoiding lock-in to the logics of growth economies formalised via technology, material structures and hegemonic institutions.

Is degrowth then becoming increasingly compromised by post-growth and through uncritical alliances? For example, the Wellbeing Economy Alliance mainstreams post-growth employing hegemonic economic and utilitarian arguments (see Fioramonti et al., 2022) which contrast with degrowth's anti-utilitarian roots (Romano, 2014). Under post-growth and doughnut economics capital accumulating growth societies are no longer inherently problematic structures, 'we' just have too much of a good thing and 'others' should have more. Similar arguments focussed on material excess are found in steady-state economics (Dietz and O'Neill, 2013). Ecological economists, such as Joshua Farley (Bliss's doctoral supervisor), avoid talking of degrowth preferring to emphasise harm to human wellbeing from the overflowing neo-cornucopian horn of plenty supplying more than 'we' need (Gershon, 2018). In such accounts, growth economies appear too successful, failing to recognise that the cornucopia is not, never was, and never will be, for all. How far can such differences be brushed over in the name of politically pragmatic unity?

This article aims to show the incompatibility of the ideas and concepts being promoted as if complimentary. It was stimulated by (but is not limited to) the plenaries I attended at the two European Parliament conferences. I start by briefly outlining those conferences' political and institutional context. I then critically review plenary presentations by Kallis, Jackson, Raworth (including a TEDtalk) and Parrique as advocates of degrowth, post-growth, doughnut and steady-state economics, respectively. These are the four main positions of the post-growth collective being presented by extremely skilled speakers in a high-level policy context. Analysis exposes core arguments, theoretical claims and positions that diverge from the basic tenets of degrowth. Three topics are then discussed reflecting on the direction of degrowth thought: growth imaginaries, denial of objective limits and promotion of growth as development. Moving forward, a critical and realist approach is recommended.

Background on the Two European Parliament Conferences

Post-Growth 2018

For this conference, Green Member of the European Parliament (MEP) Phillipe Lamberts led an organising team, supported by ten other MEPs from five political groupings.² They gathered together hundreds of professionals from policy, business and labour organisations. The, two day, main conference was preceded by a day of workshops, with around eighty European degrowth/ecological economic researchers, and succeeded by a meeting with trade unions. The opening session featured Jackson and the closing session Kallis. An open letter, “Europe, It’s Time to End the Growth”, signed by around 230 scientists, petitioned MEPs to meet four demands.³

- 1) Constitute a special commission on Post-Growth Futures in the EU Parliament.
- 2) Incorporate alternative indicators into the macroeconomic framework of the EU and its member states.
- 3) Turn the Stability and Growth Pact into a Stability and Wellbeing Pact.
- 4) Establish a Ministry for Economic Transition in each member state.

In the closing session four MEPs remained, but only Molly Scott-Cato commented directly on the demands. She supported 3) and 4) strongly, but dismissed the first two as repeating on-going activities, i.e. no need for more committees or metrics. Lamberts closing speech promised a follow-up conference and noted that intensive lobbying and attempts to co-opt MEPs showed they had real power.

The disappointing union meeting next day revealed orthodox conformity to a growth paradigm prioritising jobs over environment. Luca Visentini, European Trade Union Confederation (ETUC) General Secretary, appeared totally aligned with Jeffrey Franks, Director of International Monetary Fund (IMF) Europe. Interestingly, Visentini was later arrested for corruption, in the ongoing Qatargate scandal, and ejected from his post for accepting bribes.

2023 Beyond Growth: Pathways towards Sustainable Prosperity in the EU

Lamberts’ office organised a much larger follow-up conference,⁴ supported by twenty MEPs. Thousands attended, including high profile academics, political players and non-European speakers. Plenaries were held in the parliamentary chamber.

² <https://www.postgrowth2018.eu/> Accessed 20/5/2025

³ Authors: Demaria, O’Neill, Kallis, Raworth, Jackson, Hickel and Conde (Federico Demaria personal communication 25/7/2018).

⁴ <https://www.beyond-growth-2023.eu/> Accessed 23/5/2025

The EC President opened with a Germanic ordoliberal position advocating green growth and a “social market economy”. Commissioners followed suit with green growth agendas backed by circular economies, green consumerism, ocean resource extractivism, high-tech, renewable energy (extractivism) and financialisation of nature (EU taxonomy). More progressive was the shift, since 2018, in the Union leaders' positions towards planned transformation of economic activities rather than defence of fossil fuel industries, and some vocal support for degrowth.

Joseph Stiglitz (online) delivered an apologia for economic growth consistent with his belief that: “What matters is whether growth is sustainable, and whether most citizens see their living standards rising year after year” (Stiglitz, 2015: 149). His simplistic advocacy of carbon pricing and decoupling revealed his orthodox credentials. He is renowned amongst ecological economists for ignoring both Georgescu-Roegen’s direct challenge to the Stiglitz-Solow growth model, and the rechallenge by Daly (1997a; 1997b).

A distinct development was participation by large numbers of young climate activists demanding systems change. Their standing ovations for anything deemed anti-establishment disturbed the men and women in grey suits. They took over the closing event with singing and banner waving protest. Overall, however, the conference was a mixture of mainstream versus activist rhetoric talking past each other.

Degrowth Alliances and Political Pragmatism

Calls for alliances, like the post-growth collective (Kallis et al., 2025), are not new. The 2018 open letter claimed:

[...] a post-growth movement has been emerging. It goes by different names in different places: *décroissance*, *Postwachstum*, steady-state or doughnut economics, prosperity without growth, to name a few. Since 2008, regular degrowth conferences have gathered thousands of participants. A new global initiative, the Wellbeing Economies Alliance (or WE-All), is making connections between these movements, while a European research network has been developing new ‘ecological macroeconomic models’.

