DEPARTAMENT OF ENVIRONMENTAL SCIENCES & ENGINEERING

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

ORGANISING FOR DEGROWTH

Untangling relationships among policy, power, and practice

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MSc Geology (Ice & Climate)

BSc Environmental Science

DOCTORATE IN ENVIRONMENT & SUSTAINABILITY

NOVA University Lisbon

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DOCTORATE IN ENVIRONMENT & SUSTAINABILITY

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Organising for degrowth: Untangling relationships among policy, power, and practice

"I'm a pessimist because of intelligence, but an optimist because of will." (Antonio Gramsci)

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ABSTRACT

This thesis uses the multi-layered concept of degrowth to untangle relationships among policy, power, and practice to realise the revolutionary potential of sustainability transitions. Defined as the downscaling of production and consumption to reduce ecological footprints, planned democratically in a way that is equitable while securing wellbeing, degrowth is emerging as an alternative strategy for social-ecological transformation. But how can we organise to achieve degrowth? The thesis consists of five papers that are grounded in a critical realist approach to reflection, a social ecological economics approach to theory, and a praxis approach to action. **Paper I** conducts a systematic mapping and thematic analysis of degrowth policy proposals. The results identify 530 proposals (50 goals, 100 objectives, 380 instruments) across 13 themes that make it the most exhaustive degrowth policy agenda to date. Building upon the thematic synthesis, **Paper II** summarises the policy proposals of degrowth advocates to better understand the relationship between policy ends (goals, objectives, targets) and policy means (method, instruments, calibration). It emphasises the need for systems thinking to navigate the scattered nature of these proposals. **Paper III** addresses theories of social change by reviewing political ideologies common within degrowth – reformism, eco-socialism, eco-marxism, eco-anarchism, eco-feminism – to determine the most effective strategy to build a mass movement for degrowth. What follows is the proposal for Paulo Freire's 'pedagogy of the oppressed' to become the common theory of social change for the degrowth movement because it provides a revolutionary humanist approach to social change that emphasises class and positionality. **Paper IV** expands the critique of growth to the State to unite the means and ends of degrowth transformation. This is because the means of acquiring and exercising state power run contrary to the ends of degrowth: self-governing societies based on decentralisation, workers' control, and mutual aid. Finally, **Paper V** delves into strategic orientations and tactical preferences of the degrowth movement through a survey and statistical analysis. The results identify four clusters – systemic utopians, antagonistic anarchists, ecological limitarians, environmental pragmatists – revealing how different conceptualisations of degrowth affect attitudes towards implementing various political strategies and direct action tactics. Altogether, the five papers suggest that degrowth has evolved from a scientific concept to a social movement that consists primarily of organic intellectuals who should consider the strategy of unarmed resistance to achieve degrowth.

Keywords: degrowth, post-growth, political ideologies, political strategy, power relations, public policy, direct action tactics, unarmed resistance, unity of means and ends

RESUMO

Esta tese utiliza o conceito multifacetado de decrescimento para desvendar as relações entre política, poder e prática para concretizar o potencial revolucionário das transições sustentabilidade. Definido como a diminuição da produção e do consumo para reduzir pegadas ecológicas, planeado democraticamente de uma forma equitativa que assegure o bem-estar, o decrescimento está a emergir como uma estratégia alternativa para a transformação social-ecológica. Mas de que forma é que nos podemos organizar para alcançar o decrescimento? A tese é composta por cinco artigos que se fundamentam numa abordagem realista crítica à reflexão, numa abordagem de economia ecológica social à teoria e numa abordagem de práxis à ação. O **Artigo I** efetua um mapeamento sistemático e uma análise temática de propostas políticas de decrescimento. Os resultados identificam 530 propostas (50 metas, 100 objetivos, 380 instrumentos) em 13 temas que fazem deste estudo a agenda política do decrescimento mais exaustiva apresentada até hoje. Com base nesta síntese temática, o **Artigo II** resume as propostas políticas apresentadas por defensores do decrescimento de modo a permitir uma melhor compreensão da relação entre os fins da política (metas, objetivos, alvos) e os meios da política (método, instrumentos, calibração); salientando a necessidade de um pensamento sistémico para navegar a natureza dispersa destas propostas. O **Artigo III** aborda teorias de mudança social, revendo as ideologias políticas dentro do decrescimento – reformismo, eco-socialismo, eco-marxismo, eco-anarquismo, eco-feminismo – para determinar a estratégia mais eficaz para construir um movimento de massas para o decrescimento. Em seguida, é proposto que a 'pedagogia do oprimido' de Paulo Freire se torne a teoria comum de mudança social para o movimento do decrescimento, uma vez que fornece uma abordagem humanista revolucionária à mudança social que enfatiza a classe e a posicionalidade. O **Artigo IV** expande a crítica do crescimento ao Estado, de forma a unir os meios e os fins da transformação para o decrescimento, uma vez que os meios de aquisição e exercício do poder estatal são contrários aos fins do decrescimento: sociedades autónomas baseadas na descentralização, no controlo por parte dos trabalhadores e no apoio mútuo. Finalmente, o **Artigo V** investiga as orientações estratégicas e as preferências táticas do movimento do decrescimento através de um inquérito e de uma análise estatística. Os resultados identificam quatro grupos – utopistas sistémicos, anarquistas antagonistas, limitacionistas ecológicos, pragmáticos ambientais – revelando como diferentes conceptualizações do decrescimento afetam as atitudes em relação à implementação de várias estratégias políticas e táticas de ação direta. No seu conjunto, os cinco artigos sugerem que o decrescimento evoluiu de um conceito científico para um movimento social que consiste principalmente em intelectuais orgânicos que devem investigar se uma estratégia de resistência não armada é adequada para alcançar o decrescimento.

Palavras chave: decrescimento, pós-crescimento, ideologias políticas, estratégia política, relações de poder, políticas públicas, táticas de ação direta, resistência desarmada, unidade de meios e fins

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LIST OF PAPERS

Papers included in the thesis

Paper I

Fitzpatrick, N., Parrique, T., & Cosme, I. (2022). Exploring degrowth policy proposals: A systematic mapping with thematic synthesis. *Journal of Cleaner Production*. 132764. https://doi.org/10.1016/j.jclepro.2022.132764

Paper II

Fitzpatrick, N. (2024). Translating degrowth: From proposals to practice. In: Eastwood, L, Heron, K., (Eds.) *De Gruyter Handbook for Degrowth*. 129-147. ISBN: 9783110778038. https://doi.org/10.1515/9783110778359-011

Paper III

Fitzpatrick, N. Examining the theories of change within the degrowth movement. Resubmitting manuscript to *Human Geography*.

Paper IV

Fitzpatrick, N. (2024). Uniting the means and ends of degrowth transformation. In: Weik, E., Land, C., Hartz, R., (Eds.) *De Gruyter Handbook of Economic, Ecological and Societal Transformation*. 189-208. ISBN: 9783110998320. https://doi.org/10.1515/9783110986945-010

Paper V

Fitzpatrick, N., Eversberg, D., & Schmelzer, M. Understanding the degrowth movement: A survey of conceptualizations, strategies and tactics. Manuscript submitted to *Energy Research & Social Science*.

Contributions to the papers included in the thesis

For **Paper I-V**, I conceptualised the idea, collected the data, analysed the data, and wrote the manuscript. For **Paper I**, I received assistance in data synthesis from my co-authors. For **Paper V**, I received assistance in data analysis and synthesis from my co-authors. As the lead author of all papers, I accept responsibility for any mistakes.

Related publications I authored or co-authored while completing the thesis

Fitzpatrick, N. (forthcoming). Review of Saitō, K. (2024). Slow down: The degrowth manifesto. *Degrowth Journal*, *02*.

Fitzpatrick, N. (2024). Review of Buller, A. (2022). The value of a whale: On the illusions of green capitalism. *Journal of Political Ecology*, *31*(1). https://journals.librarypublishing.arizona.edu/jpe/article/id/5456/

Kureethadam, J. I., **Fitzpatrick, N.**, & Glassman, J. (2022). Laudato Si' Reader: An Alliance of Care for Our Common Home. Libreria Editrice Vaticana. ISBN: 9788826606965. https://www.humandevelopment.va/en/news/2021/published-laudato-si-reader.html

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I was the Research Assistant who collated, conducted, coded, and synthesised interviews for:

Falkner, R., Nasiritousi, N., & Reischl, G. (2022). Climate clubs: politically feasible and desirable? *Climate Policy*, *22*(4), 480-487. https://doi.org/10.1080/14693062.2021.1967717

Buylova, A., Fridahl, M., Nasiritousi, N., & Reischl, G. (2021). Cancel (out) emissions? The envisaged role of carbon dioxide removal technologies in long-term national climate strategies. *Frontiers in Climate*, *63*. https://doi.org/10.3389/fclim.2021.675499

OVERVIEW

After a brief introduction, this dissertation consists of twelve sections divided into three parts. **Part I: Introduction** (Sections 1.1-1.4) outlines the scope, theoretical framework, methodology, and literature review that motivates my research. **Part II: Papers** (Sections 2.1-2.5) presents the five papers that make up my doctoral investigations. **Part III: Synthesis** (Sections 3.1-3.3) discusses and reflects upon the findings, especially the strategic implications for the degrowth movement. Overall, the structure first reviews the previous research on degrowth strategy (*introduction*), before offering its novel contributions to the field (*papers*), and finally reflecting upon its application (*synthesis*).

Part I: Introduction

The purpose of **Part I** is to explain the rationale behind my thesis. **1.1 Scope** outlines the aims, research questions, methodology, and scale of my research. **1.2 Theoretical framework** argues why combining a critical realist approach to reflection with a social-ecological economics approach to theory is a strategic choice to realise the revolutionary potential of sustainability transitions. Additionally, I communicate my positionality as a researcher. **1.3 Methodology** reveals the mixed approaches I took to data collection, evidence synthesis, and interdisciplinary practice. Finally, **1.4 Literature review** summarises the key themes within my overall research: defining degrowth, political strategy, power relations, prefiguring praxis, and sustainability transitions.

Part II: Papers

The purpose of **Part II** is to present the five papers of my doctoral investigations. **Paper I: Exploring policy proposals** builds a transparent and traceable inventory of proposals that have been suggested by degrowthers. **Paper II: From policies to practice** expands upon the thematic synthesis of the inventory to demonstrate what concrete changes are needed to achieve degrowth. **Paper III: Examining social theories** reviews the theories of social change advocated for within the degrowth movement. **Paper IV: Uniting the means and ends** argues that the movement should extend its critique to the state because the means of state power runs contrary to the ends of degrowth. **Paper V: Understanding strategies and tactics** surveys how people within the degrowth movement conceptualise degrowth to better understand their strategic orientations and tactical preferences.

Part III: Synthesis

The purpose of **Part III** is to synthesise the contributions for the degrowth movement. In **3.1 Discussion**, I reflect upon the who, what, when, where, why, and how of degrowth transformations. In **3.2 Conclusion**, I summarise the key takeaways of my research into policy proposals, theories of social change, and political strategy. Finally, in **3.3 Reflection** I conclude with an autoethnography on the process of pursuing a PhD to demonstrate how I am navigating self and system transformation.

CONTEXT

In contemporary research, the introductory chapter of a doctoral dissertation typically serves to contextualise the topic, identify the problem, and justify the relevance. However, in fields that address well-established topics like climate change and economic growth, the necessity of a traditional introduction warrants reconsideration.

Let's take the Intergovernmental Panel on Climate Change (IPCC) as an example. Since their founding in 1990, they have produced endless reports detailing the science, impacts, and strategies for climate change. Yet since their first report was released, global energy use and greenhouse gas emissions have risen by over 60 per cent (Stoddard et al., 2021). In fact, half of all historical emissions have been emitted in the last three decades when decision-makers, arguably, knew exactly what they were doing. And still, the IPCC calls this 'climate action'.

The same goes for limits to growth that has been known for over half a century (Meadows et al., 1972). In addition, research shows that economic growth is a flawed means to happiness because life satisfaction tends to level off once national incomes surpass the threshold where basic human needs are met (Easterlin, 2010). Indigenous peoples worldwide have embraced this perspective for thousands of years through considering themselves part of nature. Both their worldview and wisdom stand in stark contrast to the hegemonic paradigm of growth today. A paradigm that no doubt needs dismantling.

The repetitive nature of foundational problems not only occupies space and time, but risks desensitising readers and researchers of their significance. The point here is not to downplay the wealth of existing knowledges, but to rethink how it could be used strategically to promote praxis through consciousness raising and collective action. Since societies that are built and dependent upon the depletion of non-renewable resources are destined for collapse, we need to start harnessing the transformative potential of human agency to change the way we do economics and run our societies. The time 'to cooperate with, apologise for, and infiltrate into existing hegemonic paradigms' (Spash, 2024: 218) is over because you cannot debate dogma. So just like our economy, the introductory paragraphs might benefit from a paradigm shift too.

1

INTRODUCTION

In Part I, I outline the scope, theoretical framework, methodology, and literature review of my thesis. This includes the aim, research questions, methods, and positionality of my research.

1.1 Scope

The thesis is grounded in the recognition that we need to reduce global material and energy use for ecological and social purposes. This implies that green growth and technological change will not be enough to achieve sustainability because the economy and society are embedded in the biosphere. Using the philosophy of critical realism (Bhaskar, 2013) and the theory of social ecological economics (Spash, 2024), **the overall aim of this dissertation is to untangle relationships among policy, power, and practice to realise the revolutionary potential of sustainability transitions.**

The thesis includes five papers, spanning a wide range of research questions, methodologies, and scales (for a summary of each paper, see Table 1.1). Building on a systematic mapping and thematic analysis of the degrowth literature, the thesis analyses the social theories of degrowth, especially the role of the state, before surveying the shades of social changes within the degrowth movement.

Paper I conducts a systematic mapping and thematic mapping of degrowth policy proposals. It assesses the precision, frequency, quality, and diversity of degrowth policy agendas whilst reflecting on their evolution. **Paper II** discusses how to translate proposals into practice. This involves an extended discussion of the thematic synthesis found in Paper I. **Paper III** reviews social theories of degrowth before proposing that Paulo Freire's 'pedagogy of the oppressed' constitutes a more adequate theory of social change due to its considerations of class, ecology, feminisms, and privilege. Degrowth requires praxis: the commitment to reflection, theory, and action. **Paper IV** argues that the degrowth movement should extend its critique of growth to the State if it believes in the unity of means and ends. This is because the means of state power runs contrary to the ends of degrowth: free, equal, and cooperative societies without domination or exploitation. Finally, **Paper V** investigates the strategic implications of different understandings of social change in the degrowth movement. This includes the strategic and tactical implications of how people conceptualise degrowth.

Table 1.1 Overview of papers included in the thesis.

	Title	Research question	Methodology	Scale
Paper I	Exploring degrowth policy proposals: A systematic mapping with thematic synthesis	What is the status of degrowth policy proposals? How do their key features fit the context of public policy design and transition strategies?	Systematic mapping with thematic synthesis using ROSES[1]	Various
Paper II	Translating degrowth: From proposals to practice	What is the relationship between policy proposals and social change?	Thematic synthesis using ROSES*	Various
Paper III	Examining degrowth social theories: A review and proposal	What is the most effective strategy to build a mass movement for degrowth?	Internship, literature review, and synthesis	Various
Paper IV	Uniting the means and ends of degrowth transformation	Should degrowth advocate for the unity of means and ends?	Literature review and synthesis	National
Paper V	Understanding the degrowth movement: A survey of conceptualisations, strategies, and tactics	How do degrowth authors and activists conceptualise degrowth? What are the strategic implications of different understandings of social change? What direct action tactics does degrowth support?	Opinion survey	Various

1.2 Theoretical framework

In this section, I communicate my positionality as a researcher. This includes explaining my critical realist approach to reflection, social ecological economics approach to theorising, and praxis approach to degrowth.

Researcher positionality

The creation, content, and communication of knowledge is never neutral. This is why transparency regarding how one views the nature of reality (ontology) and our relationship

[1] ROSES – RepOrting standards for Systematic Evidence Syntheses (roses-reporting.com)

with knowledge (epistemology) should be standard practice in research. In essence, it enables researchers to recognise what influences their framing and how valid their findings are (whilst recognising the risks of centring whiteness, see Gani & Khan, 2024).

I am a cis-white man from a working-class family in a small rural town of Australia. I am the first in my extended family to finish high school, attend university, have a passport, travel overseas or live abroad. I could be the first generation of my family to benefit from capital accumulation. But for some reason, this feels wrong.

From a young age, my parents instilled in me a strong work ethic. For a long time, this made me believe that people's value was determined by how long and hard they work. Only then could you live 'the Australian dream'. I attended the local public schools from ages five to 18, which were only walking distance from our home. I entered wage labour at age 14 and worked 20 to 40 hours per week whilst studying full-time throughout high school and university. All whilst playing numerous sports at a competitive level and achieving high grades. As my father says, 'there's plenty of time to sleep when you're dead', allegedly.

After taking a gap year after high school to become an outdoor education instructor in Canada, my university years involved moving to the 'big smoke'. Here I studied a Bachelor in Environmental Sciences at the University of Wollongong. The pathway was inspired by my high school geography teacher whose passion for field trips and the outdoors was infectious. I continued to work multiple jobs – dishwashing, cooking, removalist, event planner, lab assistant – and went on exchange for one-year to Uppsala University in Sweden. This was where I first encountered critical pedagogy, political economy, and sustainability. It was also here that I became inspired by Kevin Anderson, a climate scientist who 'walks the talk', and had the chance to join international climate negotiations. Although my time there busted the myth that Sweden was sustainable, I felt connected to Scandinavia.

Immediately after returning to Australia to finish my degree, I began searching for master's programs in Scandinavia. Whilst on a personal level I experienced a relationship breakdown and cycling accident, on a professional level I received a scholarship to study a Master in Geology (Ice & Climate) at Aarhus University in Denmark. Again, in many ways this changed my life. The free tuition and monthly stipend meant I didn't have to work anymore. I lived in a student dorm and began making Denmark my home, full of Danish friends and family. The master's program was intellectually stimulating. I took courses on glaciology, climate history, sedimentary archives, renewables energies, and completed a research project on Carbon-14 dating to track historical ice sheet fluctuations in northwest Greenland. Despite our department head being a climate denialist and another professor being funded by Total, the French fossil fuel company, I became known as 'the climate guy' for being a vocal opponent to discourses of climate delay.

During my master's program I also had another chance to go on exchange back to Sweden. This time at the Stockholm Resilience Centre, my original desired master's program. However, even though I was accepted I declined the offer due to unaffordable tuition fees (AUD$41,000) and living expenses. But I am glad that I did not study their program because its economic orthodoxy and apolitical ecology is not conducive to collective liberation. Overall, my life back in Sweden was fulfilling. I moved back to Flogsta in Uppsala with my former roommate and her golden retriever. I taught bachelor-level courses in Global Economy and

Sustainable Economic Futures at CEMUS, a student-led department within Uppsala University. Plus, I was reunited with many former friends. I even ended up staying an extra semester to write my Master thesis via an internship at the Stockholm Environment Institute where I investigated the supply chains of internal combustion and battery electric vehicle engines from mining to driving. Additionally, I took a part-time research position at the The Swedish Institute of Internal Affairs to interview high-level diplomats about their countries position towards negative emission technologies (Buylova et al., 2021) and climate clubs (Falkner et al., 2022) in long-term climate strategies. This was at a time when Covid-19 began, and my visa was expiring.

I have always been a critical and curious person. Despite only reading one book until I was twenty (1984 by George Orwell), my interest in reading and writing was growing. I went from never reading to finishing one book per month, and even sometimes one a week. Although I wanted to stay in Scandinavia, I didn't have much success. The only position I was offered was in Portugal, but I had never been there before. A couple of friends shared the 'la Caixa' Doctoral INPhINIT fellowship program with me, so I applied, and was successful. The process is unlike most PhDs because first they select the candidates based on merit before a matchmaking process is done to select any natural science PhD in Spain or Portugal. Given there were around 40 students and 200+ projects, it's safe to say professors were quite predatory in their search to secure free funding. But after some selection difficulties, I chose Lisbon and jumped on a 60-hour bus ride south.

My positionality would be incomplete without reflecting on the PhD process. It's been an interesting four years to say the least. For the first six months I lived in a room with no window and the university was closed. In 2021, I lived in Rome for a one-year internship at the Vatican on ecological economics. This was followed by burnout, so I paused the PhD in 2022. During this time, I moved back to Denmark to live in a friend's unbuilt house and built a van house myself before heading back to Australia for my sister's wedding, the first time in five years. After returning from five months at home, I drove from Denmark to Portugal and have lived in the van ever since. Whilst moving so much makes organising and relationships hard, I am humbled to have met so many amazing people along the way. Contradictions I intend to overcome through better aligning theory with action in my life. For a more intimate account, see the autoethnography of my journey in the reflection section.

A critical realist approach to reflection

Transparency with respect to one's philosophy of science is becoming standard practice in interdisciplinary research as scholars explain how their ontological and epistemological positions affect their methodology choices. This involves reflecting upon the nature of reality and our relationship to knowledge. This brief section outlines why and how I follow a critical realist philosophy of science.

Critical realism is a philosophical approach to understanding science that was developed by Roy Bhakser (1944-2014). According to critical realism, the purpose of science is to identify and examine underlying structures and mechanisms of social phenomena that advance self-emancipation (Bhaskar & Hartwig, 2016). A vision that runs in opposition with forms of empiricism, positivism, postmodernism, and social constructivism. For example,

critical realism recognises that there are fundamental differences when investigating natural or social sciences, which requires researchers to adapt their methods. This is important given my current research focuses more on social than natural sciences. Overall, the foundations of critical realism are built around the interconnections between ontology, epistemology, and methodology.

Ontologically, critical realism posits the existence of an objective reality that is independent of human knowledge. This implies that reality consists of deep and unobservable mechanisms in addition to actual events and empirical observations. For example, scientists can advance knowledge about global warming, but this does not make global average temperatures rise or fall. Like ecological economics, critical realism views reality as stratified into lower (biophysical) and higher (social) strata. For this reason, economies are considered open social-ecological systems because they are embedded within society, which is itself embedded within biophysical reality.

The depth ontology[2] of critical realism aligns with degrowth because it tends to reject anthropocentric and utilitarian frameworks that favour humans and preferences. Doing so calls for changes in the ethics and evaluations of economics, including the significance of non-human beings and objects of study (Spash, 2012). Whilst flat ontologies only focus on empirical observations, ontological depth allows one to uncover mechanisms and structures of reality (Knudsen, 2023). This is crucial when untangling the complexities of politics, power, and practices needed to achieve degrowth.

Epistemologically, critical realism offers a nuanced understanding of how humans relate to knowledge. This involves recognising that knowledge is imperfect and impartial because of social contexts, cultural backgrounds, and cognitive biases. For example, people interpret and understand the world through their subjective personal experiences. As a result, knowledge is contingent upon specific conditions and leads to diverse interpretations and understandings of reality. Despite being able to explain past and present phenomena, science is unable to predict the future. But given knowledge is a social construct, its content is subject to being challenged and changed. This is exactly what the degrowth movement does when critiquing the paradigm of growth.

Epistemological relativism within critical realism encourages researchers to take a reflexive approach to knowledge production. Moreover, it recognises the contingent nature of knowledge while emphasising the existence of an objective reality. Researchers are encouraged to critically reflect upon their assumptions and worldviews during the stages of knowledge production to promote greater transparency and academic rigour. This is because

[2] Depth ontology posits that reality consists of multiple stratified layers, including the empirical, actual, and real domains, which are not always directly observable but causally efficacious (Buch-Hansen & Nielsen, 2020). A 'depth ontology' are more useful than flat ontologies because they allow for a more nuanced understanding of reality by recognizing multiple layers of causation and emergence, enabling the investigation of underlying structures and mechanisms that may not be immediately observable but are crucial for explaining complex phenomena in both natural and social sciences (Knudsen, 2023). Whereas 'flat ontologies' reduce reality to a single level of existence, typically the empirical or observable, thereby limiting explanatory power and neglecting underlying causal mechanisms (Bhaskar, 2013).

philosophical reflection can inform social scientists when conducting research on complex and uncertain topics like economics. For example, through acknowledging the subjectivity of knowledge, especially in social sciences where researchers are subjects and objects of inquiry, one recognises the need for interdisciplinary approaches that share similar worldviews to better understand social and ecological reality.

Methodologically, critical realism practises pluralism because it encourages the use of diverse methods to uncover the underlying generative mechanisms shaping social and ecological phenomena (Buch-Hansen & Nielsen, 2020). This includes acknowledging that different research methods are appropriate for studying different aspects of reality. However, this should not be conflated with the 'anything goes' methodological pluralism of ecological economics (e.g., Norgard, 1989). Rather than employing unsuitable methods under the guise of pluralism, including transdisciplinarity, degrowth science should take interdisciplinarity seriously by understanding the ontological and epistemological basis for cooperation between different bodies of knowledge (Spash, 2012). In short, while critical realism is open and evolving, anything does not go. Instead, such an approach favours realism and reason over positivism and relativism.

Judgemental rationality within critical realism involves making informed decisions or judgements based on available evidence, reason, and reflexivity. Moving from the philosophy of science to scientific practice requires taking stances on ethics, methods, and value considerations. For example, instead of explaining away dualisms through reductionism or deconstructivism (e.g., agency-structure), critical realism maintains dualisms to understand their relational aspects before transcendence (Buch-Hansen & Nesterova, 2021). Likewise, it emphasises the role of critical thinking and openness toward new perspectives when navigating the complexities of the social world. In essence, critical realism does the underlabouring[3] for the research methods that degrowth researchers use in their attempts to undermine the powerful narratives of the growth paradigm.

In summary, the scientific process is strengthened when researchers take an explicit and consistent approach drawing from the philosophy of science to social scientific practice. One approach that does this is critical realism. When conducting science, critical realists commit to ontological realism (the existence of an objective reality), epistemological relativism (that knowledge is explanatory and fallible), and judgemental rationality (the need to assess scientific claims in relation to reality). These positions run in opposition to philosophies that favour flat ontologies and fail to balance human subjectivity, empirical investigation, and theoretical reasoning. This is part of the reason why I believe critical realism offers a solid philosophical foundation upon which the degrowth movement can further the analysis and actualisation of different ways of being in the world that are equitable and ecological. The other part involves its compatibility with the theory of social ecological economics.

[3] Underlabouring is the philosophical task of clearing away conceptual obstacles to scientific inquiry and social transformation (Bhakser, 2008). Its purpose is 'to support and strengthen the sciences by encouraging critical reflection on the part of scientific practitioners. For example, shedding light on the philosophical assumptions and contradictions scientific discourses' (Buch-Hansen & Nielsen, 2020: 65).

A social ecological economics approach to theory

A paradigm shift requires explicit articulation of the theoretical foundations and scientific utopian vision underpinning it (Spash, 2024). This includes stipulating what differs from the present, who prevents change, and how to get from here to there. The same conditions apply for the scientific concept and social movement of degrowth. To this end, I explain why social ecological economics acts as the backbone of my research on degrowth.

Ecological economics emerged as a scientific field from the failures of environmental economics to address the environmental consequences of economic activities that had led to a rise in environmentalism during the late-twentieth century. Despite its founders holding divergent positions on social, ecological, and economic issues, they created the International Society for Ecological Economics in 1988 (Røpke, 2004; 2005). Although the field emerged to challenge orthodox mainstream economics, the practical reality saw many ecological economists incorporate and employ orthodox positions into their thinking such as preference utilitarianism, optimal control modelling, and monetary valuations. In fact, one only needs to search ecological economics articles or textbooks to find substantial quantities of unreconstructed neoclassical economics (e.g., Common & Stagl, 2005; Daly & Farley, 2011; Costanza et al., 2015). It is no wonder some people classify ecological economics as part of orthodox mainstream economics.

Ecological economics lacks a coherent social theory. One of the main reasons for this is a lack of engagement with philosophy of science (Buch–Hansen & Nesterova, 2021). A neglect that results in reducing ontological questions to epistemological questions of knowing that leads to inconsistent interpretations of pluralism (Spash, 2021). By refusing to engage in philosophical questions, ecological economists and degrowthers adopt an 'anything goes' attitude toward scientific pluralism that is antithetical to knowledge building (Dow, 2007: 448). Instead, it makes sense to establish grounds for refining and rejecting ideas, for example regarding the assumptions and methods of orthodox mainstream economics, to avoid holding contradictory positions between heterodoxy and orthodoxy (Spash, 2020). Only then will ecological economics have a chance to realise its revolutionary potential. This is exactly what social ecological economics offers because critical realism does the underlabouring that allows it to steer a course between naïve objectivism and radical relativism by focusing on conceptualising and clarifying interactions between the natural and social sciences.

Defining the preanalytic vision of social ecological economics is not an easy task (for a list of key aspects, see Spash, 2012; Spash, 2024: 135-139). For starters, it involves rejecting orthodox mainstream economics in favour of building alliances with heterodox schools of thought (e.g., feminist, Marxist, Post-Keynesian). The two core elements of which are economic growth and price-making markets (Spash, 2020). Whereas the mainstream reduces economics down to the study of capital accumulation using monetary markets and technological efficiency, social ecological economics redefines economics as social provisioning to meet needs through an ethical framework of care and justice. For example, based on Kapp's (2011) social minima or Max-Neef's (2009/1992) human needs. This is because economic growth is a flawed means to happiness (Easterlin 1995; 2003) and monetary markets objectify relations and commodify values (Spash & Hache, 2022). But one should not

confuse social ecological economics with interpretations of ecological economics who 'pragmatically' employ mainstream concepts and theories despite criticising them (e.g., Daly, 1992; Jackson, 2017; Raworth, 2017; Dasgupta, 2021; Fioramonti et al., 2022) – a group Spash (2024) labels 'orthodox dissenters'. Instead, redundant and rejected theories of the current hegemony should be discarded, not incorporated into degrowth under the guise of pluralism and pragmatism. This is a major reason for selecting the perspective of social ecological economics instead of ecological economics in this thesis because it provides a coherent scientific theory for better understanding how to achieve degrowth.

So, what does it mean to be an ecological economist? Given the wide range of theories and ideologies present in the field, it is important to clarify what contributions promote or prevent a paradigm shift. Based on over 40 years of research on economics and the environment, Spash (2024) provides a descriptive classification of the theoretical landscape. Building on a major review that appeared as a four-volume collection (Spash, 2009), he identifies three primary approaches claiming to be ecological economics: new environmental pragmatism, new resource economics, and social ecological economics. First, *new resource economics* largely adheres to orthodox mainstream economic theories by formalising natural sciences concepts into deductive mathematical models. Furthermore, they maintain a strong, if implicit, ideological commitment to 'free' markets and price theory that focuses on cost-efficiency and optimal allocation (e.g., Dasgupta, 2021; The Beijer Institute of Ecological Economics). Second, *new environmental pragmatism* strives for political impact even if it involves using neoclassical theories and models as a means of persuasion. Additionally, the belief that theory can be separated from practice results in instrumentalising natural sciences and commodifying nature which protects capitalist profits over the biophysical world (e.g., Costanza et al., 1997, The Nature Conservancy). Finally, *social ecological economics* calls for an overhaul of economic theory by rejecting orthodox mainstream economics in favour of building heterodox theories and alliances that expand social ecological understanding (e.g., Spash, 2024; Stay Grounded). This includes accepting humans are emotional social beings whose agency carries transformative potential despite being exposed to conflicting ethics, institutions, and values. Although such positions obviously overlap (e.g., Spash & Ryan, 2012), there are major divergences between orthodox mainstream economics and social ecological economics. As such, this carries consequences for scientific collaboration and integration that should not be conflated with pluralism.

In summary, this thesis takes the position that social ecological economics provides a solid theoretical foundation to better understand how to achieve degrowth. Through a coherent approach to its philosophy of science, the theory of social ecological economics reduces the risk of holding conflicting and contradictory positions towards orthodox mainstream economics. This is crucial given the experience of ecological economists who despite three decades of attempting 'to cooperate with, apologise for, and infiltrate into existing hegemonic paradigms have at best achieve passive revolutions that fail to address structural problems, and, by playing to existing power groupings, do nothing to change the substantive operations of actual economies' (Spash, 2024: 218).

A praxis approach to degrowth

Praxis is a process of reflection, theorising, and practice. Originating from the Ancient Greek word 'πρᾶξις', meaning activity engaged in by free people, the term praxis has a multifaceted history that is rooted in philosophy, education, and social theory. But given its diverse interpretations, it is important to specify how it inspires my research on degrowth.

The philosopher Aristotle distinguished between three types of human activity: *theoria* (thinking), *poiesis* (making), and *praxis* (doing). Whereas the goal of thinking was to seek the truth, and the goal of making was production, the end goal of doing was action. But not just any action. Actions that are conducted with a sense of purpose and moral consideration that contribute to the collective flourishing of society. A vision that is not too dissimilar from degrowth.

More recently, the meaning of praxis was expanded upon by Karl Marx (2002/1845) to highlight the dialectical relationship between theory and practice. As Nelson (2024: 1) remarks, 'Marx's interpretation of 'praxis' as a primary expression of what we are, of self-realisation and what we might achieve as social beings, frames his revolutionary thought.' Such an interpretation is significant for degrowthers because it explicitly includes the consideration of autonomous non-human nature (Saito, 2017). This is important given that many consider praxis an integral part of revolutionary activity that stems from a critique of capitalist society. Indeed, this is why the quote 'The philosophers have only interpreted the world in various ways; the point, however, is to change it' is one of Marx's most famous because praxis is the process by which human beings transform the world and themselves. A process that many degrowth advocates aspire to emulate.

Another person who made significant contributions to the concept of praxis is the educational philosopher Paulo Freire. In his seminal work, *Pedagogy of the Oppressed*, Freire defines praxis as 'reflection and action directed at the structures to be transformed' (Freire, 1970: 126). According to his dialogical approach, praxis involves learning to perceive social, political and economic contradictions so that people can take action to overcome oppression. In other words, becoming aware of one's own oppression is a prerequisite for taking liberating action to overcome it. As Freire said, 'Education does not change the world. Education changes people. People change the world.' A perspective that aligns with degrowth activists who accept the transformative potential of human agency.

The work of Paulo Freire coincided with that of critical theorists like Antonio Gramsci and members of the Frankfurt School who were simultaneously publishing their interpretations of praxis, albeit in different contexts. Gramsci (1971) focused on the importance of intellectual and cultural work in the struggle for social transformation and hegemony. His philosophy of praxis regarded organic intellectuals, those who emerge from and are connected to the working class, as essential to bridging the gap between revolutionary theory and mass movements. The reason being that their theories were generally grounded in the lived experiences and struggles of the working class, for example the case of Paulo Freire. Whereas the Frankfurt School emphasised how culture and ideology shape human consciousness and perpetuate systems of domination. This involved transcending traditional Marxist notions of working class consciousness to include the interrogation of social norms and values

(Horkheimer & Adorno, 2002/1944), the emancipatory potential of art and aesthetic experiences (Marcuse, 1978), and the continuous process of critique (Adorno, 1973). All of which have made cameo appearances during discussions on how to achieve degrowth.

Finally, praxis concerns the contemporary contributions from fields like feminist theory and environmental justice. On the one hand, feminist scholars like bell hooks, Angela Davis, and Maria Mies have adapted notions of praxis to address issues of intersectionality that emphasise the need for actions to reflect the interconnections between class, gender, and race. According to hooks (1984), engaged pedagogy is an act of freedom because it empowers students to challenge oppressive systems to transform their realities, especially for women of colour and the working class. Similarly, Davis (1981) investigations into the links between race, gender, and class have inspired countless social movements to struggle for prison abolition and civil rights. Last, is the examination of economic exploitation of women across the globe by eco-feminist Mies (1986) whose work is well-known in the degrowth literature. Overall, feminist scholars have enriched the concept of praxis by demonstrating how theoretical insights can be translated into effective actions for social change.

On the other hand, activists have extensive experience in translating these theoretical insights into concrete actions through methodologies like participatory action research or strategies like civil disobedience and direct action. Here one can cite the thousands of case studies in the Environmental Justice Atlas (https://ejatlas.org/) or the Global Nonviolent Action database (https://nvdatabase.swarthmore.edu/) that catalogue social conflicts about environmental issues where communities are struggling to defend their land, air, water, forests, and livelihoods from damaging extractive activities. Together these movements complement short-term mobilisations with a commitment to organising over the longer-term through various frameworks, methodologies, and strategies that demonstrate how praxis is essential for addressing systemic injustices. Such a praxis-driven approach not only raises awareness but also seeks to transform practices and policies across various spatial and temporal scales. Indeed, for degrowth this highlights the importance of a praxis that is inclusive, participatory, and transformative through combining reflection, theory, and action.

In summary, the final piece of my theoretical framework involves converting the critical realist approach into reflection and the social ecological economics approach to theory into action. The combination of which is referred to as praxis. This is because to have any chance of achieving degrowth we need to commit to reflection, theory, and action. In other words, degrowth cannot be reduced to theory without action (*verbalism by academics*) nor action without theory (*activism by activists*). Instead, to have any chance of achieving degrowth we need a commitment to act personally and consistently with our social and ecological values. One way of beginning to do this is through a holistic understanding of praxis that takes these inspirations and intersections seriously.

1.3 Methodology

This dissertation employs a mixed-methods approach, integrating quantitative and qualitative analysis across multiple scales, to advance research on degrowth. The systematic mapping in **Paper I** provides a robust empirical foundation that is essential for critical realist inquiry. This dataset, comprising of over 1,500 texts and 500 policy proposals, enables the examination of real-world proposals and their potential implementation. The expanded thematic synthesis in **Paper II** builds upon this empirical base to better understand the practical application of these policy proposals. **Papers III** and **IV** employ critical literature reviews to analyse theories of social change and political strategies within the degrowth movement, which align with critical realism's emphasis on uncovering causal mechanisms in social systems. Finally, **Paper V** conducts a survey and statistical analysis to investigate the strategic orientations and tactical preferences of the degrowth movement. It employs descriptive and exploratory statistical methods that align with critical realism's emphasis on uncovering patterns and tendencies rather than universal laws. Overall, the methodological diversity facilitates a multi-layered exploration of degrowth that is consistent with critical realism's depth ontology.

Collecting data

To better understand how activists do and might organise for degrowth, a significant amount of time and effort was dedicated to data collection. This included literature searches, qualitative reviewing, international collaboration, and surveys. It extends to inner transformation through a personal ethnography of the PhD process, including a one-year internship, summer schools, conferences, and teaching.

The dataset compiled for **Paper I** was the result of a systematic mapping of the degrowth literature using the RepOrting standards for Systematic Evidence Syntheses (ROSES). Originally designed for conservation and environmental management, I discussed with its co-creator Neal Haddaway how the method could be adapted to degrowth. The search spanned four databases using 16 translations of 'degrowth' to cover all written literature. The list is regularly updated and is available open access on www.degrowth.net as part of the International Degrowth Network. The results were also used as the basis for a thematic synthesis in **Paper II** that extends upon the findings section of the systematic mapping**.**

Paper III involved a selected review of the theories of change advocated within the degrowth movement. This involved updating the analytical framework of Alexander & Rutherford (2014). Collecting data for the different theories required revisiting and expanding the degrowth database from **Paper I** to include papers that focus on social change, state power, and social movements. This iterative process also formed the basis for **Paper IV** because I found that most degrowth social theories rely on replacing rather than negating power. Throughout this paper I recount the systematic critique, strategies, and social theories of degrowth to argue for the strategic unity of means and ends.

Finally, **Paper V** involved conducting a survey of the degrowth movement. This gave me the chance to contact everyone who had attended Degrowth Zagreb 2023 or published about degrowth. Again, the degrowth database I built for **Paper I** came in handy. However, it

needed three updates. First, I needed to extend the range to include 2021-2023 papers. This step was relatively easy although time consuming. Second, I included all authors and not just those who wrote about policy proposals or praised degrowth. This extended the invitation to degrowth critics as I consider them part of the movement (perhaps they disagree). Third, I needed to manually add the email addresses of all authors. This proved surprisingly difficult as people change or remove addresses, which made me question the transparency and quality of dialogue *within* academia. Nonetheless, this process allowed me to engage with many people whom I only knew through reading, which varied from fruitful exchanges to slander. It turned out to be an interesting sociological experiment based on people's responses, silences, critiques, and praise. Furthermore, it reminded me of the sensitive nature of collecting data on people who challenge power.

Synthesising evidence

A trademark of this thesis is its scope. Each paper required diving into a different body of literature: degrowth for **Paper I**, policy studies for **Paper II**, social theories for **Paper III**, state theories for **Paper IV**, and social movement strategy for **Paper V**. This sent me on a continuous learning journey that challenged my beliefs and values to the core. It led me to read and review a lot of literature. In this respect, **Paper I**, **III**, and **V** stand out. Written as review articles, they provide a comprehensive overview of how people are organising to achieve degrowth.

The purpose of **Paper I** was to show the status of degrowth policy proposals and how their features fit the context of public policy design and transition strategies. This iterative process involved searching, screening, coding, and synthesising proposals found in the degrowth literature. The inventory was guided by Howlett's (2019) differentiation between policy ends - what the policy is supposed to achieve (goals, objectives, targets) and policy means - how to achieve them (methods, instruments, calibrations) that was elaborated upon in **Paper II**. This guideline allowed us to provide an accessible overview of degrowth policy proposals whilst acknowledging the diversity and plurality of values and visions that they represent. This became Appendix A and Supplementary 5 that formed the foundation for the manuscript[4].

Paper III was motivated by the question of what the most effective strategy is to build a mass movement for degrowth. This led to a review of social theories that one finds in the degrowth literature. After finding that few are up to the task of building mass movements, I propose that Paulo Freire's 'pedagogy of the oppressed' constitutes a more adequate theory of social change because it promotes systemic change through collective liberation. The paper goes on to initiate a dialogue between pedagogy of the oppressed and degrowth.

Paper V relied on a mixture of descriptive and exploratory statistics to explore attitudes towards the conceptualisation, strategies, and tactics of people within the degrowth movement (n = 399, 37% response rate). First, descriptive statistics were used to describe key

[4] The Supplementary material for **Paper I** is available under the title *Appendix A: Supplementary data* using this open access link - https://doi.org/10.1016/j.jclepro.2022.132764. Meanwhile, the full list of policy proposals can be found in Appendix A at the end of this dissertation called *Thematic Synthesis of Policy Proposals.*

results and insights from long-form responses. This was followed by three exploratory methods: correlation, principal component, and cluster analysis. Spearman's correlation was used to measure the strength and direction of linear relationships between two, non-continuous variables (e.g., social movements vs. sabotage). The principal component analysis (PCA) identified groups of similar responses, useful for interpreting how people conceptualise degrowth and their strategic implications. Finally, cluster analysis were combined to uncover the nuances of political opinions across the degrowth movement. This involved identifying core dimensions driving responses with factor analysis and using the results to perform hierarchical clustering. Overall, the results allowed us to explore people's underlying political and economic assumptions and opinions.

Interdisciplinary practice

As described in **Paper III**, degrowth cannot be reduced to theory without action or action without theory; degrowth requires praxis: the commitment to reflection, theory, and action. This makes it important to outline certain additional activities that shaped my research methodology.

The first is summer schools. During my doctoral degree, I attended numerous courses as a student-teacher. This included taking two courses: *Planning for a good life in a post-growth society* at the Royal Institute for Technology (KTH) in Sweden and *Political ecology of scarcity, limits and degrowth* at the Norwegian University of Life Sciences (NTNU) in Norway. Plus, I co-coordinated four summer schools: 2021 Degrowth and Environmental Justice Summer School in Barcelona, 2022 Nyt Europa Summer Summit in Copenhagen, 2023 Summer Academy for Pluralist Economics in Neudietendorf, and the 2023 Nyt Europa Summer Summit in Barcelona. These moments were great opportunities to discuss degrowth, receive feedback, and practice teaching. For example, **Paper II** was prepared for the NTNU course.

The second is a one-year ecological economics internship at the Vatican. This involved working in the Ecology & Creation team of the Dicastery for Promoting Integral Human Development. My work here involved attending meetings, speechwriting, and editing a book (Kureethadam et al., 2022). Additionally, this involved putting ecological economics into practice through initiatives like the Laudato Si' Action Platform (https://laudatosiactionplatform.org/). During this year, I became inspired by *Pedagogy of the Oppressed* as a theory of social change that could help build mass movements that demand degrowth. The works of Paulo Freire, Ivan Illich, and bell hooks would go onto shape the writing of **Paper III.**

The final activities influencing my research practice were workshops and conferences. The first was a writing workshop at Cambridge University where I presented my outline for **Paper IV**. However, the chapter changed after I attended the 2023 Beyond Growth Conference at the European Union (EU) Parliament. This event made me realise the strategic power of uniting means and ends to negate rather than replace capitalist state power with a 'degrowth welfare state'. Finally, the 9th International Degrowth Conference held in Zagreb in 2023 was the first opportunity I had to meet the degrowth community and conduct the survey that became **Paper V**. This week filled me with the love and rage needed to finish this PhD.

1.4 Literature review

In this section, I offer a social ecological economics perspective on how to organise for degrowth. For clarity purposes, I begin by defining degrowth. Next, I begin to untangle relationships among policy, power, and practice. This involves targeted literature reviews concerning policy proposals, power relations, practicing degrowth, and sustainability transitions. The section concludes with an overview of the relevant research gaps.

Defining degrowth

Descriptions of degrowth often include a disclaimer that it is broad, complex, and difficult to define in detail. But these abstract characteristics are not unique to degrowth. Throughout society, there is a lack of cultural language to define social and ecological phenomena. For example, what is racism and therefore constitutes being racist? Some call for linguistic clarity to overcome the alleged complexity and jargon of degrowth. The story goes that degrowth is not being taken up by decision-makers because it lacks conceptual clarity. A story that overlooks the fact that calls for clarity usually result from ideological differences as opposed to linguistic ones (Freire, 1970). This becomes evident when one attempts to deconstruct the dominant ideology of orthodox mainstream economics in attempts to build alternative economies like those proposed by the degrowth movement. Therefore, one way to go beyond critique and start organising is to provide a clear and precise definition of degrowth (for a history of the concept, see Parrique 2019: 171-234).

Every concept has beginnings and boundaries that make it distinguishable from other concepts. Degrowth is no different. Boundaries can change over time, and this is why degrowth is said to be in a state of becoming (Buch-Hansen & Nesterova, 2021). But contestation becomes evident when people adopt different assumptions about reality and knowledge before acting upon them, for example between Hickel's (2021b) eco-socialist, Saito's (2022) degrowth communism and Trainer's (2021) eco-anarchist versions of degrowth. So, when people advocate for degrowth through different ideologies they enter a conceptual contestation of what degrowth means. For example, should degrowth aspire to negate or replace state power? Let me be clear: the point is not to decide what degrowth means, but rather to adopt a definition that is useful for investigating how to organise for degrowth throughout this thesis.

There are two approaches to defining concepts. The first is a *transhistorical definition* where the meaning of degrowth would transcend historical boundaries, for example when Kōhei Saitō (2022) employs the concept of 'degrowth communism' to argue that Karl Marx was a degrowther. The second involves a *historical definition*, which recognises degrowth as a historically specific form of environmental justice. The main difference between the two is the former enables you to label people who did not advocate explicitly for degrowth as exactly that. Whereas the latter does not. Throughout this thesis, I adopt a historical definition of degrowth to reduce the risk of imposing my ontology upon others. A controversial yet conscious choice that does not discount nor erase the inspirational knowledges that existed prior to the dawn of degrowth.

Typically, one can define concepts through spoken interviews or written definitions. Whereas providing a precise definition during an interview is difficult, written definitions are more deliberate and supposed to be well-crafted (Kirchherr et al., 2017). Whilst acknowledging that definitions are reductionistic by design, especially for multi-layered concepts like degrowth (D'Alisa et al., 2014), I believe it is prudent scientific practice to define the central concept of one's doctoral dissertation. In fact, clearly defining what I mean by degrowth enables me to state it as an anti-capitalist and a post-capitalist concept.

In his doctoral dissertation, *The political economy of degrowth*, Parrique (2019: 171-234) proposes a historical typology based on 58 definitions of degrowth. The contribution tracked the evolution of definitions from 2006 to 2019 and demonstrated that the term carries at least three denotations: (1) degrowth as decline of environmental pressures; (2) degrowth as emancipation of undesirable ideologies; and (3) degrowth as destination to utopian societies. The descriptive findings revealed a diversity of definitions and uses of the term. In fact, most researchers were found to use the term without explaining what it means. This suggests that many people use the word degrowth if others know exactly what they are talking about. But if anybody has ever been in a discussion about degrowth, academic or otherwise, you will know that this is clearly not the case. Thus, given degrowth's 'unprecedented surge in popularity, it might be wise to ensure that discussions take place on solid foundations, starting with a precise definition' (Parrique, 2024: 2).

Moving from descriptive to prescriptive analysis requires scientific rigour. Building upon his previous typology, Parrique (2024) sets the ambitious task of building a suitable definition for the existing use of the term that specifies exactly what degrowth entails. This is achieved through analysing 115 definitions of degrowth in English and French ranging from 2006 to 2024. The result defines degrowth as *'a downscaling of production and consumption to reduce ecological footprints, planned democratically in a way that is equitable while securing wellbeing'* (Parrique 2024: 1). The definition contains five features, including one concrete action (producing and consuming less) and four organisational principles (sustainability, democracy, justice, and wellbeing) ordered in a way that makes it easier for readers to understand what degrowth involves.

At the core, *a downscaling of production and consumption* is what sets degrowth apart from other concepts like circular economy (Kirchherr et al., 2023), green economy (Merino-Saum et al., 2020), green growth (Georgeson et al., 2017), productivist socialism (Kallis, 2019) or sustainable development (Kothari et al., 2014). This is because doing so increases the potential *to reduce ecological footprints* since an absolute, global, and permanent decoupling of economic growth from all environmental pressures that is fast enough to avoid ecological collapse ranges is biophysically impossible (Parrique et al., 2019; Haberl et al., 2020; Weidenhofer et al., 2020; Vadén et al., 2021; Vogel & Hickel, 2023). But academics and activists argue that degrowth should be *planned democratically* because it has more chance of being successful if it is a socially consented choice rather than an environmentally imposed imperative (Cattaneo & Gavaldà, 2010; Schneider et al., 2010). The adverb 'democratically' emphasises that the planning process must be direct and participatory to avoid the concentration of authority and power. The fourth point concerns the issue of justice. Here, *in*

a way that is equitable specifies whom, where, and how downscaling should occur. In general, degrowth should follow the principle of common but differentiated responsibilities and respective capabilities. This means that downscaling in affluent parts of the world, irrespective of the location, is a prerequisite to achieving global justice (Chancel et al., 2023; UNEP, 2024). And finally, all of this must be done *while securing wellbeing*. This is important for two reasons. First, securing allows a dual focus for achieving degrowth that protects needs that are already met whilst finding ways to satisfy unmet needs (e.g., Max-Neef, 1991). Second, wellbeing is a broader term that encompasses both needs-satisfaction (objective or eudaimonic wellbeing) and happiness (subjective or hedonic wellbeing). Overall, these typologies are crucial to ensuring that discussions on how to achieve degrowth can take place on solid foundations. But they were light on detail of how needs are defined and satisfied so I conducted a brief bibliometric analysis of the degrowth literature assuming that the most reliable and popular degrowth definitions are in those sources with the highest citations.

For a total of 1,207 texts referring to degrowth from 2005 to 2023, the number of citations received totalled 58,855 (11 January 2024). Overall, the top 100 texts accounted for 59 per cent of total citations (min. 131 citations), with the top 200 accounting for 76 per cent (min. 74 citations), and top 300 accounting for 85 per cent (min. 41 citations). The percentage of texts receiving over 100 citations was 0.67 per cent (n = 141). Additionally, the bibliometric analysis highlighted the most popular authors as a percentage of the entire field's citations, with the top five authors being Giorgos Kallis (18.7%), Joan-Martínez-Alier (10.1%), Federico Demaria (6.7%), Jason Hickel (5.5%), and Serge Latouche (3.3%). The highest ranked female was Filka Sekulova (2.7%). When considering solely the texts that contain a definition of degrowth, citations account for 30 per cent of the total. The top five cited texts with a definition include: D'Alisa et al. (2014), Schneider et al. (2010), Kallis (2011), Demaria et al. (2013), and Martínez-Alier et al. (2010). These findings align with the bibliometric analysis of Engler et al. (2024) who highlight that research on degrowth has a low degree of overall collaboration except for those who are affiliated with the 'Barcelona school of ecological economics and political ecology' (Villamayor-Tomas & Muradian, 2023). So just like research on ecological economics (Spash, 2024), research on degrowth appears to be dominated by a small yet powerful collective that exerts influence over the content and direction of the field.

Policy proposals

Degrowth has been gaining traction as a potential solution to the interconnected social and ecological crises. But as the idea moves closer to the realm of policymaking, it is crucial to examine the content and relevance of degrowth policy proposals. This includes reflecting upon the policy process itself to see how much emphasis the degrowth movement should place on policymaking as part of its broader strategy.

The first comprehensive analysis of degrowth policy proposals was conducted by Cosme et al. (2017) who reviewed 128 academic articles in English published between 2007 and 2014. The study aimed to answer the question: What does the sustainable degrowth perspective mean in a policymaking context? To address this, the authors developed a framework that classified proposals according to their alignment with ecological economics objectives (sustainable scale, fair distribution, efficient allocation), types of approach (top-

down, bottom-up), and geographical focus (local, national, international). The framework placed proposals into three broad goals: (1) Reduce the environmental impact of human activities; (2) Redistribute income and wealth both within and between countries; and (3) Promote the transition from a materialistic to a convivial and participatory society. Overall, the article presented several key findings. Firstly, the majority of proposals (75%) were top-down with a national focus that emphasise the role of the state as a major drive of change rather than bottom-up social movement as advocated for by proponents. A finding that perhaps is a given since searching for policy proposals will favour state-oriented approaches, which sidelines an obvious grassroots disinterest and lack of faith in the state. This connects to their second finding, which is that social equity was considered more important than environmental sustainability. Thirdly, the study found that some proposals lack sufficient detail to be implemented. And finally, issues surrounding population growth and the Global South were largely ignored.

In his doctoral dissertation, *The political economy of degrowth*, Parrique (2019) conducted a comprehensive inventory of degrowth policy proposals in *Chapter 8: Strategies for change.* Building on the work of Cosme et al. (2017), Parrique (2019: 844-850) expanded the list by incorporating proposals from the French degrowth party (2007–2019), the Finnish *kohtuusliike* (2019), as well as 27 policy agendas collated from 2007 to 2019 that originate from diverse contexts, including Australia, Finland, France, Germany, Spain, and the United Kingdom. This extensive compilation resulted in a total of 232 policy proposals, which were subdivided into 60 goals, 32 objectives, and 140 instruments across 19 themes. Overall, the exploration revealed significant gaps in the movement's preparedness for implementation. Despite identifying 232 policy proposals, the quality and coherence behind the proposals was largely absent. This underscores the recurring issues with degrowth proposals: they rarely distinguish between ends and means, they remain poorly articulated, and they are largely detached from specific contexts. In other words, the proposals lack a clear distinction between *policy ends* – what the policy is supposed to achieve (goals, objectives, targets) and *policy means* – how to achieve them (methods, instruments, calibrations) that make them difficult to articulate and even less likely to be operationalised. So, whilst the broad array of proposals may look impressive in quantity, their lack of structure and vagueness highlight the crucial need for precise policy development.

In response to these shortcomings, Parrique (2019: 666-699) proposed a methodology to study policy agendas that provides a more structured approach to degrowth policy proposals. To illustrate the method, he focuses on transforming key societal institutions with each theme containing a set of three policy bundles or goals: (1) money – monetary diversity, sovereign banking, and slow finance; (2) property – sharing possessions, democratic ownership of business, and stewardship of nature; and (3) work – work time reduction, decent work, and post-work. The method consisted of four steps. First, decompose policy bundles into a hierarchy of instruments. This identifies the numerous changes that need to happen to implement certain policies. For example, to cap wealth one may need to also change the constitution, establish a sovereign wealth fund, and prevent tax evasion. Second, each bundle is evaluated based on five criteria: timing, compatibility, popularity, stakeholders, and risks. The third step studies the individual and collective impacts of each. And finally, based on key

learnings from the previous steps, design ideas are proposed on how to articulate the interaction of multiple policies within a single, coherent agenda. Indeed, Parrique's method aimed to serve as a proof of concept which demonstrates that detailed and precise degrowth policy proposals are not only an optional but essential component of a degrowth strategy.

While these studies have significantly advanced our understanding of degrowth policies, they have limitations that necessitate further research. Let's start with Cosme et al. (2017). The first concern is the narrow selection of literature: English language academic articles published before 2014. This excludes non-English literature, grey literature, and the last decade of degrowth literature (~1000 texts). The second concern is the narrow definition of policymaking that is conflated with statecraft. This leads the authors to classify most policies as top-down even though a diversity of actors is involved. For example, the state has the exclusive right to change laws despite nature often being protected through bottom-up resistance of local communities (Temper at al., 2018). Third, the classification lacks a clear distinction between policy ends and means. For example, when Parrique (2019) reorganised the analysis of Cosme et al. (2017) there were 3 goals, 39 objectives, and 27 instruments. This links to the critique of Parrique (2019) who fails to specify which authors and publications are degrowth policy proposals mentioned. This makes it difficult to track who advocates for what, essentially promoting an elite approach to public policy whereby you can only participate if you have a seat at the table. Overall, the research on degrowth policy proposals leaves us with many proposals but little details on who advocates for which ones and how to implement them.

Finally, a key aspect that emerges from the degrowth literature is the distinction between two approaches to public policy. The first approach emphasises state and market mechanisms that attempt to address social and ecological issues using mainstream economic thinking. For example, carbon pricing, green growth strategies, and eco-efficiency improvements. However, critics argue that these approaches fail to address the drivers of ecological degradation and social inequality, namely capital accumulation, economic growth, and price-making markets (Spash, 2024). This is why after building a clear and detailed inventory of degrowth policy proposals, it makes sense to explore a closer alignment with the alternative approaches of social ecological economics that proposes a radical transformation of economic systems through rejecting orthodox mainstream economic thinking and advocating for in-kind social provisioning.

Power relations

Power, a highly contested concept in social sciences, is crucial for understanding how to achieve degrowth. Despite its importance, power analysis often remains implicit in the degrowth literature (notable exceptions include Paulson, 2017; Brand, 2018; Tyberg & Jung, 2021; Liegey & Nelson 2020: 86-115; Vastenaekels, 2023). Hence, this review employs Avelino's (2021) framework consisting of seven power contestations to explore the normativities and directionalities of social change of political theories like degrowth.

The distinction between power 'over' and power 'to' is key to social dynamics and governance. Whereas power 'over' characterises the ability to exert authority or influence over others, power 'to' focuses on the capacity of people to create and shape their own destinies.

Here some scholars introduce a third category – power 'with' – to emphasis when actions gain power through cooperation and learning (Partzsch, 2015). For degrowth, this raises questions about who exercises power over whom and how structures of oppression are produced, reproduced or dismantled. While degrowth begins with macro-level critiques of capitalism (Saito, 2022), colonialism (Hickel, 2021a) and patriarchy (Hanacek et al., 2020), the micro-level critiques of economics (Spash, 2020), organisations (Robra, 2021) and politics (Kish & Quilley, 2017) seldom follow. This results in conflicting advocacy for power over (Bärnthaler, 2024) and power with (Liegey & Nelson, 2020). However, reconciling power 'over' with degrowth's core values of autonomy, sufficiency, and care is challenging. Thus, I believe that the movement should engage in revolutionary struggle that negates rather than replaces power.

The difference between centred and diffused power lies in whether one believes centralised power can be benign or that it inherently corrupts. 'Elitists' argue that power is concentrated among a ruling elite (Mills, 1956), while 'pluralists' believe that power ought to be held by a broad set of actors (Dahl, 1968). This debate has led to theories of multiple forms of power that enable elites to set agendas (Bachrach & Baratz, 1962) and shape preferences (Lukes, 1974). When organising for degrowth, this involves investigating who enables or prevents change. To date, little research has been conducted on how elites hinder degrowth transformations, perhaps because the anti-capitalist critiques contesting the power of capitalists are so well-established. Nonetheless, it is crucial to question whether all centralisation is 'bad' or all decentralisation is 'good' (Mocca, 2020). This is because political strategies are context dependent as seen in the Zapatista movement's decentralisation or the confederation efforts of Burkina Faso, Mali, and Niger (see also, Piccardi & Barca, 2022).

The third contestation revolves around the nature of power interactions. Supporters of consensus view power as collective due to agreement on social norms, while more conflictual viewpoints regard power in distributive ways due to opposing interests (i.e., zero-sum). Foucault (1977) argues that power can pacify by shaping preferences, which blurs the boundaries between consensus and conflict. For degrowth strategy, it is important to investigate how consensus and conflict manifests in social change such as hidden conflicts within consensual processes (Stoddard et al., 2021) or the necessity of conflict to challenge oppression (Temper et al., 2018). This calls for the use of depth ontologies that recognise that reality is stratified like critical realism (Knudsen, 2023). Furthermore, questions arise about which forms of democracy and approaches to nonviolence are compatible with degrowth.

The fourth contestation addresses the agency-structure debate. Constraining power restricts autonomy, while enabling power promotes liberation. Yet debates persist on whether power lies mostly in structures (e.g., Foucault) or agents (e.g., Lukes), as well as if it should be seen as a continuum to keep (Haugaard, 2002) or a dualism to overcome (Giddens, 2002/1984). For degrowth, this involves determining the role of agency and structure in social change. This includes using coherent theories that connect theory and action instead of promoting eclecticism and relativism (Spash, 2024). More concretely, this involves translating theoretical critique into structural transformation whilst avoiding the simplistic view of structures as constraining or agency as enabling.

The fifth distinction refers to the scale and reach of influence (quantity) versus its depth and impact (quality). This distinction speaks to Arendt (1970: 44) who states that 'power

corresponds to the human ability not just to act but to act in concert', suggesting that collective action incorporating diversity and plurality are preconditions of power. However, these effects may reinforce or transform existing structures and institutions (Avelino, 2017). Here degrowthers must determine the most effective ways to create change. For example, if power cannot be neutral, change requires self and system transformation (Buch-Hansen & Nesterova, 2024). Likewise, if capital is seen as quantitative power, degrowth should oppose its accumulation (Nitzan & Bichler, 2009). Thus, the movement should focus on overcoming the quantitative power of markets, money, and the state with the qualitative power of abundance, mutual aid, and the commons. The next step would be to assess the strategic actors who help or hinder the realisation of these goals.

The sixth spectrum examines the personal effects of power. Empowerment enhances beliefs and capabilities for autonomy, while disempowerment reduces or removes them. These imbalances often result from structural injustices, systemic violence, and discrimination. Although defined in psychological terms, empowerment is often used to promote productivity and profits, which can reinforce existing power relations (Gandz & Bird, 1996). The strategic implications for the degrowth movement involve identifying who is disempowered or empowered by whom or what. For example, the effects of democratising economic and political systems from for-profit to not-for-profit or from representative to direct democracies. Given that those benefiting from capital accumulation will likely respond with force, degrowth should be seen as a revolutionary process that combats oppressor power through dialogical action, forming new realities based on a cultural revolution by the oppressed (Freire, 1970).

The final contestation examines whether knowledge and power are equivalent. Some argue that power equals knowledge because people who possess knowledge also wield authority (Bourdieu, 1989), while others believe power can exist independently of knowledge (Foucault, 1977). Nonetheless, both perspectives question whether knowledge or truth exist free of power. For degrowth, this involves examining different discourses, ideologies, and normativities underlying theories of social change. As degrowth gains popularity, it's crucial to reflect upon how power dynamics co-evolve with knowledge production, and unequal or equal distribution of such knowledge, to prevent degrowth from suffering the same fate as sustainable development (Trantas, 2021). One way to do this is by producing knowledge across disciplines with shared ontologies and epistemologies (Spash, 2012).

Navigating the nuances of power is challenging, but the degrowth movement would benefit from engaging with and taking positions in debates around power (Spash, 2024). Not only would this improve our understanding of power relations, but it would stimulate reflection on the preconditions, relations, and strategies needed to achieve degrowth.

Practicing degrowth

The concept of praxis has evolved from its roots in ancient Greek philosophy to become a cornerstone of social movements. Since then, praxis has been transformed into a revolutionary concept that denotes the commitment to reflection, theory, and action in the pursuit of social-ecological transformation. Building on the work of those mentioned in the previous subsection, *A praxis approach to degrowth*, I review the degrowth literature regarding praxis to

address the false dichotomy between theory and action, as well as to better understand the revolutionary potential of degrowth.

To understand the diversity of within the degrowth movement, it is first important to consider the study of Eversberg & Schmelzer (2018). Based on a survey conducted at the 2014 International Degrowth Conference in Germany (n = 814), results reveal the presence of shared positions of consensus and broad categories of division. The authors identified five clusters: sufficiency-oriented critics of modernity (22%), techno-optimist reformists (19%), voluntarist-pacifist liberals (23%), modernist redistribution leftists (13%), and a praxis-oriented leftists (22%). Interestingly, the study uncovered some apparent contradictions in the overall positions with 69 per cent supporting long-haul flying for pleasure, 66 per cent being pro-technology, 54 per cent being against sufficiency lifestyles, 68 per cent preferencing social inequity over environmental issues, and 75 per cent preferencing individual agency over structural change. Perhaps this is why the authors regard the praxis-oriented left cluster as coming the closest to degrowth praxis because they link theory and action through experimenting with alternative modes of living.

Further insight into this diversity comes from the survey of Windegger & Spash (2023) who surveyed selected attendees at the 2018 International Degrowth Conference in Sweden (n = 149). Their research compared two conceptualisations of freedom: the hegemonic neoliberal theory of freedom (i.e., individualistic, market-based, negative) with a radical alternative based on Cornelius Castoriadis' notion of individual and social autonomy, with results indicating that most respondents align with Castoriadis (1991) theory of freedom that promotes autonomy, critical reflection, and collective action. However, the presence of several contradictions compatible with a neoliberal theory of freedom suggests further consciousness raising is needed to transform society. This highlights the need for explicit engagement within the degrowth movement on concepts like freedom or power that promotes praxis and counters co-optation.

Moving beyond survey-based research, Brossman & Islar (2020) investigated how degrowth practices are embodied and enacted through performative methods and practice theory. The findings of which identified five interrelated practices of 'living degrowth': (1) rethinking society, (2) acting politically, (3) creating alternatives, (4) fostering connections, and (5) unveiling the self. This performative approach offers valuable insights into the lived experiences and social dimensions of the degrowth movement, highlighting how advocates aim to transform current problems into imagined futures (for further examples, see Sekulova et al., 2013; Paulson, 2017; Nelson & Schneider, 2019; Barlow et al., 2022: 198-392; Nelson & Edwards, 2022).

Meissner (2021) explores the role of cultural politics in advancing degrowth futures by arguing for an expanded notion of cultural politics beyond prefiguration to include popularisation and pressure. This approach aligns with a praxis-oriented perspective on degrowth, emphasising the need for active and strategic processes of producing politics. Meissner suggests that people in the degrowth movement should not only practice future degrowth societies in the present (prefiguration) but also mobilise popular cultural practices and form strategic alliances with like-minded movements (popularisation), as well as instil

cultural forms of resistance through direct action campaigns that can not only build alternatives but resist the capitalist growth hegemony (pressure).

On a more personal level, Buch-Hansen & Nesterova (2023) argue that achieving degrowth will involve deep transformations across four interrelated planes of social being: material transactions with nature, social interactions between persons, social structure, and people's inner being. Building on their framework in a subsequent publication, the authors argue that the social changes degrowth advocates call for can only take place if we are in harmony with ourselves, other beings, and nature (Buch-Hansen & Nesterova, 2024). This perspective implies a simultaneous need for self and system transformation as deep-seated ecological views and values are more likely to be maintained by people who can balance low material use with a deep passion for life (Næss, 1995). Indeed, Nesterova's (2024) autoethnographic work and blog (https://beingofdeeptransformations.blogspot.com/) showcases an intimate perspective on the lived experience of degrowth praxis through practicing extreme minimalism and zero waste.

In the *De Gruyter Handbook for Degrowth,* Teixeira & Koşanay (2024) discuss the integration of theory and praxis for a revolutionary degrowth. They argue that the Global South is uniquely positioned to lead a revolutionary transformation through and towards degrowth due to their experiences with (neo)colonialism and oppression. The authors re-examine Global South struggles for self-defined and self-generated development through world-systems and dependency theory before employing Paulo Freire's critical pedagogy framework to illustrate Global South pathways to a degrowth transformation. Central to their argument is the positionality of the Global South as the oppressed who can liberate both themselves and their oppressor, the Global North, from entrenched patterns of colonialism and domination. From this perspective, the degrowth movement is more likely to create a theoretically robust and practically transformative approach to social-ecological transformation that addresses historical injustices and fosters equitable futures. By advocating for solidarity between the Global North and South, degrowth praxis becomes more socially inclusive and globally relevant.

In conclusion, the literature on degrowth and praxis reveals a dynamic and multi-faceted movement that seeks to unite reflection, theory, and action for social-ecological transformation. While some highlight the challenges and contradictions within the movement that emphasise the need for continued consciousness-raising and dialogue, others call for more engagement with popular culture and alliance building. Nonetheless, there is a common understanding of the need for holistic perspectives that realise the interconnectedness of self and system transformations. Looking forward, there remains a gap in understanding how academics and activists conceptualise degrowth and how these views influence the development of degrowth strategy. Thus, future research could investigate the diversity of degrowth authors' and activists' conceptualisations, their strategic implications, and the support for a variety of direct action tactics. As the movement looks to address integration issues and internal contradictions, such research could refine our understandings of degrowth praxis.

Sustainability transitions

Emerging in the 1990s, sustainability transitions research aims to anticipate and adapt transitions to accelerate sustainable development by implementing 'large-scale societal changes, deemed necessary to solve grand societal challenges' (Loorbach et al., 2017: 600). However, this approach mimics systems of meaning found in neoclassical economics and capitalist economies. A framing that degrowth opposes because sustainability transitions research constructs and commodifies nature, presents economics as objective, and views governance as coordination and control.

The intellectual roots of sustainability transitions can be traced back to fields like science and technology studies, evolutionary economics, social constructivism, and neo-institutional theory (Markard et al., 2012; Loorbach et al., 2017; Geels, 2020). Together these fields constitute a specific worldview that mimics taken-for-granted systems of meaning found in neoclassical economics and capitalist economies. Whereas the intellectual roots of degrowth emerged as a critique in opposition to sustainable development that draws on fields like social ecological economics (Spash, 2017), political ecology (D'Alisa et al., 2014), and post-development (Kothari et al., 2019). It also incorporates ideas from various social movements, including anti-consumerism, anti-capitalism, and environmentalism (Martínez-Alier et al., 2010). This divergence in intellectual foundations results in fundamentally different approaches for how we analyse and actualise economics, social change, and sustainability.

The analytical division between sustainability transitions and degrowth begins with problem framing. While sustainability transitions aim to anticipate and accelerate the implementation of sustainable development (Geels et al., 2023), degrowth highlights the incompatibility of capital accumulation and environmental justice (Martínez-Alier, 2003). These framings contrast in the acceptance (sustainability transitions) or rejection (degrowth) of a mainstream understanding of sustainable development (Feola, 2019). Sustainability transitions ignore that the only way to achieve the 1987 Brundtland definition of sustainable development – development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs – would be for the rich minority to end their imperial mode of living, thus adopting 'sustainable degrowth'.

Philosophical foundations further divide these approaches. Sustainability transition scholars generally subscribe to social constructivism, which views all knowledge as socially constructed. In contrast, social ecological economics, which underpins my approach to degrowth, favours critical realism because it posits an objective biophysical reality independent of subjective human interpretation (Spash, 2012). This ontological framing has significant implications for how each approach conceptualises nature, global warming, and potential solutions (Malm, 2018: 15-28). Whereas sustainability transition scholars jettison the actuality of nature and place their divine faith into technological innovations like markets, machines, and money, degrowth adopts a realist approach to the natural and social world that accepts the transformative potential of human agency.

The economics of sustainability transitions is grounded in evolutionary economics (van den Bergh et al., 2011; Nelson & Winter, 1982; Magnusson, 2007), which can be traced back to advocates of economic liberalism. This foundation is based on strong support for a market economy and private property in the means of production that give rise to technocratic

and reformist governance styles (Geels et al., 2015), which effectively reduce democracy to a competitive mechanism for elite rule. Concepts like network governance (Rhodes, 1996) and social innovation ecosystems (Pel et al., 2019) in sustainability transitions literature reflect this underlying assumption of economics as obvious and objective, justifying neoclassical theories.

Governance approaches also differ significantly. While sustainability transitions seek to expand existing governance structures through participatory decision-making (Johnstone & Newell, 2018; Galego et al., 2021), degrowth aims to abolish systems of domination and hierarchy altogether. Degrowth objectives include decentralizing decision-making power, promoting local democratic ownership of resources, reclaiming commons, dismantling hierarchies, and abolishing the military-industrial complex (Liegey & Nelson, 2020). The goal is not merely for people to take part but for people to take over.

These two divergent approaches influence perceptions of politics, power, and practice. Whereas sustainability transitions studies emphasise neo-institutional theory that advocates for technological innovation and elite politics because it views agents as external to structures (Geels, 2020), degrowth maintains the structure-agency dialectic that allows it to focus on radical ecological democracy that favour cultural revolutions and direct democracy (Asara et al., 2013). Consequently, while sustainability transitions depict the policy process as fertile (Kern & Rogger, 2018), social ecological economics perceive it as futile (Spash, 2023). In conclusion, the analytical frameworks of sustainability transitions and degrowth are fundamentally at odds (Table 1.2). Whilst sustainability transitions advocates for green growth, technological fixes, and incremental policies, degrowth calls for restructuring our economic systems, reimagining our societal values, and a fundamental shift in power dynamics. Rather than attempting to reconcile these divergent perspectives, it may be more meaningful to view degrowth as a necessary replacement of sustainability transitions.

Table 1.2 Summary of the analytical division between sustainability transitions and degrowth.

	Sustainability transitions	**Degrowth**
Definition	'large-scale disruptive changes in societal systems that emerge over a long period of decades' (Loorbach et al., 2019: 1)	'a downscaling of production and consumption to reduce ecological footprints, planned democratically in a way that is equitable while securing wellbeing' (Parrique, 2024: 1)
Aim	Anticipate and accelerate sustainable development	Analyse and actualise alternatives for collective liberation
Ethics	Utilitarianism	Anti-utilitarianism
Economics	Evolutionary economics	Social ecological economics
Governance	Paternalistic (e.g., Weberian)	Self-governance (e.g., direct)
Unit of analysis	'Meso'-level of socio-technical systems (Köhler et al., 2019)	'Micro' and 'macro'-level of social-ecological systems (Kallis et al., 2018)
Theory of social change	Technological advancement; elite actors; entrepreneurs	Social movements; mass politics; global coalition of the oppressed

Research gaps

Overall, this thesis targets three research gaps in the degrowth literature:

1. Weak policy recommendations

While existing studies have identified numerous degrowth policy proposals (Cosme et al., 2017; Parrique, 2019), there is a lack of detailed analysis of their status, features, and alignment with public policy design and sustainability transition strategies. This calls for a systematic evaluation of degrowth policy proposals that assesses their precision, frequency, quality, and diversity, while examining how they fit broader transition strategies. Additionally, existing research fails to adequately distinguish between proposals that adhere to mainstream economic thinking (e.g., carbon tax) and more transformative proposals rooted in social ecological economics (e.g., universal basic services). This gap necessitates an exploration of the relationship between policy proposals and social change, especially regarding state and market mechanisms.

2. Implicit power analysis

Despite the growing body of literature on degrowth strategy (Alexander & Rutherford, 2014; Paulson, 2017; Parrique, 2019: 468-699; Liegey & Nelson 2020: 86-115; Barlow et al., 2022; Schmelzer et al., 2022: 251-284), there is a lack of explicit analysis on the social theories and political ideologies underpinning the movement. This gap includes insufficient exploration of the effectiveness of different strategies for building a mass movement for degrowth. Moreover, there is a need to critically examine taken-for-granted notions like the state (Koch, 2022) and markets (Nelson, 2022). One potential avenue here is to examine how the principle of 'unity of means and ends' would affect degrowth strategy. Another is to assess alternative frameworks that promote praxis through combining reflection, theory, and action.

3. Translating theory into praxis

While the theoretical foundations of degrowth are becoming well-established (D'Alisa et al., 2014; Kallis et al., 2018; Parrique, 2019; Spash, 2024), there is a gap in understanding how academics and activists conceptualise degrowth, and how these conceptualisations influence strategic orientations and tactical preferences (Cattaneo et al., 2012; Eversberg & Schmelzer, 2018). More research is needed to investigate the diversity of degrowth conceptualisations and the strategic implications of different understandings of social change within the movement. Additionally, there is a lack of systematic analysis of the direct-action tactics supported by degrowth advocates and how these align with different conceptualizations and strategies. This research gap highlights the need to better understand degrowth praxis and to address the false dichotomy between theory and action.

2

PAPERS

In Part II, I present the five papers that make up my thesis. What follows in Part III is a discussion of the contributions and implications of this research on the degrowth movement.

The five papers in this section are:

2.1 Fitzpatrick, N., Parrique, T., & Cosme, I. (2022). Exploring degrowth policy proposals: A systematic mapping with thematic synthesis. *Journal of Cleaner Production, 365,* 132764. https://doi.org/10.1016/j.jclepro.2022.132764

2.2 Fitzpatrick, N. (2024). Translating degrowth: From proposals to practice. In: Eastwood, L, Heron, K., (Eds.) *De Gruyter Handbook for Degrowth*. 129-147. https://doi.org/10.1515/9783110778359-011

2.3 Fitzpatrick, N. Examining degrowth social theories: A review and proposal. *Resubmitting to Human Geography.*

2.4 Fitzpatrick, N. (2024). Uniting the means and ends of degrowth transformation. In: Weik, E, Land, C., Hartz, R., (Eds.) *De Gruyter Handbook of Organizing Economic, Ecological, and Societal Transformation*. 189-208. https://doi.org/10.1515/9783110986945-010

2.5 Fitzpatrick, N., Eversberg, D., & Schmelzer, M. Understanding the degrowth movement: A survey of conceptualisations, strategies, and tactics. *Submitted to Energy Research & Social Science*.

2.1 Exploring degrowth policy proposals: A systematic mapping with thematic synthesis

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Abstract

Degrowth – the planned and democratic reduction of production and consumption as a solution to the social-ecological crises – is slowly making its way to the sphere of policymaking. But there is a problem: proposals are scattered through a voluminous literature, making it difficult for decision-makers to pinpoint the concrete changes associated with the idea of degrowth. To address this issue, we conducted a systematic mapping of the degrowth literature from 2005 to 2020 using the RepOrting standards for Systematic Evidence Syntheses (ROSES) methodology. Out of a total of 1166 texts (articles, books, book chapters, and student theses) referring to degrowth, we identified 446 that include specific policy proposals. This systematic counting of policies led to a grand total of 530 proposals (50 goals, 100 objectives, 380 instruments), which makes it the most exhaustive degrowth policy agenda ever presented. To render this toolbox more accessible, we divided it into in 13 policy themes – food, culture and education, energy and environment, governance and geopolitics, indicators, inequality, finance, production and consumption, science and technology, tourism, trade, urban planning, and work – systematically making the difference between goals, objectives, and instruments. Following this, we assess the precision, frequency, quality, and diversity of this agenda, reflecting on how the degrowth policy toolbox has been evolving until today.

Keywords: degrowth, post-growth, policies, policymaking, transition, proposals

Fitzpatrick, N., Parrique, T., & Cosme, I., (2022). Exploring degrowth policy proposals: A systematic mapping with thematic synthesis. *Journal of Cleaner Production, 365*, 132764. https://doi.org/10.1016/j.jclepro.2022.132764

1. Introduction

Degrowth speaks to the primary contradictions of our time: ecological overshoot, social shortfall, capital accumulation. Currently, proposed solutions to addressing these issues are diverse, but often remain packaged within the dominant narrative of correcting market failures as opposed to dismantling systemic failures (Spash, 2020, 2021). This comes despite the latest evidence suggesting that a rapid, global, and absolute decoupling of environmental impact from economic growth is highly unlikely, if not biophysically impossible (Haberl et al., 2020; Wiedenhofer et al., 2020). Undoubtedly, it is the paralysing fear of disrupting the status quo, through reparations, redistribution and reduction, that has turned economic growth into the undisputed high-level goal of policymaking. A goal that has been challenged by a myriad of alternative theories, practices, and worldviews (Burkhart et al., 2020). One such perspective is the concept of degrowth, which has been on the rise since the early 2000s (for a review of the literature, see Kallis et al., 2018).

Building upon growth criticisms dating back to the 1970s (for a history of the economic growth paradigm, see Schmelzer, 2016), degrowth has grown increasingly complex, adding novel denotations to its original environmental core. The more multi-faceted degrowth became, so too did its policy proposals, often making it difficult to understand the 'how' of degrowth. So, whilst there are many policy proposals scattered throughout the literature, this makes it difficult to assess what degrowth looks like in a single, coherent agenda. This article proposes such an agenda by reviewing the degrowth literature in its entirety.

Degrowth is a multi-layered concept (D'Alisa et al., 2014). It combines critiques of capitalism (Feola, 2019), colonialism (Hickel, 2021a), patriarchy (Hanaček et al., 2020), productivism (Kallis, 2019), and utilitarianism (Romano, 2019), whilst envisioning more caring (Dengler & Lang, 2022), just (Muraca, 2012), convivial (Vetter, 2018), happy (Fanning et al., 2021), and democratic societies (Brand et al., 2021). Capturing the essence of degrowth is difficult because it carries at least three denotations (Parrique, 2019: 171–234): (1) degrowth as decline of environmental pressures; (2) degrowth as emancipation from certain ideologies deemed undesirable, like extractivism, neoliberalism, and consumerism; and (3) degrowth as a utopian destination, a society grounded in autonomy, sufficiency, and care.

Complex problems require complex solutions, as evidenced by the growing diversity of policies one finds in the degrowth literature. Until today, that pile of proposals has only been analysed twice. The first inventory was conducted by Cosme et al. (2017) who critically reviewed 128 academic articles in English published between 2007 and 2014. The study outlined three broad policy goals for degrowth: (1) reduce the environmental impact of human activities; (2) redistribute income and wealth within and between countries; and (3) promote the transition from a materialistic to a convivial, participatory society. Findings revealed that three-quarters of proposals were top-down public policies with a national focus. Additionally, the authors showed that degrowth proposals paid more attention to social equity than ecological sustainability, often lacked detail, and neglected certain issues like the implications of degrowth for the Global South, questions concerning demography, and the role of the state in sustainability transitions.

The second inventory was conducted by Parrique (2019: 844–850) in his PhD dissertation, *The political economy of degrowth*. In *Chapter 8: Strategies for change*, he expanded

the list of policies from Cosme et al. (2017) by adding proposals from the French degrowth party (2007–2019), the Finnish kohtuusliike manifesto, as well as 27 policy agendas from individual authors (the full list is available in Supplementary 6[5]). This led to a grand total of 232 policy proposals (further subdivided into 60 goals, 32 objectives, and 140 instruments), which the author split into nineteen themes.

Whilst both studies have been crucial to advancing the how of degrowth, they are limited in a few ways. Cosme et al. (2017) suffers from three major drawbacks. The first is the narrow selection of the literature: peer-reviewed articles in English published before 2014. This deliberately excludes sources like book chapters, student theses, and books where writers are afforded more space to outline policy proposals. It also means the list has become outdated as degrowth literature has grown over five-fold, from ~220 texts in 2014 to 1166 by the end of 2020. The second is the narrow definition of policymaking. The authors conflate policymaking with statecraft, which led them to categorise certain proposals as top-down. The problem is that, in reality, these processes involve a diversity of actors. For example, resource sanctuaries often stem from the direct action of local communities before being shrined in national law (Thiri et al., 2022). Finally, the list skips from three overarching goals to instruments without identifying objectives in between.

In Appendix 5 of his PhD thesis, Parrique (2019: 844-50) provides an extensive inventory of degrowth policies, but they are not linked to the specific articles where they are mentioned. This makes it difficult for readers to find further information about specific proposals. For example, within the 'environment' theme of the list, it is impossible to tell which authors advocate for a 'declining cap on resource use' and what exactly do they mean by that. As precious as they are, these two studies leave us here: degrowth has many ingredients, but it is difficult to see them all at once and to understand them in detail. Hence, the objective of this paper is to build a clear and detailed inventory of degrowth proposals that answers the following two research questions: (1) what is the current status of degrowth policy proposals? and (2) how do their key features fit the context of public policy design and transition strategies?

2. Methodology

This study conducts a systematic mapping and thematic synthesis of the degrowth literature for policy proposals. It employs the RepOrting standards for Systematic Evidence Syntheses (ROSES) methodology[6] to analyse policy proposals brought forward by the degrowth community. Originally designed for the fields of conservation and environmental management (Haddaway et al., 2018; Haddaway and Macura, 2018), this method was chosen because it allows for contextual adaptation to transdisciplinary contexts. However, its use remained in accordance with Collaboration for Environmental Evidence (CEE) guidelines for

[5] The Supplementary material for **Paper I** is available under the title *Appendix A: Supplementary data* using this open access link - https://doi.org/10.1016/j.jclepro.2022.132764

[6] Adjustments were communicated and discussed with one of the main authors of the framework, Neal Haddaway. For more information check: https://www.roses-reporting.com/

systematic reviews (CEE, 2018) and best practice for thematic synthesis (Thomas & Harden, 2008). The systematic map and thematic synthesis unfolded in five steps.

2.1. Searching

First, we searched four database collections (Scopus, Web of Science, Directory of Open Access Journals, Open Access Theses and Dissertations) for sixteen translations[7] of the word 'degrowth' between a period ranging from 2005 to 2020 (see Table 2.1). Whilst grey literature is often excluded from systematic reviews (Haddaway et al., 2020), we chose to include sources from books, book chapters, and student theses to ensure all policy proposals were reflected in the list.

Table 2.1 Bibliographic databases searched within the systematic review.

Bibliographic database	Search date	Search string	Results
Scopus	6/11/2020	'degrowth' OR 'de-growth' OR 'decroissance' OR 'decrecimiento' OR 'decrescimento' OR 'decrescita' OR 'avväxt' OR 'nerväxt' OR 'modvækst' OR 'postwzrost' OR 'nerůst' OR 'nedvekst' OR 'αποανάπτυξη' OR 'postwachstum' OR 'ontgroei' OR '退增ðOR '去增ð,	n = 825
Web of Science	6/11/2020		n = 672
Directory of Open Access Journals	6/11/2020		n = 314
Open Access Theses and Dissertations	6/11/2020	'degrowth' OR 'de-growth' OR 'decroissance' **Note:** OATD database only allows searches with 3 variables.	n = 81

2.2. Retrieving

The lead author attempted to retrieve full text versions of all articles using institutional subscriptions from NOVA University Lisbon, Portugal. Additionally, email requests were sent to book authors requesting digital copies. A list of unavailable texts is provided in Supplementary 3[8].

[7] Translations included degrowth (English), de-growth (English), décroissance (French), decrecimiento (Spanish), decrescimento (Portuguese), decrescita (Italian), avväxt (Swedish), nerväxt (Swedish), modvækst (Danish), postwzrost (Polish), nerůst (Czech), αποανάπτυξη (Greek), postwachstum (German), ontgroei (Dutch), 退增长 (Chinese) and 去增长 (Chinese).