However, corridor discussions noted the exclusion of degrowth from the main conference title, “*Post-Growth*”, compared to the pre-conference meeting: “*The Institutionalisation of Degrowth & Post-growth: The European level*”. In light of this discontent, Kallis’ closing address flagged-up disputation over the term degrowth.⁵

⁵ <https://www.postgrowth2018.eu/closing-session/> Accessed 20/5/2025

“there is some discussion whether its you should talk about degrowth, post-growth or growth agnosticism. I would say to the extent that we talk with the European Union, or with institutions that the idea of growth is very entrenched, I wouldn’t mind that much how we talk. That’s why the letter you saw was signed by a broad array of people, of scientists, with which we don’t necessarily agree on that question. For example, with Kate Raworth, whose work I admire, we had a disagreement; she was saying ‘I wouldn’t use the word degrowth’, she preferred ‘doughnut’. I prefer degrowth, *décroissance* [...] so there’s an internal disagreement”

Strategically employing terms interchangeably belies different theoretical claims about reality and the need for rational judgment between theories. Reducing conflicts to word choice is similar to Likaj et al. (2022: 1) who claim “the contemporary debate [between growth, degrowth and post-growth] is best understood as a disagreement between political strategies, in which the character of public and academic discourse plays a key role”. Co-author of that statement, Michael Jacobs attended the *Beyond Growth* conference but supports green growth, and claims it aligns with Jackson and Raworth and degrowth (Barth and Jacobs, 2022). This exemplifies how the contestation of social and material realities is belittled by a post-modern reduction to discourse (Mill, 2025). Next, looking to theoretical claims, degrowth is distinguished from Jackson's post-growth, Raworth's doughnut and Parrique's steady-state.

Degrowth is not Post-Growth

Jackson’s 2018 opening address announced history was in the making, although the session was totally orthodox.⁶ Pro-growth arguments came from Margrethe Vestager, Danish Social Liberal Party and moderator Wolfgang Munchau, Financial Times, who derided *Limits to Growth* (Meadows et al., 1972). Despite criticising Munchau, Jackson's own apologetics for growth were at the fore.

“I absolutely agree with Margrethe that the benefits that growth has brought human development, up to a certain point, are enormous indicators of social progress: the reduction in infant mortality, the extension of the life expectancy of human beings, the access to sanitation, to clean sources of energy and water, the good nutrition that we for the most part in the EU, although not all, tend to take for granted, these are the products of what at first sight looks like an incredibly successful system delivering to human beings the needs that will make their lives full, healthy, satisfying and long. And there’s

⁶ All quotes from <https://www.postgrowth2018.eu/opening-session/> Accessed 22/5/2025

also no doubt in my mind that in the poorest countries of the world those advances are absolutely necessary.”

This statement makes a series of highly contestable claims about pre-capitalist livelihoods, and what can be historically attributed to economic growth, as opposed to independent scientific (e.g. medical) advance, while ignoring any downsides. Pre-industrialisation, agricultural capitalism enforced private property rights over common-pool resources, depriving people of both liberty and ability to self-provision leading to malnutrition, starvation, riots and civil protest (Meiksins Wood, 2003; Hill, 1997; Thompson, 1993). The history of British industrialisation is one of widespread injustice and forced rural migration into urban poverty, as documented by diverse contemporary social reformers, e.g. Charles Dickens, Karl Marx, Patrick Geddes. That capitalist care nothing for needs (use value) and are only concerned with making money (exchange value) was central to Marx’s explanation of labour exploitation and the horrors of the working day (Marx, 1974 [1887]: Chapter X). These are all concerns informing degrowth’s critique of developmentalism, and Latouche (2004) cites more recent evidence in the global South, including its socialist regimes, that reveals: “What was supposed to bring contentment to everyone in every aspect of life led only to corruption, confusion and structural adjustment plans that turned poverty into destitution”.

Jackson’s speeches and writing simplistically equate growth with development imposed on others for their own good (Spash, 2021). This contrast with the Degrowth Declaration’s call for “locally determined poverty reduction paths rather than externally imposed development policies” (Research & Degrowth, 2010: 523-524). Jackson (2009: 41) believes that: “There is no case to abandon growth universally. [...] It is in these poorer countries that growth really does make a difference”. So, post-growth is universally imposed economic growth first and something else after. However, having locked-in economic growth, and all its problems, how is something else meant to takeover? This was Keynes’ (1930: 97) conundrum in knowingly recommending a system that institutionalises greed, love of money and related “semi-criminal, semi-pathological propensities”. He had no answer and we live with the results.

Jackson’s principal justification for supporting economic growth was that ‘a rising tide lifts all boats’.

“Long as everything is growing, then it doesn’t matter too much what’s happening as long as that continues to raise the living standards of the poorest. You look at growth in the period after the second world war until about 1980, trickle-down was happening; both across nations and within nations, the benefits of growth were going to the poorest

in this society. This is largely Thomas Piketty's work and is really worth looking at as part of the evidence base.”

Jackson ignores the use of trickle-down for regressive taxation based on the empirically unjustified claim that money given to the rich would inevitably ‘trickle-down’ to the poor (Stiglitz, 2015: 134). This was employed by the Reagan administration to give a blank check to the corporations based on trickle-down eventually creating jobs (Stiglitz, 2012: 226), and the Bush and Obama administrations did likewise for the banks and bankers (Stiglitz, 2015: 136). The evidence based empirical version was advocated from the early 1960s onwards, but as benefiting all classes, not just the poorest. As a renowned critic of trickle-down, Stiglitz (2015: 134) notes the belief was that:

“[...] economic growth would bring increasing wealth and higher living standards to all sections of society. At the time, there was some evidence behind that claim. In industrialised countries in the 1950s and 1960s every group was advancing, and those with lower incomes were rising most rapidly.”

This limited, highly contextual, empirical evidence also proved politically useful. Trickle-down economics “suggests that high inequality is not really that bad, since all are better off than they would be in a world without such a high level of inequality” (Stiglitz, 2012: 154). However, the idea that if GDP is increased trickle-down economics will ensure that all will benefit is incorrect (Stiglitz, 2012: 62), “trickle-down economics doesn't work” (Stiglitz, 2012: 7). Stiglitz (2015: 134) provides arguments why “The trickle-down notion—along with its theoretical justification, marginal productivity theory—needs urgent rethinking”.

However, Jackson was not interested in the theories flaws. His orthodox mainstream account connected economic growth, labour productivity and inequality, describing declining labour productivity as the central problem facing society. As he sated: “This secular stagnation challenge is to me emerging as the most forceful, important, the most resonant, politically resonant, challenge and the strongest reason for thinking about a post-growth economy”.

Jackson's call on empiricism (see also Hickel et al., 2022; Kallis et al., 2025), with its naive objectivism and closed systems thinking applied to open systems reality, is something which critical realism alerts us to question. In this case, the focus on nation States ignores embodied labour, materials and ecological degradation from around the world, and how an industrialised nations' labour exploits labour elsewhere, undermining productivity claims (Hornborg, 2001; Hornborg, 2024). Jackson's position also contrasts with point 3 of the Degrowth Declaration:

“Global economic growth has not succeeded in reducing poverty substantially, due to unequal exchange in trade and financial markets, which has increased inequality between countries.” (Research & Degrowth, 2010)

As Brand and Wissen (2021) explain, industrialised nations are engaged in ‘the imperial mode of living’ built on international exploitation.

Jackson's (2021) book on capitalism maintains his plenary's arguments: growth brought extraordinary affluence and lifted millions out of poverty, the problem is not capital accumulation but when to stop accumulating, and declining labour productivity is a central concern. Unequal exchange, colonialism, imperialism and militarisation are also absent there. While his book has more qualifications and nuances, his speech avoids its rhetorical autobiographical story telling, and explicit concern with myth-making, to provide some of his central economic positions and their inconsistency with degrowth.

Degrowth is not a Doughnut

Raworth (2015) stated her dislike of degrowth before publishing *Doughnut Economics*. In that book, she dismisses degrowth in a few sentences before making her case for being “agnostic about growth”. As Raworth (2017: 208) explains:

“Back in 2011, I was tasked by Oxfam to write a policy paper to help the organisation decide whether, *in high-income countries*, it should promote the concept of ‘Green growth’ or side with those advocating ‘degrowth’. [...] But my excitement soon turned to paralysis as I dug into the debate and found that while both sides had some strong arguments, both too quickly dismissed the opposition’s case, and neither had a singularly compelling answer.” (emphasis added)

She offers no grounds for rational judgement between theories, no references to the “strong arguments”, and no discussion of their relative merits.

As noted, degrowth has foundations in ecological economics, a field with which Raworth now affiliates herself, and she approvingly references authoritative growth critical texts by Daly and Georgescu-Roegen. That degrowth could then be understood as lacking better arguments than green growth is hard to comprehend, especially when concerning “high income countries”. Similarly, Raworth (2017: 231) makes passing reference to Marx *Capital Volume One*, including his money cycling theory, explaining the structure of capitalism as inseparable from growth, which means supporting capitalism is pro-growth, not agnosticism.

However, in debate Raworth has rejected discussing capitalism, referring to it as a black box and an 'ism', like socialism and communism, that puts people off.⁷

In Raworth's 2023 plenary, a pro-growth position is evident in her adaptation of Point 3 of the 2018 open letter. Economic growth is supplemented rather than replace.

"Its time to follow through with these metrics with policies that turn them into practice. Not a stability and growth pacts but *accompanying that* with a well-being and stability, state of well-being and sustainability pact."⁸ (emphasis added)

Asked if her doughnut economics was anti-capitalist and pro-degrowth, she evade anti-capitalism and referred to degrowth as a reduction in GDP to get within planetary boundaries.

Raworth, like Jackson, promotes economic growth to alleviate poverty and drops her agnosticism. The difference is how her rhetoric naturalises economic growth in a form of social neo-Darwinism. Her 2018 TEDtalk presents growth as something universally applicable to everything from babies to economies, and she cites 7% growth rates in Nepal and Ethiopia as a natural phase in their development. She explicitly supports high-tech solutions citing everything from 3D printers to AI to blockchain as innovations helping humanity to a better future. Absent are the connections of innovation and technology to unequal exchange of embodied energy, materials and labour from periphery to core (Hornborg, 2001). Similarly, resource limits and embodied labour appear absent from Raworth's advocacy of circular doughnut cities.

Despite basic divergences over economic growth, Domazet et al. (2023: 369) argue that a "Degrowth Doughnut" can contribute to eco-social policy research and the urgently needed global metabolic shift away from the growth paradigm. This is described as establishing the right principles and relationship under a principle theory approach. However, the representation of social-ecological systems in Raworth's doughnut lacks the realist ontological foundations and structural theory to provide such insights. The prospect is a more simplistic principled justification of multiple indicators, which formed Raworth's 2023 plenary conclusion. Such metric management is business as usual, as noted by MEP Scott-Cato in 2018, and sustainability indicators proliferate (see Roman and Thiry, 2017). Indeed, empiricist numeric monitoring of the road to collapse has done nothing to address its root causes (Smith, 2017).

⁷ Plenary 2021 UN, SDGs Conference. See <https://www.clivespash.org/lectures-and-presentations/conference-papers/>

⁸ See video from 8:17 <https://www.youtube.com/watch?v=b73YoklpIW4> Accessed 23/5/2025

Degrowth is not a Path to a Steady-State

Parrique's 2023 plenary targeted decoupling as fallacious, which is generally accepted amongst ecological economists. However, decoupling remains prominent in climate policy, within the EC and amongst green growth advocates. Parrique proposed "a more realistic strategy for Europe, degrowth to a steady-state economy". Degrowth was presented as a quantitative downturn in economic activity, a position typically used to caricature degrowth as austerity, and dismiss its relevance, ignoring its transformative potentials (see Gómez-Baggethun, 2020). Yet, Parrique employed this approach, stating:

"There's no way of avoiding a temporary phase of degrowth. See this as a macroeconomic diet for biophysically obese economies. Once this is done, that's phase three, the size of the economy can fluctuate around the steady state. It can produce a bit more, it can produce a bit less, depending on biocapacity. The important thing over the long term is that the economy should never overshoot biocapacity nor undershoot decent living standards."

Actually, humans do not live within a given biocapacity in some uniform way and their social-economic systems vary in how they interact with Nature. There is also more to degrowth than living within planetary boundaries (discussed below), because degrowth rejects specific forms of economic system, and their social-ecological structure, while proposing alternatives (Buch-Hansen and Nesterova, 2023; Liegey et al., 2025).