[8] The Supplementary material for **Paper I** is available under the title *Appendix A: Supplementary data* using this open access link - https://doi.org/10.1016/j.jclepro.2022.132764

2.3. Screening

Screening was carried out in two steps. First, the title, abstract, and keywords were screened alongside a guiding question: Does this study focus on degrowth in the context of ecological sustainability and social equity? We asked this question to ensure that we did not include papers using the term 'degrowth' in another meaning that the one we study here. Texts without abstracts (i.e., books, book chapters, and theses) were scanned for specific proposals before being read in full. To ensure consistent screening, two reviewers (NF, IC) conducted, in parallel, a preliminary review of a subset of 20 per cent of the studies. Once the screening method was set, the lead author reviewed all retrieved texts. Secondly, a full-text screening was completed by the lead author. The process was directed by the original guiding question, plus asking whether the study had outlined any specific degrowth policy proposals, which we understood as 'a course or principle of action adopted or proposed by an organisation or individual aiming to achieve the objectives of degrowth' (Parrique, 2019: 485). At each stage of screening, non-English texts were translated with online document translators. The full list of exclusions and inclusions can be found in Supplementary 3 and Supplementary 4.

2.4. Coding

Once the list of texts containing degrowth policy proposals was compiled, coding was done using QSR International's NVivo 12 qualitative data analysis software (QSR International Pty Ltd, 2021). This involved highlighting blocks of text that contained policy proposals (e. g., work time reduction or maximum wage). The selected texts from the second screen were re-read during the coding phase by the lead author. Additional consistency guidance was provided by a list of policy keywords (Supplementary 2) and themes (Parrique, 2019: 844–850). It must be noted that the richness of coding varied greatly depending on article articulation of policy proposals, ranging from simply naming a policy without any further details (i.e., policy dropping) to detailed policy design.

2.5. Synthesising

In the last step, texts were summarised using a qualitative thematic synthesis employed by Thomas and Harden (2008). This involved identifying key messages and themes within individual studies and connecting them to explain the topic as a whole (Haddaway et al., 2018). In this study, we used Howlett's (2019) differentiation between the policy ends – what the policy is supposed to achieve (goals, objectives, targets) and policy means – how to achieve them (method, instruments, calibration) as a guideline to construct the inventory. Following coding, the list of policy proposals was transferred to a spreadsheet for thematic synthesis. This involved identifying policy themes in an iterative way by grouping policy proposals based on their policy ends (goals, objectives, targets) and policy means (method, instruments, calibration). Policy proposals were rearranged alongside their accompanying references to increase transparency and promote dialogue for those interested in degrowth. The iteration process was instrumental in allowing us to provide an accessible overview of the entire degrowth agenda that still acknowledged the diversity and plurality of values and visions. A list of the final tables of key attributes, themes, and a summary of the full list of the degrowth policy proposals can be found in Supplementary 5 and Appendix A.

3. Findings

This section presents the main findings of the systematic map and thematic synthesis before a subsequent discussion on their implications for degrowth strategies.

3.1. Review process

A total of 1892 results were identified across the 4 databases searched, returning 1166 texts. The search for grey literature returned 40 book chapters, 26 books (18 from beyond the bibliographic databases), and 79 student theses (Figure 2.1). The first screening excluded 353 texts (30% of the sample) because they did not engage with degrowth in their title, abstract, or keywords. The second full-text screening narrowed the inclusion list to 446, excluding a further 370 entries due to articles either not being accessible (7% of the sample), not discussing degrowth (8% of the sample), or being devoid of policy proposals (34% of the sample) - these lists are available in Supplementary 3.

The oldest publication is from 2005, with the number of texts outlining policy proposals more or less following the growing trends of the overall degrowth literature, peaking at 80 texts in 2019 (~60% of all degrowth articles published that year). Not only is degrowth becoming increasingly popular in academic research, but policy proposals are also becoming increasingly popular within the degrowth literature (Figure 2.2). Despite the search containing 16 translations, only 10 languages were included in the final selection with English accounting for 90 per cent of all texts (4% Spanish, 2% French and 2% Portuguese; with the final 2% including Czech, Finnish, German, Italian, Polish and Slovenian). This appeared to be a result of authors writing introductory articles about degrowth in various languages as opposed to focusing on degrowth policy proposals as such.

Globally speaking, 77 per cent of the articles originate from Europe (62% from the EU-27), 13 per cent North America, 5 per cent Oceania, 2 per cent South America, 2 per cent Asia, and 0.4 per cent Africa. The top five countries producing research on degrowth policy proposals, reflected by the affiliation of the lead author[9] are Spain (74 articles), United Kingdom (52), Germany (45), United States of America (41), and France (28). Degrowth texts can be found in 173 different outlets, with the top five being Journal of Cleaner Production (14%), Ecological Economics (10%), Sustainability (8%), Journal of Political Ecology (4%), and Futures (4%). Overall, 56 per cent (251) of texts were published by single authors.

[9] If the lead author had two different countries of affiliation (e.g. USA and Colombia) or if the article explicitly states that co-authors equally contributed to the article, one would be counted to each (e.g. 1 = USA +1 = Colombia).

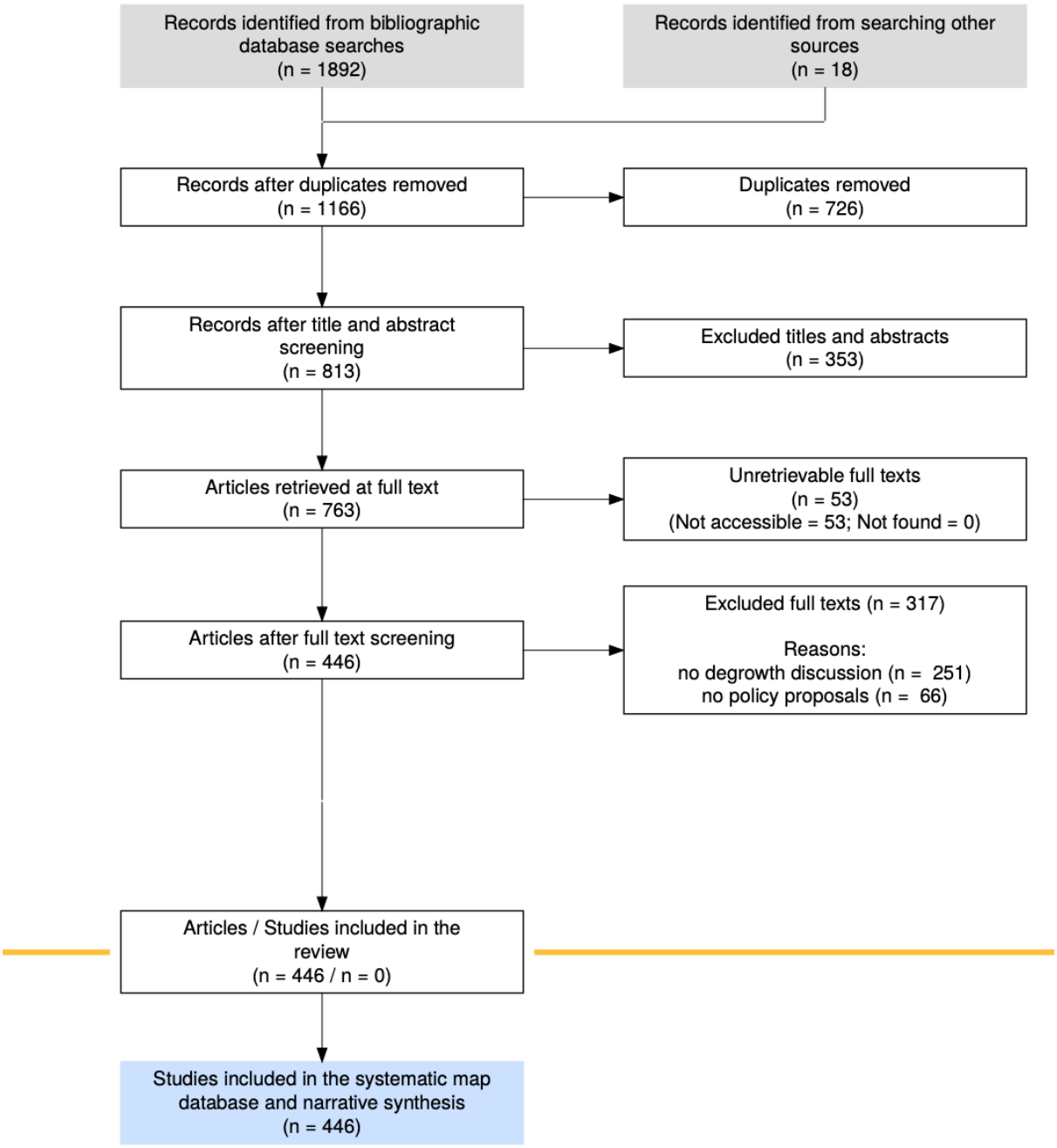

Figure 2.1 Flow diagram showing procedures and results at each stage of the review.

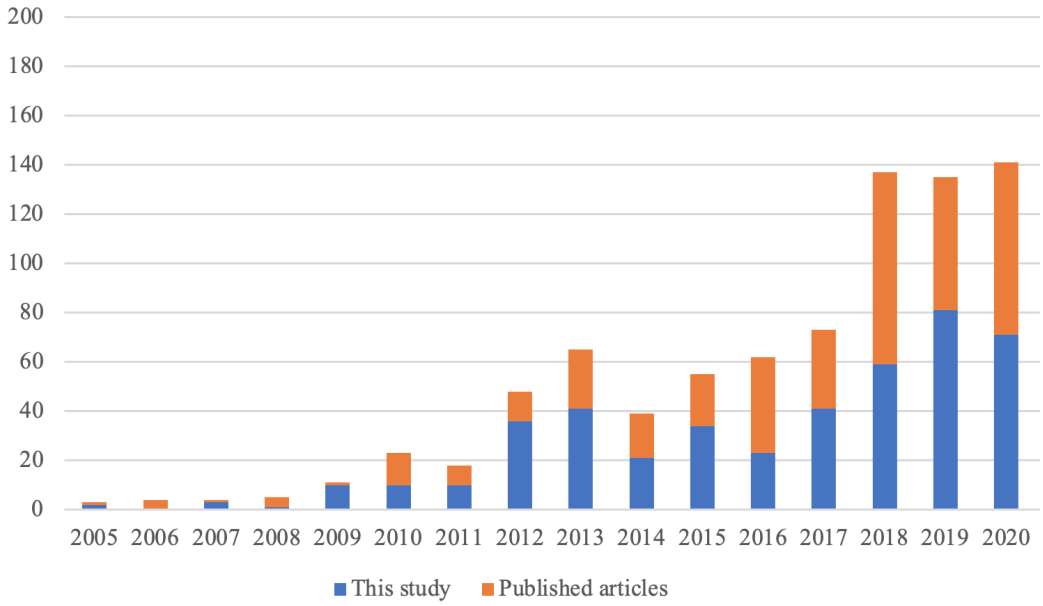

Figure 2.2 Number of publications per year on degrowth and policy proposals.

3.2. Thematic coding

We grouped policy proposals into a number of themes, before further dividing them into policy ends (goal, objective, target) and policy means (methods, instruments, calibration). After coding the articles, we added themes (e.g. urban planning) and merged others (e.g. energy and environment) to simplify the inventory. The final mapping contains 13 themes – food, education and culture, energy and environment, geopolitics and governance, indicators, inequality, finance, production and consumption, science and technology, trade, tourism, urban planning, and work (see Figure 2.3 and Supplementary 5). The overall degrowth agenda can be decomposed into 50 goals, 100 objectives, and 340 instruments (Appendix A). The policy objectives under each goal are displayed in descending order by citations in the literature. Overall, the ten most frequently mentioned objectives are: 1) reduce time in paid waged labour; 2) redistribute income, wealth, labour, land, knowledge, care work, infrastructure, resources and time within and between countries; 3) guarantee the decommodified and universal provision of fundamental human needs; 4) decentralising decision-making; 5) promote shared housing; 6) support non-speculative exchange systems like local currencies and credit networks; 7) prioritise small, highly self-sufficient communities; 8) create a culture of sufficiency and self-limitation; 9) relocalise activities; and 10) defend and reclaim the commons.

3.3. Thematic synthesis

Whilst identifying policy themes, goals and objectives is a useful first step, it is crucial to make the degrowth agenda concrete. Therefore, this subsection describes each theme with illustrated examples in alphabetical order.

3.3.1. Cultural education

This theme can be split into six categories. (1) Transform education systems advocate for an emancipatory understanding of education, whereby increased spaces for critical pedagogy lead to pluralistic perspectives and curricula (e.g. eco-spirituality, indigenous knowledge, pluralist economics). (2) Cultures of sufficiency and self-limitation refers to the conscious choice of simplifying unsustainable lifestyles by minimising material possessions and biophysical footprints. The agenda also calls for (3) more relational goods in the form of friendship, local culture, love, and trust and for (4) restoring indigenous and local knowledge systems, by which we mean giving equal status to a diversity of worldviews. (5) Developing an ecological class consciousness means framing environmental violence as a form of class, gender, and racial domination, while shifting towards (6) ecocentric worldviews that promote a shift in our value systems, abandoning the idea that humans are a separate and superior entity from nonhumans and nature.

3.3.2. Energy and environment

Degrowth aspires to ecological sustainability in at least six different ways. The most important is (1) reducing environmental pressures, which could be done by the means of declining caps on resource use, emissions and pollution; ecological tax reforms (e.g. extraction and carbon tax); moratoria on resource extraction and big infrastructure such as energy plants, dams, incinerators, roads, highways, high-speed trains or airports; and banning certain chemicals. A crucial pressure to reduce is (2) energy consumption, which demands both eco-sufficiency and eco-efficiency changes like taxing industrial energy consumption and retrofitting buildings. Degrowth texts call for (3) eliminating fossil fuels and (4) stopping nuclear energy, starting with abolishing the subsidies they receive from governments. Instead, the goal is an (5) energy democracy made of convivial, community-owned and operated renewable energy systems. To (6) restore and preserve biodiversity, degrowth wants to create resource sanctuaries and give constitutional rights to nature. Further considerations to have a (7) stable demography are outlined with proposals like the empowerment of women to control their reproductive rights and the opposition of pro-natalist policies. These goals must all work towards (8) decolonizing environmental justice, acknowledging that ecological sustainability is often framed within a class-, gender-, and culturally-specific lens that silences many other visions of justice.

3.3.3. Finance

Finance can be split into two goals: one focusing on neutralising predatory, profit-seeking activities and the other promoting alternative financial institutions and practices that fit the broader narrative of cooperative, not-for-profit, post-growth economies. The first is (1) financial democracy which aims at a more horizontal governance of the banking and monetary system. This requires shifting decision-making power from corporate managers and shareholders to workers and local communities. Examples include separating traditional banks from investment banks (full reserve banking), nationalising monetary creation (sovereign money), taxing financial transactions, closing tax havens, and dismantling banking/financial institutions into smaller, local, and more democratic entities. The second

promotes (2) ethical and non-speculative finance, activities like local and regional currencies, time banks, reciprocity networks and trading systems, self-managed credit unions, cooperative banks, public debt-free money, divestment, and corresponding ethical investments.

3.3.4. Food

We have organised policy discussions on food around three overarching goals. (1) Sustainable farming involves reducing the environmental impacts associated with food, and more fundamentally (re)connecting to the land. This can take the form of promoting non-mechanised, subsistence organic farming, peasant agroecology, small farms and permaculture. Examples include turning sidewalks, backyards, unused land and roads into gardens and food forests, composting to rebuild soil fertility, giving up fertilisers, herbicides, and pesticides, and promoting small local food shops and coops. (2) Food sovereignty posits that food is political and communities should be able to shape their own food systems. This includes preventing the private appropriation of seeds by protecting seed commons, redistributing land to small farmers, and developing networks and cooperatives to guarantee the equitable distribution of food. (3) Sustainable diets concern the kind of food we eat and the culture that surrounds it. Embracing ideas close to the Slow Food movement, degrowth advocates propose to reduce meat and dairy consumption; eat local, seasonal food; transition to plant-based diets; end food waste and provide consumer education in the form of farm visits, literature, and practical courses.

3.3.5. Governance and geopolitics

The degrowth agenda seeks to deepen democracy through six key goals. The most fundamental is the emergence of (1) radical ecological democracy where everyone has the right and opportunity to participate in decision-making, and where these decisions are grounded in ecological reality. For example, through deliberative forums where citizens gather to discuss acceptable levels of inequality or maximum thresholds of need satisfaction, self-managed workplaces, participatory budgeting (e.g. local communities like Brazil's Porto Alegre who collectively decide how to allocate their yearly budget), local direct democracy (i.e. citizens are directly responsible for making policy decisions), and voluntary committees to organise activities. Such methods need to be coupled with the (2) defence and reclaiming of the commons via the local, democratic ownership of essential infrastructure such as banking, energy, education, healthcare, local government, telecommunications, transport, waste, and water. Other proposals stress the need to simultaneously (3) dismantle hierarchies, (4) regulate lobbying, and (5) reform international organisations that undermine democracy. Examples include cap/banning political donations, banning fossil fuel lobbyists from climate negotiations, closing the revolving door between politics and business, balancing the power of Finance ministries, and democratising international organisations like the World Trade Organisation, International Monetary Fund, and World Bank. Finally, (6) end the military-industrial complex focuses on significant reductions of military activities, which are often framed as a hindrance to global justice.

3.3.6. Indicators

This theme is short and simple: (1) abandon GDP as a measure of social progress and replace it with a dashboard of indicators of social ecological health. If GDP is dominant in governance today, degrowth seeks to balance the importance given to economic indicators (e.g. GDP, profits, income, purchasing power) in comparison to social (e.g., happiness, health, inequality, political participation, leisure time) and ecological indicators (e.g. ecological and material footprint, biodiversity loss, global warming, deforestation, pollution). Examples of alternative indicators include the Genuine Progress Indicator (5 indicators), Gross National Happiness from Bhutan (33 indicators) or the Wellbeing Budgets adopted by Iceland (39 indicators), New Zealand (65 indicators) or Scotland (81 indicators).

3.3.7. Inequality

Degrowth seeks to (1) reduce inequality by focusing on redistribution within and between countries. To eradicate extreme wealth, the agenda discusses maximum wages, highly progressive income taxes, reparations for ecological debt, as well as taxes on inheritance, wealth, and luxury consumption. To (2) eradicate poverty degrowth seeks to guarantee the universal provisioning of fundamental human needs, calling for various forms of basic incomes, minimum living wages, and free access to a selection of public services like healthcare, housing, electricity, education, public transport and water. Addressing inequality also requires (3) transformative justice, often in the form of new principles of non-discrimination and equality in human rights law (e.g. redefine the obligations of international assistance and cooperation), alternatives to incarceration (e.g. rehabilitation programs following the principle of restorative justice), and guaranteed access to free legal services.

3.3.8. Production to consumption

Degrowth wants to change production and consumption in six main ways. It starts with (1) reducing overproduction, that is goods and services that are resource-intensive while contributing little to collective wellbeing (often cited examples include pesticides, advertising, arms, beef, flying, and SUVs). To achieve this, the agenda calls for a transition to (2) democratic, not-for-profit business models such as cooperatives, self-production, smaller businesses, and commons-based peer production that emphasise the importance of (3) relocalising activities to cut greenhouse gas emissions while fostering local resilience. Other proposals focus on consumption: (4) limiting advertisements, for example by banning ads in public spaces and for products with high environmental impacts; and promote (5) lifestyles of sufficiency by discouraging luxury consumption (for example through boycotts, flying quotas, progressive taxes on consumption, taxes on secondary houses, excise tax on sports cars, yacht, and private jets) and encouraging voluntary simplicity (bike infrastructures, co-housing, shared utilities, repair cafés, decommodified hobbies). The last segment of this theme aims to (6) reduce waste by criminalising planned obsolescence, mandating environmental impact assessments, introducing durability labels, and guaranteeing the right to repair.

3.3.9. Science and technology

In regard to science and technology, the degrowth agenda can be divided into two main strategies. Against industrial, high-tech production, degrowth defends (1) technological sovereignty. This involves placing a moratorium on potentially dangerous geo-engineering practises and biogenetics; regular citizen audits to decide whether to introduce a new technology; restructuring social media from private to a common or public good; repurposing military facilities to produce sustainable and socially useful products; and to dismantle patent monopolies, for example concerning seeds. The second goal, (2) convivial tools, aims to ensure that everyone can learn how to use and repair the tools they use. For example, repairing bikes and clothes in cooperative spaces, joining a local currency association, or learning how to farm in a community garden.

3.3.10. Tourism

Discussions on tourism centre around two goals. The first is to (1) limit tourism. This targets fossil fuel-based travel, especially long-distance, which should be regulated (e.g. moratoria on tourism developments, quotas to visit sensitive areas like World Heritage Sites; restrictions on mega-cruise ships) and taxed to include its full environmental cost. It also involves (2) reconceptualising tourism based on the principles of slow and local tourism. Fundamentally, this means prioritising the 'right to live' over the 'right to travel.' Two examples include redefining the legal definition of tourism and revising or scrapping both the Office for International Migration and the World Tourism Organisation, thus favouring residents' rights and the environment over wealthy tourists' short-term wants. Additionally, it discusses low-impact modes of transport (e.g. trains, bus, cycling, walking), the promotion of local ownership, and the respect of the ecological carrying capacity of each region.

3.3.11. Trade

Trade is the least elaborated theme by proposals - it goes in two broad directions. First, (1) limit long-distance trade, which necessitates reducing unnecessary intra-industry trade between nations of similar affluence, applying export quotas, and limiting the use of international aviation and shipping. The second direction calls to (2) reconceptualise trade by renegotiating agreements on trade and intellectual property rights, for example the TRIPS Agreement at the World Trade Organisation.

3.3.12. Urban planning

Urban planning is split into four goals. (1) Land for all aspires to guarantee decent, affordable homes for everyone by protecting the housing sector from commodification and speculation. Examples of policy instruments here include progressive property taxes (floor space and number of), rent caps and controls, expropriation or occupation of vacant buildings and extending social housing. (2) Housing sufficiency promotes alternative housing arrangements such as ecovillages, eco-cohousing, housing cooperatives, or squatting. It also promotes common facilities (e.g. cars, gardens, kitchens) and retrofitting programs to significantly lower the ecological footprint of dwellings. (3) Just mobility focuses on reducing fossil fuel-based transport in a way that is socially fair, which involves reducing high-speed transport (e.g. cars,

planes, high-speed trains, cruises) and large infrastructure (e.g. roads, motorways, airports, ports) through a range of disincentives such as lower speed limits, car free zones, and moratoria's. Simultaneously, it encourages investment and use of active modes of transport such as walking and cycling, as well as public transport. Finally, (4) socially useful and ecologically sensitive planning aims at making cities smaller and greener, in a similar spirit to Transition Towns. Proposals range from capping the number and size of dwellings, controlling the development of holiday homes, limiting urban sprawl and preventing gentrification to promoting urban consolidation, banning construction of single detached houses, and prohibiting developments on agricultural land.

3.3.13. Work

Policy discussions on work are central to degrowth and organised around four goals. The most frequently discussed one is (1) reconceptualising work, moving in the direction of deprioritising wage labour in society. The concrete application of this goal is work-time reductions, which need to be complemented with policies that reallocate productivity gains into working less, ensuring rights to part-time, and a gender-sensitive redistribution of paid work. The introduction of job guarantees with living wages is proposed to (2) reduce unemployment while creating more secure and fulfilling jobs. The third goal - (3) redistribute (re)productive activities - calls for a valuation of care and volunteer work, as well as a fairer sharing of chores between genders, classes, and ethnicities. The agenda also (4) promotes social ecological jobs through investing in publicly funded and community-run (re)training programs for workers, for example from jobs in the fossil fuel industry and towards socially useful and ecologically sensitive activities such as ecosystem restoration or the building of community-owned renewables.

Figure 2.3 Iceberg model of degrowth policy proposals - core instruments on top (in descending order of citation frequency), themed goals below (random position). See the full list with sources in Appendix A. Inspired by the Community Economies Collective diverse economies iceberg licensed under a Creative Commons Attribution-Share Alike 4.0 International License.

4. Discussion

In this section, we discuss five key features of degrowth policy proposals: precision, frequency, visibility, diversity, and interactions. First, we draw attention to the lack of precision in most proposals. Second, we comment on their relative popularity, distinguishing between core and periphery proposals. Third, we demonstrate how one explicit policy goal can involve many additional policy changes. Fourth, we highlight the width and diversity of the degrowth agenda. And finally, we reflect upon how to assess the interactions between existing proposals.

4.1. The precision of degrowth policy proposals

Simply counting policy proposals can give the false impression that these policies are rigorously analysed by those who mention them. However, this is not always the case. The findings of this review suggest that some policies are only mentioned in passing without much analytical effort made to connect them with the issues at hand. These cases of policy dropping are commonplace. Take 'ecological reparations' for example. The proposal is often present in degrowth texts, but without any detail about what it would concretely entail and how it would occur. Other similar examples include closing tax havens, retrofitting buildings, financial transaction taxes, or transitioning businesses to not-for-profit cooperatives.

Few studies provide details or compare which type of, for example, work-time reduction policies are compatible with degrowth. It follows that a policy package supporting the gig economy[10], employer-sponsored health insurance, and zero hour contracts are not compatible with degrowth ideals of work. So, which type of work-time reduction policies should be supported? Our findings suggest that it is ones that leverage productivity gains for working less, job guarantees, and job sharing. But how should we collectively negotiate how many days and hours to reduce paid work to? And would this be a temporary means of transition or a permanent institution for the future? So whilst it becomes evident that abstract policy goals and objectives are important for building momentum for social movements, vague policy proposals are not operational for decision-makers whose role is to design and implement precise policies.

Through our analysis, it is clear that the agenda is not static and certain proposals are becoming more detailed. Take basic income, for example. It could be considered the oldest degrowth proposal since it appeared in the 2002 issue of the French magazine, Silence, where the concept of 'décroissance soutenable' [sustainable degrowth] was coined. Twenty years later, there are at least nine different basic income proposals, each with its own purpose and design (Fouksman & Klein, 2019; Bohnenberger, 2020). Some proposals have integrated complementary currencies, whilst others have extended to the guaranteed provision of public services. In contrast, other proposals have remained largely the same over the past two decades; this is the case for the regulation of lobbying and the reform of international

[10] A gig economy refers to a labour market that is characterised by the prevalence of short-term contracts or freelance work as opposed to permanent jobs. For example, independent contractors, online platform workers, contract firm workers, on-call workers and temporary workers.

organisations such as the World Trade Organisation, International Monetary Fund, World Bank, North Atlantic Treaty Organisation, and the European Union.

4.2. The frequency of policy instruments

Our findings illustrate that certain policy instruments are given more attention in degrowth transition strategies than others. We differentiate these core proposals: the ones that are most frequently cited and outlined in (relative) detail, from periphery proposals: the ones that are rarely mentioned and lack sufficient explanation. It follows that the ten core policy instruments, in descending order, are: universal basic incomes, work-time reductions, job guarantees with a living wage, maximum income caps, declining caps on resource use and emissions, not-for-profit cooperatives, holding deliberative forums, reclaiming the commons, establishing ecovillages, and housing cooperatives.

But why are these the most popular? Even though the present analysis cannot answer this question, it is relevant to pose the question: Is universal basic income the most important leverage point to achieve degrowth, or has it simply become a sort of tradition to refer to it when talking about degrowth? Our reading of the literature suggests that the choice is more sociological than analytical. One such hypothesis concerns the issue of policy dropping. This comes as many authors appear to mention proposals like universal basic income only because it has been outlined in early foundational papers (Schneider et al., 2010; Kallis, 2011; Demaria et al., 2013). As such, this warrants further exploration of the strategic choices and reasoning behind degrowth policy proposals.

These core demands are surrounded by peripheral proposals that are mentioned less often. Examples include reducing military spending, ensuring media independence, redistributing undesirable jobs, and limiting trade. Again, we posit that this is mostly a sociological phenomenon, with authors not mentioning proposals simply because others before them did not do so. This fashion-like trend in picking policy proposals may lead to biases where high-impact changes find themselves pushed to the periphery of the agenda. Reducing military spending is one such example. If the US military were a country, its emissions would be bigger than 140 countries, with more than half of that stemming from the air force alone (Belcher et al., 2019). Therefore, if degrowth authors are serious about reducing emissions, why are we not seeing more proposals concerning this in the literature?

The division between core and periphery changes over time and space. Following publications in French in the early 2000s, degrowth spread to many new countries (even though most publications are in English). Since then, new researchers have joined the community, each adding their proposals to the agenda. In the future, certain proposals currently in the periphery may enter the core, or vice versa, and other proposals that today are non-existent in the agenda may start to appear on its periphery. By studying these movements, sociologists of knowledge can pay close attention to whose proposals make it to the core and whose remain at the periphery, creating space for critical reflection on whose knowledge is valued within degrowth literature and whether such hierarchies reproduce existing cultural, gender, and class divides.

4.3. Unpacking proposals

Imagine the degrowth agenda like a layered cake. Some proposals are the topping, visible to all. This is the case for work-time reductions, universal basic incomes, and wealth taxes - three policies that people quickly associate with degrowth. We regard these as conscious proposals. However, there are many other policies that remain unconscious. These are all the changes needed to realise the conscious proposal, but that are not dealt with in an intentional and explicit way by the one proposing the policy.

Let's illustrate with the example of wealth taxes. Tackling inequality through progressive taxation of income and wealth involves multiple considerations. First, taxing wealth remains arguably quite ineffective if most of that wealth sits untaxed in tax havens. Second, several such taxes were scrapped with the rise of neoliberalism, so re-introducing them, as opposed to simply adjusting existing tax structures, might be politically challenging. Third, to tax wealth, one must decide what wealth is and how it shall be measured. For example, how to account for debt, monetary, personal, and capital assets. Fourth, existing constitutional rights, in certain countries, may prevent governments from taxing citizens above a certain threshold, thus, requiring amendments to the constitution or other policy interventions. The list of challenges could go on and on. The point is that to be able to tax wealth, or any other policy objective, an array of further actions might be necessary, and people advocating for change might want to pay more attention to these multi-layered considerations.

4.4. How wide and diverse is the degrowth agenda?

Degrowth is a diverse movement that includes academics, activists, grassroot movements, NGOs, and unions (Burkhart et al., 2020). Such diversity explains the diversity of the agenda, often leading to an expansion of its policy boundary with new objectives and instruments being added to the agenda.

Take tourism, for example. One theme that was recently added into the degrowth domain when scholars in the field of tourism studies started to use degrowth as a concept in their work. In 2019, the *Journal of Sustainable Tourism* published a special issue on 'Tourism and Degrowth' (Fletcher et al., 2019), subsequently adding several proposals to the general agenda, including: moratoriums on tourism accommodation developments, community-owned and managed tourism, prioritising the right to live over the right to travel through opposing the United Nations World Tourism Organisation proposal to turn tourism into a human right, as well as tourism education for (trans)forming people's consumption behaviours. In this specific case, the policy agenda broadens because more academics outside of the degrowth bubble, in this case tourism studies, have begun researching and writing about degrowth.

Another example is technology. In 2018, the *Journal of Cleaner Production* published a special issue on 'Degrowth and Technology' (Kerschner et al., 2018), which included a variety of proposals ranging from encouraging technological (re)appropriation (e.g. repurposing military facilities to produce socially useful and sustainable products; creating digital commons; restructuring social media from private to a common or public good); a matrix for assessing technologies compatibility with degrowth; design global, manufacture local strategies; plus a host of low-tech solutions at the household and community level. In contrast

to the expansion into tourism, such additions are rather the result of scholars who were already writing about degrowth investing time and effort to explore the topic of technology in more detail.

Another process that explains the widening of the agenda is the appropriation of proposals emerging outside of the degrowth bubble. A good example would be Thomas Piketty's tax on capital (Piketty, 2013), which started to appear in the degrowth literature in Kirby (2013). Since then, Piketty's work has been cited in over 50 degrowth articles. Such imports suggest that the field is not hermetic to what is happening outside of it. This also poses an interesting question: Is the same process happening in reverse, meaning that people outside of degrowth start importing ideas from it? As such, future researchers might consider studying whether degrowth scholars have had any concrete influence on policymaking, and if so, concerning which specific objectives and instruments.

4.5. Transition strategies

Ingredients do not make delicious meals, recipes do. This begs a question: How do all these degrowth policies fit together? Throughout the review process, it became apparent that most policy instruments are studied independently (e.g. basic income), in parallel (e.g. basic income and wealth caps), or in competition (e.g. basic income vs. job guarantee). This being said, there are not many interactions, and never for more than a handful of proposals considered at one time (notable exceptions include Videira et al., 2014; Parrique, 2019: Chapter 12; Đula et al., 2021; Keyβer & Lenzen, 2021).

As a result, it is hardly controversial to say that the current degrowth agenda is closer to a disparate list of ingredients than a neatly organised recipe. As policies are never implemented in isolation, it would be naïve for anyone aspiring for systemic change to focus policy-making efforts on one silver bullet policy. Instead, change-makers should carefully study the (positive and negative) synergies between their different proposals. The more proposals, the more synergies, which makes the study of a degrowth transition extremely complicated, especially since every policy has its own scale, timing, and cultural feasibility. Certain changes are bottom-up, slow, popular, and bear little risks. Whereas others are top-down, fast, unpopular, and relatively riskier. In the end, any individual proposal might be a combination of the above. For example, some policies heavily rely on the state (e.g. banning advertisement) while others depend on many actors (e.g. developing cooperatives). Some policies take longer to implement (e.g. establishing a local currency) than others (e.g. changing tax rates). Depending on the context and the design, a policy can quickly gather popular support (e.g. carbon tax in Sweden) while others do not (e.g. fuel taxes in France that led to the Yellow Vests uprising). Finally, certain policies can unfold gradually without much risk (e.g. reducing working hours from 35 to 28 or 21), while others are done at once with uncertain consequences (e.g. a sovereign money reform).

The scale of each policy matters, but so does the sequence in which they are implemented. Most degrowth theory rests on the assumption that the local level is the optimal scale for societal transformation because it is there that direct democracy is more easily exercised. On the other hand, we recall Cosme et al. (2017) finding that three-quarters of degrowth policy proposals were top-down with a national focus. What the findings of the

present review suggest is that the degrowth agenda spans across multiple scales (local, regional, national, international) and actors (households, communities, government, workers, firms), even though the complexities of such harmony are rarely explored in detail. This is not to say that we should seek policy perfectionism. In reality, policymaking is always messier than on paper, especially when broadening one's view of policies beyond statecraft. Nonetheless, it remains that the degrowth agenda would become more convincing if it were to account for the interactions between its proposals.

Stressing the importance of sequence also helps us to identify potential contradictions between transitional changes and others that are meant to be permanent. For example, one imagines that policies to ban or restrict advertisement for ecologically destructive products are necessary until the point where there are no more ecologically destructive products. Similarly, a shrinking yearly cap on resource extraction might cease to be useful the day a society stabilises its material footprint to a sustainable level. Precisions about the 'for how long' of a policy could help differentiate between the practises and institutions that characterise degrowth as a transition phase and the more long-lasting ones that define degrowth as a destination.

5. Conclusion

The purpose of this article was to build a comprehensive inventory of degrowth proposals. To do so, we conducted a systematic mapping and thematic synthesis of the degrowth literature published between 2005 and 2020, making it the largest systematic review of its kind to date. The article continues the review by Cosme et al. (2017), updating the period of analysis and expanding it to multiple languages and publication types. Furthermore, it complements and improves Parrique's (2019) repertoire of policies as it allows the tracing of policies back to the texts where they have been mentioned (Supplementary 4 and 5).

The systematic review component of this paper identified 1166 articles, books, book chapters, and student theses referring to degrowth across 4 bibliographic databases, of which 446 refer to policy proposals The subsequent thematic synthesis identified 13 policy themes behind the degrowth agenda: culture and education, energy and environment, food, governance and geopolitics, indicators, inequality, finance, production and consumption, science and technology, tourism, trade, urban planning, and work. It also identified the most frequently cited policy instruments within the degrowth literature: universal basic incomes, work-time reductions, job guarantees with a living wage, maximum income caps, declining caps on resource use and emissions, not-for-profit cooperatives, holding deliberative forums, reclaiming the commons, establishing ecovillages, and housing cooperatives.

This paper has presented a number of findings. Without a doubt, the popularity of degrowth within academia is growing, which is exemplified by the number of publications rising from ~220 in 2014 to 1166 by the end of 2020. This growth of the literature has occurred in parallel to an expansion of the degrowth agenda, which has gone from 17 proposals in 2005 to 530 at the end of 2021. We organised this list of proposals into 50 goals, 100 objectives, and 380 instruments. While the number of proposals has expanded quickly, we then critically reflected on the agenda based on its quality. This led to five reflections regarding the precision, frequency, visibility, diversity of policies, as well as their interactions. First, there is a great

disparity in details from some proposals which have been studied in detail, and others that are only mentioned in passing. This connects to our second finding, which is that certain proposals are more popular than others. Thirdly, most proposals focus more on what a policy is supposed to achieve (objectives) rather than how it is supposed to achieve it (instruments), often ignoring a diversity of transitional changes. Our fourth finding is that degrowth is increasingly diverse, with proposals being added every time a new community of thinkers and practitioners (not exclusive categories, of course) starts using the concept. And finally, we noticed that most policies are studied in isolation, and that not many authors have so far focused on the interactions between the elements within the degrowth agenda.

A final thought about the relation between policies and politics. This article has organised a toolbox of proposals but has remained silent about the various mechanisms that explain whether or not people choose to use these tools. This is a conscious, but controversial choice. Discussing obstacles to a societal transition is a herculean task that others have started investigating, for example Stoddard et al. (2021). Whilst some may say that it is useless to refine policy proposals in an abstract form if nobody is interested in them; they may also add that real social change only happens in the unpredictable fire of politics, and so there is little point polishing agendas before they are put into practice. While we hear these points, we still believe that these kinds of abstract, policy design exercises are useful. Primarily because these inventories give us a precious overview of the degrowth field and the kind of discussions that it hosts, which give us opportunities to reflect critically on the coherence of the degrowth discourse.

We opened this paper by arguing that degrowth as a concept has evolved in complexity since its appearance in the early 2000s. We close by arguing that tracking degrowth policy proposals is a good way of studying whether the how of degrowth has kept pace with the what of degrowth. Indeed, realising the revolutionary potential of degrowth requires a deep understanding of economic institutions, power relationships, and social provisioning systems that are proactively experimented with and embodied by new ideas, practices, and common senses.

2.2 Translating degrowth: From proposals to practice

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Abstract

Degrowth – the social appropriation of the means and conditions of (re)production and execution of democratic, participatory, ecological planning – is slowly making ripples in decision-making processes. But there is a problem: degrowth policy proposals are scattered throughout the literature, making it difficult for people to pin-point what changes are advocated, why they are deemed necessary, and how they could unfold. Building upon a recent systematic mapping and thematic synthesis of degrowth literature (Fitzpatrick et al., 2022), this chapter summarises the policy proposals that degrowth advocates put forward as solutions to the social-ecological crises.

Keywords: degrowth, policies, policy making, power, praxis, proposals, transition

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1. Introduction

Degrowth is on the rise: since the early 2000s, an increasing number of academics and activists have been organising their activities around what became known as 'degrowth' (for an overview, see Kallis et al., 2018 and Schmelzer et al., 2022). Building upon previous critiques of growth-based societies (Schmelzer, 2016), degrowth has evolved into a complex concept, adding multiple layers to its environmental core. For Parrique (2019: 171–234), degrowth carries three denotations: (1) degrowth a decline of environmental pressures; (2) degrowth as emancipation from undesirable ideologies, like extractivism, neoliberalism, and consumerism; and (3) degrowth as utopian destinations, societies grounded in autonomy, sufficiency and care. However, as the concept evolved to be multifaceted, so too did its policy proposals, often making it difficult to interpret what aligns with degrowth and how it could unfold.

Complex problems require holistic solutions, especially given the elasticity of capitalism to dismiss, co-opt and crush visions that challenge its supremacy (Nitzan & Bichler, 2009). For degrowth, constructing alternative visions has two stages: first, by merging critiques of destructive ideologies such as capitalism (Feola, 2019), colonialism (Hickel, 2021a), patriarchy (Hanaček et al., 2020), productivism (Kallis, 2019) and utilitarianism (Romano, 2019); and secondly, using this knowledge to design societies that are caring (Dengler & Lang, 2022), just (Muraca, 2012), convivial (Vetter, 2017), happy (Fanning et al., 2021) and participatory (Brand et al., 2021). The realisation of which requires a deep understanding of how social change occurs.

Interestingly, the rise of degrowth has brought with it a strong interest for policy proposals. For advocates, this means offering up potential solutions that challenge capitalism's internal dynamics of permanently expanding material throughput, markets, profit and capital. However, given such a herculean task, it becomes clear that degrowth is evolving and must deal with its theoretical and practical contradictions (Spash, 2020; Spash, 2021). One such way to do so is by seeing degrowth as a holistic perspective that carries the potential to shift economic paradigms rather than individual policy interventions employed to tame capitalism. In other words, degrowth is composed of organically interconnected diversities ranging from reformist policies to revolutionary class struggle.

Within the policy space of the degrowth movement exists a plethora of policy proposals. Yet to date, there has been little research demonstrating what degrowth looks like when considering all their policy proposals, instead of being studied in isolation, parallel or competition. Initial steps towards a systems thinking approach have involved collecting degrowth policy proposals.

The first analysis was conducted by Cosme et al. (2017) who put forward three broad policy goals for degrowth after reviewing 128 academic articles published in English between 2007 and 2014. Findings concluded three overarching goals: (1) reducing the environmental impact of human activities; (2) redistributing income and wealth within and between countries; and (3) promoting the transition from a materialistic to a convivial, participatory society.

The second inventory was conducted by Parrique (2019: 844–850) in his PhD dissertation, *The Political Economy of Degrowth*. Parrique expanded upon Cosme et al. (2017) by

adding various academic and political policy agendas (Parrique 2019: 494–497), culminating in 232 policy proposals (60 goals, 32 objectives, 140 instruments) split into 19 themes.

The latest inventory was conducted by Fitzpatrick et al. (2022) through a systematic mapping and thematic analysis of the degrowth literature between 2005 to 2020 in multiple languages and publication types. The study identified 530 proposals (50 goals, 100 objectives, 380 instruments), enabling readers to link and track degrowth policy proposal developments over time and space. This chapter builds upon these inventories by outlining degrowth policy proposals and asking whether the history of social change points toward formal policy channels as a favourable means to achieve social-ecological transformation.

Cultural education

Any alternative to patriarchal capitalism must be grounded in values of autonomy, sufficiency and care (Parrique, 2019). Practising critical emancipatory education is one such alternative, which involves moving away from competitive memorisation and towards meaningful learning environments that teach us how to (un)learn, reflect and embody the change we want to see in the world. Examples of this include critical and pluralist pedagogues such as heterodox economics, eco-spirituality, experiential learning and permaculture, amongst others (Puggioni, 2017; Kaufmann et al., 2019).

It is well known that current economic structures promote ecologically destructive lifestyles through the promotion of individualism and productivism. But this is not an inherent quality of human nature, rather we are a collective species that is (re)shaped by the world around us (Bregman, 2020; Graeber & Wengrow, 2021). Furthermore, traditional narrow religious notions of only valuing those who work hard has morphed into a deep-rooted stigma in the current economic paradigm (Barro, 2004). Countering such dominant narratives requires nurturing cultures of sufficiency that are grounded in care, conviviality and the conscious choice of minimising material and energy use (Dengler & Lang, 2022). Following the principles of social freedom – defined as the right not to live at others' expense (Brand & Wissen, 2021) – living degrowth involves a diverse range of interrelated practices that expand relational goods like local culture, friendship, eroticism and trust. For Brossman and Islar (2020), this encompasses five spheres: (1) rethinking society, (2) acting politically, (3) creating alternatives, (4) fostering connections and (5) unveiling the self.