Parrique's presentation of degrowth as a pathway to a steady-state economy appears heavily indebted to Kerschner (2010), including his North-South seesaw analogy. However, rather than "a more realistic strategy", Kerschner (2010: 544) qualified the steady-state economy as something that "should be defined as a quasi steady-state, resting in a dynamic equilibrium and as an 'unattainable goal', which can and probably should be approximated". Debates around steady-state economics have been ongoing for decades, from the exchange on its thermodynamic properties between Daly (1977) and Georgescu-Roegen (1977a; 1977b) to the critique of its orthodox mainstream features (Pirgmaier, 2017). Problems include using equilibrium theory for social-ecological economic systems that are never in equilibrium, deciding on which state to select and how, and relying on crisis creating capitalism hoping side constraints on scale and redistribution will counter its inherent tendencies for exploitation of people and Nature. When placed at the core of the book by Dietz and O'Neill (2013) such problems undercut their approach, and employing Daly's appeal to cost-benefit analysis to determine the optimal steady-state fell into all the traps of mainstream thinking (Spash, 2015).

Why focus on maintenance of a macroeconomic capitalist system when a direct concern for minimum standards is the central issue? Parrique made vague references to maintaining ‘decent living standards’ without content. Social ecological economists already moved to needs and their satisfiers, and Kapp’s concept of social minima (Spash, 2024). Parrique did mention the requirement to fulfil “unmet needs” in the global South, but such passing remarks left unanswered how objective needs are meant to connect with subjective living standards.

A final point is the appeal to contract and convergence. Parrique described there being no choice but, “temporary degrowth in the global North, temporary growth in the global South, then both meeting at a sustainable steady-state securing well-being for all within planetary boundaries”. Once again the economic growth system appeared imperialistically and universally imposed despite all its problems.

Parrique’s conclusion, that “the system should be radically transformed” appears disconnected from his presentation, the message of which was: keep the system, reduce its scale, spread it to the rest of the world and call this equality. He in effect proposed a universal downsized American steady-state economy with low/middle income countries upsized to match. Like others discussed here, Parrique adopts a theory that conflicts with the degrowth movement's proposals for a qualitatively very different society (Buch-Hansen and Nesterova, 2023; Muraca, 2013).

Degrowth and Reality

Next, I turn to three specific issues raised by the presentations and related literature: the implications of the growth imaginary; the reality of limits, and the treatment of growth as development within planetary boundaries. Different conceptualisations are revealed to entail the adoption of specific positions on ethics and value that need more explicit attention. I argue concepts can be improved and made more consistent with the basic tenets of degrowth by grounding in a critical and realist philosophy of science.

The Growth Imaginary as a Realist Concept

Kallis’ 2018 closing speech emphasised as central the concept of a growth imaginary in modernity. Daly (1992) referred to economists growthmania, but Kallis describes a more widespread phenomenon, “the logic of expansion”, the idea that good things must grow. This has the characteristics of an institutionalised sociopsychological condition whereby people transfers the concept of growth incorrectly, outside of its domain of relevance. He asks rhetorically, why should care grow and quips, do we want more sick people, and why talk of personal growth. The idea of growth as inherently good, perpetuated by promotion of

economic growth, motivates its general application, so whatever substitutes GDP must link to the growth imaginary.

Indeed, Kallis himself referenced the need to “prosper” without (economic) growth, citing Jackson,⁹ a goal promoted by Hickel et al. (2022) and Kallis et al. (2025). Dictionary definitions of prosper are: to be successful, usually by earning a lot of money; to succeed in an enterprise or activity, especially to achieve economic success. Top hit online is prosper.com, owned by Prosper Marketplace Inc., brokering personal loans with interest rates from 9%-36%. The growth imaginary also appears when Raworth (2024) talks of “redefining success not as endless growth but rather as thriving”. Dictionary definitions of thrive are: to grow vigorously, flourish; to gain in wealth or possessions, prosper. Top hit online is Thrive Capital Management LLC, a multi-billion dollar American venture capital firm. So, prosper, thrive and grow are synonyms.

The use of such terms as undefined abstractions reveals their purely rhetorical role, playing on the growth imaginary. Flourishing is another such term mentioned by Kallis, used loosely by Jackson (see Spash, 2024: 125-126) and included as “planetary flourishing” by Raworth (2024) after her earlier scepticism concerning “human flourishing” (Raworth, 2015). In common use, flourishing is synonymous with prosper, thrive and grow. However, it also has a very different meaning with a pedigree back to Aristotle’s *eudaimonia*, as an objective state of being (not having). Aristotle’s philosophy recognises in the nature of living entities the potential to ‘flourish’ (for humans achieve *eudaimonia*) defined by the limits of being a particular form of entity. As Pellizzoni (2021: 93) remarks: “The imperative of growth, instead, builds on the persuasion, ingrained in western modernity, that to be one *has* to do (make, get, become).” Flourishing, if clearly defined in philosophical context, might be divorced from the growth imaginary, but not when used rhetorically.

Critical realism helps explain why such terms prove problematic. Conceptualising requires terms that make sense but referring to a word involves associations and meanings, sense and reference combine (Sayer, 2010: 39-44). As shown, common sense associates the terms prosper, thrive and flourish with growth, money and wealth. In seeking to break the growth imaginary, degrowth needs concepts matching their intended meaning (e.g. being over having). Adopting abstract undefined weasel words that play on the growth imaginary may well get people onboard, but for the wrong reasons.

⁹ Jackson (2009) actually advocates economic growth of the service sector.

Limits as Real Constraints

In his 2018 lecture, Kallis presented an empirical case for catastrophic limits to growth, which was strange given his extensive arguments against invoking such limits. As explained in the introduction, influential second generation degrowth authors reconceptualised limits and denied their objectivity. In defending this, Kallis (2021: 1) claims “limits’ is a metaphor” based on a desire for something which is limited. Beside being a tautology (Gómez-Baggethun, 2022), this treats limits as subjective social constructs, conventions. A shift to treating all limits as purely a “social choice” was already evident shortly after Paris (e.g., Schneider et al., 2010: : 513). Later, introducing the definitional degrowth vocabulary, D’Alisa et al. (2014: 8) state: “Rather than *limits to growth*, the literature on **autonomy** emphasizes collective *self-limitations* ... not invoked for the good of nature or to avoid an impending **disaster**, but because living simply ... is how the good life is conceived” (emphases original). Kallis (2021: 1) states that:

“[...] limits are not something out there that imposes scarcities but a *political* project towards the good and just life. ‘Degrowth’ does not warn of limits to growth. Rather, it expresses a desire to limit growth and open alternatives. I call this project ‘collective self-limitation’ [...]”

Limits then appear relativised into a human choice about gaining personal freedom by undertaking self-limitation. Schoppek (2020) has argued that degrowth has in part become susceptible to a moral perspective falling under the heading of self-sufficiency discourses that make it sub-hegemonic and compatible with neoliberal thought. Similarly, Pellizzoni (2021: 91) argues that, the redefined concept of limits promotes “solipsistic self-mastery”, so that degrowth becomes lifestyle politics, a matter of personal choices about dress, food, accommodation and mobility: “something which has long proven welcome to capitalism and hardly a bulwark against consumption”.

In advocating self-limitation motivated by “the good life” the literature appears thin on attention to ethics, value theory and what guides moral conduct (Spash, 2025). An implicit anthropocentric instrumentalism is apparent, because “the good” is for humans alone, although largely undefined, leaving questions over its objectivity and essentialist Aristotelian roots. The project's environmental values also appear contentious even within degrowth. For example, Gudynas' (2014: 202) definition of *buen vivir*, in the degrowth vocabulary, recognises intrinsic value in nature (i.e. “the good of nature”) and rejects anthropocentric positions as ‘Western’.

Indeed, the re-conceptualisation of limits appears consistent with European enlightenment philosophy, where the relationship to Nature is based on the belief that humans are in control of their own destiny to the extent of being self-transforming. This encapsulates a fundamental modernist assumption that human beings produce themselves independently of Nature, ‘the other’, over which they maintain mastery and control. Nature is then an externalised other and self-realisation is freedom through liberation from domination by Nature. Consistent with enlightenment liberal political philosophy, external forces to which individuals must submit are rejected along with absolute power and authority. As Lumsden (2021: 284) puts it, “in modernity the norms are willed and imposed upon ourselves because we are rational”. In contrast, the energy and material throughput of modernity is now widely recognised as out of alignment with a flourishing and self-sustaining ecology. Lumsden (2021) argues that freedom entails being at home in otherness, and relating to our interconnections including what determines, negates or limits.

In contrast, Kallis’ (2021: 1) warns against “a politics of invoking catastrophic external limits”, because he believes this “only invokes capitalism’s promise of ‘more’”. As the noted earlier, the case for the limits to growth was converted into the case for the growth of limits (i.e. their effective non-existence) by sustainable development, ecological modernisation and eco-efficiency (Pellizzoni, 2021). Rather than seek a reconceptualisation that re-established the reality of limits, a political strategy of deny their existence arose. Strangely, this allies with those whom degrowth opposes from post-truth to climate change deniers.

Gómez-Baggethun (2020; 2021; 2022) has extensively criticised the anti-realist denial of external limits both in degrowth and political ecology where he describes a post-modern taboo against limits. He criticises equating limits with scarcity as a construct of mainstream economics, confusion of terms and their poor definition. He argues for distinguishing objective limits from subjective scarcity as follows: “Scarcity (defining what we cannot use as much as we want) is a relation between means and ends, and hence is socially defined. Limits (defining what is finite) are a property of the material world, and hence can be physically defined.” (Gómez-Baggethun, 2021: : 1). However, this adopts the (neo-Austrian) economic dogma founded by Robbins’ (1932: 15) assertion that: “Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses”. Accordingly, things are only scarce because (subjective) demand outstrips (objective) supply; thus, meeting unlimited wants with limited supplies justifies productivist growth (i.e. Kallis’ concern over invoking capitalism’s promise of more).

A way forward is to clarify the distinction between conceptual definition and causal mechanisms, i.e. what is vs. what causes. The Oxford Dictionary definition of scarce is both as insufficient for demand and "occurring in small quantities or numbers, rare: *the fresh water shrimp becomes scarce in soft water.*" Scarcity conceptualises the low frequency of occurrence of an entity or object, within a given context. The causal explanation of that scarcity is a distinct issue and may be a natural phenomena or socially created. Unlike Robbins' theory of subjective market demand, ecological economists are also concerned about the scarcity of non-human life. A fish species can be rare, scarcely found, without a human means-ends/demand relationship, such as wanting to eat it!

Limits are a distinct concept that includes more than the 'limits of' physical stocks. Most fundamentally, there are also 'limits to' any action, process or natural function. These limits may be causally related to biophysical or social structures, but exist regardless of human choices to invoke them. For example, the alcohol limit for drivers is an institutionalised social limit, while the toxicity of alcohol for a given human is biophysically defined, and both exist regardless of whether a person drinks alcohol. Limiting one's drinking of alcohol, self-limitation, is a separate matter.

More generally, we can recognise that causal powers exist even when they are not activated to cause events, and we can predict causal powers from structure. In commonsense terms, we recognise a car, for example, may have the power to go 100 km per hour regardless of whether it is actually driven to that limit or not at all. As Collier (1994) notes: "A good deal of technological research is aimed at knowing how something will work before it is made". Critical realist explanation of causal powers and structure clarifies the basis of our ontological intuitions raising the importance of potentiality.

Potentiality is central to social-ecological transformation. Social structures, such as capitalism, impose real limits on human action, but degrowth recognises the potential for different institutions to actualise alternative structures with different limitations. Biophysical structures exist independently of humans and limit human action and potential. Climate scientists understand that the greenhouse effect exists with or without humans as does the capacity of greenhouse gases to absorb infrared radiation. Earth's temperature is structurally limited by multiple mechanism of which human's may activate some and counter others. However, the limits of a structure are not created by the activation of its mechanisms.

In contrast, Kallis (2021) obscures and mystifies when he states that: "What turns external geophysical forces into 'limits' is the desire to grow and supersede them". Naturally occurring geophysical forces create events — floods, fires, droughts, volcanic eruptions,

earthquakes, tsunami — placing limits on human action without any such human desires. The history of humanity involves living with naturally occurring phenomena, respecting limits, simply to survive in a given environment under given conditions; limits "impedimental and formative" (Pellizzoni, 2021: 93), not chosen. Consider traditional Japanese houses built of bamboo and rice paper.