At its core, living degrowth involves adopting an emancipatory ecological class consciousness (Barca, 2019). A concept that speaks to anyone who sells their labour and does not control the means and conditions of (re)production – the working class – recognising that ecological breakdown is the latest form of violent class warfare. Over 3,000 examples of which are present in the Environmental Justice Atlas, an online database and interactive map that documents ecological conflicts and spaces of resistance by local communities (Temper et al., 2015). A struggle which should oppose all forms of domination, be it ableism, ageism, classism, colonialism, colourism, heterosexism, lookism, racism, sexism, etc. (Barca, 2015). Only then will values shift to recognise that humans are neither separate, nor superior, from non-humans or nature. Everything is delicately and intricately interconnected. This type of worldview – ecocentrism – has also been actively practised for millennia by Indigenous land defenders and subsistence communities around the world (Garnett et al., 2018). So, it appears the narrative

is coming full circle, acting in support of the struggle to restore and preserve Indigenous and local knowledge systems, as opposed to asserting white (male) supremacy, is fundamental to allowing a diverse range of worldviews to thrive and flourish in degrowth futures.

Energy and environment

The exploitation of resources – especially fossil fuels – fan the flames of social-ecological crises. For degrowth, the obvious answer is to reduce environmental pressures now. To do so, degrowth advocates support the implementation of multi-scalar declining caps on resource use, emissions and pollution. Gone will be neoclassical climate policy based on dubious carbon markets and voluntary climate pledges (Buller, 2022). Implementing multi-scalar policies necessitates weaving together local, regional, national and international perspectives. This is especially pertinent for the wealthiest people of the world who are the furthest away from ecological sustainability yet must also negotiate reducing their ecological impacts by around 75–90 per cent (UNEP, 2022). But there is no silver bullet to ecological sustainability. Rather, declining caps on resource use, emissions and pollution must be complemented by reforms like extraction and carbon taxes that assist in scaling back material and energy use. Moratoria on resource extraction and mega infrastructure projects like energy plants, dams, incinerators, roads, highways, airports and high-speed trains are also needed to avoid locking in high-carbon futures (Seto et al., 2016). This includes opposing the annexation of resources by corporations and governments (e.g., eviction of the Indigenous Maasai peoples in Tanzania for trophy hunting and conservation) as well as preventing the climate mitigation agenda being grounded in speculative negative emission technologies like bioenergy with carbon capture, utilisation and storage (Anderson & Peters, 2016; Hickel, 2019; Palmer & Carton, 2021).

For most people, it is obvious that reducing environmental pressures involves stopping fossil fuels. However, currently our governments are approving fossil fuel projects that would lead to around 240 per cent more coal, 71 per cent more gas, and 57 per cent more oil than is consistent with limiting global warming to 1.5°C (SEI et al., 2021). Addressing major inconsistencies between policy and practice to achieve the Paris Agreement requires nothing less than a paradigm shift. A shift that degrowth offers through categorically ruling out new fossil extraction (Kühne et al., 2022), revoking existing licences (Trout et al., 2022) and actively phasing-out existing fossil infrastructure ahead of schedule (Welsby et al., 2021) – all of which are rarely mentioned in decision-making arenas. Furthermore, the caps involved in this shift must be designed considering historical responsibility (Hickel et al., 2022c) and abolish trillions in fossil fuel subsidies within a couple of years (Parry et al., 2021). Both moves that could help prevent governments from granting permission to corporations to extract fossil fuels altogether.

But merely halting the frontiers of extractivism is not enough. Addressing ecological overshoot, of which we have been in for over 50 years, requires phasing-out existing fossil fuels and their associated infrastructure like high-carbon transport (Mattioli et al., 2020) and industrial agriculture (Shiva, 2001). A phase-out that needs to extend to other harmful energy sources like nuclear, large-scale biomass and hydropower as communities reorient themselves toward satisfying human needs with low energy use (Vogel et al., 2021). A shift that would

witness the institutionalisation of convivial, renewable energy systems. Furthermore, given the widespread disinformation campaigns and historical inability of the energy sector to transform, this will require organising from civil society and social movements on an unprecedented scale, even demanding the expropriation of fossil assets and capital to begin early phase-out programs.

Now that we have covered the prerequisite part of the story – reducing environmental pressures and stopping fossil fuels – we must elaborate on the need to simultaneously be building just and equitable low energy futures. At its core, this involves practising energy democracy. A concept that pairs renewable energy transition with efforts to democratise the (re)production and use of energy. Examples here include building, managing and repairing convivial, community-owned renewable systems; decentralising energy systems, including the promotion of off-grid solutions and expanding energy-related decision-making to local communities. But merely adding women and solar panels is not enough (Bell et al., 2020). Transformation energy systems require favouring eco-sufficiency measures like repaying ecological (Warlenius et al., 2015) and embodied debt (Salleh, 2009), retrofitting existing buildings and progressive taxation structures for industrial energy consumption. This comes in contrast to eco-efficiency, which has historically more than cancelled out its efficiency gains by increasing scale and, as a result, material and energy use. It is no wonder that pro-growth sustainability visions fall back on technological fairy tales that defy the law-like conditions of thermodynamics (Carton, 2020). Furthermore, this fresh approach acknowledges that degrowth's vision of decarbonisation extends beyond narrow technical or carbon visions and instead represents a chance to (re)distribute economic power and political influence towards ecologically egalitarian ends.

Achieving sustainability requires a more holistic shift in how we see and interact in the world. A world where non-humans are given equal footing to humans in their surroundings through legislating the rights of nature and creating resource sanctuaries that restore and preserve biological and epistemological diversity. A world where a stable demography is reached through the education, empowerment and liberation of women to control their reproductive rights, including actively opposing short-sided pro-natalist policies and attacks on women's rights (Martínez-Alier, 2012). Doing so involves reconceptualising the concepts of nature, sexual division of labour, family and productivity (Meis, 1986) to a world where our entire framing of social-ecological issues recognises and acts based on gender, class, and cultural-specific lenses as the most acute contradictions of capitalism occur at the margins where capitalist societies confront and silence their non-capitalist counterparts (Barca, 2020). Indeed, degrowth is by definition a decolonial perspective focused on social and material outcomes that lead to global environmental justice.

Finance

Whilst neoclassical political economy is the driving ideology serving the powerful, it is capital and its subsequent accumulation (often represented by capitalisation) that is a symbolic representation of power in the global economy (Nitzan & Bichler, 2009). As such, degrowth should not underestimate the power of political and economic elites, who will not give up

power voluntarily. This is why predatory profit-seeking activities and capital accumulation requires neutralising, even by abolishing money (Nelson, 2022).

The first goal for degrowth is economic democracy. Economic democracy is a system whereby democracy is extended by the shared ownership and decision-making over the power and resources in communities. Concretely, it shifts decision-making power from corporate managers and corporate shareholders to workers and local communities. As opposed to profit and self-interest, economic democracy is grounded in real values of cooperation and reciprocity. Examples here include separating money from debt obligations by implementing full reserve banking; placing the power of money creation under public control to address purchasing power, reducing growth pressures and wealth concentration; as well as closing tax havens and taxing financial transactions to reduce the predatory flow of profit-seeking capital. All in the name of dismantling banking and financial institutions into smaller, cooperative, not-for-profit (or accumulating) entities as already demonstrated by the over 85,000 existing credit unions and ethical banks around the world.

The second financial goal for degrowth focuses on the proliferation of ethical and non-accumulating forms of finance (Parrique, 2019: 631–665). Through activities such as the creation of local and regional currencies to provide monetary plurality, time-based systems of labour to diversify away from wage labour and the promotion and proliferation of reciprocity networks and trading systems for the majority as opposed to the self-interested profit-making of a few, local communities can start to (re)build ecological sustainable and socially equitable futures. A task that, if successfully implemented by the majority, would see the current banking and financial system replaced with self-managed credit unions, cooperative banks, public debt-free money, divestment of destructive industries and corresponding ethical investments that serve the planet and people.

Food

Access to safe and healthy food is an individual right and collective responsibility. Given its political nature, the function of food goes beyond material sustenance, often containing deep connections to the social and cultural aspects of our lives. As such, food provisioning plays a fundamental role in degrowth visions to transform our everyday practices and realities into sustainable societies (Nelson & Edwards, 2022). Here, degrowth focuses its efforts on how food is produced, distributed and consumed.

Fundamentally speaking, the way we produce food signifies our relationship with the land. Given the destructive effects of industrial agriculture, degrowth advocates the nurturing of more sustainable forms of farming, which includes promoting non-mechanised, subsistence organic farming, peasant agroecology, small farms and permaculture. In addition to varying the mode of production, degrowth seeks to turn sidewalks, backyards and unused land/roads into community gardens and food forests. These alternatives focus on the principles of health, ecology, fairness and care by avoiding soil erosion and chemical fertilisers, reusing inputs through composting and (re)developing a kinship means of production.

The second focus is practising food sovereignty. As defined by the global peasant movement, La Via Campesina, food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods

and their right to define their own food and agriculture systems. In other words, local communities should be able to shape their own food systems in harmony with their natures-cultures. For degrowth, this involves redistributing (often stolen) land to landless workers, small farmers and peasants whilst at the same time struggling against the private appropriation of seeds and actively developing seed commons. Given over one-third of all food produced in the world for human consumption is wasted every year, developing more localised networks, cooperatives and non-market exchange systems (e.g., swap, barter, farmers markets, local stores, etc) to guarantee the equitable distribution of food is degrowth in action.

Finally, degrowth seeks to change the way that food is consumed, because the way we consume food influences how it is cultivated, produced and distributed (Bodirsky et al., 2022). Altering this requires embracing the ideas of the Slow Food movement. A grassroots organisation that promotes local food cultures and traditional cooking in an attempt to counteract fast-paced lifestyles that subliminally make us neglect where our food comes from and how our food choices affect the world around us. Additionally, degrowth advocates propose reducing meat and dairy consumption, eating local, seasonal food, transitioning to plant-based diets, institutionalising organic plant-based food in public institutions (e.g., schools), ending food waste and providing practical courses.

Geopolitics and governance

Current political processes and institutions are captured by elite interests (Táíwò, 2022). Their interests run contrary and pose major barriers to the type of democratic discussions and decision-making process needed to achieve ecological sustainability and social equity. It is also why the most fundamental goal is the (re)emergence of radical ecological democracy: a system whereby everyone shares the rights, ownership and power over decisions affecting their communities (Kothari, 2014). As the preferences of the average citizens in representative democracies appear to have only a minuscule, near-zero impact upon public policy (Gilens & Page, 2014), degrowth favours direct forms of democracy that promote accountability, cooperation and inclusiveness (Asara et al., 2013). Examples of which include citizen assemblies or deliberative forums where citizens gather to discuss meeting basic needs at a globally sustainable level of resource use; the application of voting, debate and participatory decision-making systems implemented in workplaces; participatory budgeting that allows residents to identify, discuss and prioritise public spending, giving them power to make decisions that affect their livelihoods; voluntary working bee committees; and other various forms of direct democracy that liberate people through equitable decision-making power.

Alongside radical ecological democracy, degrowth calls for a theory of radical abundance (Hickel, 2019). A theory focused on dismantling hierarchies and reclaiming the commons. In other words, switching from private to public provisioning systems, thus shifting the main priority from profit-making to directly fulfilling (non)human needs. Examples of this include local democratic ownership of essential infrastructure like banking, energy, education, healthcare, local government, telecommunications, transport, waste and water. Such a shift guarantees people's access to critical services, especially when combined with universal basic

services, protecting them from market speculation whilst simultaneously reducing material and energy use.

But the goal of decentralising decision-making does not end there. Many existing institutions are imperialist power hoarders that need reforming or abolishing. The most blatant violation being the indefensible social and environmental impact of military spending. In 2021, global military spending exceeded USD two trillion for the first time, 38 per cent from the United States alone (Stockholm International Peace Research Institute, 2021). Globally, the global footprint of militaries accounts for between one to five per cent of greenhouse gas emissions. Furthermore, national militaries are often the largest institutional emitter in their respective countries yet are not mandated to or rarely release their full emissions. Recent calculations highlight that the United States military is the largest institutional emitter on the planet, bigger than 140 countries (Belcher et al., 2019). The implications of such findings necessitate that degrowth must be more vocal in its opposition to all military or police spending, especially if spending or military alliances are seeking to be expanded. This extends to denouncing all forms of warfare and not simply those that are close to home because it is convenient. One such plan for how it could be reduced involves halving military spending over the next decade and immediately redirecting this money to meet ecological needs (Lin and Burton, 2020). Much like fossil fuels, the only way to green the military is for it to be phased-out.

There are also many other processes and institutions that facilitate capital expansion. For degrowth, this involves capping or banning political donations, banning fossil fuel lobbyists from climate negotiations (like how tobacco lobbyists are excluded from health-related discussions), closing the revolving door between politics and business, balancing the power of finance ministries to its counterparts and most importantly democratising international institutions like the United Nations, World Trade Organization, International Monetary Fund and World Bank.

Indicators

There is one number that is obsessed over by corporations and governments alike: gross domestic product (GDP). However, for a plethora of reasons, GDP is not fit for purpose and must be abandoned as a measure of social progress (for an overview, see Parrique, 2019: 46–76). Whilst recognising that the diversity of social realities cannot be reduced to a single number, degrowth argues to replace economism (e.g., GDP, profits, income, inflation, purchasing power) with an interconnected set of social-ecological indicators (e.g., ecological and material footprint, biodiversity loss, global warming, deforestation, pollution, happiness, health, inequality, political participation, leisure time, etc). For degrowth, this entails supporting initiatives like the Genuine Progress Indicator (5 indicators), Gross National Happiness from Bhutan (33 indicators) or the Well-being Budgets adopted by Iceland (39 indicators), New Zealand (65 indicators) or Scotland (81 indicators). Whilst remaining critical to any indicators still underpinned by neoclassical (environmental) economics and proposing alternatives where appropriate.

Inequality

In a degrowth economy, redistributive mechanisms are key. This is because the levels (Piketty, 2013) and effects (Wilkinson & Pickett, 2022) of inequality are structural inhibitors for sustainability transformations. To do so, first degrowth seeks to redistribute land, labour, capital and resources within and between countries. This will require wealth-based taxation structures with the support of a mixture of the following policies in various orders, timing, and contexts: maximum income and wealth caps; highly progressive income, wealth, and consumption taxes (e.g., 100% income tax above maximum needs satisfaction); maximum income ratios between the lowest and highest paid; taxing, capping and/or abolishing inheritance (e.g., cap inheritance at €1 million, which equates to a work free monthly salary of $1,000 birth to death); cancellation of odious debt (e.g., IMF or student loans), reparations for ecological debt (including biopiracy, carbon, corporate and waste debt); returning stolen land to its Indigenous caretakers as part of the reconciliation process; cracking down on tax havens and anti-corruption; adopting a global minimum corporate tax and living wage; land redistribution (e.g., rent-to-buy programs, expropriation of large or absentee landholders); progressive cap-and-dividend schemes and transforming private to public pension systems.

Secondly, degrowth focuses on guaranteeing the universal provision of fundamental needs. This includes calling for various forms of universal basic incomes (e.g., transition income, unconditional basic income, unconditional minimum income, basic income, citizens income, unconditional autonomy allowance, basic vouchers), public services (e.g., education, electricity, healthcare, housing, public transport, water) and equitable access to physical, mental health and social services (e.g., physiologists, psychologists, family counsellors).

Finally, degrowth demands transformative justice. This involves being explicitly anti-imperialist and anti-racist, implementing restorative justice measures (e.g., victim assistance, community service, victim-offender mediation), promoting alternatives to incarceration (e.g., rehabilitation and social programs), guaranteeing free legal services for all as well as fundamentally redefining the principles of discrimination and equality embedded in existing human rights law.

Production to consumption

A significant reduction in and redistribution of production and consumption is not negotiable. The first and more transformative goal involves stopping overproduction. The second and more obvious to the naked eye is dismantling the cathedral of consumerism. Beginning with overproduction, the first measure is to restrict, tax and ban goods and services that are ecologically intensive and contribute little to collective well-being. Here, this includes things such as advertising, beef, flying, pesticides, private jets, SUVs and weapons (Hickel, 2019). Even the capitalist mode of production itself: private ownership of the means of production, extraction of surplus value by the owning class for the purpose of capital accumulation, and the market-based mechanisms of wage-based labour and general commodification must go. This necessitates socialising the means (and conditions) of (re)production to implement a democratic, participatory, ecological planning (Löwy et al., 2022). More concretely, it involves transitioning to not-for-profit models (not to be confused with non-profits) such as cooperatives, self-production, smaller organisations and commons-based peer production

(Hinton, 2021). All of which stress the important role that relocalisation plays in cutting greenhouse gas emissions and increasing local resilience.

Now, this is the upstream part of the story, but just like a river, the downstream is equally important. Fundamentally, this involves adopting lifestyles of sufficiency, which involves two components: discouraging luxury consumption and encouraging voluntary simplicity. First, discouraging luxury consumption is acted upon through boycotts, divestment, sanctions and highly progressive taxation of ecologically destructive activities such as speculative profiteering, flying, multiple landholdings, private jets, luxury yachts and cars. Second, voluntary simplicity requires reconfiguring infrastructure to promote active (cycling, walking) and public (trains, trams, trolleybus, bus, ferries) transport, co-housing, shared utilities, repair cafes, decommodified hobbies and relational goods such as friendship, love and care.

To limit the desire to overconsume, advertising must be limited. This comes as the advertising industry, owned and represented by capitalists, spends at least USD$600 billion in advertising each year reminding us of things we should buy (Saatchi, 2007). An unfathomable figure that continues to spiral out of control given capitalism's need to permanently expand production and subsequent consumption, maximisation of profit, and accumulation of capital as power (Nitzan & Bichler, 2009). Finally, but no less important, comes the issue of reducing waste. Criminalising food waste and planned obsolescence, mandating environmental impact assessments and long-term warranties and guaranteeing the right to repair by companies or through the use of open workshops, tool libraries and repair cafes are all part of this broader picture of producing and distributing based on needs not wants, planet not profit.

Science and technology

The purpose of innovation should be to meet the basic needs of all, not provide profits and power for a few. For this reason, the degrowth agenda focuses on practising two strategies: technological sovereignty and convivial tools.

Technological sovereignty refers to the ability to develop and control technological capabilities that respect social and ecological limits. Actions embodying this goal include banning potentially dangerous geoengineering practices and biogenetics, holding citizen audits to decide whether or not to introduce each new technology, re-structuring social media from private to a common or public good, repurposing military facilities to produce sustainable and socially useful products and dismantling patent monopolies (Kerschner et al., 2018).

Tools are intrinsic to our social relationships. For this reason, they should encourage participation, trust and solidarity as opposed to power hoarding, distrust and division. Borrowing from Illich (1973: 34), 'convivial tools are those which give each person who uses them the greatest opportunity to enrich the environment with the fruits of [their] vision. Industrial tools deny this possibility to those who use them, and they allow their designers to determine the meaning and expectations of others.' Practising degrowth here refers to learning how to build and repair the tools we use in our everyday lives such as fixing bicycles in bike kitchens, sewing our clothes, joining a local currency/credit union or learning how to practise agroecology or permaculture.

Tourism

Whilst tourism may be important for cultural exchange, it must be limited for social and ecological reasons. First and foremost, this will involve targeting fossil fuel-based travel, especially private (e.g., jets, yachts) and long-distance (e.g., flights, SUVs) travel through strict regulation. This comes as air traffic is the most unequal mode of transport. Today, only one per cent of the world's population causes 50 per cent of commercial aviation emissions, whilst more than 80 per cent of the world's population has never set foot in an aeroplane (Boeing, 2017; Gössling & Humpe, 2020). If aviation were a country, it would be the sixth largest emitter, between Japan and Germany. This is without even considering that tourism infrastructure extends far beyond travel. With additional measures such as implementing moratoria on tourism developments, setting visitation quotas for sensitive sites (e.g., world heritage sites) and reducing motorised shipping activities, which includes letting the mega-cruise ship industry sink, are prerequisites to achieving degrowth.

Addressing overtourism necessitates that slow and local are the future of tourism. In this context, degrowthers should nurture and support grassroots movements that oppose tourism growth. Examples here include ABTS (Assemblea de Barris per un Turisme Sostenible – Assembly of Neighbourhoods for Sustainable Tourism) and SET (Red de ciudades del Sur de Europa ante la Turistizacion – Network of Southern European Cities against Touristification) who provide key principles and measures guaranteeing the 'right to live' over the 'right to travel' (Perkumienė & Pranskūnienė, 2019). A position that goes against the United Nations World Tourism Organisation's plans to enshrine tourism into a human right, as this will only favour the minority who can afford it. Sure, for the top ten percent (especially top one) this will be difficult given their thirst for privilege and dopamine, but unlearning their 'well deserved' holidays, shopping sprees or business trips is necessary because basing tourism off one's ability to pay is a social and ecological disaster.

Such changes fit the narrative of rethinking tourism. From socialising the means and conditions of tourism (re)production through local not-for-profit, cooperative ownership models, to redefining the legal definition of tourism and reforming or scrapping the Office for International Migration and World Tourism Organisation so that they favour residents' rights and the environment over the short-term needs of wealthy tourists (Andriotis, 2018; Fletcher et al., 2019). As such, degrowth should expand its repertoire of offering alternative visions of what life could/was like prior to tourism dependency. Visions focused on local ownership, active and public transportation and respecting regional ecological carrying capacities will become the new norm.

Trade

Like tourism, trade is best summed up by two goals: limiting long-distance trade and rethinking trade. For degrowth, this involves reducing unnecessary intra-industry trade, which represents roughly half of world trade (Daly, 1995: 145–157). To give a concrete example, it makes little ecological sense for the Majority World to develop import dependencies for food, when in fact many of the nation's grow enough to guarantee food sovereignty for their populations. As such, advocating for this policy proposal goes hand in hand with anti-imperialist struggles against the white man's 'comparative advantage' (Hickel,

2021a). A loaded term that must be renegotiated alongside key trade and intellectual property rights agreements. Examples here include agricultural subsidies linked to the World Trade Organization, trade-related aspects of intellectual property rights (TRIPS) or leaving the Energy Charter Treaty. The last of which is used by fossil fuel companies to sue governments over the loss of future profits, a concept known as Investor State-Dispute Settlements (ISDS). In short, allowing large private companies to sue elected governments if they attempt to address climate breakdown.

Urban planning

This section speaks to the question of how to make vast suburban landscapes ecologically sustainable and socially equitable (Alexander & Gleeson, 2018). Creating lifestyles of sufficiency for degrowth focuses on four key areas: land, housing, mobility and planning. First, through instruments such as expropriating vacant buildings and large landholdings, progressive property taxes (e.g. via floor space and number of), rents caps and controls, rent-to-buy programs, as well as extending social housing, degrowth aspires to guarantee people access to land they need to (re)produce themselves. One such example comes from Berlin when residents voted to expropriate over 200,000 privately owned apartments from big property developers to stop housing speculation and provide social housing.

Secondly, degrowth seeks to guarantee decent, affordable homes for everyone by protecting another basic need from commodification and speculation – housing. This involves promoting collective housing arrangements like ecovillages, eco-co-housing, housing cooperatives or squatting. These alternatives promote community and use significantly less resources and energy through small, energy-positive housing combined with common facilities like gardens, kitchens, childcare and transport (Trainer, 2019a).

Just mobility focuses on reducing our reliance on fossil fuel-based transport in an equitable manner. This involves reducing high-carbon and speed transport (e.g., private jets, luxury yachts, planes, cars, cruise ships, high-speed trains) and its associated infrastructure (e.g., airports, highways, roads, ports) through numerous disincentives such as exponential flight taxes, lower speed limits, car free zones and moratoria. At the same time, investments in active and public modes of transport are crucial. For example, repurposing roads into areas for cycling, walking, scootering and rollerblading; public transport options like buses, light rail and trams; and edible food corridors.

Finally, degrowth advocates for democratic planning that is socially useful and ecologically sensitive. This carries the goals of reducing the level of urban built environment, retrofitting existing buildings, increasing social-ecological standards for new buildings and transitioning to smaller cities as promoted by the Transition Towns and Cittaslow movements. Proposals here invoke a wide range of options from capping the number and size of dwellings, limiting urban sprawl whilst preventing gentrification, controlling the development of holiday homes and banning single detached homes or development on productive agricultural land.

Work

At the forefront of the degrowth agenda is discussions of reconceptualising work. This is because wage labour is the area of people's lives that they often spend most of their waking

hours during adulthood. It follows that work is usually the primary source of exploitation for most people in society, as they are simultaneously alienated from the products of their labour and exploited by capitalists who appropriate their value creation. Both of which have devastating effects for our attitude to work, behaviour, health consequences (e.g., burnout), changes in (re)productivity, as well as side effects like risk taking and alcohol consumption (Chiaburu, et al., 2014).

One such way for degrowth to socially appropriate the means and conditions of (re)production is through reducing time in paid wage labour. Examples include socially beneficial and ecological sustainable work-time reductions. Here, a number of design options are available from stepped reductions in working weeks (e.g. 35hrs → 28hrs → 21hrs), shorter working days (e.g. four or six hour days), less days (e.g. Monday or Fridays off, one or two days paid work per week), protecting reproductive hours (e.g. banning work from 21:00–06:00 unless vital for social and ecological reasons, gender-sensitive job sharing) and simply shortening the working week.

But work-time reductions need to be complemented with policies that focus on reallocating productivity gains into working less, ensuring rights to part-time, pre-retirement transition strategies and a gender-sensitive redistribution of paid work through limiting working hours, increasing holidays as well as increasing and balancing maternity and paternity leave. All of which carry the explicit goal of reducing unemployment, whilst creating more fair, secure and meaningful jobs.

The degrowth community also calls for the redistribution of (re)productive activities in society. Shifting away from narrowly defined societal roles by various economic and religious narratives, moving towards valuing (not only monetarily) care and volunteer work that shares reproductive and undesirable activities between classes, ethnicities, and genders.

As for the remaining jobs, they will switch their focus to meeting basic needs in publicly funded and community-run (re)training programs for transitioning workers out of destructive industries such as fossil fuels, mining, weapons, cars and livestock to focus on ecosystem restoration, organic food production, convivial renewable energy systems, low or no energy innovations and retrofitting existing housing.

2. Conclusion

This chapter opened by arguing that degrowth as a concept has evolved to be multi-faceted, alongside its policy proposals, making it difficult to distinguish the what, why and how of degrowth. Whilst charting a policy research agenda is beyond the scope of this chapter, it begins to ponder questions of what does a degrowth policy assessment look like? For example, when combining the top ten policy proposals – universal basic incomes, work-time reductions, job guarantees with a living wage, maximum income caps, declining caps on resource use and emissions, non-profit cooperatives, holding deliberative forums, reclaiming the commons, establishing ecovillages and housing cooperatives – what does degrowth (food systems, tourism, etc) look like? And how does degrowth differ from independent studies about these policies from people who are not interested in degrowth? Furthermore, as degrowth seeks to contribute to the mosaic of alternatives originating from the bottom-left, the movement must create space for critical reflection and nuanced debates about how to organise and strategize because different theories have different assumptions and methods to achieve social change.

2.3 Examining degrowth social theories: A review and proposal

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Abstract

This article argues that unless the degrowth movement provides greater strategic clarity regarding its social theory of change, then it risks remaining an unrealisable utopia. This is because it is not enough to critique capitalism or prefigure alternatives, the movement must deploy strategies that organise and mobilise mass movements to demand degrowth. To begin overcoming this strategic indeterminacy, this article reviews and classifies the social theories of degrowth into five categories: (1) reformism; (2) eco-socialism; (3) eco-marxism; (4) eco-anarchism; and (5) eco-feminism. What follows is the proposal for Paulo Freire's pedagogy of the oppressed to become the common theory of social change for the degrowth movement because it provides a revolutionary humanist approach to social change that cultivates the *conscientização* (critical consciousness) and *liberação* (liberating action) needed to mobilise mass movements. The article concludes by reflecting on why considerations of class, ecology, feminisms, and privilege are key when organising for degrowth.

Keywords: degrowth, pedagogy of the oppressed, social theory, post-growth, transitions

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1. Introduction

One of the fundamental questions for ecological economists is *how to achieve degrowth*. Whilst academics are investigating how capital accumulation and economic growth are incompatible with sustainability (Parrique, 2019); activists are prefiguring a mosaic of alternatives that embody degrowth visions and values (Burkhart et al., 2020). On the surface these approaches appear complimentary, but deeper examination reveals that this is not guaranteed. As Onofrio Romano explains, 'it [degrowth] cannot be considered as a homogeneous and consistent sociopolitical theory' (Romano, 2019: 30). Indeed, mixing degrowth heterodoxy with orthodox economics hinders the ability to build mass movements to demand degrowth. The main assertion of this article is that unless the degrowth movement provides greater strategic clarity regarding its theories of change – the who, what, when, where, why, and how of social change – degrowth risks remaining an unrealised utopia.

Strategic differences arise from ideological differences – the lenses through which the world appears to us. Take for example Giorgos Kallis, who alone accounts for one-fifth of degrowth citations, making how he views social change important within the degrowth movement (Engler et al., 2024). Reviewing his *oeuvre*, Kallis explains that degrowth is an economic concept that requires a Gramscian theory of the state with markets to implement policies like resource caps, carbon and green taxes, basic and maximum incomes, and work-time reductions (Kallis, 2018, 2019; D'Alisa & Kallis, 2020). The argument goes that degrowth will either becomes common sense as people work less and share reduced throughput, or biophysical limits will be forced upon us through recurring crises. The point Kallis and others make is that ecological collapse, not degrowth, prevails either way. What if though, as Kallis recognises, the state is an instrument of class domination – can coercive power and repression ever be legitimate? Are markets and money compatible with degrowth societies? Such examples remind us that people work objectively within deeply subjective boundaries, which themselves arise out of lived experiences and social norms. But this should not lead to a 'narcissism of small differences [where] like-minded people working to solve the same problem will engage in continuous civil war with each other over methods, thus destroying their chances of success' (Robinson, 2020: 505). Rather it should promote a dialogical and iterative approach to social theory.

Many degrowth thinkers align with a pluriverse approach to politics that recognises there are multiple worlds (Escobar, 2020). Yet, degrowth invokes the pluriverse with little reflection on philosophy of science (Buch-Hansen & Nesterova, 2021). Inherited from ecological economists, this approach favours unstructured pluralism over political analysis resulting in inconsistent social theories (Spash, 2024). Whilst a common social theory is neither probable nor plausible, moving toward a commonly held theory of social change could assist the degrowth movement to analyse and actualise alternative economies. One advantage is that it would enable the movement to address the contradictory positions it holds toward mainstream hegemonic paradigms, including freedom (Windegger & Spash, 2023), markets (Nelson, 2022), money (Exner, 2014), nature (Spash, 2018), state (Koch, 2022a), and transformation (Eversberg & Schmelzer, 2018). In this direction, I see promise in bringing degrowth in dialogue with Paulo Freire (e.g., Freire, 1970; Freire & Faundez, 1989; Leonard &

McLaren, 1993; Freire, 1997, 1998) to increase the revolutionary potential of the degrowth movement.

The history of social movements informs theories, tactics, and triggers of social change (Cox & Nilsen, 2014; Engler & Engler, 2016). From a critical realist perspective, structures are the product of human relations and, therefore, open to challenge and change. This is because reality is stratified; separated into events, mechanisms, and structures. Meanwhile, the majority of degrowth proposals take markets and states for-granted, citing the inability of prefigurative alternatives to scale up or act fast (Cosme et al., 2017; Fitzpatrick et al., 2022). But this is a red herring since prefigurative alternatives scale out rather than up meaning the principles could be replicated globally. As this article will suggest, a degrowth approach to social theory must address scale whilst maintaining the movements principles and goals. As many degrowth scholars are activists, we should seek to better understand the deep structural reasons for oppression and how collective action can overcome it.

Cultural revolution is key to achieving ecological sustainability and liberation. But little research has been conducted on pedagogy for degrowth. In general, the pedagogy of degrowth builds on critiques of banking education (Freire, 1970), compulsory schooling (Illich, 1971), discursive certainty (Zaldívar, 2015), institutional hierarchies (Rancière, 1991), and linguistic imperialism (Thomson, 2011), to foster learning communities that are critical (Prádanos, 2015), dialogical (Bock, 2021), embodied (Brossman & Islar, 2020), informal (Kaufmann et al., 2019), and multilingual (Barrantes-Montero, 2014). Commodified and formalised pedagogical content, for example in universities, restricts the transformative potential of degrowth teachings to a privileged few. Here, degrowth could learn from the life of Paulo Freire by realising that degrowth cannot be reduced to theory without action (*verbalism by academics*) or action without theory (*activism by activists*). Degrowth requires praxis: the commitment to reflection, theory, and action. In other words, connecting theory with strategies and tactics. Hence, the purpose of this paper is to initiate a dialogue between pedagogy of the oppressed and degrowth.

The article is organised as follows. *Section 2* conceptualises degrowth and capitalism before reviewing the social theories of degrowth that updates the analytical framework of Alexander and Rutherford (2014). *Section 3* outlines the proposal of *Pedagogy of the Oppressed* by engaging with the work of Paulo Freire, Ivan Illich, and bell hooks. *Section 4* reflects on considerations of class, ecology, feminisms, and privilege when organising for degrowth.

2. Theories of social change

Degrowth is in a state of becoming (Buch-Hansen & Nesterova, 2023). What began as a missile word to repoliticise growth-based development is now evolving into a systematic critique of growthism that outlines visions and strategies to transcend capitalism (Barlow et al., 2022). But degrowth remains elusive because it carries at least three denotations: (1) decline of environmental pressures; (2) decolonisation of social imaginaries; and (3) destinations of sustainable societies (Parrique, 2019: 171-234). In essence, the denotations are dialectical because the distributive justice of *sufficiency* is impossible without the *autonomy* of self-governance that is offered by cultures of *collective self-limitation*. But this makes degrowth and its strategies open to interpretation depending on how one examines today's economic and

social relations. This is why social theory is important because it provides a framework to explain social structures, understand social interactions, critique social systems, and analyse social change.

Broadly speaking, capitalism is a set of social and economic relations focused on investing money to make more money that results in capital accumulation (Harvey, 2011). Capitalist dynamics are contested. First, they depend on extractivism of (im)material flows (Hickel et al., 2022a). Second, the privatised means of production secures corporations ability to socialise costs and privatise profits (Magdoff & Foster, 2011). Third, the capitalist division of labour coerces and commodifies people to produce things for trade (Mies & Bennholdt-Thomsen, 1999). Fourth, the institutionalisation of growth imperatives by using money for production and trade results in inevitable economic expansion and social-ecological imbalances (Nelson, 2022). In other words, this is how capital becomes power (Nitzan & Bichler, 2009) and why capitalist framings occupy our minds without question (Fisher, 2009). An elusiveness that could be overcome if everyone interested in sustainability understood the contradictions of capitalism and took liberating action to overcome them.

The dynamics of capitalism mean that sustainability transitions are about power (Avelino, 2021). Given over three decades of climate mitigation policies have resulted in record levels of throughput (Pineault, 2023), emissions (Stoddard et al., 2021), and inequality (Piketty, 2022), intervening in the policy process seems to be a futile strategy for achieving degrowth (Spash, 2023). Evidence that suggests the degrowth movement should spend more strategic effort on developing social theories that specify who has power and how to overcome it. By updating the analytical framework of Alexander and Rutherford (2014), this article reviews and classifies the social theories of degrowth via five influences: (1) reformism; (2) eco-socialism; (3) eco-marxism; (4) eco-anarchism; and (5) eco-feminism. But this warrants two caveats. The first regards categorising influences, which this article argues is useful to examine and overcome strategic indeterminacy, but in reality remains fluid. For example, someone could be influenced by autonomist Marxism, anarcho-communism, and ecofeminist thought when designing degrowth strategies. The second is that the following summaries should be treated as an invitation for dialogue rather than a systematic review of the literature.

2.1 Reformism

Reformism refers to a political doctrine that advocates for evolutionary changes through existing institutions. At its core, reformism assumes that gradual changes via a liberal or regulated state with a market economy that can lead to social-ecological transformation (Spash, 2024). Not to be confused with non-reformist reform (Gorz, 1964) – gaining rights through revolutionary class struggle – reformism focuses on the need to win political support across the spectrum because growth is ideological and for change to occur effort is required across all levels of civil society, not because of capitalism or class conflict. This makes governments and policymakers keystone actors because they can implement policies from cap-and-trade programs to 'voluntary simplicity' campaigns that focus on fixing market failures and getting prices right (Spash, 2020). The key assumptions of these types of social change suggest that capitalism and markets are compatible with sustainability; better information results in rational decision making; democracy exists with minor flaws; private

production and property is preferable; and the state is necessary to help people be rational. In other words, the arc of the moral universe bends toward justice because ideas and values shape material and social structures, not vice versa.

Reformist approaches to degrowth strategy mimic those adopted by social democrats and liberals. Furthermore, it is the hegemonic approach applied by corporations and governments that most people see daily via advertisements and media. Inspired by ecological economists, the heavy lifting of degrowth transitions is proposed via states and markets (Cosme et al., 2017). This is exemplified by the most popular degrowth policy proposals being universal basic incomes, work-time reductions, reducing inequality via taxation, and declining caps on resources (Fitzpatrick et al., 2022). In some instances, reformists advocate for phase-outs, nationalisations or state investments but generally support market economies (Mastini et al., 2021) and welfare states (Hirvilammi & Koch, 2020). A mentality that trickles down to subnational levels where the state carries ad-hoc policy education and local initiatives promote voluntary simplicity with limited political education (Mocca, 2020). In summary, the social theory behind reformism has limited applicability to degrowth beyond short-term policies that might motivate long-term political visions.

2.2 Eco-socialism

Eco-socialism calls for the collective ownership of the means of production and distribution to ensure ecological sustainability and social equity (Chertkovskaya & Paulsson, 2021). At its core, eco-socialists argue that capitalism is incompatible with degrowth due to capitalism's 'grow or die' growth imperatives (Foster, 2011). These ideas challenge the capitalist myth of the 'free markets', instead preferring contraction and convergence pathways via state planning (Albert, 2023). In their early stages, eco-socialists remain conflicted with establishing parties because it risks undermining building an internationalist nonviolent movement. The key assumptions of social change include being able to develop ecological class consciousness amongst workers, especially in industrialised nations; convincing policymakers to adopt reforms that limit capital accumulation; and that the state is a necessary institution to achieve sustainability.

Eco-socialist approaches to degrowth strategy are the most highly cited perspective in the movement (Engler et al., 2024). Their theories build on the self-proclaimed democratic market socialist, Erik-Olin Wright (2010) who combines three political traditions – symbiotic (democrats), interstitial (anarchists), ruptural (communists) – into a single strategy for transformation (for examples, see Demaria et al., 2013; Barlow et al., 2022). Although modified to address the bias towards reformism, the 'strategic canvas of degrowth' outlined by Chertkovskaya (2022) includes dismantling unjust institutions (e.g., economic disobedience), halting fossil capital (e.g., nationalisation to phase-out), and smashing existing structures (e.g., worker takeovers) to better reflect each political tradition. However, the necessary weighting of each mode of transformation is contested. Debates that often take the role of markets, money, and the state for granted. This is exemplified by the latest degrowth transition proposal that focuses on removing growth imperatives, funding public services, managing work-time reductions, and reshaping provisioning systems (Hickel et al., 2022b). In short, eco-socialist degrowthers implicitly make policymakers a keystone species for social change (see

Fitzpatrick et al., 2022: Supplementary 6). In summary, the social theory behind eco-socialism aligns with the short-term policies proposed by liberals but rely on taking state power to achieve their goals.

2.3 Eco-marxism

Eco-marxism is a political ideology that combines marxist political economy with ecology through understanding society-nature relationships as dialectical. This is distinct from eco-socialism because not all eco-socialists are Marxists, many adopt a more reformist approach to degrowth strategy. Through invoking concepts like metabolic rift (Foster, 2022) or world ecology (Moore, 2016), eco-marxists argue the capitalist mode of production must be overcome and structures simplified along democratic confederalist lines so that people regain control of their lives and develop their full potential (Piccardi & Barca, 2022). Although significant debate remains around the agents (e.g., working-class, unions) and forms (e.g., hierarchies, parties) of organising needed to realise it. The key assumptions of social change include being able to develop ecological class consciousness amongst workers, especially in the industrialised nations; and the acceptability of separating means (hierarchical organising, party politics) and ends (non-hierarchical outcomes, communalism) to achieve sustainability.

Eco-marxists approaches to degrowth strategy are gaining momentum. In general, they design power-centred theories of change because they view class conflict as inevitable (Vastenaekels, 2023). One example is Kohei Saito whose 'degrowth ecological communist' argument for degrowth in Capital in the Anthropocene (2020) has sold over half-a-million copies in Japan. For Heron and Dean (2020), eco-Leninism is a suitable strategy for a revolutionary degrowth transition because first we need to build a global coalition of the oppressed via mass civil disobedience and sabotage to enable a revolutionary moment that should be followed with rapid nationalisation, class dissolution, and redistribution of land and wealth as proposed by Trotskyist Andreas Malm (2020). Meanwhile, Marxist-Leninists emphasise revolutionary organising via social movements to initiate the conditions for a vanguard party to establish democratic centralism via a dictatorship of the proletariat that nationalises the means of production and delegates power to local worker councils (Tyberg & Jung, 2021; Tyberg, 2022). Autonomous and feminist Marxists highlight the working class and women as potentially more effective agents than social movements given they control points of (re)production and have distinct cultures (Barca & Leonardi, 2018). In summary, ecomarxists combine a sharp critique of capitalism with a strong commitment to connecting grassroots organising with a revolutionary party but degrowth remains wary of authoritarian tendencies.

2.4 Eco-anarchism

Eco-anarchism or green anarchism is a school of thought that emphasises total liberation beyond markets and states. At its core, eco-anarchists argue that anarchism enables self-governance and thus reject anthropocentric dualisms (e.g., humanity-vs-nature) and domination (Graeber & Wengrow, 2021). For anarcho-primitivists, this extends to a rejection of civilization and technology due to their alienating and inequitable tendencies. Eco-anarchist strategies focus on horizontalist, direct democracy, and grassroots power-sharing given the

inevitable corruption that attends concentrated power (Liegey & Nelson, 2022: 86-115). This includes prefiguring cooperative, frugal, localised, money-free, self-sufficient, and self-governing systems in the here and now. These principles extend to the organisational form of mass movement strategies as they attempt to leverage (non)violent direct resistance[11] to raise social consciousness (Alexander & Gleeson, 2020; Liegey & Nelson, 2020; Sovacool & Dunlap, 2022). The key assumptions of social change include believing that the state is a tool of domination; anarchism enables self-governance; and direct action increases societal consciousness.

Eco-anarchist approaches to degrowth strategy are commonplace but often sidelined. For example, eco-anarchists publish the majority of degrowth books, but are not read or cited as much as eco-socialist alternatives (Fitzpatrick et al., 2022). Furthermore, internal degrowth critique of anarchism tends to be dismissive. For example, '[anarchists] underestimate the question of enforcement – living within limits, respecting democracy and freedoms, stopping expansion, etc, won't happen on their own, they all require organization and force…because they tend to see all repression as bad. But climate change for instance is a global problem that demands restrictions' (D'Alisa & Kallis, 2020: 5). Although some may agree, reductionist statements like this run contrary to the anarchist roots of degrowth (e.g., Illich, Gorz) and anarchist literature in general that writes extensively on organisation and enforcement (Baker, 2023a). Furthermore, it is anarchist-inspired thinkers who provide the most detailed degrowth strategies by outlining examples of initiatives (Trainer, 2019b), suburban areas (Alexander & Gleeson, 2019), and glocal community modes of production (Nelson, 2022). Together, these theories of change recognise that until grassroots social movements demand degrowth, or something like it, degrowth will remain an academic utopia. In summary, eco-anarchists design liberating strategies for degrowth that align with their critique of domination, but these actions require mass movements to spur political economic and cultural revolution.

2.5 Eco-feminism

Ecofeminism describes movements and philosophies that link feminism with ecology. At its core, ecofeminists connect feminism and ecology to recognise the proximity of women's exploitation and domination to that of nature and nonhumans under the imperialist white supremacist capitalist patriarchy (Mies, 1986). To overcome the growth paradigm, ecofeminists design care-full strategies that focus on culture, decolonisation, and power (Paulson, 2017; Dengler & Seebacher, 2019; Abazeri, 2022). This includes providing provisioning systems that regenerate reproductive capacities that are gradually decommodified along communitarian liberationist lines (Dengler & Lang, 2022). To overcome the learned ignorance of predatory (white male) ontologies, ecofeminists emphasise ethics of care and distributive justice (Ruder & Sanniti, 2019). The key assumptions of social change include ideas and values shape material and social structures, including convincing people that feminism is more than gender.