“Most buildings in Japan, both long ago and today, need to resist annual typhoons and occasional tsunami and earthquakes. On top of that, the summers can be very hot, the winters cold, and there is an annual season of heavy rain. The ancient and medieval Japanese found a simple solution to these difficulties: do not build to last. Rather than resisting the environment, houses were, therefore, built to follow its whims and, if the worst happened, they were designed to be easily rebuilt again.” (Cartwright, 2019)

All human cultures work within the limits of naturally imposed conditions and respond to them, they have no choice.

After claiming 'limits' is a metaphor premised on a desire, Kallis (2021) continues: “Gravity, for instance, is a limit if you want to jump out of the window, but not if you want to stay on your couch”. This really is nonsensical, what is even the meaning of "a limit" here? In any case, gravity is a continuously operational force of nature. A gravitational force has a tendency to attract with specific consequences in difference circumstances subject to other countering or reinforcing mechanism. The limit of that force is not a human decision premised on a desire but determined by the mass of two objects and their distance apart.

The denial of objective limits is simply a denial of our ordinary ways of thinking seriously about the world in which we exist. Indeed, Kallis' (2021: 1) assertion that “‘Degrowth’ does not warn of limits to growth” proves hard to sustain even for himself. As noted at the start of this section, his 2018 presentation contradicts his arguments. This described the impacts of exponential growth and doubling times as in *Limits to Growth* (Meadows et al., 1972). He called compound growth “ridiculous” citing a doubling time of 22 years at 3% growth rates. At this rate, he repeatedly emphasised, “this thing is catastrophic”. He graphically illustrated exponential growth for GDP, population, environmental pressures pollution, vehicles, cars, dams, paper and so on. The correlation of GDP with carbon dioxide was cited as even comparable to a law, and a ‘truth’ according to econometricians, which he stated meant anything above 2 degrees would be catastrophic. That presentation sounds pretty much like somebody explaining externally imposed objective limits and invoking them as catastrophic.

Growth, Development and Planetary Boundaries

The role of growth and development is heavily entwined with debates over limits and the related controversies. Invoking planetary boundaries rather than limits is central to doughnut economics and used to assuage concerns over growth as development, as in Parrique's presentation. Planetary boundaries are employed not prevent growth but justify it, in-line with the hegemonic capturing of limits. An editorial in the journal *Nature* cites Johan Rockström as supporting continued economic growth and argues that this justifies the need for “much faster adoption of technology” (Editor, 2022). Eco-modernist techno-optimism aligns with sustainable development as promoted by Jeffrey Sachs, a co-author with Rockström (see Lumsden, 2021).

Interestingly then Kallis et al. (2025) define post-growth as “The science of wellbeing within planetary boundaries”, raising questions over the highly divergent approaches of its authors. They try to treat all fundamental divergences as simply pluralist perspectives on open questions, including whether to be pro or anti capitalist (p.63). Planetary boundaries are presented as the new replacement for an old limits to growth debate caricatured as resource scarcity. This diverts attention from growth economies structural limits as the article turns to reliance on empiricism and deductive economic modelling (including the discredited climate economics of William Nordhaus). The authors make lots of qualifications but the potpourri of positions (e.g. social provisioning for basic needs, prospering without growth, endorsing the Wellbeing Alliance, using global cost-benefit studies) seem irreconcilable and contradictory. They entertain continuing growth inside planetary boundaries (p.64), discussed as green growth and not rejected (p.66). Contract and convergence is also endorsed (p.72), citing Hickel et al, (2022).

Hickel et al, (2022: 403) reference the *Nature* editorial, cited above, as having “argued that it is time to move beyond a ‘limits to growth’ versus ‘Green growth’ debate” and state “We agree”, before dismissing the question of “whether growth will run into limits” in favour of how to “prosper without growth”. However, their rejection of growth, as in Kallis et al. (2025), is far from absolute. They state: “Researchers in ecological economics call for a different approach — degrowth [...] It frees up energy and materials for low- and middle-income countries in which *growth might still be needed for development*” (Hickel et al., 2022: 400-401 emphasis added). So, apparently degrowth can work by implementing economic growth as development for all except high income countries! How is this prospering without growth, let alone degrowth?

Latouche (2004) recognised this trend before Paris and the second generation of degrowth:

“An increasing number of anti-globalisation activists now concede that growth as we have known it is both unsustainable and harmful, socially as well as ecologically. Yet they have little confidence in degrowth as a guiding principle: the South, deprived of development, cannot be denied at least a period of growth, although it may cause problems. [...] Insisting on growth in the South, as though it were the only way out of the misery that growth created, can only lead to further westernisation.”

The irony is seeing well-meaning anti-colonialist, anti-imperialist, environmentalists seeking to universally spread modern materialist Western values and technologies.

Using poverty as an excuse for enforcing economic growth on others has a long exploitative history including the rise of capitalism in Britain, American post-war development policy, and more recent economic zoning in India and industrial urbanisation in China. A one size fits all approach encapsulates the modern nation states' derision of alternatives and systemic eradication of variety, from cultures and languages to species. The system is structured on hi-tech, resource extractivism, militarisation, unequal exchange, and social-ecological exploitation.

One counter position, which was a strong influence on degrowth in France and Italy, is post-development (Liegey et al., 2025; Escobar, 2014). It identifies economic growth as an imperialist American post-war foreign policy, implemented via captured organisations, such as the IMF and World Bank (Sachs, 2015 [1999]). Post-development differentiates poverty between living frugally, suffering deprivation and living under systems of economic scarcity created by economic growth. Development is documented as denigrating traditional societies' economic systems of social provisioning structured on frugality and sufficiency. It exploits resources and people and creates money fetishism that eradicates non-monetary social-provisioning. Self-sustaining communities lose their land and resources for more 'productive' purposes and populations become commodified urban labour, saved from 'poverty' to join an economy of material scarcity, measured by money (Spash and Smith, 2019). This clearly leads degrowth in a very different direction where identifying and counter the mechanism of 'development' connects to those struggling against it (Dunlap, 2024). As Escobar (2014: 31) warns “it is important to resist falling into the trap of thinking that while the North needs to degrow, the South needs 'development'.”