[11] Leigey and Nelson (2020: 100) define what they mean by nonviolence, "[c]ivil disobedience, direct action, sabotage, blockades, attacks against corporate symbolic property (say destroying a repulsive advertisement) are non-violent defences or mere provocations – if cleverly and collectively implemented – in order to open political debate, and as long as no-one is injured."

Ecofeminist approaches to degrowth strategy are essential to overcoming growth imperatives. However, most degrowth literature treats ecofeminism as optional rather than within holistic considerations of power relations (Bell et al., 2020). As Sanniti (2022) discovered when examining household (re)organisation during Covid-19 lockdowns, degrowth proposals advocate for broad care provisioning systems but overlook immediate necessities of childcare, disabilities or mental health services. This speaks to the need for intersectional feminist strategies that enable unlearning and promote disruption of growth-based political economies (FaDA, 2023). One example is embodied materialism put forth by feminist Marxists who realise that you can't address the oppression of nature by men without simultaneously addressing the oppression of women by men. Such an approach joins theory and praxis by making politics historical, material, and populist (Salleh, 1997). Here the heart of ecofeminist social change becomes social-ecological reproduction in the context of culture and community (Barca et al., 2023). In summary, ecofeminists provide a care-full critique of domination that demands degrowth strategies be intersectional by design, but this must also be accompanied by a cultural revolution.

3. Paulo Freire and Pedagogy of the Oppressed

Paulo Freire (1921-1997) was a Brazilian educator and philosopher. Having experienced poverty and hunger during his childhood in the Great Depression, Paulo developed an unwavering solidarity with the poor that led him to teach peasants how to 'read the word and the world'. Although primarily influenced by Brazil's history and his experiences, Freire's philosophy was also inspired by personal and academic connections.[12] This led him to work with peasants and workers in north-eastern Brazil, including teaching 300 sugarcane harvesters to read and write in 45 days before he was imprisoned by the military junta and lived in exile for 15 years.[13] During this time Paulo contributed to the philosophy of education from a post-Marxist and anti-colonial perspective, including with his most famous work, *Pedagogy of the Oppressed* (1970). From the outset it must be noted that any genuine attempt to engage with *Pedagogy of the Oppressed* must realise that it is a philosophical anthropology or social theory that cannot be reduced to a teaching method (Macedo, 2000). In terms of transcending paradigms, *Pedagogy of the Oppressed* could increase the liberation potential of degrowth strategising.

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[12] These inspirations were both personal - parents, Eunice Vasconcelos (preschool teacher), Oswaldo Cruz (secondary teacher) and academic - Albert Memmi (colonisation, economic exploitation), Anïsio Teixeira (democratic sensibilities through education), Antonio Gramsci (organic intellectual), Erich Fromm (human freedom and control, biophilic and necrophilic), Frantz Fanon (colonisation, oppressed must liberate themselves), G.W.F. Hegel (social ethics, dialectics, metaphysics, phenomenology), Jean-Paul Sartre (banking education), John Dewey (philosophy of education, classroom dynamics), Karl Marx (class consciousness, alienated labour, false consciousness), Mao Tse Tung (cultural revolution), and numerous liberation theologians.

[13] During these years, Paulo lived in Bolivia, Chile (five years working for the Christian Democratic Agrarian Reform Movement and the Food and Agricultural Organization of the United Nations), U.S.A. (Harvard University), and Switzerland (World Council of Churches).

Pedagogy of the Oppressed is a seminal work of Brazilian educator Paulo Freire that argues for the need to re-conceptualise education to overcome its alienating and hierarchical tendencies. It is the third most cited book in social sciences, inspiring countless people to re-examine the links between democracy, freedom, and liberation (Green, 2016). At its highest level, *Pedagogy of the Oppressed* constitutes an alternative metatheory to liberalism and positivism. Central to this way of seeing the world is the recognition that education is political; humanisation is an ontological and historical vocation; social structures are always in becoming; reality can be known in many ways; knowledge of reality facilitates transformation; and praxis involves a dialectical relationship between reflection, theory, and action. At the heart of this vision is the concept of *conscientização* (critical consciousness) – 'the learning process of being able to perceive social, political and economic contradictions, and to take action against the oppressive elements of reality' (Freire, 1970: 35)[14]. In other words, becoming aware of one's oppression and taking *liberação*[15] (liberating action) to overcome it. This promotes a lifelong commitment to dialogical processes that enable people to go from 'being for others' (Fanon, 1961) to 'beings for themselves' (Freire, 1970). A philosophy that should resonate with the degrowth movement as it aspires to replace policymakers and pragmatism with people and praxis – 'reflection and action directed at the [political economic] structures to be transformed' (Freire, 1970: 126).

Throughout his career, Paulo studied how education can be used as a tool for oppression or liberation. To better understand the teaching-learning context, Paulo introduced two concepts: banking and problem-posing education. Like the process of colonisation, the banking model of education is a system of narration whereby 'full' teachers deposit knowledge into 'empty' students. Based on a mechanistic understanding of consciousness, banking education emphasises a one-way flow of information from teachers to students via memorisation and obedience (e.g., lecture-based classes, mandatory readings, exams). This produces 'educated individuals' who are docile and employable. In contrast, problem-posing education recognises that humans are conscious and historical beings who have an 'ontological vocation to be to be more fully human' (Freire, 1970: 74). Only after solving the teacher-student contradiction by aligning goals and processes can dialogical relations be established whereby teachers and students become critical co-investigators, instead of sympathetic oppressors and docile listeners. This approach rejects authority in favour of dialogue because 'solidarity requires true communication' (ibid: 77). Hence, the education process becomes a creative process consisting of unveiling reality, emerging consciousness, and critical intervention in the world. In short, committing to *conscientização*. For degrowth, the fact that Freire puts humanism and the pursuit of becoming at the core of pedagogy is powerful. The unfinished character of humanity reminds degrowth scholars that words only have meaning when they are put into practice because the liberating potential of pedagogy comes from being and doing, not memorising and writing. So, whilst the context differs, I propose that the degrowth movement should run literacy campaigns to create spaces to

[14] A term Freire initially refused to translate into English for political and pedagogical reasons.

[15] The Portuguese word for "liberation" is liberação, which is composed of "liber" meaning 'free' and "ação" meaning 'action' – a pairing that cannot be reproduced in English.

analyse and actualise post-capitalist pathways for collective liberation (e.g., akin to François Schneider in 2004 or Timothée Parrique in 2022 who conducted degrowth tours around France). In other words, the degrowth movement must scale spaces for cultivating *conscientização*.

Following the publication of *Pedagogy of the Oppressed*, the philosopher and Catholic theologian Ivan Illich published *Deschooling Society* (1971). Throughout the book, Illich critiques mainstream education because it has failed to meet our needs, provided misleading notions of progress, and became recruiting centres for private consumer society. Instead, Illich suggests that a 'good educational system should have three purposes: (1) provide all who want to learn with access to available resources at any time in their lives, (2) empower all who want to share what they know to find those who want to learn it from them, and (3) furnish all who want to present an issue to the public with the opportunity to make their challenge known' (Illich, 1971: 75). These goals could be achieved through four networks involving: a reference service to educational objects, skills exchanges, peer-matching, and a directory of professional educators. One could begin applying this framework to the degrowth movement by asking: Who creates knowledge? Whose knowledge is legitimate? How can we raise ecological class consciousness?[16] Through problem-posing the pedagogy of degrowth one begins to realise that internal (i.e., personal, institutional) and external (i.e., social movements, society) revolutions are one and the same.

There is no doubt that Freire and Illich have a shared critique of authority. Where they differ is how to overcome it, just like social theories on how to achieve degrowth. As is often the case, this stems from underlying assumptions and beliefs about how the world works. Whereas Illich sought to dismantle the structural power of formal education, the church, and modern industrial society; Freire believed class conscientização would motivate social change, even if this meant collaborating with the World Council of Churches and Catholicism (Torres, 1993). An important note is that these ideological differences developed after the pair had become influential, especially amongst young academics attempting to revolutionise pedagogy. But the pair were not without their blind spots. Neither developed a comprehensive analysis of the ecological impacts of growth-based societies or acknowledged the need for simultaneous inner transformations of our bodies, emotions, and minds (hooks, 2003). Both of which are critical for envisioning and realising the liberatory process of degrowth. Additionally, both examples justify the appropriation and extension of pedagogy of the oppressed to ensure that the social theory of degrowth is ecological, feminist, and liberationist.

One example of embracing *Pedagogy of the Oppressed* is the case of liberation theologians. Following the colonial conquest of South America, a small contingent of Catholic priests recognised that the church (re)produced oppression with a culture of colonisation instead of liberation via a cultural revolution (Boff & Boff, 1987). Guided by the preferential option for the poor, essentially a religious version of environmentalism of the poor (Martinez-

[16] Ecological class consciousness refers to an awareness and understanding of the ways in which environmental issues intersect with social and economic class structures. It 'may allow working-class people to recognize the ecological contradictions that affect their communities, and to act upon them in specific ways, thus generating *working-class environmentalism*.' (Barca & Leonardi, 2018: 491).

Alier, 2003), liberation theology was practised through the four phases of the hermeneutical circle: *conscientização*; academic analysis; faith analysis; action (for a how-to guide, see Cooper, 2015). In short, this involved analysing the root causes of injustice and struggling with the popular classes[17] for systemic change. Liberation theologians prioritised grassroots, bottom-up organisation via a plethora of political activism, including calls for self-determination; establishing democratic fora (i.e. base ecclesiastical communities, reflection workshops) to encourage self-determination and self-governance; fighting for agrarian reform with landless peasants and rural farmers; and practising nonviolent direct resistance. Again, despite different contexts and the role of spirituality remaining unclear for degrowth (Puggioni, 2017), the experiences of liberation theologians provide important lessons for degrowth strategy. First, analysing and actualising alternatives must engage with and be led by the oppressed. Second, cultivating the conditions for cultural revolutions involves mobilising mass movement by meeting people where they are. Finally, resisting oppression will be met with repression so the degrowth movement must be organised and strategic when participating in revolutionary grassroots organising.

4. Toward a pedagogy of degrowth

In this section, I propose several directions to deepen the dialogue between pedagogy of the oppressed and degrowth. *Pedagogy of the Oppressed* is a revolutionary and humanist social theory that promotes alternate ways of being in the world; a philosophical anthropology witnessed through the experiences of liberation theologians. From a Freirean perspective, degrowth can be described as a science that is critical and emancipatory (Buch-Hansen & Nesterova, 2021). This makes *Pedagogy of the Oppressed* a strategic choice for the degrowth movement to adopt as it delves into the world of political strategizing (Barlow et al., 2022). By retracing my arguments, I reaffirm the liberating potential of *conscientização* by engaging with Paulo Freire's plethora of philosophical thinking. Broadly speaking, this section reflects on four key considerations when organising for degrowth: class, ecology, gender, and privilege.

Pedagogy of the Oppressed enables the degrowth movement to better perceive and overcome societal contradictions. This is because understanding oppression requires a detailed analysis of capitalism and its class-based societies. In other words, moving from a class-based to classless society requires some form of class analysis. Whilst degrowth should not reduce everything to class, arguably it remains the most widespread form of oppression in society today. One possible pathway for the degrowth movement to actualise this is to engage with 'working-class people to recognize the ecological contradictions that affect their communities, and to act upon them in specific ways' (Barca & Leonardi, 2018: 491). In turn, developing ecological class consciousness and pathways to degrowth that contain contextual sensitivities.

[17] For Boff and Boff (1987), the concept of 'popular class' refers to a collective poor that is wider than the concept of 'the proletariat' first outlined by Karl Marx. As such, the popular class extends to workers exploited by the capitalist class, women, the under- and unemployed, peasants, labourers, migrant workers, children, etc.

For many degrowth advocates, an ecological critique is the starting point for engaging with capital accumulation and economic growth (Schmelzer et al., 2022). To them, this is an example of why realist science, not technology, should guide a transition because sustainability transitions cannot make capitalism 'green'. Key to this critique is an understanding that economic processes are biophysical processes because economic activity, regardless of social organisation, is subject to biophysical realities (Smil, 2019). This intimately interconnected yet autonomous relationship between social (e.g., humans) and ecological (e.g., Earth) conditions is referred to as social metabolism. In instances where this social metabolism is abused a metabolic rift arises (Foster, 2022). To overcome this some people recommend 'green growth' – an absolute, global, and permanent decoupling of production and consumption from all environmental pressures that is fast enough to avoid ecological collapse – but this type of change has never been seen before (Haberl et al., 2020; Weidenhofer et al., 2020). Given this is highly unlikely to happen anytime soon, if at all, 'green growth' strategies quickly fail. In summary, combining the class analysis of pedagogy of the oppressed with the ecological critique of degrowth increases liberation potential by avoiding apolitical ecological analyses and strategies that increase the likelihood of being co-opted by capitalism.

Over his career, Freire remained reflexive and open to critique (Leonard & McLaren, 1993; Freire, 1998). The most prominent and legitimate criticism coming from feminists. There is no doubt that Paulo's early writings contained sexist language through the exclusive use of male examples and pronouns. This led him to create some assumptions about the world that equated freedom with patriarchy, essentially constructing a 'phallocentric[18] paradigm of liberation' (hooks, 1993: 147). A critical cross-examination that should extend to the degrowth movement which risks reproducing patriarchal understandings of the world (FaDA, 2023). However, this is why becoming a feminist ally is a necessary step to achieving degrowth because liberating action draws on understanding and feeling. An approach that must encompass the multiplicities of oppression suffered by women and 2SLGBTQ+ communities. The criticism from feminists led Paulo to become a feminist in the 1970s. This included revising language of previous books for future editions and adopting a gender-neutral writing style for new publications demonstrating that it is possible to become more open-minded with age (Freire & Faundez, 1989; Freire, 1997, 1998). It follows that if the degrowth movement decides to adopt pedagogy of the oppressed as its social theory it must recognise that inner and outer transformation are one and the same – feminisms make degrowth revolutionary.

From a liberationist perspective, *Pedagogy of the Oppressed* offers a reality check to the realisation of degrowth. Whilst degrowth has a theoretical critique of growth, the practical experiences of liberation theologians demonstrate the pitfalls and possibilities of challenging power, especially by the ruling class who have an unwavering solidarity amongst themselves. Here, I refer to the intersectionality of privilege, some of which include ability, education, language, sexuality, skin colour, wealth. This is why adopting the *Pedagogy of the Oppressed* is an advantageous yet risky move. On one hand it provides a revolutionary social theory from beyond the Anglosphere that better reflects the global majority (i.e., environmentalism of the poor); whilst on the other hand it risks reducing the same revolutionary social theory down to

[18] The term "phallocentrism" refers to the belief in the superiority of the phallus – male reproductive organ – when organising the social world.

a method practised by privileged people (who may even be oppressors). The latter has only one outcome in the words of Amílcar Cabral – class-suicide. So, if *Pedagogy of the Oppressed* is pursued by the degrowth movement, special attention must be placed on understanding the historical forces and systemic conditions of oppression, including unlearning internalised privilege by practising material solidarity and empathy with the oppressed – who are often not in the room (Freire, 1994, 1998; Nicholls, 2011). In other words, it invites the degrowth movement to continue reflecting on power, pluralism, and privilege.

5. Conclusion

The purpose of this article has been to provide greater strategic clarity on the social theories employed by the degrowth movement. This is achieved by reviewing and classifying the social theories of degrowth via five influences: (1) reformism; (2) eco-socialism; (3) eco-marxism; (4) eco-anarchism; and (5) eco-feminism. The article goes on to propose Paulo Freire's *Pedagogy of the Oppressed* to become the common theory of social change for degrowth because it provides a revolutionary humanist approach to social change that cultivates the *conscientização* (critical consciousness) and *liberação* (liberating action) needed to mobilise mass grassroots social movements to demand degrowth.

The review component updates the analytical framework of Alexander and Rutherford (2014) by identifying the social theories behind degrowth strategies. The synthesis outlines the characteristics and assumptions of social change advocated for by liberal, eco-socialist, eco-marxist, eco-anarchist, and eco-feminist interpretations of degrowth. Whilst they all share an analytical critique of capitalism, what differs is how they organise for degrowth. A fissure that appears to mirror historical divisions between anarchist, scientific, and utopian socialists.

The proposal of *Pedagogy of the Oppressed* is made by outlining the context and content of Paulo Freire's oeuvre. It pays attention to the foundations of this philosophical anthropology, including the historical and ontological vocation of freedom and liberation despite the struggles of oppression and internalisation; the learning process of *conscientização* that leads to one becoming aware of one's own oppression and take *liberação* to overcome it; and how to overcome the teacher-student contradiction via problem-posing through dialogue. The key takeaways are: (1) conscientização involves a lifelong commitment to dialogical learning; (2) the degrowth movement should create and scale spaces for analysing and actualising liberating post-capitalist pathways; and (3) cultivating cultural revolutions involves mobilising mass grassroots movements and resisting oppression which will be met with repression if it challenges the status quo, as it must.

Finally, the article reflects on four considerations when organising for degrowth. First, moving beyond a class-based society requires a class analysis that focuses on developing workers' ecological class consciousness. This links to the second point that an ecological critique is indispensable to the degrowth movement making it necessary to adopt. Third, feminisms make degrowth revolutionary because they recognise that true transformations are holistic in nature and guided by love – a mainstay of revolutionary organising. Finally, *Pedagogy of the Oppressed* provides a revolutionary social theory from beyond the Anglosphere that better reflects the global majority, but it cannot be reduced to a method practised by privileged people. The implications for the degrowth movement are that we must prioritise understanding oppression and unlearning privileges by practising material solidarity and empathy with the oppressed – who are often not in the room. Committing to conscientização is a lifelong process; we have little to lose and the world to win.

2.4 Uniting the means and ends of degrowth transformation

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Abstract

Degrowthers, and the degrowth movement in general, are often depicted as reactionaries or utopians that lack a basic understanding of biophysical reality and social change. This chapter counters this narrative by reconstructing the degrowth movement's views on political strategy and the arguments used to justify it. Here I demonstrate that the degrowth movement has developed a systematic critique of why economic growth is incompatible with environmental justice. However, the movement should not downplay or deny the difficulties of achieving degrowth when developing social theories and political strategies. Rather they must realise that anything less than uprooting the systemic drivers of climate and ecological breakdown amounts to greenwashing. To this end, the degrowth movement should extend its critique to the State if it believes in uniting the means and ends of degrowth. This is because the means of acquiring and exercising state power runs contrary to the ends of degrowth: self-governing societies based on decentralisation, workers' control, and mutual aid.

Keywords: anarchism, degrowth, political strategy, revolutionary process, state

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1. Introduction

This chapter addresses the problem of translating growth critiques into organisational politics to realise the revolutionary process of degrowth. Drawing on recent literature from the degrowth movement and historical ideas of the State, I explain why adopting an anarchist critique of the State from Pëtr Kropotkin (1842-1921) is crucial to advancing the strategies and tactics of the degrowth movement. My main argument is that to develop organisational politics that are less likely to be co-opted or crushed by capital, the degrowth movement must incorporate an anarchist critique of the State that unites the means and ends of degrowth. This is because the State is more than just a government. Whereas the 'state' refers to single countries with a government (e.g., Germany), the 'State' refers to a form and set of institutions that organise reality that has existed and been exported since the rise of Renaissance Europe. This makes an anarchist critique indispensable to stimulate political analyses that resonate with people's needs, especially for the degrowth movement who looks to overcome the separation between scientific theory and popular praxis.

As the popularity of degrowth rises, so too do its detractors. Broadly speaking, critiques of degrowth fit two categories: misconceptions and criticisms (for an overview, see Parrique, 2019: 319–462). Here misconceptions refer to reductionist interpretations whilst criticisms refer to genuine engagements with the conceptual contradictions of degrowth. The most common misconceptions come from economists who lack a biophysical understanding of the world or are wedded to the so-called objectivity of economics (e.g., Branko Milanovic, Jeroen van der Bergh, Robert Pollin, William Nordhaus). These shallow engagements interpret degrowth as austerity, authoritarian, capitalist, economic, pseudoscience, reactionary, recession, romantic or technophobic. Meanwhile, the most common criticism concerns the name and political project (e.g., David Schwartzman, Kate Raworth, Matt Huber, Robin Hahnel). These deeper engagements criticise degrowth for being unappealing, unhappy, misguided, unaffordable, sexist, uncivilised or universal. Whilst important, these critiques are limited because they do not systematically engage with degrowth, or the State.

It is only from a systematic critique of growth, including the State, that society can begin to design and deliberate strategies to solve the primary contradiction of our time – economic imperialism – and its symptoms – ecological overshoot and social shortfall. This is why degrowth is a multi-layered concept (D'Alisa et al., 2014). For Parrique (2019), the concept has three denotations: (1) degrowth as decline of environmental pressures; (2) degrowth as emancipation from destructive ideologies; and (3) degrowth as destinations toward sustainable societies grounded in autonomy, sufficiency, and care. These principles are interconnected in the sense that the distributive justice of sufficiency promotes cultures of care that make self-governance possible. After reviewing over 100 definitions, Parrique (2022: 15) offers an improved definition of degrowth – 'a downscaling of production and consumption to lighten ecological footprints planned democratically in a spirit of social justice and for the sake of improving well-being'. Yet, existing strategies emphasise state and market mechanisms to achieve degrowth.

The links between the State and capital are inseparable. So, whilst the degrowth movement builds on critiques of capitalism (Feola, 2019), colonialism (Hickel, 2021a), markets (Exner, 2014), and money (Nelson, 2022); most of its strategies focus on fixing statecraft

(Cosme et al., 2017), markets (Hinton, 2021), money (Hornborg, 2017), and welfare (Koch, 2022b). Such strategies suggest that States, markets, and money are natural features of societies despite human history concluding otherwise (Graeber & Wengrow, 2021). Indeed, by adhering to the dominant narrative of correcting market failures rather than dismantling systemic failures, the degrowth movement risks being co-opted or crushed by the very things it seeks to fix: the State and capital. Hence, the objective of this chapter is to argue why an anarchist critique of the State by Kropotkin (2018/1913) can connect the means and ends of degrowth strategies. To achieve this, I provide an overview of the systematic critique of growth put forward by Schmelzer et al (2022: 1–91) before examining how they translate this into political strategies and social theories. Finally, I outline the case for an anarchist critique of the State and how it can connect the means and ends of degrowth strategy.

2. The systematic critique of growth

Like most revolutionary thrusts, degrowth was born out of a critique. At a fundamental level, degrowth is a criticism of the hegemony of growth: a fetish with economism that filters societal goals through economic concepts such as capital accumulation and economic growth. The result is an obsession with statistical analyses that model, measure, and mould growth into a societal norm within policy frameworks to business practices, education systems to social imaginaries. This normalisation process offers a powerful discursive argument for growth instead of redistribution to solve societal issues. But once the evidence is reviewed, it becomes clear that capital accumulation and economic growth are at odds with environmental justice. Indeed, a careful reading of degrowth reveals the need to organise beyond the dominant logic of correcting market failures in favour of dismantling systemic oppression and promoting collective liberation. This is why any genuine engagement with degrowth begins with at least seven critiques of growth (see Table 2.2).

The *ecological critique* acknowledges that economic processes are biophysical processes because they are subject to biophysical realities. Attempts to transcend law-like properties like thermodynamics via technology will backfire given energy and material constraints (Smil, 2019). This reality is evident in studies on social metabolism and decoupling that demonstrate an absolute, global, and permanent decoupling of economic growth from all environmental pressures that is fast enough to avoid ecological collapse ranges is highly unlikely, if not biophysically impossible (Haberl et al., 2020; Weidenhofer et al., 2020). The organisational implication for degrowth involves realising that there is no ecological space for social systems based on accumulation.

The *social-economic critique* questions the links between environmental impact, well-being, and money. This attacks the heart of neoclassical economics that assumes economic growth makes society better (Steinberger et al., 2020). Critical research highlights how competitive societies create psychological dynamics that guarantee overconsumption (Veblen, 1899; Wilkinson & Pickett, 2019); how life satisfaction plateaus after national incomes exceed relatively low levels (Easterlin, 2010; Jackson, 2021); and how re-establishing the commons requires going beyond markets and money (Ostrom, 2010; Nelson, 2022). The organisational implications for degrowth involve demonstrating how less is liberating.

The *capitalist critique* views economic growth as the materialisation of capital accumulation. Whilst often separated, combining analyses of accumulation and growth better reflect that competitive expansion, private property, and commodification is fundamental to the modus operandi of capitalism. In other words, capitalism is characterised by a continuous accumulation process (Harvey, 2011). This view goes to the root of economic imperialism that uses limits, hierarchies, and scarcity to justify extraction, accumulation, and growth (Kallis, 2019). These relations coerce and commodify people to produce things for trade instead of for subsistence (Nelson, 2022). The organisational implication for degrowth is that societies based on capital accumulation and economic growth are incompatible with ecological sustainability and social equity (see Robra & Hinton, 2024).

The *cultural critique* examines the role culture plays in (re)producing structures and subjects of growth. This employs Marx's concept of alienation to argue that capitalist relations of private property and monetary markets force people into wage labour where they do not control the process or product of their labour. This dictatorship of capital conflicts with the ontological and historical vocation of humanisation (Freire, 1970), subsistence economies that refuse colonial subjectification (Mies & Bennholdt-Thomsen, 1999), and reminds people that most work is socially unnecessary or ecologically harmful (Graeber, 2018). The organisational implication for degrowth is a reminder that structures and cultures are socially determined, therefore subject to being critiqued, challenged, and changed.

The *feminist critique* posits that capitalist economies are patriarchal because (white) men disproportionately occupy positions of power whilst women (of colour) do most of the reproductive work. This critique concerns the similarities between dominating and exploiting women with that of nature and non-humans for the accumulation and power of men (Mies, 1986) The argument is similar for feminist economists who maintain that market relations like wage labour, commodity markets, and capitalist enterprise undervalue the reproductive and subsistence activities that sustain life (Gibson-Graham, 1996). The organisational implication for degrowth involves developing self-and-system transformations that do not reproduce gendered divisions of labour and exploitation.

The *industrialist critique* posits that technology and machines have become authoritarian and alienating irrespective of ownership or organisation. This acknowledges that technology is not neutral and calls for a cultural shift toward convivial technologies that can be made, controlled, and maintained by the people who use them (Illich, 1973). The critique questions the assumption that societal progress depends on increasing the productive forces through increasing material and energy use. In most cases, competition-driven technology and innovation act as drivers of growth that are intensified by machines and profit (Vetter, 2018). The organisational implication for degrowth is the realisation that technology, infrastructure, and production need to be appropriated, transformed, and scaled back to enable emancipation.

The *imperialist critique* argues that since European colonisation, concepts like the economy, development, and growth are based on colonialism, dispossession, and extractivism. This is exemplified by studies on appropriation of materials, land, energy, and labour from the Global South to the Global North that are fundamental to growth-based economies (Hickel et al., 2022a) and imperial modes of living (Brand & Wissen, 2021). Often

this is maintained through growth-as-development discourses that legitimise domination with the hope of universalising the Western ideas of progress (i.e., industrial capitalist societies) rather than recognising the interconnected yet autonomous relationship between humans and nature (Kothari et al., 2019). The organisational implication for degrowth is that accumulation and growth cannot be universalised, which strengthens the argument for adopting a mosaic of anti-capitalist alternatives.

Table 2.2 Summarises the critiques of growth (Schmelzer et al., 2022: 91).

Critique	*Economic growth…*
Ecological	…destroys the ecological foundations of human life and cannot be transformed to become sustainable
Socio-economic	…mismeasures our lives and thus stands in the way of well-being and equality of all
Capitalist	…depends on and is driven by capitalist exploitation and accumulation
Cultural	…produces alienating ways of working, living, and relating to each other and nature
Feminist	…is based on gendered over-exploitation and devalues reproduction
Industrialist	…gives rise to undemocratic productive forces and techniques
Imperialist	…relies on and reproduces relations of domination, extraction, and exploitation between capitalist centre and periphery

Overall, this section demonstrates that the degrowth movement has developed a systematic critique of growth. However, despite being critical toward governments and markets, the critique fails to extend to the State. A shortcoming that as we will see, has flow-on effects when translating theoretical critique into political strategy.

3. Translating critique into strategy

Degrowth discussions on strategy began in 2008 when the first degrowth declaration was published (Research & Degrowth, 2010). Within the text lay indications of how 'socially sustainable economic degrowth' would approach strategy:

> *7. Progress towards degrowth requires immediate steps towards efforts to mainstream the concept of degrowth into parliamentary and public debate and economic institutions; the development of policies and tools for the practical implementation of degrowth; and development of new, non-monetary indicators (including subjective indicators) to identify, measure and compare the benefits and costs of economic activity, in order to assess whether changes in economic activity contribute to or undermine the fulfilment of social and environmental objectives. (p. 524)*

For signatories, the strategy appeared obvious: convince political and economic elites that capitalism has social and ecological limits. For others, the strategy was naive because its success depends on voluntary redistribution by elites through economism and parliamentarism. For example, how successful are strategies that rely on convincing capitalists and policymakers to redistribute power? Does this have the potential to transcend capitalism or simply make welfare states compatible with low-to-no growth capitalist political economies? Can the master's tools dismantle the master's house? In sum, this shows every sign of underestimating what it will take to achieve degrowth.

Following the initial declaration, discussions on how to achieve degrowth remained marginal. Whilst some explored state-based policies to achieve degrowth in overdeveloped countries (Assadourian, 2012; Videira et al., 2014), anarchists like Enric Duran resorted to robbing banks of €492,000 to fund degrowth-related organisations like the Catalan Integral Cooperative and Faircoop. Meanwhile, others examined the relationship between degrowth and democracy (Cattaneo et al., 2012) or how degrowth could move from a political slogan to a social movement (Demaria et al., 2013). This involved adapting the strategy of self-proclaimed democratic market socialist Erik-Olin Wright (2010) who combined three political traditions (social democratic, anarchist, revolutionary socialist) into a single strategy for transformation: symbiotic (i.e., policy reformism), interstitial (i.e., building alternatives), and ruptural (i.e., direct action). Whilst this framework has inspired internal debates, it largely excludes revolutionary socialist and anarchist strategies.

In 2017, Cosme and colleagues published a review of degrowth policy proposals. The findings revealed that three-quarters of proposals were top-down state policies with a national scale that focused more on social equity than ecological sustainability, and neglected certain issues like the Global South, demography, and the state. Herein lies an apparent paradox: can states and markets deliver the type of change grassroots social movements demand? The review highlighted the need for strategic clarity within the degrowth movement. One attempt to overcome this 'strategic indeterminance' is the ten-part blog series over two-years leading up to the 2020 Degrowth Vienna: Strategies for social-ecological transformation conference (Herbert et al., 2018; Barlow, 2019). Following the conference, the degrowth.info cohort posed the question of purpose to the degrowth movement: (1) remain an academic-driven movement focused on research; (2) transition to coordinated structures capable of deliberating strategy; or (3) reorient to influence larger environmental movements?

Around the same time the final blog posts were being published on degrowth.info, Timothée Parrique published his 872-page doctoral dissertation, *The political economy of degrowth*. The final third focused on how to transition from growth economies to degrowth societies (Parrique 2019: 468-693). Here, the inventory of proposals by Cosme et al. (2017) was expanded upon to include political party manifestos and academic policy agendas (Parrique, 2019: 844-850). This included the novel contribution of a method to study policy interactions to design degrowth transition strategies using the examples of property, money, and work.

The outcome of this research reinforced the desire to track if degrowth ideas were being translated into material outcomes. One example is Fitzpatrick et al., (2022) who conducted a systematic mapping and thematic analysis of degrowth policy proposals that contained 1,166 articles, books, book chapters, and student theses referring to sixteen

translations of the word degrowth (December 2023 = ~1,600). The findings led to 530 proposals, subdivided into 50 goals, 100 objectives, and 380 instruments. Following this, the authors reflected on five features of degrowth policy proposals: precision, frequency, visibility, diversity, and interactions. First, there is a lack of detailed policy proposals. Second, some proposals are more popular than others (e.g. universal basic income > reducing military spending). Third, most proposals overlook transitional steps (e.g., how to go from 40 to 15-hour working weeks). Fourth, proposals originate from within and beyond the movement (e.g., Thomas Piketty's proposals on inequality). And finally, most policies are studied independently (e.g., basic income), in parallel (e.g., basic income and wealth caps), or in competition (e.g., basic income vs. job guarantee) without the consideration of complex interactions. Alas, the study served as a coherence check rather than a political strategy for the movement.

The degrowth movement has begun to publish a steady stream of books that expand their scope to political strategy. One example is *The Future is Degrowth*, which alongside its focus of summarising degrowth literature dedicates the last quarter to exploring 'pathways to make degrowth real' (Schmelzer et al., 2022). However, given the authors claim that degrowth is an invitation and not a blueprint, the pathways repeat rather than reflect on Wright's three modes of transformation. A second example is *Exploring Degrowth* which dedicates one chapter and multiple appendices to political strategies for degrowth. This includes a focus on horizontalist, direct democracy, and grassroots power-sharing realised in large part by an unconditional autonomy allowance that dodges the inevitable corruption associated with concentrated power (Liegey & Nelson, 2020: 86-115). Finally, *Degrowth & Strategy* makes political strategy its core concern. Bringing together contributions from 46 authors, the book searches for 'an intentional mix of strategies' that maintains diversity and plurality (Barlow et al., 2022). This includes reviewing the theoretical basis of the 'strategic canvas for degrowth' (see Figure 2.4) and how this is being practised in political economies (care, money, finance, wage labour, trade, decolonisation) and social provisioning systems (energy, food, housing, mobility, technology). So, whilst the books have motivated many people to join strategic debates, tension remains on the role of the State and markets to achieve degrowth.

The latest chapter in the history of degrowth strategy involves the recent *Beyond Growth: Pathways towards sustainable prosperity* in the EU conference at the European Parliament. Dubbed the 'Woodstock of Degrowth', the conference attracted ~7,000 people in-person and online for three-days to discuss how the growth-dependent and colonial European Union might achieve degrowth. Organised by 20 Members of the European Parliament (MEPs) from five different political groups, 60 partner organisations, and with the support of the Presidents of the European Commission (Ursula von der Leyen) and Parliament (Roberta Metsola). In summary, it would appear the Research & Degrowth goal of mainstreaming the concept of degrowth into the hallways of the political and economic elite is underway (Kallis et al., 2023). In other words, expending more strategic effort on collaborating with those capitalising and coordinating capitalism rather than resisting or rebelling against it dominates the current strategic thinking of degrowth. But just what these strategic choices mean for the movement's theories of social change often remains implicit.

Strategic logics / Modes of transformation	Reducing harms	Transcending structures
Interstitial transformations involve building new forms of social empowerment on the margins of capitalist society, usually outside of spaces dominated by those in power.	Resisting E.g. a climate justice demonstration	Escaping / Building alternatives E.g. running an ecovillage without broader political engagement / building a network with others
Symbiotic transformations are aimed at changing existing institutional forms and deepening popular social empowerment within the current system so as to ultimately transform it.	Taming E.g. a policy that establishes absolute caps on national CO_2 emissions	Dismantling E.g. a policy that turns big companies into cooperatives in the long-term
Ruptural transformations seek a sharp confrontation or break with existing institutions and social structures (these can be short-term or done in a particular place).	Halting E.g. a disobedience action	Smashing E.g. a factory occupation by workers

Figure 2.4 Strategic canvas for degrowth adapted from democratic market socialist, Erik Olin Wright (Chertkovskaya in Barlow et al., 2022: 62).

4. Linking strategy to social theories

What are the implications of different understandings of social change? This was the question posed by Cattaneo et al. (2012: 522) in the *Futures* special issue on 'Degrowth futures and democracy'. In the previous section it became clear that degrowth strategies reveal a paradox: most proposals rely on State and market mechanisms despite an emphasis on grassroots social movements (Cosme et al., 2017; Fitzpatrick et al., 2022). To shed light on this paradox, this section reviews and classifies the social theories of change implied by degrowth strategies (Fitzpatrick, forthcoming). Here I argue that unless the degrowth movement provides greater strategic clarity regarding its theory of social change it risks remaining utopian.

The social theories of degrowth can be characterised into five distinct yet overlapping categories: (1) reformism; (2) ecosocialism; (3) ecomarxism; (4) ecoanarchism; and (5) ecofeminism. The identification of which is based on Coover et al's (1977) seven elements of a theory of change – the nature of human beings; the nature and sources of power; the nature of sources of truth and authority; the analysis of the causes of social problems; the role on individuals and institutions on social change; the vision of the way it can or should be; and

the mechanisms of existing or potential change – that may be useful to help overcome the 'strategic indeterminance' exhibited by the degrowth movement

The first social theory advocated by many in the degrowth movement is *reformism*: a political doctrine that assumes evolutionary changes leads to system transformation. By assuming that humans are selfish; power is decentralised and spread across different societal groups; and that authority and truth comes from STEM subjects (i.e., science, technology, engineering, mathematics), states and markets become key mechanisms of change to implement policies like resource caps and green taxes that are supposed to fix market failures by 'getting the prices right' to make individuals rational beings (Spash, 2020). This theory of change is prominent amongst green growthers, social democrats, and liberals. It is also popular amongst degrowthers who often leave the heavy lifting of degrowth transitions to States and markets. An approach that seems quite risky after considering the interconnections of capitalism and the state.

The second and most common social theory is *ecosocialism*, which argues for collective ownership of the means of production and distribution to achieve environmental justice. This is due to the inherent growth imperatives of capitalism that make it impossible to reconcile accumulation and growth with equity and sustainability (Foster, 2011). Here, the degrowth movement builds on the transformation framework of democratic market socialist, Erik Olin Wright, through building alternatives (e.g., ecovillages, renewable energy cooperatives), policy reform (e.g., universal basic services, work-time reductions), and oppositional activism (e.g., civil disobedience, direct action). Instead of so-called market forces, the contraction and convergence pathways to achieve degrowth are carried out by acquiring and exercising State power (Albert, 2023). Whilst a focus is placed on decommodifying the satisfaction of human needs, the role of markets, money, and states play a central role in its realisation.

The third social theory is *ecomarxism* that combines marxist political economy with ecology through understanding society-nature relationships as dialectical. This is exemplified through the replacement of the electoralism and parliamentarianism with mass direct action and organisation against capital and the state to realise democratic confederalist alternatives or 'degrowth communism' (Saito, 2022). The idea of Climate Leninism is one example that advocates for building a revolutionary party alongside an international coalition of the oppressed who conduct mass civil disobedience and strategic sabotage (Heron and Dean, 2022). Similarly, Tyberg and Jung (2021) are Marxist-Leninists who advocate for social movements to create the conditions for a revolutionary vanguard party to establish a dictatorship of the proletariat that socialises the means of production and redistributes power to local worker councils. Whilst realising that workers and women control strategic points of (re)production workers (Barca & Leonardi, 2018), these visions do not fetishize bourgeois Western workers as change agents.

The fourth social theory is *ecoanarchism* that emphasises collective liberation from markets and the State. By arguing that the nature of human beings is socially determined and corruption is inevitable with concentrated power, grassroots social movements and mass movement organising become key mechanisms for change (Liegey & Nelson, 2020). This approach emphasises nonviolent direct resistance that sparks political debate, including civil disobedience, direct action, sabotage, and blockades (Sovacool & Dunlap, 2022). Despite

anarchist roots (e.g., Ivan Illich, Andre Gorz, Joan Martinez-Alier, Serge Latouche) and pathways to degrowth containing the most detail (e.g., Alexander & Gleeson, 2019; Nelson, 2022), a reductionist dismissal of anarchism accompanied with pleas for state intervention is not uncommon.

The final social theory comes from *ecofeminists* who connect feminism and ecology to recognise the close proximity of women's exploitation and domination to that of nature and nonhumans under the imperialist white supremacist capitalist patriarchy. It follows that grassroots feminist movements become mechanisms of change to overcome the oppression of nature by men and the oppression of women by men (FaDA, 2023). This is why ecofeminists devise care-full, contextual strategies based around culture and power (Paulson, 2017) that advocate for the gradual decommodification of social provisioning systems (Dengler & Lang, 2022). It is hoped that such strategies will mobilise forces to demand the liberation of women.

Overall, these approaches explain how the different understandings of social change within the degrowth movement affect strategic and tactical choices. For reformists, evolutionary change via existing institutions can achieve degrowth, even if this involves keeping capitalism, private property, wage labour, and the State. Ecosocialists argue that capitalist political economies can transition to ecosocialism through replacing State power with little resistance or rebellion. Ecomarxists envision a revolutionary party backed by a global coalition of the oppressed practising mass civil disobedience and sabotage as the enabling forces to challenge the dictatorship of capital. Ecoanarchists connect the oppression of capitalism and the State to argue for mass movements and glocal community modes of production that promote self-governing systems beyond markets and money. Ecofeminists argue the oppression of nature by men cannot be achieved without simultaneously addressing the oppression of women by men. So, whilst each branch of thought shares similar critiques of growth, what differs is their strategies to overcome it.

Nonetheless, there are some areas where different understandings of social change result in conflictual strategies. Perhaps the most important division involves the State. Whereas reformists, ecosocialists, and ecomarxists take the State and governments for granted, ecoanarchists and ecofeminists do not wish to reproduce State domination because 'the master's tools will never dismantle the master's house' (Lorde, 2018). Although abolishing the State is a goal of many socialists on the transition toward communism, many ecosocialist degrowthers do not mention this for fear of being illegitimate or because they are indeed reformists (e.g., liberals, social democrats). But we must keep in mind that from birth to death most societies nurture the belief that governments and hierarchies are inevitable and beneficial to society.

The second link regards the role of markets and money. Whilst reformists and ecosocialists advocate for restrictions like resource caps and green taxes to achieve degrowth; ecoanarchists and ecofeminists often acknowledge that markets and money are the *sine qua non* of capitalism (Nelson, 2022). It follows that if the degrowth movement wishes to engage in direct struggle against capital it should focus on creating uncertain conditions for capitalisation and replacing monetary flows based on exchange value with community solidarity based on real values (Kropotkin, 2014). Whilst keeping the end goal of abolishing

money in mind, transitional programs focused on decommodification are a useful place to start.

The third difference concerns the value placed on education and conscious raising. Whilst for reformists and some ecosocialists this is a prerequisite to institutional change; the rest posit that consciousness comes from praxis: the commitment to reflection, theory, and action. In other words, degrowth cannot be reduced to theory without action (verbalism by academics) or action without theory (activism by activists). A similar trend is observed in the types of tactics being advocated for within the movement. For example, a recent survey of the degrowth movement reveals that most people support sabotage and property destruction as necessary tactics to realise social-ecological transformation (Fitzpatrick et al., *forthcoming*). This aligns well with the strategic use of nonviolent direct resistance to spark political debate (Liegey & Nelson, 2020). A notable addition comes from ecomarxists, who, inspired by past revolutionaries, realise conscious raising becomes even more important after the revolution to solidify and further the gains of the movement.

Overall, the examinations of degrowth theories of social change reveal an implicit bias toward market and State versions of socialism, leaving 'no' as the tentative answer to Serge Latouche's (2012) question: Can the left escape economism? As we will see, this is why adopting an anarchist critique of the State would be beneficial for the degrowth movement.

5. Extending the growth critique to the State

Despite a systematic critique of growth, most social theories and strategies advocated for by the degrowth movement rely heavily on State and market mechanisms. Although these mechanisms may play a role in a transitional program, few reveal the desired ends of degrowth. This section adopts an anarchist critique of the State from Pëtr Kropotkin (2018/1913) to argue that the goal of degrowth is self-governing societies based on decentralisation, workers' control, and mutual aid. Thus, to unite the means and ends of degrowth we need to revisit the role of the State.

Like many theorists, the majority of the degrowth movement take notions like the State for granted as a fundamental prerequisite for being 'civilised' and 'modern'. But as Koch (2022a) suggests that notions like 'the State' should not be assumed. This is because the idea and necessity of modern states 'emerged out of the kaleidoscope of medieval European sociopolitical formations' (Laursen, 2021: 48). Nowadays we see them taking the form of monarchies or dynasties, oligarchies, national, one-party, welfare or neoliberal states. So, whereas the 'state' refers to single countries with a government (e.g., Germany), 'the State' refers to a system or way of organising reality that has existed for around five-hundred-years since the rise of Renaissance Europe. This makes the State a recent historical idea that is arguably Europe's most successful export. The hegemonic example is the United States of America where the State is an instrument of perpetual violence and war, especially toward those who do not adhere to their agenda, which is currently neoliberal capitalism (Belcher et al., 2019). Such a system necessitates viewing everyone from people to corporations and the State itself as individuals before the law. But first let's clarify the system boundaries and revisit some influential definitions of the State.

Although essential to its functioning, the State is more than just a government. It is a form and set of institutions that organise reality through 'legitimate' organisations. For example, political parties, interest groups, nonprofits, small to large businesses, trade unions, community associations, religious organisations, private and public education, criminal organisations, and most importantly capital are part of the State because they receive assistance and use infrastructure of the state (Laursen, 2021). So, whilst a Gramscian interpretation separates some of these elements, an anarchist communist position views the State as an operating system that adopts a logic of its own. Meanwhile, a global coalition of the oppressed, including indigenous communities, people of colour, minority groups, and refugees, all of whom have never freely accepted state rule are outside their boundaries. Indeed, the State is incapable of identifying and acting with (not for) the oppressed.

Many visions of the State are inspired by German sociologist, Max Weber. He defined the State as any 'human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory' (Weber, 1919/1970: 78). Whilst this definition correctly assumes that the State has a monopoly on violence that is generally tolerated by populations, it ignores who controls the State and why. This gap was filled by Friedrich Engels and Karl Marx (1848: 15) who considered '[t]he executive of the modern state is nothing but a committee for managing the common affairs of the whole bourgeoisie'. Vladimir Lenin agreed that 'the state is an organ of class rule, an organ for the oppression of one class by another; it is the creation of 'order', which legalises and perpetuates this oppression by moderating the conflict between classes' (Lenin, 1917: 392). Another statist is Michael Foucault who argued that the State is a codification of power relations at all levels of society perpetuated through legal systems. This suggests that the State is an instrument of domination whose main purpose is to reproduce itself. So, whilst the State is tied to class and capital, it is again assumed that one is necessary for societies to function.

One person who did not take the State for granted was Pëtr Kropotkin. Although he agreed with Marx and Lenin, Kropotkin argued that the State is

> *'a [complex] society for mutual insurance between the landlord, the military commander, the judge, the priest, and later on the capitalist, in order to support each other's authority over the people, and for exploiting the poverty of the masses and getting rich themselves' (Kropotkin, 1995).*

This conceptualisation recognises the interconnections between institutions but did not go insofar as to recognise that such institutions have penetrated our social psychology. This is why Laursen (2021: 42) likens the State to a software because it is 'a collection of ideas, doctrines, commands, and processes that direct the deployment of human beings and their deployment of physical resources'. In other words, the State is an ideological, material, and social process who (re)produces power via economic growth and capital accumulation.

Whilst most in the degrowth movement do not (want to) theorise the State (exceptions include D'Alisa & Kallis, 2020; Koch, 2022a), people implicitly sit on opposite ends of a continuum: those for replacing power and those for negating it. Whilst the former assume it is possible and desirable for the 'right' people to take state power, the latter posit that

concentrating power leads to co-optation and corruption (Liegey & Nelson, 2020). The question remains: should degrowth be achieved via sympathetic domination or collective liberation? One example is D'Alisa & Kallis (2020) who propose a Gramscian theory of the integral state that combines civil (the site of ideological struggle of competing interest groups) and political society (the sum of state institutions). So, what is their justification for opposing an anarchist theory of the State? First, comes an appeal to climate change because it is a 'global problem that demands restrictions'. Apparently, anarchists also 'underestimate the question of enforcement' and 'tend to see all repression as bad' (ibid: 5). They go on to argue that '[e]ven if we were to abolish political institutions, as some anarchists want, domination and oppression would still operate in civil society' (ibid: 6). Here, not only do they reduce political institutions down to government, but they imply that humans are not capable of experimenting with social organisation that goes against extensive anthropological and archaeological evidence (Graeber & Wengrow, 2021). Finally, they go on to conclude that anarchists 'lack a clear theory of transformation other than through a collapse' (ibid: 7), suggesting both that anarchists lack strategies and collapse is impossible. Fortunately, their claims don't align with the evidence.

The historical role of the State has been one of imperialism. Since the sixteenth century States have travelled to faraway lands to secure land, labour, and resources (Stoll, 2023). Driven by early forms of economism and cost-benefit analysis, the State became the original capitalist that raped, pillaged, and plundered anything it considered valuable (for a history, see Rodney, 1972). Such evidence alludes to why some consider the State and capital as inseparable because they feed each other. Whilst capital can only be accumulated with State support for legitimacy, monopolies, taxation, and war; the State needs capital to secure the material well-being for its populations via what is now called economic growth (Kropotkin, 2018/1913). But surely this is not the case for the modern State, right?

Since the birth of capitalism – a system based on private property, production, and profit that facilitates capital accumulation – the modern State has become the most powerful institution in the world. The most extreme example is the military-industrial complex of the United States. The U.S. armed forces have 750+ military bases in 80 countries and 173,000 troops in 159 countries, which has helped them conduct at least 469 military interventions since 1798; 251 since 1991; and 23 between 2017-2020 (Vine et al., 2021). But the activities of 'everywhere war' are supported by all NATO members, 29 of which are European. This further points to the (inter)connected and mutually reinforcing nature of the State as an operating system that is arguably more pervasive and popular than historical dictatorships. Given the positive relationship between institution size (firm or government) and per capita energy use (Fix, 2017), it is no wonder that the environmental impact of national militaries like the United States is higher than 140 countries (Belcher et al., 2019). The power of which is funded by taxation that redistributes wealth from the poor to the rich via capital friendly tax structures and lucrative state contracts (e.g., the annual budget of the U.S. Department of Defense is US$1.52 Trillion). Therefore, as the State and capital act in unison to 'create order', the only logical response for the degrowth movement is to go into direct struggle with capital by emphasising three demands: demilitarise, decontaminate, and decolonise.

Given the intimate relationship between State and capital, it is no wonder societies are replacing politics with politicians, organisers with bureaucrats, movements with lobbyists, and communities with consultants. But this does not have to be the case. Whilst most degrowth academics tend to be interested in every critique of growth except of the State, the time has come to extend it. Whilst anarchists are often depicted as reactionaries who rely on revolutionary spontaneity, anyone who reads anarchist literature would know that this is not the case (for a review, see Sovacool & Dunlap, 2022). Furthermore, it is anarchists like Pëtr Kropotkin who wrote extensively about how social movements should act to bring about fundamental change, including how revolutions arise, what form a revolution must take to succeed, and how anarchists should act to achieve their goals (Baker, 2023b). In fact, Pëtr Kropotkin (1842-1921) and Vladimir Lenin (1870-1924) were close comrades despite ideological differences who often discussed the strategies and tactics of social revolution (Deutscher, 1973). This is the depth of strategic pluralism that the degrowth movement should be nurturing, especially if the desire to replace state power remains.

Kropotkin endorsed the unity of means and ends: the means movements select for social change must develop people who are capable of, and driven to, overthrowing capitalism and the state to construct and reproduce an anarchist communist society (Baker, 2023a: 117-120). Indeed, he stressed that if social movements selected the wrong means, they would not arrive at their desired destination. It follows that achieving the end goal of a (degrowth) anarchist communist society whereby systems of domination and exploitation are abolished, including states and classes, can only be achieved by a mass movement of the oppressed instigating what he called a 'social revolution'. This involves conceptualising social change via two processes: evolution and revolution (Baker, 2023b). Whilst evolutionary periods involve spreading ideas and gradual reform, sometimes they would evolve into revolutionary periods where rapid large-scale transformation of political economic structures was possible. The latter sets a social revolution in motion. Although Kropotkin believed that most people would only become anarchists during revolutionary periods, he did not believe that an anarchist social revolution was inevitable or guaranteed. Rather he argued that the transition from evolution to revolution would be sparked by anarchists acting as a militant minority that spread to mass organisations and movements. In addition, there needed to be a mix of three interdependent factors: objective conditions (e.g., economic crisis, wars); mass resistance (e.g., strikes, riots, insurrection); and subjective sentiments (e.g., hatred of oppression, visions of alternatives). An account that has the potential to resonate with the degrowth movement who holds for a range direct action tactics, including property destruction and sabotage.

Like conceptualising degrowth transformations via less and more (Buch-Hansen & Nesterova, 2023), an anarchist social revolution consists of destruction and construction. This involves the oppressed dismantling existing social structures based on fossil capital and creating new societies via economic and political transformation. Again, there is potential to braid these with the degrowth movement's focus on social-ecological transformation because they share the sentiment that the ruling class will never negotiate themselves out of power (Fitzpatrick et al., *forthcoming*). This necessitates matching the revolutionary ends with revolutionary means like smashing and abolishing the state; expropriating land, resources, and production systems from the ruling class; establishing collective ownership structures;

and constructing organs of self-management and large-scale coordination via workplace federations and community assemblies (Kropotkin, 2014: 460-70, 533-36; Baker 2023a, 2023b). Actions in contrast to the conquest of state power that involve minority rule by a political ruling class that impose uniform decisions onto diverse circumstances. But it must be noted that the process of social revolution occurs over an extended period. Whereas uprisings or coups replace leaders overnight, achieving the long-lasting and deep change that the degrowth movement aspires toward involves strategic thinking and organisation. Arguably, movements like degrowth should place as much importance on bringing about a revolutionary period as they should about (re)producing the widespread adoption of anarchist communist values where everyone gives according to their abilities, and each receives according to their needs. It follows that the degrowth movement has the qualities to become a revolutionary process that builds mass movements with the oppressed to demand 'anarchist communist degrowth' based on decentralisation, workers' control, and mutual aid. In short, degrowth will be free, classless, and diverse - or not at all.

6. Conclusion

Having retraced the evidence, it becomes clear that the degrowth movement has developed a systematic critique of growthism that acts as a prerequisite to developing visions and destinations of degrowth. Whilst the movement lacks experience in political strategy and remains indecisive toward social theories, a greater examination of the organisational form and function of the State invites the movement to unite the means and ends of degrowth. This is because the means of acquiring and exercising state power runs contrary to the ends of degrowth: self-governing societies based on decentralisation, workers' control, and mutual aid. Without downplaying or denying the difficulties, organising for degrowth requires building mass movements with the oppressed to demand degrowth, not mighty men or sympathetic saviours who proclaim to be on the 'right' side of history.

2.5 Understanding the degrowth movement: A survey of conceptualisations, strategies, and tactics

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Abstract

Degrowth – the downscaling of production and consumption to reduce ecological footprints, planned democratically in a way that is equitable while securing wellbeing – is emerging as a sensible strategy for social-ecological transformation. While there is ample research on degrowth as a scientific concept, little is known about how to achieve it through social movement strategies. To address this issue, we conduct a survey and statistical analysis of degrowth academics and activists regarding the conceptualisation of degrowth, strategic orientations, and tactical preferences using correlation, principal component, and cluster analysis (n=399). The results reveal how different conceptualisations of degrowth align with strategic orientations and support for implementing various direct action tactics. Overall, our findings point to the potential for the degrowth movement to develop a strategy of unarmed resistance that combines nonviolent resistance with anti-property actions. To explore the diversity within the degrowth movement, we identify four currents within the movement: systemic utopianism, antagonistic anarchism, ecological limitarianism, and environmental pragmatism. The paper concludes by reflecting on the preanalytic vision of degrowth, the strategic implications of pluralism, and how these strategic orientations and tactical preferences could fit together.

Keywords: degrowth, post-growth, strategy, tactics, unarmed resistance

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1. Introduction

Degrowth is gaining traction in attempts to analyse and actualise alternatives for collective liberation. Currently, most environmentalists focus on evolutionary reformism rather than revolutionary transformation that focuses on treating symptoms like climate change instead of solving root causes like imperialist capitalism (Spash, 2020). This comes despite the latest evidence suggesting that an absolute, global, and permanent decoupling of production and consumption from all environmental pressures that is fast enough to avoid ecological collapse is biophysically impossible (Haberl et al., 2020; Vadén et al., 2021). So, whilst the ongoing destruction may have passive support, it does not make it ethical, moral or scientific. Rather the purpose of science should be to challenge and change structures that prevent collective liberation (Bhaskar, 2008). One such example that has been striving for systems change since the early 2000s is the degrowth movement (for an overview, see Buckhart et al. 2020).

Emerging from criticisms of sustainable development (Parrique, 2019: 171-234), degrowth has developed a systematic critique of the growth paradigm (Schmelzer et al., 2022: 75-177). Indeed, what distinguishes degrowth from other sustainability visions is that it proposes 'the downscaling of production and consumption to reduce ecological footprints, planned democratically in a way that is equitable while securing wellbeing' (Parrique, 2024: 1). But just how this should be achieved is open to interpretation given that strategic differences arise from the lens through which the world appears to us. Phenomena this article explores by surveying the degrowth movement regarding its conceptualisation, strategies, and tactics.

Realising the revolutionary potential of degrowth requires a deep understanding of the 'imperialist white supremacist capitalist patriarchy' (hooks, 1989: 122). Despite decades of academic research and political negotiations, centralised power and structural inequality pose significant barriers to achieving social-ecological transformation (Stoddard et al., 2021; Chancel et al., 2023). Whilst overcoming the hegemony of growth will be difficult, the fact the economy is a social construct means that it is subject to change (Schmelzer, 2016). Nonetheless, the practical task of realising a post-growth paradigm requires a dialectical understanding of mobilising (Lakey, 2018), organising (Nunes, 2021), and strategizing (Sharp, 1973) to realise alternative economic (Spash, 2024), political (Vergès, 2022), and power relations (Avelino, 2021). An opinion that is shared by social change experts who stress the need for social movements to build upon tactics over time (Ozden et al., 2023), even if they are contentious (Davenport et al., 2019). In this article, we take up this challenge by exploring attitudes towards an inventory of direct action tactics (Sovacool & Dunlap, 2022: Figure 9).

Successful social movements have clear political objectives. Until now, political preferences within the degrowth movement have only been analysed twice[19]. The first survey was conducted by Eversberg & Schmelzer (2018) at the 2014 International Degrowth Conference in Leipzig, Germany (n = 814). The study revealed several points of consensus and division within the degrowth spectrum. For example, there is a consensus on the need to

[19] This study focuses on attitudes within the degrowth movement, so we consciously exclude studies focusing on the preferences of political elites toward degrowth, for example Mastini et al. (2022) that magically became Kallis et al. (2024).

reduce and redistribute economic activity to satisfy the basic needs of everyone at a globally sustainable level of resource use. However, the findings reveal five political currents on how to achieve it: (1) civilization sceptics; (2) institutional reformists; (3) voluntarist pacifists; (4) modernist rationalists; and (5) transformative practitioners. The authors conclude that transformative practitioners could unify the movement because they combine reflection, theory, and action.

The second survey was conducted by Windegger & Spash (2023) at the 2018 International Degrowth Conference in Malmö, Sweden (n = 149). Investigating the prevalence of two conceptualisations of freedom – Cornelius Castoriadis' notion of autonomy and neoliberal capitalist notions of markets – with a questionnaire on the conditions and constraints of freedom, the authors argue that explicit engagement with freedom is needed to promote praxis and counter co-optation. Findings reveal that the majority of degrowthers align with Castoriadian ideas that oppose negative, individualistic, and market interpretations in favour of critical, collective, and autonomous understandings of freedom. However, the presence of contradictions compatible with capitalism suggests that degrowth praxis could improve through a stronger commitment to reflection, theory, and action.

Whilst these surveys have been crucial to understanding how to organise for degrowth, they are limited in several ways. Eversberg & Schmelzer (2018) has three limitations. First, the statements are not explicitly linked to degrowth research. This makes it difficult for readers to trace the line of argumentation. Second is the limited diversity of participants. For example, 84 per cent of respondents lived in Germany. The problem is that the degrowth movement comprises activists and academics from around the globe, although the vast majority are Europeans. Finally, the random nature of k-means clustering makes the study difficult to reproduce. Whilst Windegger & Spash (2023: Tables 1-2) make it easier for readers to link statements to research through explicit concepts and hypotheses, weaknesses arise in the survey distribution. For example, the authors only distributed 300 copies amongst the 800 participants (38%) and received 149 responses (50%). Additionally, three-quarters of respondents were under 34 years old and half were German.

As interesting as they may be, these two studies leave us here: the degrowth movement enjoys convivial conferences, but this tells us little about how different worldviews translate into political strategies. Hence, the objective of this paper is to survey the degrowth movement to answer the following three research questions: (1) how do people conceptualise degrowth? (2) what are the strategic implications of different understandings of social change? and (3) which direct action tactics does the degrowth movement support?

2. Methodology

This study conducts a survey and statistical analysis of the degrowth movement regarding its conceptualisation, strategies, and tactics. It employs correlation, principal component, and cluster analysis to analyse attitudes within the degrowth movement. Exploratory methods were chosen because they enable contextual interpretation of heterogeneous groups as well as align with a critical and realist approach to science. The study unfolded in four key steps.

2.1 Designing

The survey was designed following two key criteria. First, theoretical tensions within the field were identified during a systematic mapping of the literature (Fitzpatrick et al., 2022). However, there were three alterations to the systematic mapping: (1) the timeline was updated to include 2021-2023 publications to the original 2005-2020 range; (2) the scope was widened to include all degrowth literature and not just those focused on policy proposals; and (3) the criteria were relaxed to include critiques within the movement. Second, attitudes towards various direct action tactics were assessed through a pre-selected inventory (Sovacool & Dunlap, 2022: Figure 9).

Next, previous degrowth surveys were cross-examined (Eversberg & Schmelzer 2018; Windegger & Spash, 2023; Kallis et al., 2024). Whilst all previous surveys consisted of salient statements, the statistical methods employed were different. But given the heterogeneity positions within the degrowth movement, exploratory methods offered a fitting approach. To gather such multi-faceted data, an initial set of draft statements were revised in an iterative process by several degrowth activist groups within the International Degrowth Network.

The resulting questionnaire consisted of three sections: social demographics, personal practices, and strategic preferences (Appendix B)[20]. Social demographics were collected to identify social constructs that are proxies for privilege like gender and race. Personal practices related to organising, mobility, and diet were collected to examine the links between structure and agency. Finally, a series of 45 statements regarding conceptualisation, strategies, and tactics of degrowth were put forth on a 5-point scale from '1 Strongly disagree' to '5 Strongly agree'. An additional 'I don't know' option was provided and all questions were optional to respect respondents' autonomy and capture complex attitudes.

2.2 Distributing

Survey distribution was conducted twice. The first occasion was during the 9th International Degrowth Conference in Zagreb, Croatia. All 400 participants were offered a digital or printed version of the survey in English or Croatian during the conference registration on 29-30 August 2023. The surveys were collected via physical ballot boxes positioned in central locations around the conference venue. The second occasion involved inviting 823 authors who had published on degrowth between 2005 and June 2023. Authors were emailed a link to the survey at LimeSurvey between 2 October and 30 November 2023, with one reminder email sent a month before the deadline. During this stage 137 authors could not be contacted as invitations remained undelivered delivered due to authors changing emails or deleting accounts.

2.3 Validating

Responses were validated by the lead author. This involved deleting responses that did not provide responses to the fifty questions on personal practices or strategic preferences. Additionally, this included assigning IDs, annotating written comments, and interpreting double responses. For example, some wrote multiple responses to the question about

[20] The survey template can be found in Appendix B at the bottom of this thesis.

grandparents' highest educational degree. These answers were transformed to the highest answer because higher levels of education tend to correspond with greater levels of privilege. Long responses on open-ended questions were coded using QSR International's NVivo 12 qualitative data analysis software (QSR International Pty Ltd, 2024). This involved iteratively coding blocks of text into themes such as context, critique, groups, mobility, sensitivity, and social change that guide our discussion in Section 4.

2.4 Analysing

In the last step, surveys were analysed using a mix of descriptive and exploratory statistics. The descriptive statistics summarise key findings amongst the overall sample, while exploratory methods were used to uncover the underlying structures in the data and generate hypotheses for further investigation. The three methods employed were correlation, principal component, and cluster analysis.

First, we conducted a correlation analysis to measure the strength and direction of the linear relationship between pairs of variables. As responses to the 45 statements were rated on a 5-point Likert scale, we performed a Spearman correlation analysis on the non-continuous variables to expose strong associations between single variables, for example social movements and sabotage.

Second, we used Principal Component Analysis (PCA) to transform the data into orthogonal variables called principal components to capture maximum data variance with fewest dimensions. At this stage, we follow Rammstedt et al's (2013) procedure to calculate participants' 'unbiased' responses that generates principal components based on statistical significance rather than response behaviour to prevent acquiescence bias. Next, we performed one PCA for each set of statements to identify the underlying dimensions of respondents' attitudes on each theme. Here the principal components yielded by the conceptualisation and strategy PCAs merely served as tools for interpreting and summarising the clustering results. Whereas the third PCA based on the tactics provided a tool to characterise the clusters by their tactical preferences. To make the best use of available data while avoiding distortion of results, 'I don't know' and blank responses were replaced by the mean statement response.

Third, we performed cluster analyses on the 'de-biased' responses to the 25 questions on conceptualisation and strategy. To reduce the risk of random results, we performed three procedures combining both hierarchical and agglomerative clustering. The first procedure combined a hierarchical cluster analysis using Ward's criterion with a k-means analysis that took the centres of the hierarchical analysis as starting points. The second and third procedures involved mixed clustering techniques where k-means pre-clustering sorted respondents into 50 mini-clusters before conducting hierarchical and an additional k-means clustering. All three procedures yielded four-cluster solutions with acceptable cluster quality and response profiles (for more information, see *Supplementary 1)*[21]. To consolidate, we cross-examined the outputs and merged results for people assigned the same cluster at least twice. Following this process, only one respondent remained unassigned. Please note that the interpretation of the clustering

[21] The information provided in Supplementary 1 of **Article V** will be provided upon request.

was then done based on people's actual responses and not their assumed responses (i.e., de-biased variables), which simply served as a tool to ensure rigorous scientific analysis.

3. Findings

This section presents the main findings of the survey and statistical analysis before a subsequent discussion on their implications for degrowth organising.

3.1 Descriptive summary

A total of 1,086 people within the degrowth movement were invited to complete the survey. The first distribution at the 9th International Degrowth Conference in Zagreb returned 182 responses (46% response rate); with the second email distribution returning an additional 217 responses (32% response rate). Overall, the survey received 399 responses (37% response rate).

Survey responses were global, spanning 54 countries (Figure 2.5). Most respondents are citizens (94%) or residents (97%) of the Global North, with 84 per cent of people residing in Europe (68% in the EU-27), 8.8 per cent North America, 3.5 per cent Oceania, 2.3 per cent Asia, 1.3 per cent South America, and 0.3 per cent Africa. The top six represented countries by citizenship were Germany (15%), U.K. (9%), U.S.A. (8%), Italy (8%), Spain (7%), and France (6%).

Most respondents have at least a postgraduate degree (92%), primarily in humanities and social sciences (77%). Many respondents' parents (39%) and grandparents (14%) also had postgraduate degrees. Academic backgrounds were highly interdisciplinary with 73 disciplines represented. The top five represented disciplines being economics (19%), sociology (8%), geography (7%), engineering (6%), political science (5%), with an additional two per cent naming 'degrowth' as their discipline. Whilst 43 native languages were present, 76 per cent of respondents spoke one of six languages: English (27%), German (19%), Spanish (10%), French (9%), Italian (7%), and Croatian (4%). Overall, 90 per cent speak more than one language, and 62 per cent speak three or more.

The majority of respondents identify as male (55%), especially among academics (64%). The age of respondents by generation were 52 per cent Millennials, 24 per cent Gen X, 12 per cent Baby Boomers, ten per cent Gen Z, and two per cent Silent[22]. This tends to correspond with employment characteristics where 80 per cent work in wage labour, 11 per cent are students, and six per cent are retired. At least 85 per cent earned more than the median European household income (€1,780 per month) in 2022.

Regarding personal practices, 80 per cent of respondents had flown between 2020 and 2023, with the mean of eight point seven flights and median of six flights being far above global and European averages. In contrast, the number of people who drive was below average with 38 per cent driving on a weekly basis (mean = 115 km; median = 50 km). Plant-based diets were popular with 22 per cent being vegetarian, 21 per cent vegan, and a further 32 per cent eating meat or dairy less than once per day.

[22] We define the generations by the following ages in September 2023: Gen Z (0-26), Millennials (27-42), Gen X (43-58), Baby Boomers (59-77), and Silent (78+).

Overall, 84 per cent were either a member or active in an organisation. The most popular types of organisations that respondents were *members* of include NGOs (40%), science-activist networks (37%), workers' unions (27%), political parties (23%), and alternative economy projects (22%). However, this changes to NGOs (29%), science-activism (28%), alternative economy projects (21%), political parties (8%), and workers unions (6%) when only considering *active engagement*.

Figure 2.5 Respondent's positions on social demographics, personal practices, and organisation (n = 399).

The responses to the salient statements highlight several commonalities and contestations in people's understandings of degrowth and strategic orientations (Figure 2.6). First, there are many commonalities in the preanalytical vision of degrowth (Schumpeter, 1955: 41). This includes qualified majorities who agree that the rich will *not* voluntarily redistribute resources (88%), that putting a price on nature is *not* the best way to protect it (76%), the personal is political (74%), humans are *not* selfish (74%), Global South countries do *not* need to grow their economies before focusing on sustainability (71%), collapse is avoidable (65%), and loans need *not* be repaid (62%). The majority agree that rationing is required (59%), profit-making is violent (59%), resources are *not* abundant (56%), state power is necessary (54%), military spending needs abolishing (52%), pluralism does *not* amount to accepting all worldviews (50%), and power is *not* a zero-sum game (50%). Additionally, a relative majority agreed that policymakers are *not* keystone actors for sustainability (48%).

Contested questions include whether flying for business and pleasure should be banned (38% agree vs. 33% disagree), whether there is an inverse relationship between democracy and scale (37% agree vs. 28% disagree), whether reformism distracts from

transformative alternatives (32% agree vs. 29% disagree), and whether autonomy depends on money (30% agree vs. 35% disagree). Furthermore, some results speak to complexity or uncertainty indicated by 'I don't know' representing over ten per cent of responses on topics like interest, violence, schooling, psychedelics, collective self-limitation, and liberal representative democracy. Hence, these results should be interpreted with care.

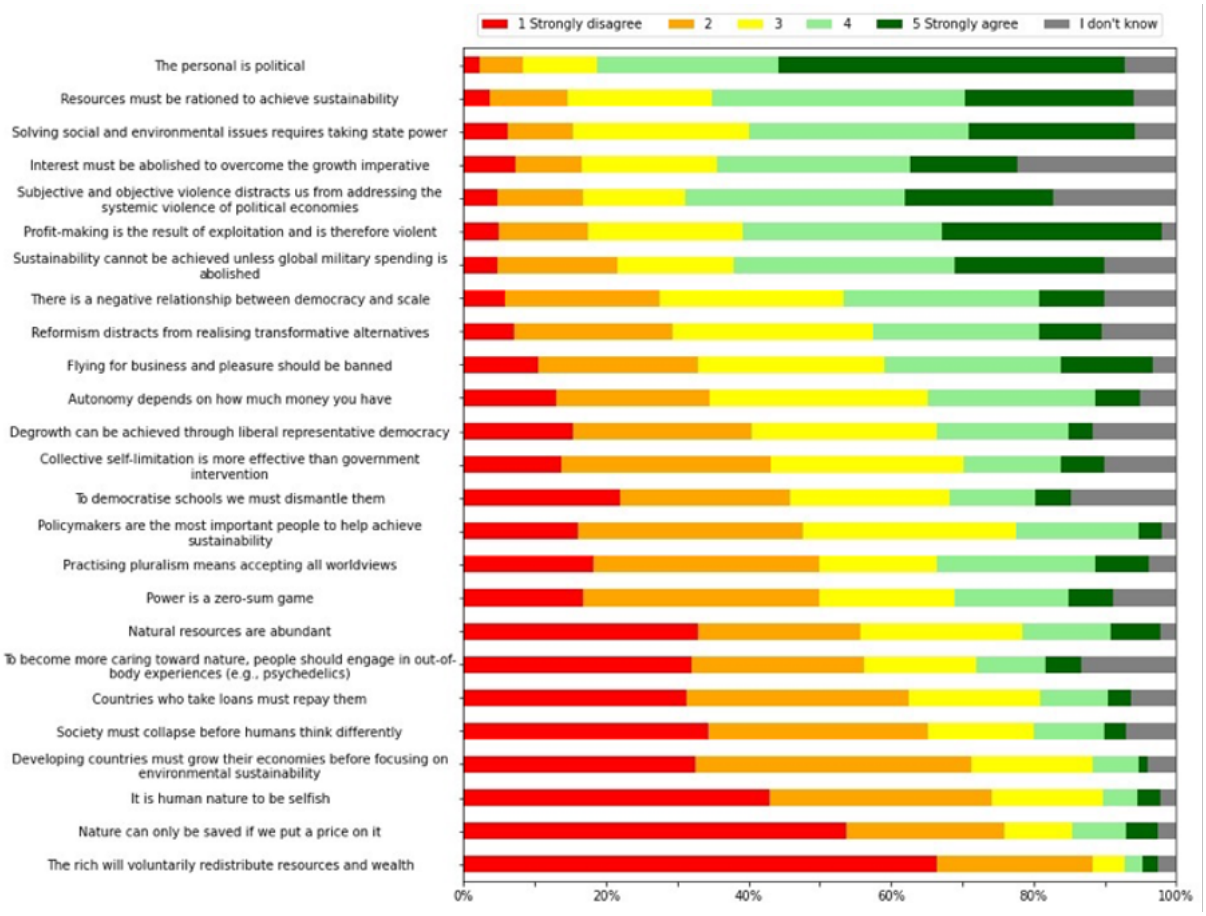

Figure 2.6 Respondents' positions on how to conceptualise degrowth and strategy inspired by Eversberg & Schmelzer (2018) (n = 399).

The attitudes toward various direct action tactics were generally consistent (Figure 2.7). First, there were qualified majorities supporting a range of tactics that seek to reignite democratic participation through the legal right to assemble and protest as well as through actions that disobey authorities, including social movements (93%), labour strikes (88%), permanent resistance (84%), witnessing and watching (84%), boycotts (81%), delegitimation (79%), and demonstrations (73%). Second, there was majority support for a series of anti-property actions, including occupations (78%), blockades (72%), hacktivism (67%), trespassing (63%), and sabotage (53%). Furthermore, people remained conflicted about property destruction (35% agree vs. 39% disagree) and hunger strikes (30% agree vs. 38% disagree) but generally opposed bank robberies (61% disagree), mass riots and looting (59% disagree). Third, the group of insurgency tactics were unanimously rejected. Only a handful of people were supportive of paramilitary action (4%), bombing (3%), terrorism (3%), assassination and kidnapping (2%).

Finally, it must be noted that this section sparked many long responses in the comments box at the end of the survey. Here, people expressed nuanced attitudes toward direct action; disgust or praise about the inventory of direct action tactics; conditional support for sabotage and property destruction if it did not endanger human life; and reflections on how best to dismantle accumulated privilege and power.

Figure 2.7 Respondents' positions on implementing various direct action tactics based on Sovacool & Dunlap (2022: Table 9) (n = 399).

In summary, the descriptive results portray the degrowth movement as a science-activist network that overwhelmingly consists of highly academically educated Europeans with high levels of interdisciplinarity and multilingualism. Respondents show high levels of organisational commitment yet struggle to translate knowledge into action regarding diet and mobility. There is broad consensus on the vision of degrowth being based on cooperation, feminism, redistribution, as well as decommodification, demilitarisation, and decolonisation. But strategic tensions remain around the role and forms of democracy, money, and state to achieve degrowth. Despite ideological differences, direct action tactics are not the primary source of tension within the movement. Instead, majorities tend to favour a nuanced strategy of unarmed resistance that challenges notions such as wage labour, monetary markets, and private property.

3.2 Exploratory statistics

Whilst descriptive details are a useful first step, the nuanced meanings of responses can only be understood by exploring the response patterns using multivariate methods. Thus, this subsection describes the findings from each exploratory method with illustrated examples and initial interpretations.

3.2.1 Correlation analysis

Overall, 68 per cent of associations were very weak |0-0.19'| with an additional 25 per cent being considered weak |0.2-0.39'|. The remaining associations vary from six per cent moderate |0.4-0.59'| to one per cent strong |0.6-0.79'| with the latter centred around anti-property and guerrilla warfare. It is important to remember that correlation does not imply causation, so we cannot infer that one variable is the cause of another even if there is a strong correlation. The full matrix of correlations can be found in *Supplementary 1*[23].

From a sociological perspective, two findings are interesting. First, correlations give an indication as to where degrowthers draw the line between violence and nonviolence. For example, sabotage strongly correlates with property destruction (0.79), trespassing (0.68), hacktivism (0.64), and blockades (0.61), as well as moderately with permanent resistance (0.53), bank robberies (0.52), labour strikes (0.48), riots (0.46), and occupation (0.44). Second, they reinforce the rejection of insurgency tactics to achieve degrowth with many moderate and strong associations within this group of variables, for example paramilitary action with bombing, which suggests a strategic preference to unite the means and ends.

Other noticeable associations include 'profit is violence' with 'dismantling schools' (0.44), 'bank robbery' (0.43), and 'abolish military spending' (0.41); 'property destruction' with 'repaying loans' (-0.45); and 'abolishing military' with 'abolishing interest' (0.46). These correlations indicate that people tended to evaluate these sets of variables in similar ways. For example, a tendency to oppose authority and hierarchies, question notions of private property and debt or adopt anti-imperialist positions. However, some may have objected to these positions or remained indifferent.

3.2.2 Principal component analysis

Overall, the PCAs highlight the tensions among participants in how they conceptualise and strategise for degrowth, as well as sheds light on tactical preferences (Figure 2.8). The first PCA based on the 13 conceptualising statements yielded two top factors that accounted for 27.5 per cent of the variance[24]. The first factor (16.8%) distinguishes between people who can only conceive of capitalist-compatible solutions via mainstream economic thinking (*systemic orthodoxy*) and those that believe these institutions must be reformed or dismantled with heterodox alternatives (*degrowth heterodoxy*). The second (10.7%) separates between structural

[23] The information provided in Supplementary 1 of **Article V** will be provided upon request.
[24] Kaiser's criterion suggests retaining five factors that summarize half of the variance, but for balance and brevity reasons we only draw on the first two factors of the conceptualisation and strategy PCAs because the four factors satisfy the criterion to characterize clusters. Full a detailed description on all factors, see Supplementary 1.

determinism that emphasises the power of existing structures or probability of societal collapse (*cynical structuralism*) from those who believe in the collective ability of humans as cooperative beings to actively transform unjust social relations (*transformative agentialism*).

The top two factors from the second PCA based on the 12 strategy statements accounted for 26.1 per cent of the variance. The first (13.6%) distinguishes between convictions that degrowth will need to be achieved through institutional rupture and class struggle against the power elite (*active revolutionism*) versus an orientation that believes degrowth is possible through compromise and reform of existing institutions (*passive reformism*). The second factor (12.5%) sets apart the belief that degrowth transformations should arise from collectively consented choices (*bottom-up liberation*) compared with strategic visions of implementing it as a centrally directed imperative (*top-down planning*).

The final PCA based on the tactics items provides a practical reflection to the theoretical review of Sovacool & Dunlap (2022) that demonstrates how attitudes towards tactics differ in heterogeneous social movements like degrowth. Results reveal three factors explain 49.5 per cent of the variance in tactical preferences. They show that respondents tend to distinguish between three categories of tactics: (1) *anti-property actions* (23.1%) challenge accumulation and privatisation through tactics like sabotage, property destruction, hacktivism, trespassing, bank robbery, and blockades; (2) *nonviolent resistance* (17.2%) leverages civil disobedience to conduct actions such as occupations, labour strikes, permanent resistance, social movements, demonstrations, mass arrests, boycotts, blockades, as well as witnessing and watching; and (3) *insurgency tactics* (9.2%) involve confrontational actions against hegemonic structures like kidnapping, assassination, bombing, paramilitary action, and terrorism.

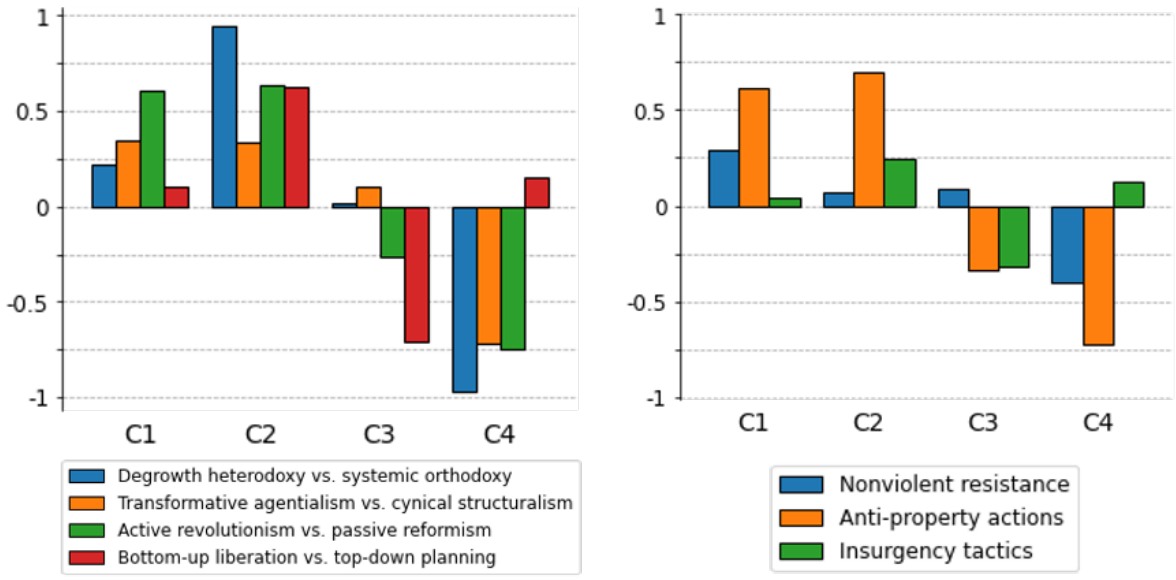

Figure 2.8 Illustrates the top four factor values for the conceptualisation and strategy statements (left), as well as the top three factor values that characterise tactical preferences (right). Values above 0.3 are generally considered to require interpretation, with ones between 0.2-0.3 only considered if they appear relevant.

3.2.3 Cluster analysis

While the PCAs identify tensions within the degrowth movement, questions remain around how these positions interact to form different strategic orientations and tactical preferences. In this subsection, we describe four currents of degrowthers using illustrative examples from social demographics, personal practices, and tactical preferences. For detailed descriptions see *Supplementary 1*[25].

Cluster 1: Systemic Utopianism

Cluster 1 comprises 93 respondents (23%) who are optimistic about achieving social-ecological transformation through public policies and class struggle. Respondents here unanimously believe that the rich will not voluntarily redistribute wealth (97%), that environmental preservation cannot be achieved through monetary markets (94%), that the personal is political (90%), and that loans do not necessarily need to be repaid (89%). Additionally, there is a strong inclination toward taking state power to solve social and ecological issues (78%) because collective self-limitation is seen as insufficient (68%), and policymakers are keystone actors of change (53%). Yet, this vision differs from capitalist conceptions of the state by exhibiting values of cooperation, decommodification, and redistribution. Intriguingly, the claim that practising pluralism does not mean accepting all worldviews is strongly affirmed (72%). This stance persists despite tensions surrounding the abundance or scarcity of resources, the relationship between democracy and scale, and whether reformism distracts from realising transformative alternatives.

Demographically, such stances are more often adopted by native English speakers, respondents under 42 years, those not driving a car, and those whose parents have a postgraduate degree. Respondents come from thirty nations, with British citizens and Danish residents being overrepresented, while Spanish citizens and Swedish residents are underrepresented. Linguistically, twenty-one native languages were present, with English, German, and French dominant. At 91 per cent, membership in organisations is very high, most often in NGOs (47%), science-activism (42%), and political parties (30%). This shifts to science-activism (41%), NGOs (30%), and alternative economic projects (27%) when only considering active engagement. Having flown within the last 3 years (84%), not driving (72%), plant-based diets (52%) are more common than average.

In terms of tactics, this cluster stands out by being most supportive of nonviolent resistance (0.287) and more supportive than average of anti-property actions like trespassing, blockades, sabotage, hacktivism, and property destruction (0.615). Insurgency tactics are just as widely rejected as in the rest of the sample (0.042). In sum, the *Systemic Utopianism* represents positions that are optimistic about achieving degrowth through capturing state power and implementing effective public policies. This vision is complemented by a diverse range of unarmed resistance tactics that reflects a multifaceted approach to social change.

[25] The information provided in Supplementary 1 of **Article V** will be provided upon request.

Cluster 2: Antagonistic Anarchism

Cluster 2 comprises 83 respondents (21%) who oppose all forms of authority and hierarchies in favour of principles like free association, mutual aid, and self-management. While sharing with cluster 1 the scepticism toward voluntary redistribution (96%), the belief that the personal is political (93%), the opposition to commodify nature (96%), and the optimism that collapse can be avoided (69%), cluster 2 diverges notably regarding mechanisms of social change. This includes challenging the role of the state in solving social and ecological issues because policymakers are *not* viewed as keystone actors of change (86%), plus many assert the necessity to abolish military spending (82%) and interest (67%), as well as question the idea that degrowth can be achieved through representative democracy (70%). Further statements finding above average support were that autonomy is not contingent on money (64%), that society is distracted from systemic violence (61%), that reformism distracts from realising transformative alternatives (59%), that power is a zero-sum game (53%), and that there is an inverse relationship between scale and democracy (51%).

Respondents originate from twenty-eight nations and speak twenty-one native languages, primarily English, German, Spanish, and French. People assigned to this cluster are more likely to earn less than €20,000 and less likely to receive more than 60.000€ per year. They are also more likely to be students, aged under 27, renters, and women compared to the overall sample. Furthermore, only 16 per cent work in academia. 87 per cent were members of organisations with the most popular being science-activism (37%), worker unions (33%), and NGOs (31%). Active engagement is more concentrated on alternative economic projects (36%), science-activism (35%), and NGOs (30%). 82 per cent have flown in the last 3 years, 72 per cent do not drive, and 47 per cent have plant-based diets.

Tactical preferences are like cluster 1 with all three factors deviating from the mean in the same direction. Anti-property actions find the greatest support (0.695), support for nonviolent resistance is very close to the mean (0.069), and insurgency tactics are near-unanimously rejected, albeit slightly less than in other clusters (0.242). Here the usefulness of implementing hunger strikes, mass riots, and bank robberies remains contested. In sum, *Antagonistic Anarchism* expresses opposition to authority and hierarchies in favour of collective liberation. This includes objecting to seizing state power because it is deemed impractical for achieving the ends of degrowth, namely self-governing societies based on decentralisation, workers' control, and mutual aid achieved through a plurality of direct action tactics.

Cluster 3: Ecological Limitarianism

Cluster 3 consists of 116 respondents (29%) who converge a preference for regulatory reform to solve the scale of ecological distribution conflicts. Whilst sharing common ground with clusters 1 and 2 regarding scepticism toward voluntary redistribution (87%), advocacy for decommodification of nature (80%), and recognition of humans' cooperative nature (78%), cluster 3 diverges on several key points. Notable divergences from the sample mean relate to rationing resources to achieve sustainability (78%), which stem from the view of resources as inherently scarce (76%), as well as opposition to the use of psychedelics to enhance nature-relatedness (76%). This corresponds to above average support for prohibiting flying for

business and pleasure (55%) and a rejection of the notion that dismantling schools can democratise education (54%).