Conclusions

Contra its critics, the negativity of degrowth promised a political strategy of disturbing, provoking and challenging the developmental agenda. It helped inspire and support greater critical thinking in ecological economics. However, success on this front has been tempered by political pragmatism justifying broad alliances in which degrowth's call for radical social-ecological transformation appears increasingly compromised. Degrowth has been subject to reinterpretation as simply a downturn in material growth, slow growth, growth for all except the rich and so on. Its concepts have been reduced to empirically quantified data and slotted into ecological macroeconomic models. Adopting contract and convergence, capital accumulating growth is itself no longer inherently problematic but naturalised as an essential beneficial stage of human evolution. Degrowth is turned on its head to support universal 'development'.

Degrowth is a diverse social movement and many radical elements remain strong supported by and mutually supporting of degrowth, including ideas from anarchism, eco-feminism, eco-socialism, political ecology and social ecological economics. However, invoking pluralism without discrimination merely creates eclecticism and contradiction and belies the fact that degrowth is not open to just anything. Degrowth warns of the growth imaginary dominating our lives, which should raise concerns over rhetorical adoption of terms like 'progress' and 'thrive'. Replacing the objective aspects of limits to human action by self-limitation denies realistic scientific foundations, adopting the same conventionalism of the hegemony it opposes and invoking a denial of Nature. Justifying growth as development fails to address degrowth's concerns over imperialism and universalising modernist values.

Scientific understanding grounded in seeking knowledge of biophysical and social structures and their causal powers offers a way forward that is essential for identifying potentialities and fulfilling the promise of systemic transformation. While a diverse social movement, degrowth is founded on rejecting economic growth economies as inherently unjust and exploitative structures. Instead, the degrowth movement rightly seeks to support, establish and maintain a rich variety of alternative social-ecological provisioning systems that operate with justice, ethics and equity. It should remain true to this vision.

References Cited

- Barth J and Jacobs M (2022) Sustainable Prosperity in an Uncertain Future: A shared agenda between green growth and degrowth. (accessed 1 October, 2022).
- Brand U (2016) "Transformation" as a New Critical Orthodoxy: The strategic use of the term "transformation" does not prevent multiple crises. *GAIA: Ecological Perspectives for Science and Society* 25(1): 23-27.

- Brand U and Wissen M (2021) *The Imperial Mode of Living: Everyday Life and the Ecological Crisis of Capitalism*. London: Verso.
- Buch-Hansen H and Nesterova I (2023) Less and more: Conceptualising degrowth transformations *Ecological Economics* 205: 1-9.
- Cartwright M (2019) A Traditional Japanese House. *World History Encyclopedia*. (accessed 29 May 2025).
- Collier A (1994) *Critical Realism: An Introduction to Roy Bhaskar's Philosophy*. London: Verso.
- D'Alisa G, Demaria F and Kallis G (2014) *Degrowth: A Vocabulary for a New Era*. Abingdon: Routledge.
- Daly HE (1977) Steady state and thermodynamics. *BioScience* 27(12): 770-771.
- Daly HE (1992) The Steady-State Economy: Alternative to Growthmania. In: Daly HE (ed) *Steady-State Economics: Second Edition with New Essays*. London: Earthscan, pp.180-194.
- Daly HE (1997a) Georgescu-Roegen versus Solow/Stiglitz. *Ecological Economics* 22: 261-266.
- Daly HE (1997b) Reply to Solow/Stiglitz. *Ecological Economics* 22: 271-273.
- Dietz R and O'Neill D (2013) *Enough is Enough: Building a Sustainable Economy in a World of Finite Resources*. London: Earthscan/Routledge.
- Domazet M, Fischer M and Köves A (2023) Doughnuts for strategies: A tool for an emerging sustainable welfare paradigm. *European Journal of Social Security* 25(4): 367-387.
- Dunlap A (2024) *Can Degrowth Struggle? Anarchistic Engagements with Degrowth*. Kassel: Rupture Press.
- Editor (2022) Limits to growth? It's time to end a 50-year argument. *Nature* 603: 361.
- Escobar A (2014) Development, Critiques of. In: D'Alisa G, Demaria F and Kallis G (eds) *Degrowth: A Vocabulary for a New Era*. Abingdon: Routledge, pp.29-32.
- Fioramonti L, Coscieme L, Costanza R, et al. (2022) Wellbeing economy: An effective paradigm to mainstream post-growth policies? *Ecological Economics* 192: 107261.
- Georgescu-Roegen N (1971) *The Entropy Law and the Economic Process*. Cambridge, Massachusetts: Harvard University Press.
- Georgescu-Roegen N (1977a) The steady state and ecological salvation: A thermodynamic analysis. *BioScience* 27(4): 266-270.
- Georgescu-Roegen N (1977b) Steady state and thermodynamics: Author's reply. *BioScience* 27(12): 771.
- Gershon L (2018) Beyond growth: Imagining an economy based in environmental reality. In: Longreads. Available at: <https://longreads.com/2018/09/27/beyond-growth/> (accessed 2025).
- Gómez-Baggethun E (2020) More is more: Scaling political ecology within limits to growth. *Political Geography* 76: 102095.
- Gómez-Baggethun E (2021) Limits: Why Malthus Was Wrong and Why Environmentalists Should Care, Giorgos Kallis. *Ecological Economics* 182(April).
- Gómez-Baggethun E (2022) Political ecological correctness and the problem of limits. *Political Geography* 98: 102622.
- Gregoletto A and Burton MH (2025) Minority influence: How can degrowth step up? *degrowthUK*. (accessed 02/11/2025).
- Gudynas E (2014) Buen Vivir. In: D'Alisa G, Demaria F and Kallis G (eds) *Degrowth: A Vocabulary for a New Era*. Abingdon: Routledge, pp.201-204.
- Hickel J, Kallis G, Jackson T, et al. (2022) Degrowth can work: Here's how science can help. *Nature* 612(15 December): 400-403.
- Hill C (1997) *Liberty Against the Law: Some Seventeenth-Century Controversies*. London: Penguin Books.