Demographically, cluster 3 has overrepresentations of Italian speakers and citizens, Swedish residents, respondents with €40,000-60,000 incomes, homeowners, retirees, as well as Swedish and U.S. citizens. Notable is the low share of postgraduate degrees among respondents' parents. Representing thirty-four nations, the cluster is the most geographically diverse. Thirty native languages were present with English, German, and Italian being the most common. At 81 per cent, organisational commitment is lower than the overall sample despite still being high. While memberships are most prevalent in NGOs (38%), science-activism networks (38%), and worker unions (28%), active engagement is focused on NGOs (38%), science-activism networks (25%), and alternative economic projects (14%). Personal practices are close to the mean: 77 per cent of people had flown within the last 3 years, 61 per cent do not drive, and 45 per cent practice plant-based diets.

In tactical terms, this cluster reflects the mean in terms of its support for nonviolent resistance (0.092), while support for anti-property action is lower (-0.334). Whilst some of these tactics like blockades, hacktivism, and trespassing are widely supported, weak majorities support property destruction and oppose sabotage. Insurgency tactics are rejected more clearly and unanimously than in any other cluster (-0.317). In sum, *Ecological Limitarianism* represents a vision whereby material scarcity is regulated and rationed to ensure equality and wellbeing. This includes favouring non-market and state-led planning that is supported by pacifist acts of civil disobedience.

Cluster 4: Environmental Pragmatism

Cluster 4 consists of 106 respondents (27%) who stand for a pragmatic understanding of environmentalism that transfers the language of economics to ecology. The common ground with clusters 1 and 2 is limited but includes the beliefs that voluntary redistribution by the power elite is unlikely (75%), that low-income countries should not have to pick between growth and the environment (59%), and that societies can avoid collapse (58%). Larger similarities exist with cluster 3, including scepticism towards the use of psychedelics (64%), perceptions of resource scarcity (62%), and opposition to dismantling schools (62%). Furthermore, there is agreement with clusters 1 and 3 on the need for taking state power (61%), which links to the belief that government intervention is more effective than collective self-limitation (48%). Interestingly, the cluster diverges from others in its majority opposition to prohibiting flying for business and pleasure (57%). Internal disagreements concern the exploitative and violent nature of profit-making (38% disagree v 28% agree) and the notion that nature can be preserved through market mechanisms (40% disagree v 36% agree).

Demographically, the cluster covers people from thirty countries speaking twenty-seven native languages, especially German and English. There is a higher prevalence of people who drive, earn €60,000-80,000, work full-time, are aged 43-77, eat meat or dairy at least once per day, are Austrian citizens or live in Germany, and have a postgraduate degree. In contrast, non-drivers, people under 43, students, the unemployed, people who earn <€40,000, vegetarians, as well as Italian and British citizens are underrepresented. Three-quarters hold degrees in humanities and social sciences, especially economics and management. Notably,

the number of people involved in organisations (74%) is significantly lower than the average. Memberships are highest in NGOs (44%), science-activism (30%) and political parties (25%); whereas active involvement with NGOs (22%), science-activism (12%), and alternative economic projects (11%) is popular. While the share of those having flown within the last 3 years was average (79%), not driving (47%) and practicing plant-based diets (30%) were significantly lower than the sample.

Regarding tactical choices, this cluster takes a timid approach with support for direct actions lowest among all clusters. Whilst nonviolent resistance still finds support, this is less pronounced than on average (-0.399), especially surrounding confrontational tactics like blockades, demonstrations, hacktivism, mass arrests, occupations, and trespassing. Interestingly, anti-property actions are more often rejected (-0.722) but hunger strikes are viewed less critically than in other clusters. Unsurprisingly, insurgency tactics were unanimously rejected (0.130). In sum, *Environmental Pragmatism* advocates for a post-growth approach that adapts the neoclassical theory degrowth opposes to ecology. This includes favouring individualistic reformism and monetary markets in a bid to avoid conflict through direct action.

4. Discussion

Based on the findings, this section discusses three key features to consider when organising for degrowth: principles, pluralism, and politics. First, we clarify the preanalytic vision of degrowth. Second, we examine the strategic implications of scientific pluralism. And finally, we reflect upon how to enhance the organisational commitment and capabilities of the degrowth movement.

4.1 The preanalytic vision of degrowth

Mentioning degrowth often leads to misconceptions or criticisms that it endorses economic recession or societal collapse (Parrique, 2019: 319-462). However, this could not be further from the truth. Indeed, the findings of this survey empirically confirm what has been constantly repeated in the literature: degrowthers have developed a systematic critique of growth and offer potential proposals of how to overcome the social and ecological contradictions of capital. This is evidenced by most respondents rejecting suggestions that humans are naturally selfish or that society must collapse before humans think differently, as well as agreeing that the personal is political, profit-making is a form of violence, and military spending must be abolished to achieve sustainability. Such positions set degrowth apart from other sustainability visions by rejecting core tenets of mainstream economic thinking (Spash, 2024: 164-196). In this way, degrowthers are attempting to avoid the mistakes of environmental and ecological economics by building an academic community that challenges economic growth and price-making markets.

So what is the preanalytic vision that motivates degrowthers? Even though this study cannot fully answer this question, its findings begin to divulge the philosophical presuppositions of degrowth. Importantly, the results reveal core commonalities in degrowth visions of social change, including high levels of agreement to the propositions that: redistribution will be the result of struggle, personal actions are political, humans are not

selfish by nature, nature should not be commodified, debt and development must be questioned, societal collapse is avoidable, resources need to be rationed, and profit-making is a form of violence. These findings shed light on the beliefs, ideas, and values that degrowthers put forward in opposition to orthodox mainstream economic thinking. In essence, their explanatory critique and preanalytic vision entails a responsibility for researchers to become activists.

Few studies outline what degrowth is *about*, meaning the organisational principles beneath the term. Our findings show that simply reducing production and consumption without redistribution and reparations is incompatible with degrowth visions. So, what principles should guide that reduction? Again, this survey suggests that degrowth aims to leverage reduced economic activity to achieve sustainability, deepen democracy, ensure equity, and secure wellbeing (Parrique, 2024). This is exemplified by respondents' scepticism toward voluntary redistribution and price-making markets, as well as support for resource rationing and social provisioning. So whilst degrowthers insist that production and consumption must be reduced, it needs to be part and parcel of reducing inequality through the redistribution of land, labour, capital and resources within and between countries (Fitzpatrick et al. 2022). For example, via ecological reparations (Schmelzer & Nowshin, 2023). In this direction, the emerging challenge becomes how to better organise social movements and scholars to not only demand degrowth but win their demands.

This leads to another important conceptual consideration: degrowth for *whom*? Even though most assume degrowth is a proposal for addressing overdevelopment in the Global North (Brand & Wissen, 2022), few consider how this approach risks reproducing the imperialist development agenda (Cabaña Alvear & Vandana, 2023). Take ecological and economic inequality for example where both within *and* between countries matters. This speaks of the need to centre non-monetary aspects of inequality like class, gender, and race that are exacerbated by global capitalist production relations. Such arguments are echoed in our survey findings as respondents question dominant interpretations of debt and development. So whilst transforming the social metabolism of societies in the Global North is important, structural transformation of the global economy is a prerequisite to achieving degrowth.

Our findings reaffirm that degrowth is both a scientific concept and social movement. In 2014, we examined the motives, attitudes, and practices of 'the degrowth spectrum' (Eversberg & Schmelzer, 2018). A decade later this spectrum has evolved into an international social movement committed to reigniting the transformative potential of the environmental movement. Whilst our previous analysis concluded with rather vague visions of degrowth, the current findings point towards a more coherent preanalytical vision. This is exemplified by the four clusters being less divergent in their visions and strategic preferences than our previous five currents. Most notably, the emphasis on the connection between reflection, theory, and action that manifested in the *Alternative Practical Left* current in 2014 has become a core feature of degrowth organising that transcends political ideologies. Nonetheless, practising criticism and self-criticism remains critical to avoiding co-optation and advancing the struggle against capital-accumulating economies.

4.2 The strategic implications of pluralism

Our findings illustrate that several shades of social change exist within the degrowth movement. Our analysis distinguishes between four distinct clusters: (C1) *Systemic Utopianism*; (C2) *Antagonistic Anarchism*; (C3) *Ecological Limitarianism*; and (C4) *Environmental Pragmatism*. Although these are not mutually opposing groups, this typology offers insights into the diversity of ideologies that influence how degrowthers envision social-ecological transformation. For example, our findings reveal inspirations from several ideologies that articulate their ideas under the banner of degrowth, including anarchism, feminism, and Marxism, as well as eco-modernism, liberalism, and post-Keynesianism. But given that ideological diversity tends to lead to strategic diversity, especially given the power of economic orthodoxy to reproduce the status quo, it is important to reflect upon the strategic implications of pluralism.

One strategic consideration concerns the distinction between pluralism and the pluriverse. Whereas scientific pluralism takes an epistemological stance to promote methodological diversity within science (Spash, 2012), the pluriverse has a strong ontological component that asserts there are multiple ways of relating to the world (Kothari et al., 2018). So, whilst pluralism applies to the context of scientific investigation and often leads to reproducing orthodox methodologies, the pluriverse criticises colonial claims of Western superiority and extends its application to cultural, social, and political realms to advocate for structural transformation. The aim of the pluriverse is to consolidate radical alternatives for social-ecological transformation, not to build so-called pragmatic alliances with orthodox mainstream economics under the guise of methodological pluralism (Gills & Hosseini, 2022). In this sense, the degrowth movement should learn from the failed attempts of ecological economics to cooperate with, apologise for, and infiltrate the orthodoxy and instead not be afraid to draw conceptual boundaries around what is compatible or incompatible with degrowth, for example by excluding orthodox mainstream economic approaches in favour of building alliances with heterodox alternatives (Spash, 2024). As such, future researchers might consider investigating which actors, institutions, and instruments are truly heterodox.

Another strategic consideration concerns political pluralism and the inseparable link between theory and action. Our analysis suggests that *Systemic Utopianism* and *Antagonistic Anarchism* are committed to core degrowth beliefs that mimic the *Alternative Practical Left* current we identified in 2014 as a potentially unifying force. For example, both exhibit positive values on *degrowth heterodoxy*, *transformative agentialism*, and *active revolutionism* on the PCAs in Figure 2.8. Whilst *degrowth heterodoxy* is a weak trait of *Systemic Utopianism*, it is very strong in *Antagonistic Anarchism*, suggesting the former is more open to compromises with the current hegemony. Meanwhile, only *Ecological Limitarianism* is in favour of *top-down planning*. So whilst from the outside degrowth is often associated with a centrally planned economy, this is not what a majority within the degrowth movement, especially the two core clusters, advocate. Rather, the role of the state remains contested. Whereas *Antagonistic Anarchism* considers the state undesirable to achieve degrowth, the diverging visions of *Systemic Utopianism* and *Ecological Limitarianism* appear to mimic two major positions on alternative economies that entail transforming the state: social provisioning in-kind and market socialism, respectively (Spash, 2024: 197-219). Finally, *Environmental Pragmatism* clearly represents

orthodox dissenters who appeal to heterodox alternatives yet employ mainstream methods and positions under the guise of being pragmatic. This is exemplified by high values on *systemic orthodoxy*, *cynical structuralism*, and *passive reformism*, all of which reproduce mainstream economic thinking.

So, how do degrowthers conceive social-ecological transformation? Although the present analysis cannot fully answer this question, our findings confirm the difficulty of combining bottom-up liberation with top–down planning (see also, Liegey & Nelson, 2022: 86-115; Barlow et al., 2022; Schmelzer et al., 2022: 251-284). One area where this is the case concerns participants' practices. For example, the level of organisational commitment within the degrowth movement is high compared to the general population. This is demonstrated by people being members of NGOs, science-activist networks, workers' unions, political parties, and alternative economy projects. While membership rates in political parties and workers' unions is high, active participation in these more formal organisations remains low, indicating that degrowthers tend to prioritise horizontal over hierarchical organising.

Another example concerns how to decipher between structural inhibitors and transformative agency. On the one hand, driving rates were below average and plant-based diets were far above average for degrowthers compared to the general population. On the other hand, flying rates were far above European and global averages. Combined with the fact that less than 40 per cent of respondents support banning flying for business and pleasure, which raises serious questions about the potential of collective self-limitation in capital-accumulating economies. Furthermore, these opinions contradict recommendations on the degrowth of aviation that include: moratoria and scaling down of airports, frequent flyer and air mile levies, flight limits, caps and bans on certain forms of flying, and eliminating tax exemptions (Stay Grounded, 2019). Perhaps this contradiction speaks to the point that people's material conditions usually determine their social-ecological consciousness and behaviour. Connecting this issue to wider debates on degrowth and strategy, one could ask: can capitalism be overcome by laws and policies? If so, why has it not happened yet? If not, what other tactics are available?

4.3 Strategy and tactics

Isolated actions do not make strategies, organising does. This begs a question: How can degrowthers align their strategic orientations with their tactical preferences? Throughout the survey process it became clear that despite diverse political ideologies being represented, the support for activist tactics from social movements to civil disobedience and even sabotage remained strong. Supporting such a sweeping variety of tactics tends to align with what has been termed a strategy of *unarmed resistance* in social movement literature. At a conceptual level, 'unarmed resistance is a form of contentious collective action in which people do not carry or display arms' that contains two types of actions: nonviolent resistance and unarmed collective violence (Chenoweth, 2023: 57). Whilst *nonviolent resistance* involves mobilising people for actions without physically harming or threatening to harm their opponents (e.g., boycotts, strikes, divestment), *unarmed collective violence* involves causing physical damage to property or people (e.g., rioting, sabotage, vandalism). One important distinction between the original definition and our findings is that degrowthers often support unarmed collective

violence against property, but almost never against people. This is why we refer to it as *anti-property actions* instead. Nonetheless, it goes without saying that adopting a strategy of unarmed resistance employs irregular political tactics that operate outside traditional political participation defined by the state such as voting. Luckily the failures of representative democracy leave a legitimate role for social movements to implement direct action tactics to strive for social-ecological transformation.

This can be illustrated by reflecting on Sovacool & Dunlap's (2022) inventory of direct action tactics. At the sample level, qualified majorities support nonviolent resistance like social movements, strikes, and boycotts; majorities support anti-property actions like occupations, blockades, and sabotage; whilst insurgency tactics like assassination are unanimously rejected. Importantly, support for anti-property actions remained conditional in that it must not endanger life. At the cluster level, there were two competing attitudes towards implementing direct action for social-ecological transformation. On the one hand, *Systemic Utopianism* and *Antagonistic Anarchism* share an *active revolutionism* stance and tend to favour *bottom-up liberation* (although the latter is only statistically significant in *Antagonistic Anarchism*). This translated to *Systemic Utopianism* being somewhat more in favour of nonviolent resistance, with *Antagonistic Anarchism* being significantly more in favour of anti-property actions and slightly less dismissive of insurgency tactics. On the other hand, *Ecological Limitarianism* and *Environmental Pragmatism* exhibit *passive reformism* (although only statistically significant for the latter). Additionally, *Ecological Limitarianism* strongly supports *top-down planning*. In tactical terms, this translated to both clusters being sceptical of anti-property actions, *Environmental Pragmatism* being somewhat less convinced of nonviolent resistance, and *Ecological Limitarianism* being most dismissive of insurgency tactics. Overall, *Systemic Utopianism* and *Antagonistic Anarchism* could be characterised as promoting heterodox degrowth transformations, whereas *Ecological Limitarianism* and *Environmental Pragmatism* are ideologically closer to orthodox ideas about sustainability transitions.

Viewing our results through the lens of Erik Olin Wright's (2010) three logics of transformation, *Systemic Utopianism* and *Antagonistic Anarchism* share a commitment to *interstitial* strategies but disagree on the role of the state. This makes *Systemic Utopianism* appear more compatible with *symbiotic* strategies because they are more willing to compromise on degrowth heterodoxy and remain optimistic toward public policy. In contrast, *Antagonistic Anarchism* prefers *ruptural* strategies that are conflictual and structural against capitalist institutions like price-making markets and the state. Meanwhile, *Ecological Limitarianism* and *Environmental Pragmatism* strongly favour *symbiotic* strategies. Whilst the former favours strict regulation and distribution by the state in the hope of avoiding contentious politics like anti-property actions, the latter places its faith in pacifism to amplify the call for symbiotic strategies like price-making markets.

These conclusions appear to reflect the tactical diversity identified in *Degrowth & Strategy* (Barlow et al., 2022). But there are good reasons for the degrowth movement to align its organising and alliances with its systematic critique of growth. Our scientific analysis indicates near unanimous support for implementing nonviolent resistance tactics as well as surprisingly strong support for calculated anti-property actions, which taken together could form the foundations for the degrowth movement to build a strategy of unarmed resistance.

However, whether respondents would support such a strategy cannot be deduced from this study and remains speculative. Nonetheless, the degrowth movement should build on these strategic and tactical preferences if it wishes to prevent contradicting its systematic critique of growth (Schmelzer et al., 2022: 75-177). Knowing full well that doing so does not rule out the option of building alliances with people's struggles worldwide who adopt other insurgency tactics as part of their strategy for collective liberation, for example in Chiapas or Rojava.

5. Conclusion

The purpose of this article was to assess the attitudes of the degrowth movement toward strategy and tactics. To do this, we conducted a survey and statistical analysis on degrowth activists and authors. The analysis updates earlier findings on the 'degrowth spectrum' (Eversberg & Schmelzer, 2018) by providing new data focused on strategies and tactics that better reflects the academic and international aspects. Furthermore, it offers practical reflections on Sovacool & Dunlap's (2022) inventory of direct action tactics for social-ecological transformation (see *Supplementary 1*)[26].

The survey at the heart of this study collected 399 responses from 54 countries and 73 disciplines. The subsequent statistical analysis identified four clusters within the degrowth movement: Systemic Utopianism, Antagonistic Anarchism, Ecological Limitarianism, and Environmental Pragmatism. It also identified influential factors within the clusters that illuminate strategic tensions within the degrowth movement: systemic orthodoxy vs. degrowth heterodoxy, transformative agentialism vs. cynical structuralism, active revolutionism vs. passive reformism. While clusters differed markedly in their conceptualisations of degrowth, these ideological differences had little influence on how people perceive direct action tactics. Overall, respondents voiced strong support for nonviolent resistance and anti-property actions combined with a strong rejection of tactics that are insurgent or endanger life.

Our findings confirm that degrowth is not just a scientific concept, but also a vibrant academic community and emerging social movement. While the interest in degrowth research continues to rise, we critically reflect on the quality of degrowth organising. This led to three reflections regarding the principles, pluralism, and politics of degrowth. First, the preanalytical vision of degrowth has become more coherent over the past decade yet tension remains on how best to conceptualise it. This connects to our second finding that scientific pluralism has strategic implications for how best to approach the pluriverse, pluralism, and practice. And thirdly, our findings warrant further investigation to consider if a strategy of unarmed resistance is appropriate for the degrowth movement to pursue.

A final thought between politics and culture. This survey assessed attitudes towards strategy and tactics but remained largely silent on cultural change. This was a conscious yet controversial choice. For example, discussing what happens when scientists become activists is a contentious topic that others have begun to discuss (Artico et al., 2023). Whilst some believe scientists should remain neutral, others believe the job entails a responsibility for researchers to become activists. Such a perspective extends beyond the comfortable domain of

[26] The information provided in Supplementary 1 of **Article V** will be provided upon request.

education into the uncomfortable domain of activism whereby people act in ways that are consistent with their ecological and social values. Which again speaks to the need for further investigation on the legitimate role direct action tactics like sabotage can play if existing institutions continue failing to structurally address the ecological crisis.

We opened this article by arguing that degrowth has emerged as a sensible strategy for social-ecological transformation. We close by arguing that adopting a strategy of unarmed resistance could allow the degrowth movement to act more in accordance with its social and ecological values. Either way, there is no doubt that realising the transformative potential of degrowth requires a deep understanding of mobilising, organising, and strategizing to realise equitable economic, political, and power relations.

3

SYNTHESIS

In this section, I discuss the implications of my research for the degrowth movement. This includes reflecting on the rationale, results, and relation between each piece presented in **Part II**. Finally, I summarise the contributions and recommendations of organising for degrowth.

3.1 Discussion

The reader might find it useful to recap the overall aim, research questions, and key findings of the thesis thus far before diving into the discussion (Figure 3.1).

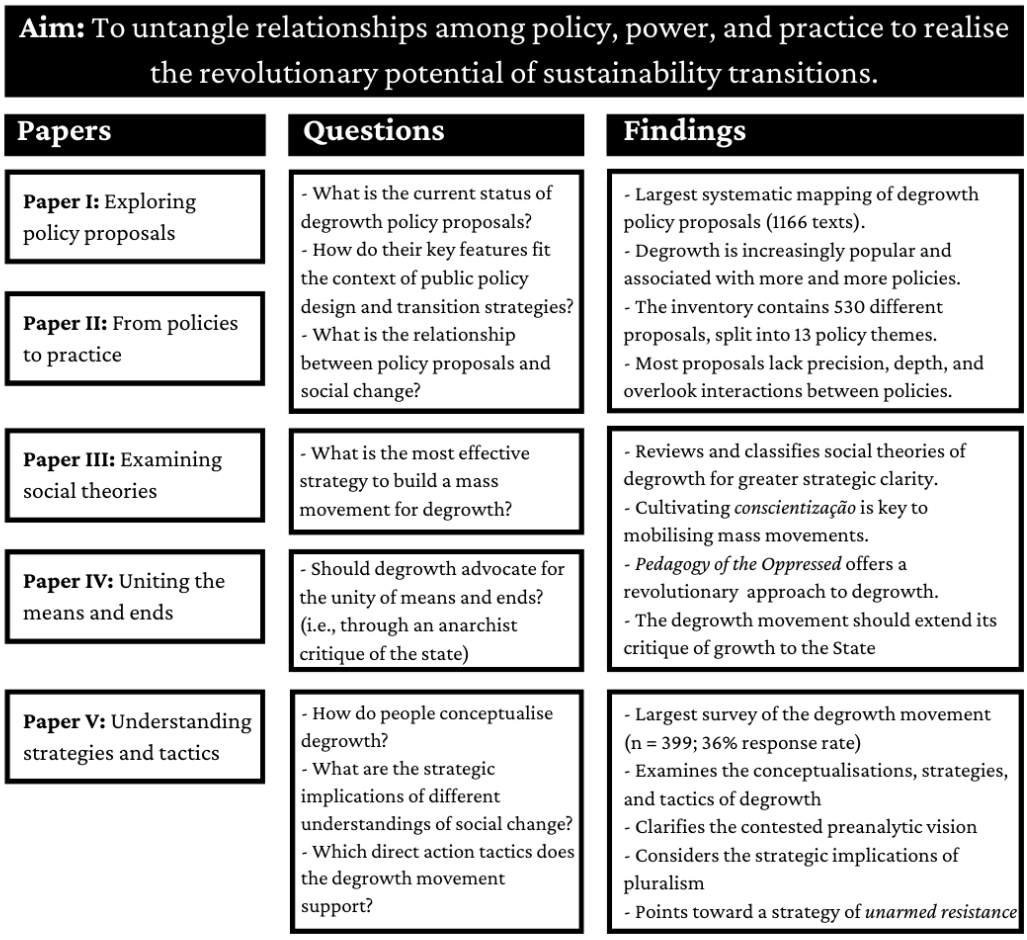

Figure 3.1 Summarises the main aims, research questions, and findings of the thesis.

3.1.1 Exploring policy proposals

The aim of this article was to build a traceable and transparent inventory of degrowth proposals that answered two research questions: (1) what is the status of degrowth policy proposals? and (2) how do their key features fit the context of public policy design and transition strategies? After taking a year to read the entire degrowth literature, the outcome was the largest systematic mapping of the degrowth literature. Two years after publication, the article is one of the most highly cited in the field and serves as the foundation for numerous activist organisations, research articles, and student theses. However, this does not guarantee that it contributes to achieving degrowth because the validity of science is not based on popularity but how it matches up with reality. This is why it is important to reflect critically upon its narrow scope and findings.

The purpose of a systematic mapping is to review an entire field of literature. Unlike targeted reviews that use their findings to justify a specific approach, the research behind this article was designed to map how degrowth advocates approach policies and policymaking. As such, it did not evaluate policies based on if they aligned with a social ecological economics approach to degrowth for example. This has advantages and disadvantages. On the one hand, the research proved that the degrowth movement has hundreds of policy proposals across various themes. The findings speak to the ideological nature of critiques against degrowth, especially by those who adhere to orthodox mainstream economic thinking (e.g., Savin & van der Bergh, 2024). Whereas heterodox economists are versed in mainstream economics, the reverse is rare because mainstream economists are ideologically opposed to heterodox alternatives, aka dogmatic. This is why it might be a waste of time to debate or build alliances with people who are supporting the very system degrowth is trying to transform (Spash, 2024). The orthodoxy are power holders for a reason and will actively defend their positions, professions, and privileges.

On the other hand, the critique that our article reinforces symbiotic strategies of transformation by placing the state and markets at the centre of degrowth strategies is valid (Nelson, 2024). Whilst we did explicitly caution against conflating policymaking with statecraft, this cannot stop people from doing so in subsequent studies. In fact, a similar thing happened to Daly and Cobb (2007) when developing the concept of 'person in community', which led to the rise of the Indicator for Sustainable Economic Wellbeing (ISEW) that was briefly suggested in their appendix. Hence, there is a downside of conducting reviews where the analysis is based on seeking to show what is popular and intervening in associated discourse. For example, the most popular policy proposal was a universal basic income (UBI), but this arguably has a lower transformative potential than a universal basic services (UBS) that takes an in-kind approach to social provisioning (Gough, 2019). Büchs (2021) even argues that the two can complement each other with a UBS focusing on production and provisioning, whilst a UBI focuses on consumption. From a social ecological economics perspective, I think the logical next step to advance this analysis would be to provide an ontological typology of the same proposals based on the degree to which they rely on monetary markets or the state.

The article presented several findings. For starters, it identified 530 policy proposals that were organised into 50 goals, 100 objectives, and 380 instruments across 13 themes. The

results of which led to five reflections regarding the precision, frequency, visibility, diversity, and interactions of policies. Overall, it could be said that the degrowth movement takes an eclectic approach to policymaking. Structurally, the neoliberal nature of academic research means researchers are pressured to give policy recommendations despite most analyses being void of any political analysis. This is most obvious in papers where authors name policies in the discussion or conclusion sections without any analysis of how such policies could be implemented. We termed this phenomenon 'policy-dropping', which is not just an issue unique to research on degrowth. But the result is an artificial inflation on the role of policymakers to fix societal ills, especially when evidence suggests that they tend to protect the status quo (Gilens & Page, 2014). Inspired by the words of Audre Lorde (2018), we can ask: will the master's tools dismantle the master's house?

The process of conducting a systematic mapping changed the entire direction of my thesis. Whereas a shallow literature review was designed to motivate the development of a co-creation framework for Portuguese sustainability initiatives, the deep systematic mapping motivated my interests in questions related to philosophy of science, social ecological economics, and direct action. This is because the philosophy of critical realism posits that the purpose of science should be to challenge and change structures that prevent collective liberation rather than defend the status quo under the guise of 'neutrality' and 'objectivity' (Bhaskar, 2008). Hence, my thesis now consists of the following articles that reflect this approach to science. ***Paper II: From policies to practice*** was motivated by a desire to expand on the thematic analysis of degrowth proposals to make them concrete and tangible for activist audiences to discussion and decision-making. ***Paper III: Examining social theories*** reflects my growing curiosity in the social sciences, especially political ideologies, and how this relates to organising for social change. ***Paper IV: Uniting the means and ends*** builds on the findings that some strategies rely on state and market mechanisms to achieve degrowth, instead arguing for a unity of means and ends. And ***Paper V: Understanding strategies and tactics*** is motivated by a desire for conceptual and strategic clarity within the degrowth movement on how best to proceed.

3.1.2 From proposals to practice

The aim of the book chapter was to elaborate on the thematic synthesis of the previous article to examine the relationship between policy proposals and social change. The contents of ***Paper II*** mimics the thematic synthesis in ***Paper I*** but is four times longer. This additional length afforded me the space to tease out the relationship between policy ends (goals, objectives, targets) and policy means (method, instruments, calibration). Furthermore, it enabled me to better substantiate the links between the policy proposals and additional scientific literature without people needing to dive into my Supplementary data[27].

[27] The Supplementary material for **Paper I** is available under the title *Appendix A: Supplementary data* using this open access link - https://doi.org/10.1016/j.jclepro.2022.132764. Meanwhile, the full list of policy proposals can be found in Appendix A at the end of this dissertation called *Thematic Synthesis of Policy Proposals.*

The novelty of this chapter is that it provides a precious overview of the who, what, when, where, why, and how of degrowth policy proposals. Whilst it is obvious that this analysis needs to be complemented with research on how to achieve these goals and the interactions between them, it provides people with a solid foundation to begin doing so. In the broader context of the *De Gruyter Handbook for Degrowth* (Eastwood & Heron, 2024), my chapter complements the series of contributions that critique growth and offer alternatives, which includes remaining critical to rural-urban and north-south divides. An important task given the book is set to serve as an introductory textbook for the field.

Take the ***Paper II*** theme of energy and environment for example. In ***Paper I*** we identified eight goals: (1) reducing environmental pressures; (2) energy consumption; (3) eliminating fossil fuels; (4) stopping nuclear energy; (5) energy democracy; (6) restore and preserve biodiversity; (7) stable demography; and (8) decolonizing environmental justice. The goals of which evolved out of the ethical implications of climate science. In ***Paper II***, these are logically clustered as *reducing environmental pressures*, which involves implementing declining caps on resource use, emission, and pollution according to historical responsibility instead of voluntary climate pledges and carbon markets. Proposals that align with the evidence for abolishing fossil fuel subsidies (Parry et al., 2021), ruling out new fossil extraction (Kühne et al., 2022), revoking exploration and production licences (Trout et al., 2022), and fast-tracking the phase-out of fossil fuel infrastructure (Welsby et al., 2021).

Another example involves the ***Paper II*** theme of geopolitics and governance. In our initial ***Paper I*** analysis we highlighted six goals: (1) radical ecological democracy; (2) defence and reclaiming of the commons; (3) dismantle hierarchies; (4) regulate lobbying; (5) reform international organisations; and (6) end the military-industrial complex. A shortcoming of ***Paper I*** was our failure to recognise the barriers preventing the democratisation of our political and economic systems (exceptions include Buch-Hansen, 2018; Strunz & Schindler 2018; Büchs & Koch, 2019; Baumann et al., 2020). In capital-accumulating economies, policymakers tend to respond to the preferences of the economic elite and the average citizen has little to no impact on public policy (Gilens & Page, 2014). This begs two questions: Are states democratic if their governments primarily respond to the preferences of the rich? (see ***Paper IV***) And do our strategies and tactics change depending on the answer? (see ***Paper V***). My analysis suggests that democratising the economy is a prerequisite to democratising our political systems.

3.1.3 Examining social theories

I argue that the degrowth movement is hampered by the lack of a clear theory of social change. So, what would be the most effective strategy to build a widespread social momentum around the idea of degrowth? The article appearing here as ***Paper III*** presented two key findings. First, the review component updated the analytical framework of Alexander and Rutherford (2014) that outlines key characteristics and assumptions of the political ideologies common within the degrowth movement: reformism, eco-socialism, eco-marxism, eco-anarchism, and eco-feminism. Whilst they share a critique of capitalism, they appear to differ in how they aspire to achieve degrowth (a finding that we later challenge in ***Paper V***). Second, after demonstrating that none of them is perfectly satisfactory for the task, I propose that Paulo Freire's *Pedagogy*

of the Oppressed would constitute a more adequate theory of social change because of its considerations of class, ecology, feminisms, and privilege. Such a position advances a praxis approach to degrowth that I advocated for in ***Section 1.2 Theoretical framework*** by ensuring a stronger connection between reflection, theory, and action.

A key influence on the direction of degrowth strategy is the ideology of its advocates. Whereas previous analyses describe the currents of degrowth in a more hermeneutical fashion (Eversberg & Schmelzer, 2018; Schmelzer et al. 2022: 181-190; ***Paper V***), I became intrigued by the influence political ideologies had on the way people interpreted degrowth. Given my natural science background where facts were often presented as if ethically and value free, after adopting a critical realist approach to science, I quickly realised that 'neutrality' and 'objectivity' was not possible. A point that was often reaffirmed when I discussed strategy with degrowth advocates as they were generally forthcoming about their ideological underpinnings, unlike those who explicitly or implicitly support hegemonic positions. In this way, I came to learn that degrowth was not a single unified tradition of thought or practice because anarchist, Indigenous, liberal, Marxist, socialist, and non-Western viewpoints were all compatible with degrowth to some degree. But given my social ecological economics approach to theory, I remained convinced that scientific and political pluralism requires structure, a point we make the case for in ***Paper V***.

In hindsight, I should have lowered my ambitions or taken a more systematic approach to this task by examining the different modes of transformation and their underlying assumptions, theories, and values of social change. As one reviewer noted, this article offered several interesting perspectives despite remaining unclear on what it wanted to achieve: Does it review political ideologies within degrowth? Does it promise a unifying social theory for degrowth? Does it claim that a social theory can be derived from Freire? These series of thoughtful questions will be addressed when I rewrite the manuscript for publication. However, when I was investigating the feasibility of doing a systematic review for this paper, I was ridiculed by a fellow degrowther because apparently the nuances between the different strands of anarchism, communism, feminism, Marxism, and socialism were both obvious and pointless. But having read the work of self-proclaimed democratic market socialist Erik Olin Wright (2010, 2019), whose work has inspired strategic thinking for degrowth (e.g., Chertkovskaya, 2022), I still felt like I had more questions than answers on how to achieve degrowth. For example: Are all visions of feminism compatible with degrowth (e.g., liberal feminism)? How do Marxist-Leninists and anarchist communists collaborate on degrowth strategy? Can degrowth be implemented using utopian socialism? Do religious-inspired ideologies have a role to play in achieving degrowth (e.g., Christian socialism)? All these questions and more were coming to my mind when writing this article, especially when from a social ecological economics perspective alliance building only makes sense when groups share ontological similarities about the nature of reality.

The case for building degrowth strategies around the work of Paulo Freire should be reflected upon with care. In his seminal work on the *Pedagogy of the Oppressed* (1970), Freire explores the dynamics of oppression and liberation through analysing the relationship between oppressors and the oppressed. The *oppressors* are those who hold control over social

structures through economic exploitation, political power, and cultural domination (e.g., Global North, rich, capitalists). Meanwhile, the *oppressed* are stripped of their agency and suffer the consequences (e.g., Global South, poor, working class). The crucial element here is to recognise the relationship as dialectical not binary because it is the relation of oppression that puts them in contradiction with each other in the first place. It follows that the only path to liberation is to overcome oppression by resolving the contradiction between the oppressors and the oppressed. In other words, by the oppressed developing a critical consciousness (*conscientização*) of their own reality and taking liberating action (*liberação*) to reclaim their humanity by challenging the structures of oppression. Importantly, they cannot be liberated by the oppressor because oppressors rely on the structures of domination being maintained instead of dismantled. Only the oppressed have the potential to liberate both.

Now let's apply this dialectical relationship between the oppressed and oppressor to the global economy at different scales with the goal of achieving degrowth. At the macro level, the positionality of those in the Global South as the oppressed means that they would be the ones leading a revolutionary transformation to liberate themselves from the growth paradigm and move toward degrowth (Teixeira & Koşanay, 2024). This comes despite the Global North accounting for the vast majority of social and ecological breakdown (Hickel et al., 2022c). From this perspective, the primarily European-based degrowth movement is merely 'an ally from the North' that is unfit to trigger liberation given their positionality. But given that economic and ecological inequality exists between *and* within countries, it is also important to consider lower levels. Here the positionality of the working class, especially marginalised communities who experience systemic discrimination, become the revolutionary agents of change who must liberate themselves from the structures of domination (e.g., capitalism, colonialism, patriarchy) – as argued by Brand & Wissen (2021). It is at this level that my article complements the macro analysis of Teixeira & Koşanay (2024) by emphasising considerations of class, ecology, gender, and privilege. Even more so, it is at a spatial scale where many activist groups, degrowth or otherwise, are acting to inform and transform their societies. This points to the need for the degrowth movement extend its approach to praxis beyond merely working-class consciousness, as I mentioned in Section 1.2, whilst continuing to reflect critically upon the positionality of the degrowth movement to ensure that solidarity becomes praxis as we do in ***Paper V***.

3.1.4 Uniting the means and ends

The aim of the book chapter (***Paper* IV**) was to address the problem of translating growth critiques into organisational politics to realise the revolutionary process of degrowth by answering the following research question: should degrowth advocate for the unity of means and ends? Put simply, the *unity of means and ends* is a core principle of anarchist thought, which posits that the methods and actions used to achieve a desired goal or outcome should be consistent with and reflective of the envisioned future. Anarchist thought rejects the notion that the ends can justify any means because the means (e.g., the state) inherently shape and determine the nature of the realised outcomes (e.g., self-governing societies). As such, ***Paper IV*** built on the key findings of ***Papers I-III*** and offered a novel contribution to the degrowth

literature by invoking an anarchist critique of the state – a position that prominent activist groups like the Zapatistas or Rojava adhere to when trying to create self-governing societies based on decentralisation, workers' control, and mutual aid.

For the degrowth movement to formulate organisational politics that are resistant to the co-optation and suppression of capital, I argue that they should adopt an anarchist critique of the state by Kropotkin (2018/1913) to align the means and ends of degrowth. To achieve this, first I reconstruct the degrowth movement's views on political strategy, including its systematic critique of growth, its translation of critique into strategy, and its common ideological underpinnings. Although people in the degrowth movement are often depicted as naive utopians, I countered this narrative throughout the reconstruction because I knew the chapter would eventually be published in the *De Gruyter Handbook of Economic, Ecological and Societal Transformation* (Weik et al., 2024) whose editors, authors, and audience had likely not come across degrowth before. This was followed by outlining the case for an anarchist critique of the state and how it can better connect the means and ends of degrowth.

Paper IV begins by revisiting the systematic critique of growth offered by degrowth research (Schmelzer et al., 2022: 75-177). Broadly speaking, economic growth is critiqued because it: (1) destroys the ecological foundations of life; (2) mismeasures our lives; (3) depends on capital accumulation; (4) produces alienating ways of being; (5) relies on gender exploitation; (6) promotes undemocratic production; and (7) reproduces relations of domination. But the degrowth movement should add to these a statist critique of growth because the state is an inherently oppressive institution where centralised authority and hierarchical structures perpetuate inequalities and prevent liberation. It is only when critique is translated into strategy that we begin to see that the means of degrowth become contested. For example, whilst degrowth academics began applying state-based policies to overdeveloped countries (Assadourian, 2012; Videira et al., 2014), degrowth activists robbed banks to fund organisations like the Catalan Integral Cooperative and Faircoop. At the same time, degrowth research began mimicking the self-proclaimed democratic market socialist Erik-Olin Wright's (2010) three logics of transformation with their own version of policy proposals, building alternatives, and oppositional activism (Demaria et al., 2013). This makes me wonder if such authors think that degrowth should be code for democratic market socialism?

More recently, how to achieve degrowth has become one of the fundamental questions for ecological economists. Viewing degrowth through the logics of transformation elaborated by Wright (2010), many share his overemphasis on symbiotic and interstitial strategies. For example, degrowth policy proposals tend to favour symbiotic strategies (Cosme et al., 2017; Parrique, 2019). This comes despite the caution in ***Paper I*** of conflating proposals with statecraft given that many proposals do not rely on monetary markets or the state (e.g., in-kind social provisioning). Nonetheless, I suggest that future research needs to distinguish between proposals that do or do not rely on markets or states. Meanwhile, book contributions tend to provide detailed justifications as to why interstitial strategies are foundational for degrowth with *The Future is Degrowth* (Schmelzer et al., 2022: 251-284) and *Degrowth & Strategy* (Barlow et al., 2022) being popular examples. In particular, Barlow et al. (2022: 56-71) offer a

detailed understanding of Erik Olin Wright's framework for anti-capitalist strategy with close attention being given to issues like movement building, avoid co-optation, and ruptural strategies. Another key contribution here is the political strategy of Liegey & Nelson (2020: 86-115). Grounded in horizontalist, direct democracy, and grassroots power-sharing, the strategy aligns with the anarchist principle of uniting the means and ends. An approach that, despite being less prone to authoritarian tendencies, is criticised by other degrowthers who believe the movement should have 'the will to coerce and rule' (Bärnthaler, 2024). But as our survey findings detail in ***Paper V***, thankfully top-down approaches represent a minority position in the degrowth movement.

The anarchist critique of the state by Peter Kropotkin (1842-1921) argues that the state is inherently oppressive and exploitative because its centralised authority and hierarchical structures perpetuate inequalities and prevent liberation. Through tracing the historical and contemporary evolution of states we can see that states emerged not as a natural progression of human society but as mechanisms of domination and oppression by and for the privileged few (Kropotkin, 2018/1913; Laursen, 2021; Stoll, 2023). In capital accumulating economies the state and capitalism are interdependent, two sides of the same coin. While capital needs the state to enforce private property and monetary markets, states need capital to grow their economies and secure people's wellbeing. The logic of which perpetuates a cycle of domination and oppression that cannot be reformed from within but instead needs dismantling. So just like the concentration of power is antithetical to mutual aid and voluntary cooperation, the concentration of power should be considered antithetical to achieving degrowth because the means of acquiring and exercising state power runs contrary to the ends of degrowth: self-governing societies based on decentralisation, workers' control, and mutual aid. We can meet needs directly without coercive institutions. In sum, Kropotkin's lifelong critique of the state encompasses its emergence, capitalisation, and incompatibility with justice and liberation. His vision of a stateless society grounded in mutual aid and voluntary cooperation remains a cornerstone of anarchist thought and should inspire the degrowth movement to follow in his footsteps.

3.1.5 Understanding strategies and tactics

The aim of the final article ***Paper V*** was to better understand the strategic orientations and tactical preferences within the degrowth movement through a survey that answered three research questions: (1) How do people conceptualise degrowth? (2) What are the strategic implications of different understandings of social change? and (3) What direct action tactics does degrowth support? After distributing the survey to degrowth authors via email and degrowth activists at the 2023 International Degrowth Conference in Zagreb, we received the largest representative sample of the degrowth movement (n = 399, 37% response rate). Overall, this paper required the highest level of collaboration within my thesis tasks, including survey design, translation, distribution, collection, curation, and writing. It also gave me a chance to dialogue with many degrowthers as they responded to my survey request with curiosity and concern about degrowth strategy in general. In many ways, I finally achieved the level of scientific collaboration that I expected from a PhD.

The purpose of conducting the survey and statistical analysis was to contribute to the development of degrowth strategy. Despite there being many methodological options to investigate political strategy, I thought surveying representatives of the entire degrowth movement was a more inclusive and indicative way of conducting research than interviewing selected experts. Whereas selective interviews can provide a deeper and more detailed understanding of specific approaches, opinion surveys offer greater representation and potentially statistically significant data to provide a comprehensive overview of opinions. In this instance, an overview of how people in the degrowth movement approached strategy and tactics. A logical first step since many degrowthers had not considered political strategy before. But such a methodological choice did not come without implications.

One implication concerns my inclusion of people who critiqued degrowth as I considered them part of the dialogue on degrowth. Although I could have established a more rigorous selection criteria, for example excluding orthodoxy positions, I thought it was more fruitful to first gauge how everyone who writes about degrowth analyses and actualises it. Indeed, a similar approach was taken in ecological economics by Spash (2024). Another implication involved the decentring of the 'Barcelona school of ecological economics and political ecology' perspective (Villamayor-Tomas & Muradian, 2023). Whereas their perspective accounts for over half of degrowth citations (see also Engler et al., 2024), the survey methodology ensured representation of other views. Finally, there are concerns over the inability to draw robust conclusions from individual statements due to a lack of depth in individual responses. This is because opinion surveys typically yield surface-level insights that fail to capture the complexities and nuances of respondents' views. So, whilst we gave respondents two chances to provide long responses about their organisational activities (n = 233, 59% response rate) and additional comments (n = 136, 34% response rate), I accept this limits my understanding of underlying motivations and reasons behind degrowth strategy.