- Hornborg A (2001) *The Power of the Machine: Global Inequalities of Economy, Technology, and Environment*. Walnut Creek: Altamira Press.
- Hornborg A (2024) Beyond prometheanism: Modern technologies as strategies for redistributing time and space. *Environmental Values* 33(1): 28-41.
- Jackson T (2009) *Prosperity without Growth: Economics for a Finite Planet*. London: Earthscan.
- Jackson T (2021) *Post Growth: Life After Capitalism*. Cambridge: Polity Press.
- Johanisova N and Fraňková E (2017) Eco-social enterprises. In: Spash CL (ed) *Routledge Handbook of Ecological Economics: Nature and Society*. Abingdon: Routledge, pp.507-516.
- Kallis G (2021) Limits, ecomodernism and degrowth. *Political Geography* 87: 102367.
- Kallis G, Hickel J, O'Neill DW, et al. (2025) Post-growth: The science of wellbeing within planetary boundaries. *The Lancet Planetary Health* 9(1): e62-e78.
- Kerschner C (2010) Economic de-growth vs. steady-state economy. *Journal of Cleaner Production* 18(6): 544-551.
- Keynes JM (1930) Economic possibilities for our grandchildren. *Nation and Athenaeum* 48(11 and 18): 36-37, 96-98.
- Latouche S (2004) Degrowth economics: Why less should be so much more. *Le Monde diplomatique*.(November).
- Liegey V, Nelson A and Leahy T (2025) Debating degrowth: A response to Jason Hickel. *Degrowth Blog*. (accessed 04/10/2025).
- Likaj X, Jacobs M and Thomas F (2022) Growth, Degrowth or Post-growth? Towards a synthetic understanding of the growth debate. Berlin: Forum for a New Economy.
- Lumsden S (2021) Sustainable development is a dead-end: The logic of modernity and ecological crisis. *Environmental Values* 30(3): 277-296.
- Marx K (1974 [1887]) *Capital: Volume One*. London: Lawrence & Wishart Ltd.
- Meadows DH, Meadows DL, Randers J, et al. (1972) *The Limits to Growth*. London: Pan.
- Meiksins Wood E (2003) *The Origin of Capitalism: A Longer View*. London: Verso.
- Mill J (2025) Against the obsession with narratives: A materialist critique. *Medium*. (accessed 14/10/2025).
- Morgan J (2017) Piketty and the growth dilemma revisited in the context of ecological economics. *Ecological Economics* 136: 169-177.
- Muraca B (2013) Décroissance: A project for a radical transformation of society. *Environmental Values* 22(2): 147-169.
- Nesterova I (2020) Degrowth business framework: Implications for sustainable development. *Journal of Cleaner Production* 262(July): 1-10.
- Pellizzoni L (2021) Nature, limits and form-of-life. *Environmental Politics* 30(1-2): 81-99.
- Pirgmaier E (2017) The neoclassical Trojan horse of steady-state economics. *Ecological Economics* 133(March): 52-61.
- Raworth K (2015) Why Degrowth has out-grown its own name. (accessed 20 March 2018).
- Raworth K (2017) *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. White River Junction: Chelsea Green Publishing.
- Raworth K (2024) A new compass for economics. *Finance & Development Magazine*.(March): 12-14.
- Research & Degrowth (2010) Degrowth Declaration of the Paris 2008 conference. *Journal of Cleaner Production* 18(6): 523-524.
- Robbins L (1932) *An essay on the nature and significance of economic science*. London: Macmillan.
- Roman P and Thiry G (2017) Sustainability Indicators. In: Spash CL (ed) *Routledge Handbook of Ecological Economics: Nature and Society*. Abingdon: Routledge, pp.382-392.

- Romano O (2014) Anti-utilitarianism. In: D'Alisa G, Demaria F and Kallis G (eds) *Degrowth: A Vocabulary for a New Era*. Abingdon: Routledge, pp.20-24.
- Roulet T and Bothello J (2020) Why “de-growth” shouldn’t scare businesses. *Harvard Business Review* 14.
- Sachs W (2015 [1999]) *Planet Dialectics: Explorations in Environment and Development*. London: Zed Books.
- Sayer A (2010) *Method in Social Science: A Realist Approach*. London: Routledge.
- Schneider F, Kallis G and Martinez-Alier J (2010) Crisis or opportunity? Economic degrowth for social equity and ecological sustainability. Introduction to this special issue. *Journal of Cleaner Production* 18(6): 511-518.
- Schoppek DE (2020) How far is degrowth a really revolutionary counter movement to neoliberalism? *Environmental Values* 29(2): 131-151.
- Scott-Cato M (2010) We scare people off by talking about 'degrowth'. *The Ecologist*. (accessed 20 March 2018).
- Slameršak A, Kallis G, O'Neill DW, et al. (2024) Post-growth: A viable path to limiting global warming to 1.5C. *One Earth* 7(1): 44-58.
- Smith T (2017) *The Role of Numbers in Environmental Policy: The Economics of Ecosystems and Biodiversity (TEEB)*. Vienna University of Economics and Business, Vienna.
- Spash CL (2015) The future post-growth society. *Development and Change* 46(2): 366-380.
- Spash CL (2021) Apologists for growth: Passive revolutionaries in a passive revolution. *Globalizations* 18(7): 1123-1148.
- Spash CL (2024) *Foundations of Social Ecological Economics: The Fight for Revolutionary Change in Economic Thought*. Manchester: Manchester University Press.
- Spash CL (2025) Autonomy and freedom in individual to societal transformation. In: Nelson A and Liegey V (eds) *Routledge Handbook of Degrowth*. Abingdon: Routledge, pp.196-210.
- Spash CL and Ryan C (2023) Reorienting economics to social ecological provisioning *Real World Economics Review*.(106): 34-41.
- Spash CL and Smith T (2019) Of ecosystems and economies: Re-connecting economics with reality. *Real-World Economics Review*, 87. (accessed 19 March).
- Stiglitz JE (2012) *The Price of Inequality*. London: Allen Lane, Penguin.
- Stiglitz JE (2015) Inequality and Economic Growth. *The Political Quarterly* 86(S1): 134-155.
- Thompson EP (1993) *Customs in Common: Studies in Traditional Popular Culture*. New York: The New Press.