The ***Paper V*** article presented several key findings. The first recognises that degrowth has evolved from a scientific concept to a social movement, including of organic intellectuals, whose goal is social-ecological transformation. Such an approach means that the degrowth community contributes to debates about the legitimacy and role of science activism (Artico et al., 2023) and direct action tactics (Sovacool & Dunlap, 2022). The fact that the survey received responses from 54 countries and 73 disciplines also suggests that degrowth ideas are gaining popularity both geographically and in terms of interdisciplinarity. Yet despite this growing interest, we shared three critical reflections on the quality of degrowth organising. The first highlights the increased conceptual coherence of degrowth over the past two decades. This is interesting given that most degrowth research is conducted by single authors across multiple disciplines (Engler et al., 2024). The second stresses the strategic implications of scientific and political pluralism such that methodological pluralism should be rejected because it reinforces orthodox positions and alliance building should focus on the pluriversal agency of the oppressed to realise bottom-up liberation. And finally, our findings suggest the need for further investigation to determine whether a strategy of unarmed resistance is suitable for the degrowth movement to adopt and implement.

The survey focused on unconventional strategies and tactics but once again remained silent on the barriers of implementation. As current world affairs remind us, the oppressors will deny and defend their imperialist interests at all costs. It should also be expected that some of the oppressed will deny and defend their positionality in favour of their oppressors, especially those in the Global North given their material existence is dependent on the appropriation of Global South resources and labour (Hickel et al 2022a). So, how can 'an ally from the north' that is unfit to trigger liberation promote structural transformation of the global economy? While the Global North may not be the primary agent of liberation, allies from these regions can still contribute by supporting, amplifying, and standing in solidarity with the movements led by the oppressed in the Global South. Their role is to assist without dominating, to support without leading, to organise without oppression, and to reflect without saviourism.

As many of the tactics discussed in this article go beyond the comfortable domain of education into the uncomfortable domain of activism, it is essential to approach the topic with caution. Let's illustrate with the example of sabotage that received majority support in our survey. Considering sabotage involves numerous complex considerations. First, ethical considerations like the moral justification (e.g., climate breakdown), order (e.g., last resort), and target (e.g., private property). Second, the legal ramifications so that people are informed of the rights, responsibilities, and risks. Third, involves several strategic considerations like assessing the potential effectiveness and long-term impacts. For example, how to ensure legitimacy, public support, and success, as well as avoiding capture, escalation, and repression. Fourth, the operational considerations. These acts must be planned meticulously and in complete secrecy to minimise risks and maximise effectiveness. Fifth, consideration of the social context and public perceptions because disruptive tactics are more effective for issues with high public awareness and support like climate change (Ozden et al., 2023). The list of considerations could be endless. The point is that conducting contentious acts is not inherently good and should align with the values and objectives of the broader movement otherwise they risk creating divisions, alienating allies, and undermining long-term goals.

3.2 Conclusion

This research aimed to untangle relationships among policy, power, and practice to realise the revolutionary potential of sustainability transitions. It did so by targeting three research gaps in the degrowth literature: weak policy proposals, implicit power analysis, and translating theory into praxis. The research gaps were addressed through the theoretical guidance of social ecological economics and critical realism to argue that alternative economics (**Part I**) is needed to reach alternative societies (**Part II**) because the means and ends are interconnected (**Part III**).

Part I: Introduction

I used **Part I** to explain the rationale behind my thesis: scope, theoretical framework, methodology, and literature review. Whilst the **1.1 Scope** outlines the aims, research questions, methodology, and scale of my research, the **1.2 Theoretical framework** argues why combining critical realism, social ecological economics, and praxis is a strategic choice to realise the revolutionary potential of sustainability transitions. In the **1.3 Methodology** I reveal my mixed methods approaches to data collection, evidence synthesis, and interdisciplinary practice before the **1.4 Literature review** summarises the key themes circling my overall aim: to untangle relationships among policy, power, and practice to realise the revolutionary potential of sustainability transitions.

Part II: Papers

In **Paper I**, I conducted the largest systematic review of the degrowth literature to build a transparent and traceable inventory of policy proposals. This led to the conclusions that most proposals lack precision, depth, and overlook interactions between policies. These findings were expanded upon in **Paper II** where it was discussed how policymaking should be approached by a systems thinking perspective, which includes questioning notions like 'states', 'markets', and 'money'. In **Paper III**, I reviewed the political ideologies commonly associated with the degrowth movement – reformism, eco-socialism, eco-marxism, eco-anarchism, eco-feminism – and proposed that Paulo Freire's Pedagogy of the Oppressed constitutes a more appropriate approach to degrowth strategy given the movement's positionality. For **Paper IV**, I invoke an anarchist critique of the state to demonstrate that the means of acquiring and exercising state power runs contrary to the ends of degrowth: self-governing societies based on decentralisation, workers' control, and mutual aid. And finally, **Paper V** conducted the most up-to-date and comprehensive survey of degrowth academics and activists regarding strategic orientations and tactical preferences. The findings clarify the contested vision of degrowth, consider the strategic implications of scientific pluralism, and suggests further considerations for a strategy of unarmed resistance to be taken up by the degrowth movement.

Part III: Synthesis

In **Part III**, I discuss the rationale, results, and relation between each paper in the dissertation. Most importantly, it considers the implications, recommendations, and reflections of doing a doctorate degree in degrowth strategy. This included pointing to avenues for future research such as: distinguishing between policy proposals that do or do not rely on markets or states, providing a systematic approach to examining different modes of transformation, and examining the potential for adopting a strategy of unarmed resistance. Figure 3.2 offers a summary overview of the key contributions and connections of my research to the degrowth movement and beyond.

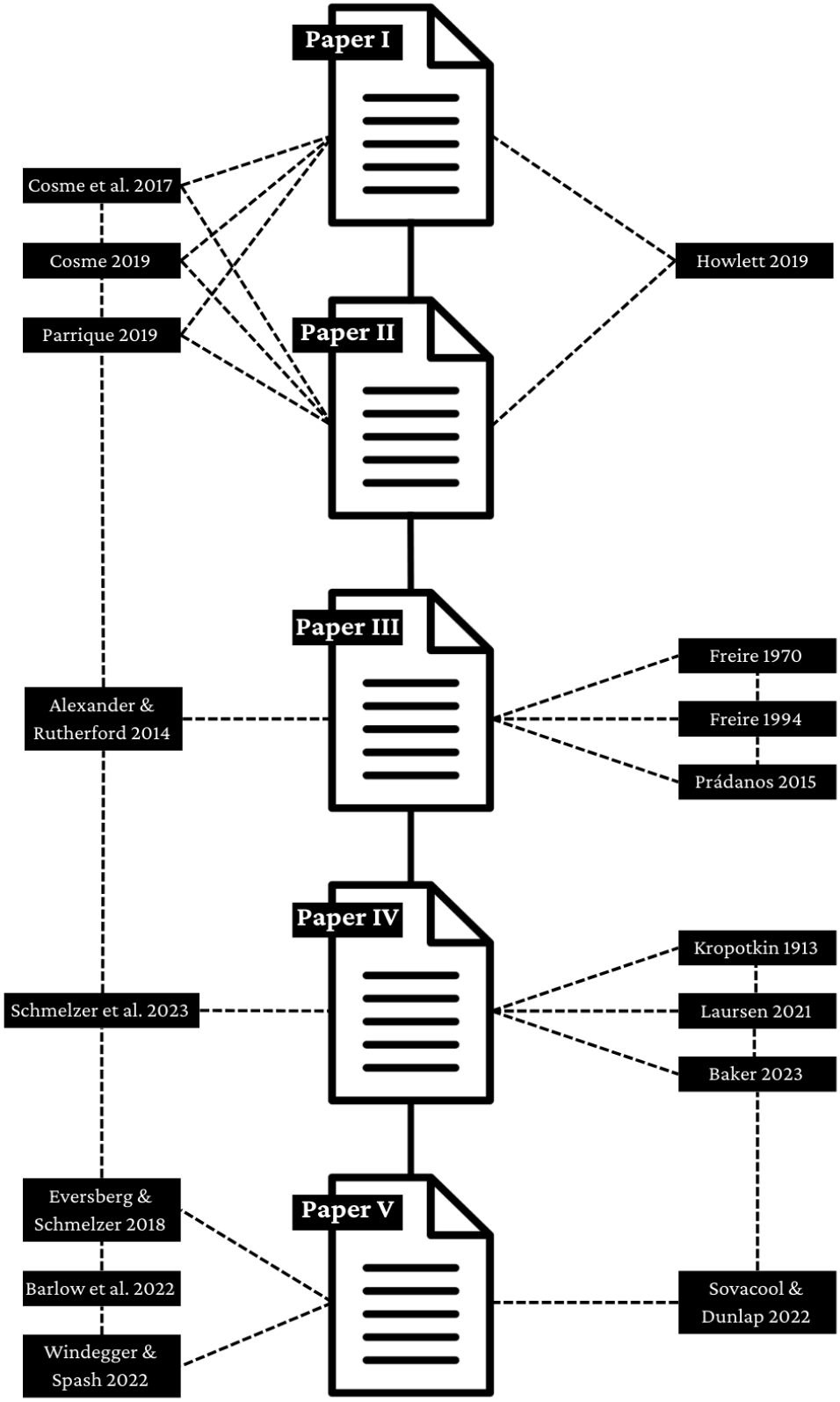

Figure 3.2 A summary overview of the key contributions and connections to research on degrowth (left) and beyond (right).

3.3 Reflection

The doctoral degree is the most alienating thing I have ever done in my life. It was a journey of many firsts. I fell out of love with myself for the first time. I fell in love with someone for the first time. I made new friends and lost old ones. And I literally almost died a couple of weeks before my deadline. So, whilst hard to explain in words, I reflect upon it briefly.

Where is the red thread?

Historically, the concept of the 'red thread of fate' referred to an invisible red cord that connects two people destined to fall in love. Nowadays, a 'red thread' is used to describe a coherent flow of ideas and writing. For me, a PhD is process of learning how to research. This includes reading A LOT, discovering your philosophy and theories, as well as learning how to write. Although I expected more institutional support and supervision than I received, which at first was a source of frustration, it soon became a unique space to develop myself as a social ecological economist and human. This included pursuing my research interests in degrowth strategy via policy proposals, political ideologies, and direct-action tactics. Personally, I believe the route I took led to a more coherent dissertation that has a 'red thread' than if I had followed the desires of others. At the start of my thesis, I was unaware of how ideologically loaded concepts like sustainability are. Although I had dabbled in activism before, I was unaware the approaches within an anti-capitalist topic could be anything but. In this sense, I am content that my dissertation is backed by the philosophy of critical realism, the theory of social ecological economics, and the practice of praxis. People can disagree, for example with critical realism being too heavily influenced by Marxism, but I believe these directions provided me with a coherent and consistent foundation for theorising how the degrowth movement might achieve its goal: systemic change for collective liberation. Such an approach enables one to identify and overcome contradictions, instead of using them as an excuse for supporting hegemonic positions or dissolving one's agency like liberalism.

Degrowth or dogma?

Multiple times throughout the thesis I was labelled dogmatic by colleagues or supervisors. In the *Cambridge Dictionary*, dogmatic refers to a person who strongly expresses their beliefs as if they were facts. Often, I was labelled dogmatic simply for challenging orthodox mainstream positions and imperial modes of living. For example, that it is possible to be 'socially left' and 'economically right', that the personal is not political, or that we should convince the ruling elite about degrowth. I simply think that we are more likely to achieve self-governing societies through alternative economics. If this makes me dogmatic then so be it. For me, this is the difference between mainstream orthodoxy and degrowth heterodoxy, which was one of our key findings from ***Paper V*** and reflects the 'fear of freedom' theory by Paulo Freire whereby people who initially support progressive changes oppose them once they are implemented for a host of reasons, including internalised oppression, personal insecurity, and political ideology. In fact, I finish this thesis in the exact opposite position of being dogmatic by underscoring the importance of ongoing critical consciousness to support collective liberation.

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A

APPENDIX – THEMATIC SYNTHESIS OF POLICY PROPOSALS

Theme	*Goal*	*Objective*	*Example Instruments*	*References*
Culture & Education	Critical education	Promote emancipatory education	Teacher training and pedagogy for degrowth; eco-spirituality; permaculture and gardening; public education on sustainable lifestyle choices; convert schools into learning communities; new (emotional) pedagogies; experiential learning; critical community and liberation psychology; library activism; degrowth-related magazines or comics; self-education and communities of practice; Matrix for Convivial Technology; spaces for creativity, experimentation and reflection; robust ecological education at primary, secondary and tertiary for all; increased and ongoing education about the damage and legacies of colonialism; indigenous learning; ecopedagogy; ecocentric education; education for steady-state and circular economy; empowerment and liberation; pluralism in economics education; free access to education and information; promotion of millennium libraries	38, 59, 74, 107, 120, 147, 148, 162, 169, 188, 193, 207, 246, 288, 295, 301, 315, 343, 349, 352, 363, 370, 393, 415, 420, 436, 440
		Oppose economic determinism and		3, 5, 20, 50, 74, 391, 406

		ethnocentrism		
	Cultures of sufficiency		The Simpler Way; Voluntary Simplicity; right to simplicity; living degrowth; anti-accumulation conception of minimalism; interaction ritual theory; ancient cynicism; eco-masculinity; dépense	2, 3, 11, 14, 21, 34, 50, 60, 67, 74, 85, 124, 131, 134, 139, 145, 152, 153, 164, 179, 221, 269, 292, 318, 319, 320, 330, 334, 340, 387, 404, 406, 407, 408, 411, 414, 415, 424, 428, 446
	Relational goods			1, 8, 11, 21, 25, 26, 30, 32, 39, 50, 74, 124, 191, 265, 287, 373, 402, 405, 408, 415, 421, 432, 435, 436
	Restore indigenous and local knowledge			114, 115, 126, 167, 191, 274, 337, 411, 415
	Ecological class consciousness		Collective spaces and agendas of solidarity	5, 25, 39, 104, 256, 257, 413, 415
	Individual autonomy	Decolonise the social imaginary		2, 8, 33, 268, 287, 402, 406, 411
		Oppose English-language imperialism		33
		Learn to speak multiple languages		402
	Ecocentrism			74, 281, 370, 408, 413
Energy & Environment	Reduce environmental pressures	Diminishing caps on resource use, emissions and	Limit the input of raw materials to production; restrict the end-use consumption of energy and resources; multi-scalar cap where individual and municipal caps are deduced from the national and	1, 11, 15, 17, 22, 23, 30, 38, 60, 99, 127, 145, 177, 269, 284, 287, 311, 304, 316, 327, 330, 355, 359, 376,

		pollution	global maximum (based on per capita ecological footprint, absolute caps on the amount of resources embedded in imported goods and services, connected to ecological or carbon debts); prioritise resource intensive and polluting industries (e.g. petrochemical, steel, iron, automotive, shipbuilding, cement); personal energy quotas; global democratic "cap and share" program <u>*Targets*</u> *Overshoot nations to reduce their biophysical footprint by on average 40-50 per cent* *Reduce ecological footprint to less than 1, or 1960-70s levels* *75-90 per cent reduction in ecological impacts in the wealthiest regions of the world*	387, 388, 390, 399, 400, 401, 405, 407, 408, 409, 410, 416, 420, 429, 436, 442
		Ecological tax reform	Extraction tax; carbon tax (e.g. rising to $550/tonne in Canada); natural capital depletion tax; divest from unethical industries (e.g. fossil fuels, petrochemicals, nuclear, mining, arms, human rights abuses, etc)	6, 12, 22, 47, 63, 66, 93, 94, 175, 179, 181, 284, 296, 327, 357, 358, 390, 400, 403, 405, 408, 410, 428, 435, 436, 442, 445
		Moratoria on resource extraction and big infrastructure	For example - fossil fuels, nuclear, biomass, incinerators, dams, highways, airports, mining, high-speed trains, roads, space tourism	2, 3, 6, 30, 43, 73, 74, 120, 125, 191, 257, 263, 355, 376, 388, 405, 418, 428, 436
		Reduce chemical production and use		38, 119
		Reduce industrial fishing activities		348, 361
		Oppose the annexation of resources by corporations and governments		6

		Oppose speculative negative emission technologies	For example - bioenergy carbon capture and storage (BECCS)	284
	Stop fossil fuels	Diminishing annual global cap and share-based program based on historical responsibility	Resource-extraction licences based on area, time and volume; create Global Climate Trust; create Carbon Maintenance Fee; create the Hardship Fund; tradable energy quotas (shared on equitable per capita basis) <u>Targets</u> *Reduce fossil fuel emissions by 80-100 per cent by 2050 (six per cent per year)* *Reduce to safely below biosphere's carrying capacity*	6, 44, 48, 61, 66, 118, 120, 136, 157, 179, 316, 331, 355, 388, 422, 436
		Abolish fossil fuel subsidies	Limit the price paid to fossil fuel producers	44, 120, 352, 390, 410, 436
		Phase-out existing fossil fuels	Begin with hyper-polluting power plants; phase out cheap energy to 'enclave' smelters and use energy to distribute universal free basic electricity to consumers	51, 311, 322, 436
		Nationalise to phase-out fossil companies		216, 303, 420
	Energy democracy	Ensure convivial, community-owned renewable systems		67, 74, 138, 141, 196, 210, 211, 216, 241, 277, 294, 317, 334, 335, 396, 407, 408, 409, 428, 435
		Build off-grid systems		226, 283
		Oppose large-scale renewable systems		257, 390
	Energy sufficiency	Reduce energy demand and use	Tax industrial energy consumption <u>Targets</u>	2, 6, 9, 11, 34, 42, 47, 67, 123, 216, 303, 390, 405, 407, 408, 409, 412, 419, 420, 428, 436

			Reduce energy consumption and waste by a factor of 4 (Negawatt scenario) *Decrease total primary energy supply (TPES) by ten per cent on 2015 levels* *Share TPES equitably* *Global North will reduce energy consumption by 70 per cent between 2010-2050 (three per cent per year)*	
	Restore and preserve biodiversity	Legislate the rights of nature	Rule of ecological law; Strong regulation to stop the commercialization of living organisms and public goods, from patenting of biodiversity and genes to speculation on harvest, ecosystem services and on the life expectancy and death of people; Transition Practises Incentives (degrowth version of PES); Coherent national network of marine protected areas	51, 74, 80, 104, 142, 436, 438
		Create resource sanctuaries	Ecological reserves and botanical gardens; reforestation projects conservation farms and biological reproduction; memorials for the preservation of knowledge, languages and techniques	43, 120, 179, 436, 443
	Stable demography	Bottom-up empowerment of women to control their reproductive rights	Provision of contraception and reproductive health services; vocational and educational options for girls and women; social policy incentives for smaller nuclear families; enrichment of relationships between children and adults in the broader extended family structure	16, 22, 51, 74, 179, 295, 330, 403, 406, 407, 409, 422, 436
	Decolonial environmental justice			275, 313, 356, 371, 406
	Stop nuclear energy	Phase-out current nuclear energy	Tax nuclear energy production and high-level nuclear waste	3, 30, 428, 436
		Remove subsidies		120
Finance	Financial democracy	Democratise and decentralise money	Nationlise banks for social and ecological purposes; Dismantle and decentralise banking and financial institutions (e.g. Wall Street, big banks, stock investment); Institutionalise full reserve banking; Encourage fiscal disobedience; Carry out regular debt auditing;	6, 11, 22, 30, 44, 47, 48, 60, 73, 74, 75, 88, 117, 120, 135, 145, 179, 181, 191, 195, 204, 295, 390, 399, 400, 408, 410, 412, 413, 415, 416,

			Create an independent authority to oversee public money creation; Progressive tax on profit and capital accumulation from all sources (e.g. buying and selling of real estate, stocks, foreign currencies, and other financial instruments); Ban fractional reserve banking; Ban interest on loans; Avoid market mechanisms; Active role of public for providing loans and subsidies to community-owned enterprises; Debt free public money; demonetisation/decommodification	422, 425, 442
		Tax justice for social ecological justice	Capital gains and capital acquisition taxes; Financial transaction tax (e.g. EU Commission considering €10 per €10,000 transaction); Abolish tax havens and financial secrecy); Unitary tax on the profits of transnational firms to restrict tax dumping; Global standard for international tax and investment policies could be used to curb tax avoidance; Financial disobedience; Debt jubilees	30, 74, 93, 104, 118, 179, 195, 206, 284, 301, 393, 405, 407, 409, 410, 420, 436, 442
	Ethical and non-speculative finance	Support non-speculate currencies, credit, and exchange systems	Timebanking; Locally-owned and operated credit unions, banks, and financial services; Cooperative banks; Melting or time-based currencies; Local exchange and trading systems (LETS); Regional (non-debt) currencies; Local or regional non-market exchange systems; Ethical banking; Local mutual-credit systems; Create national local currencies and distribute as a basic income; Non-convertible currencies; Rotating savings and credit associations (ROSCAS); Proof-for-cooperation cryptocurrency; No interest banks; Collective finance	1, 14, 22, 30, 44, 47, 48, 74, 75, 84, 90, 110, 115, 117, 120, 124, 125, 129, 135, 141, 159, 184, 186, 189, 191, 195, 227, 233, 279, 319, 320, 328, 333, 353, 369, 387, 390, 399, 400, 404, 405, 408, 413, 415, 418, 422, 425, 426, 428, 434, 442, 445
		Socially responsible and ecologically sensitive investment	Financing a (decommodified) basic income; Ecological restoration projects; Care services; Small-scale renewable energy systems; Finance a Green New Deal without growth	358, 390, 399, 407, 408, 419
Food	Sustainable farming	Institutionalise artisanal, subsistence organic farming		3, 15, 68, 71, 94, 154, 212, 254, 283, 318, 320, 330, 334, 377, 380, 392, 396, 397, 408, 417, 428, 436
		Promote small-scale farming	Intensive community, home, and urban gardening; permaculture streets; local food shops and coops; direct sales shops; regional	141, 154, 166, 196, 263, 318, 319, 320, 330, 347, 350, 378, 382, 383,

			fishing quotas based on national scope; recovery of small-agrarian land	392, 408, 415, 417, 428, 435
		Restore peasant agroecology	Permaculture	1, 2, 11, 15, 36, 51, 124, 141, 154, 205, 254, 289, 318, 319, 320, 330, 378, 397, 400, 408, 417, 428
	Food sovereignty	Develop networks and cooperatives	Mandate state institutions to procure a proportion of their food from local sources; short agricultural supply chains; reduce VAT and other tax exemptions for activities such as home-delivered organic produce parcels, bio-fairs, consumer cooperatives, municipal markets, supply to restaurants and public catering establishments in the area; label and tax food miles; food self-provisioning; community-supported agriculture; food policy networks (e.g. food policy councils, food hubs, food boards, food partnerships)	36, 68, 70, 74, 84, 93, 103, 104, 111, 122, 125, 141, 166, 171, 191, 202, 254, 298, 323, 328, 330, 348, 354, 392, 397, 399, 408, 415, 417, 435, 436, 445
		Promote seed sharing	A three-tiered seed-saving system consisting of households, community seed centres and regional seed-preservation centres; seed sharing festivals; seed banks	84, 318, 320, 354, 397, 417
		Rebuild soil fertility	Networks of manure storage facilities; local organic matter banks	318, 320, 397, 408
		Land redistribution to peasants and/or landless	Promote returning back-to-the-land	328, 436
		Phase-out chemical pesticides, fertilisers, and GMOs		1, 154, 405, 408, 417, 436
	Sustainable diets	Normalise the slow food philosophy		25, 27, 389, 417
		Reduce meat and dairy consumption		68, 295, 318, 320, 334, 397, 408, 409, 436
		Eat local, seasonal	Promote plant-based diets; Introduce organic food in public	68, 74, 111, 295, 330, 334, 397,

		food	institutions (e.g. aged care, hospitals, kindergartens, schools, universities, armed forces, etc)	408, 417
		End food waste		408, 416, 417
		Reform agricultural and consumer education	Farm visits; outreach, literature; practical courses	392, 417
Governance & Geopolitics	Radical ecological democracy	Decentralise decision-making	Hold regular deliberative forums; economic democracy; participatory budgeting; voluntary work parties (eg. voluntary committees, working bees and local town meetings); multi-level confederational direct democracy; local direct democracy; participatory democracy; small-scale self-organisation with networks of collectives; citizen-initiated referendums; scrap representative democracy; democratic experimentalism	2, 5, 14, 30, 36, 39, 43, 45, 47, 53, 56, 58, 60, 63, 69, 73, 74, 78, 85, 86, 90, 103, 114, 120, 141, 145, 157, 177, 187, 188, 216, 244, 254, 261, 275, 279, 317, 318, 319, 320, 329, 344, 367, 368, 386, 387, 396, 404, 407, 408, 409, 411, 412, 413, 415, 416, 423, 427, 433, 436, 445
		Local democratic ownership of public services and resources	Public investment and asset ownership in the energy sector	60, 390, 396, 403, 405, 437
	Defend and reclaim the commons		Local - Giveaway shops; repair cafes; rent-for-free store; gift shop; community gardens; community supported agriculture (CSA); tool libraries; open workshops; citizen self-help groups; barter clubs; farmers markets; cooperatives; community land trusts; volunteer community working bees; bike kitchens Regional - Conservation corridors; Community land trusts; Regional CSA Global - Sky Trust; Creative Commons; Wikipedia	39, 43, 47, 60, 74, 90, 104, 120, 167, 179, 191, 203, 217, 267, 301, 305, 313, 317, 318, 319, 320, 333, 351, 387, 396, 398, 399, 402, 406, 412, 415, 416, 419, 420
	Dismantle hierarchies		General consumption strike; worker takeovers of metabolic vehicles (e.g. ports, airports, highways, etc)	3, 5, 270, 375, 415

	Regulate lobbying		Balance the power of the Ministry of Finance with respect to other ministries; cap and public register of political donations; shut the revolving door between politics and business	26, 43, 118, 407, 421
	End the military-industrial complex	Less military activity		100, 435
		Abolish investment in military infrastructure		120
	Reform international organisations			201
Indicators	Alternative indicators of social progress	Abandon GDP and adopt an array of social ecological indicators		34, 48, 49, 51, 55, 65, 67, 82, 92, 94, 103, 112, 140, 141, 164, 175, 179, 193, 223, 279, 355, 384, 388, 389, 398, 406, 407, 409, 410, 411, 413, 420, 422
Inequality	Reduce inequality	Redistribute land, labour, capital and resources within and between countries	Maximum income cap; Highly progressive income tax (e.g. 100% income tax above maximum needs satisfaction, 94% for incomes over US$200,000 like during WW2 in the US, eliminate basic income tax, increase top bracket to 90% for income and non-essential consumption); Reparations for ecological debt (including biopiracy, carbon, corporate and waste debt); Tax and/or cap and/or abolish inheritance (e.g. cap inheritance at €1 million (US$1.3 million), which equates to a work free monthly salary of $10,000 birth to death); Highly progressive wealth tax; Minimum living wage; Maximum wealth cap; Maximum income ratios (e.g. 6.5:1, 10:1, 15:1, 20:1); Highly progressive consumption tax; Cancel odious debt and debt moratoriums; Crackdown on tax havens and tax flight; Negative	6, 10, 22, 30, 32, 34, 47, 48, 50, 51, 57, 62, 65, 67, 74, 82, 93, 104, 114, 115, 118, 120, 156, 158, 168, 179, 181, 193, 194, 206, 221, 227, 245, 260, 266, 284, 285, 287, 301, 311, 312, 335, 344, 359, 361, 367, 369, 376, 382, 390, 391, 393, 394, 396, 400, 404, 405, 407, 408, 409, 410, 413, 415, 416, 418, 420, 428, 429, 435, 436, 442, 445

			income tax; End ecological exchange; Global minimum corporate tax; Wealth related tax structure ; Land reform; Direct transfers; Implement anti-corruption policies; Restore stolen land to its Indigenous caretakers in reconciliation; Progressive cap-and-dividend schemes	
	Eradicate poverty	Guarantee the universal provisioning of fundamental human needs	Universal basic income (e.g. transition income, unconditional basic income, unconditional minimum income, basic income, citizens income, unconditional autonomy allowance); Equitable access to physical, mental, and social healthcare; Universal provision of basic public services (e.g. electricity, housing, public infrastructure, state services, free consumption goods); Universal basic vouchers (e.g. quasi-currency vouchers, commons-innovation vouchers, shift vouchers, needs vouchers); Transform private to public pension systems; Doctors trained in natural medicine and environmental effects on health	6, 7, 30, 34, 48, 51, 54, 61, 67, 74, 85, 104, 115, 118, 120, 140, 153, 156, 168, 173, 181, 188, 193, 194, 195, 221, 249, 252, 266, 272, 275, 284, 287, 295, 312, 325, 338, 357, 358, 360, 364, 390, 396, 399, 400, 406, 407, 408, 410, 415, 416, 418, 419, 420, 422, 428, 429, 435, 436, 442
	Transformative justice		Promote alternatives to incarceration (e.g. rehabilitation and social programs); Oppose all forms of racism (i.e. be anti-racist); Implement restorative justice measures; Dismantle colonialism and its structures; Free access to legal services for all; Redefine the principles of discrimination and equality embedded in human rights law	81, 160, 245, 250, 301, 396, 407, 408, 409
Production & Consumption	Socially useful production	Worker-owned production systems		24, 39, 50, 86, 88, 99, 101, 114, 193, 204, 230, 255, 256, 282, 323, 390, 407, 408, 411, 420
		Dismantle large corporations	For example - begin by scaling down most socio-ecologically destructive sectors (e.g. the production of SUVs, arms, beef, private transportation, advertising and planned obsolescence)	2, 22, 358
		Direct activism and sabotage	For example - anti-capitalism malware program	163
	Democratic not-	Not-for-profit	Institutionalise not-for-profit as the standard; Tax incentives for	30, 47, 73, 86, 117, 120, 125, 179,

	for-profit models	cooperatives	cooperatives; Preference to obtain public sector contracts	188, 192, 195, 216, 225, 227, 239, 248, 254, 277, 300, 310, 314, 318, 320, 328, 347, 348, 357, 374, 377, 379, 382, 386, 387, 398, 399, 400, 404, 410, 411, 415, 420, 428, 429, 442, 445
		Self-production	Encourage do-it-yourself, artisan, craft and hand tool production; Promote makerspaces, fablabs, hackerlabs, creativity studios, benchtop manufacturing; Extend public financial support, subsidies, tax exemptions and grants to promote mutual aid	47, 52, 60, 112, 145, 176, 185, 226, 286, 319, 330, 377, 387, 400, 404, 408, 411, 415, 420, 434, 437
		Smaller business	Promote hobby enterprises, small privately-owned businesses, community-based social enterprises	36, 60, 84, 94, 99, 130, 132, 247, 269, 347, 348, 387, 411, 429, 435, 442
		Commons-based peer production	Design global manufacture local; digital commons; collaborative production; creative commons licence (e.g. github)	137, 226, 229, 247, 377, 415
	Relocalise economic activities			1, 19, 32, 60, 70, 77, 86, 95, 96, 98, 99, 116, 132, 145, 168, 188, 200, 217, 227, 279, 285, 286, 328, 330, 376, 377, 382, 396, 404, 405, 406, 408, 411, 415, 418, 428, 432, 436, 437, 444
	Limit advertising	Regulate advertising	Limit advertising in public spaces; Public control of advertising and media; Resource-intensive leisure consumption (e.g. long-distance vacations); Eliminate tax write offs for advertising; Restrict adverts to fundamental human needs and self-realisation only; Mortgages and large houses	1, 22, 30, 67, 93, 99, 120, 174, 179, 188, 214, 376, 386, 396, 400, 404, 405, 410, 412, 416, 420, 428, 436, 445
		Ban advertising	Billboards; Advertising of children's toys or fossil fuels	30, 93, 120, 214, 327, 386, 404, 416, 420, 428

		Tax advertising	Tax unhealthy and unsustainable products (e.g. junk food, fossil fuels, automobiles, aviation, etc)	30, 93, 120, 214, 386, 393, 410, 428
	Lifestyles of sufficiency	Reduce conspicuous consumption		35, 60, 131, 145, 187, 318, 319, 320, 345, 352, 393, 408, 411, 430, 441, 445
		Promote shared, sufficiency consumption		82, 89, 93, 94, 108, 117, 120, 149, 155, 179, 192, 218, 227, 295, 309, 332, 393, 408, 415, 441, 442
	Reduce waste	Ban planned obsolescence		115, 179, 218, 253, 390, 401, 405, 416, 424
		Mandate environmental impact assessments	Life cycle assessments of all goods and services; Progressive unit pricing schemes in waste management	10, 89, 234, 324
		Mandatory recyclability	Mandatory long-term warranties	32, 115, 390
		Guarantee the right to repair	For example - at repair cafés, tool libraries, open workshops, bike kitchens	165, 203, 390, 416, 420, 424, 435
		Mandate ecological footprint labelling		67, 376, 408
Science & Technology	Technological sovereignty	Reassess the role of technology	Stringent criteria for the deployment of any climate engineering (e.g. solar radiation modification, NETs, NBS, etc) and ban if strict social-ecological criteria not met (i.e. sulphate aerosol deployment, bio-energy with carbon capture and storage); Only allow afforestation under specific conditions; Ethos of releasement (i.e. of technological practice)	11, 211, 213, 216, 218, 222, 229, 236, 408, 428
		Moratorium on and reorient		11, 238, 405, 408

		technoscientific innovation		
		Activist-led science		74, 125, 166, 415
		Reduce patent monopolies to a minimum		168
	Convivial tools	Promote convivial technologies	Matrix for Convivial Technology	17, 200, 203, 211, 220, 226, 237, 246, 251, 253, 333, 335, 401, 406, 408, 411, 415, 418, 428, 436
		Encourage technological (re)appropriation	Repurpose military facilities to produce socially useful and ecologically sensitive goods; Create digital commons (e.g. copyleft, Creative Commons, Cybersyn, Wikipedia, etc); Limit the use of ICT, digital devices and professional services (e.g. self-tracking); Re-structure social media from privately owned in hierarchical power relations to a common or public good; Open-source drug networks	17, 203, 220, 226, 333, 401, 436
Tourism	Limit tourism	Limit fossil-fuel based travel, especially high carbon and distant	Reduce passenger travel levels, especially in sensitive areas (e.g. World Heritage Sites, national parks); Regulate and tax full environmental cost of travel (esp aviation) and tourism development; Implement and/or increase tourist taxation; Replace (faster) aviation with (slower) boats; Ban or restrict the arrival of mega-cruise ships; Progressive taxation based on ship size and passengers; Develop local 'cruise' fleet; Reduce shipping activities	8, 27, 29, 32, 91, 113, 161, 271, 341, 342, 361, 381, 385, 408, 411, 428
		Promote slow tourism	Unlearning of travelling consumption and a consequent change of mentality in the world consumer class regarding their search for speed, elitism and social privilege; Develop voluntary and mandated environmental standards at various scales of governance; Adopt lifecycle analysis for all tourism activities (e.g. infrastructure, transport, products, etc); Relocalisation schemes; Ethical consumption measures; Develop International Cittaslow network	8, 27, 29, 106, 113, 161, 341, 354, 361, 389, 411

			(~50,000 population requirement); Restrict platform capitalism (e.g. AirBnB); Promote decentralised platform cooperative models	
		Moratorium on tourism developments		133, 161, 296
	Rethink tourism	Local cooperative ownership	Community-based tourism; Ecotourism; Fair and pro-poor tourism; Rural community tourism; Dignified working conditions; Not-for-profit social enterprises; Tourism cooperatives (including worker reappropriated coops); Slow tourism; Staycations	106, 161, 259, 262, 271, 285, 293, 296, 300, 307, 341, 411
		Detailed spatial planning	Regulate land cover and land use; Coherent management of heritage and destinations	161, 259, 296, 361, 412
		Prioritise the right to live over the right to travel	Oppose the UNWTO proposal to turn tourism into a human right; Redefine legal definition of tourism, proposal being "the tourism should be better defined as the voluntary hosting of visitors in local communities for the benefit of locals"; Scrap or re-charter both the Office for International Migration and the UNWTO to favour equity, justice, residents, refugees and the environment over holidays, wealth and the ability to pay; Provision of penalties for excessive consumption and squandering (e.g. promote tourism sufficiency)	259, 271, 278, 285, 302, 412
		Tourism education		285, 293, 342, 411
Trade	Limit long-distance trade		Export quotas; Transition road freight to electric train; Reduce transport demands, especially aviation; Establish cooperative port systems with traffic limits; Reduce exports; Reduce intra-industry trade between similar countries; Shorter supply chains	19, 120, 206, 345, 346, 357, 375, 403, 420, 428, 435, 436
	Rethink trade	Renegotiate trade agreements and intellectual property rights	World Trade Organisation, especially agriculture subsidies; Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the WTO; Ease or 'commonify' patents	206, 420
Urban Planning	Housing	Promote shared	Eco-villages; Cohousing and housing cooperatives; Transition	12, 14, 18, 22, 32, 67, 72, 73, 74,

	sufficiency	housing	towns; Squatting; Eco-communes; Urban villages; Multigenerational housing; Neo-monasticism; tiny housing	90, 99, 104, 117, 120, 121, 124, 125, 146, 168, 176, 178, 186, 191, 192, 227, 287, 318, 319, 334, 335, 350, 366, 387, 393, 399, 400, 402, 404, 405, 408, 409, 412, 415, 418, 431, 445, 446
		Prioritise small, highly self-sufficient communities	Heating and cooling - Extra insulation; invest in efficient appliances (e.g. small fridge, esky, solar panels, electrify all gas); close gaps around doors and windows; plant west-facing grapevine for cooling; install thick curtains; dress appropriately; Energy - Instal solar panels; small biogas digester; Food - Edible landscapes and food forests; solar oven; guerilla gardening; low meat diet; Water - Solar shower bags; electric heat pump; washing lines and handwashing; rainwater harvesting; reclaimed water reuse; Waste - Return ALL human, animal, food and farm scraps to soil via composting; Transport - Active transport (e-bikes, cycling, walking); convert roads for active transport only; Building using earth; Progressive tariff structure for water and electricity; Promote solidarity based exchanges and networks; Teach and practice permaculture principles	60, 73, 74, 76, 90, 104, 105, 114, 124, 125, 135, 141, 145, 149, 176, 178, 183, 185, 186, 192, 196, 200, 206, 227, 280, 318, 319, 320, 326, 330, 333, 387, 390, 405, 407, 408, 409, 412, 415, 420, 434, 445
		Common and sharing facilities	For example - shared cars, community spaces, tools, food gardens, kitchen, cooking, leisure, free or low- cost provision of safe, low-energy kitchen equipment, neighbourhood sharing facilities; Shift from ownership to usership	18, 48, 74, 141, 327, 396, 408, 412, 415, 416, 420, 422, 445
	Just mobility	Reduce fossil and motorised mobility	Limit automobiles at city level and within households; Convert suburban roads to commons; Introduce environmental taxes; Reduce urban speed limits; Reduce parking space availability; Close roads to cars in city centres; Halt motorway and road expansion; Emphasise accessibility over vehicular mobility; Reduce traffic volume, consumption and use of cars and planes; Subsidise or tax relief to	11, 22, 74, 91, 121, 141, 199, 200, 228, 319, 346, 396, 405, 408, 412, 428, 436, 445

			encourage citizens to live close to workplaces in order to reduce travel demand for commuting; Restricted car ownership (e.g. a lottery system for new car licence plates, congestion charging, limited driving days for cars); Promote the substitution of short car trips (<5km) with walking and cycling; Incentivise electric bikes to replace cars; Impose heavy tax increases on private transport	
		Promote modal shift to active transport (e.g. walking, cycling)	Proactive building of cycling infrastructure; Walkable neighbourhoods; Bike cargo transport (e.g. post office delivery, Cargonomia)	22, 67, 95, 121, 141, 199, 200, 228, 319, 366, 387, 408, 412, 420, 436, 445
		Promote modal shift to public transport (e.g. bus, trolley bus, metro, rail)	More and better public transport services; Car sharing and carpooling; Free local public transport; Rapid ground-based intercity transport	67, 121, 199, 200, 295, 390, 396, 405, 436
		Limit high-speed transport infrastructure	For example - roads, highways, high-speed trains, planes, airports, international shipping, cruise boats. Protest constructions on and off site	46, 121, 190, 191, 199, 405
	Land justice	Restrict the commodification of property	Progressive property tax; Maximum quota for floor area per capita; Incentivise against empty dwellings (e.g. tax); Rent caps and controls; Revitalization and/or (temporary) utilisation of vacant buildings (e.g. permaculture on vacant land); Adequate and affordable housing for all; Establish land banks; Limit the scope of property domain (i.e. title and debt creation ability); Public control of developable land releases; Limits to private property; Redefine and redistribute property rights to all	13, 22, 48, 62, 64, 102, 118, 120, 146, 151, 172, 199, 219, 228, 280, 289, 350, 396, 399, 407, 408, 409, 412, 415, 422, 436, 443, 445
		Increase social housing	Increase public social housing; Nationalisation of vacant housing/property; Expropriate large landowners; Redensification policies	47, 64, 102, 146, 199, 390, 412, 420, 436
	Socially useful	Reduce the level of	Urban consolidation; Limit urban sprawl and gentrification; Cap	64, 102, 121, 141, 146, 199, 208,

	and ecological sensitive planning	urban built environment	land use for human settlements at national and international levels; Cap housing stock (number of houses); Control the development of holiday homes; Cap household floor area (per capita in m2); Ban construction of detached single-family homes; Limit mobility and constrain car ownership; Ban developments on agricultural land; Localise and reduce archaeological services; Open localism	258, 263, 280, 295, 350, 376, 408, 410, 412, 428, 439, 439, 443, 445
		Retrofit existing buildings	Public houses with passive design; Apply incentives and benefits for class-conscious urban rehabilitation	72, 146, 166, 191, 295, 390, 408, 409, 410, 412, 428, 436, 445
		Increase social-ecological standards for new buildings		193, 199, 295
		Encourage small cities	For example - Cittaslow standard of 50,000-60,000 people	359, 405, 413
Work	Reconceptualise work	Reduce time in paid waged labour	Work-time reduction policy (options include: 21-hour working week, stepped reduction in working week [i.e. 35hrs - 28hrs - 21hrs], 21 or 30hr weeks, 5x 6hr working days, ban work 21-06 unless vital for economy, 10-20hr weeks, 4hr work days, Fridays off, 20-30hr weeks, 20hr week, 1-2 days per week for money, reduce from 35 to 30hrs/wk within 5 years); gender-sensitive job sharing; workplace democracy; limit working hours; increase holidays; increase maternity and paternity leave; increase sick leave; establish pre-retirement transitions	9, 11, 20, 22, 24, 28, 30, 32, 34, 47, 48, 60, 61, 71, 72, 74, 85, 87, 93, 94, 97, 99, 100, 113, 120, 128, 145, 173, 179, 181, 188, 191, 198, 209, 214, 231, 266, 273, 282, 284, 311, 312, 339, 345, 355, 358, 369, 371, 376, 384, 386, 387, 390, 393, 400, 401, 404, 405, 407, 408, 409, 410, 411, 413, 415, 416, 419, 420, 422, 428, 435, 436, 442, 444
		Reallocate productivity gains into working less (and job creation)		11, 94, 120, 168, 282, 284, 311, 369, 390, 393, 405

		Rights to part-time	Legal facilitation of "short week" transition programs and/or legislation	34, 93, 327, 404
		Self-defined work		14, 290; 442
	Low unemployment	Job guarantee (with living wage)	Aimed at care work, habitat restoration, and community services; Environmental community development workers (previously unemployed and/or young people trained to address sustainability issues in their own communities)	22, 66, 120, 179, 266, 284, 345, 358, 369, 375, 387, 390, 396, 400, 404, 416, 429, 435, 442; 444
		Job sharing		99, 351, 428, 429, 435
	Redistribute (re)productive activities		Fund pensions according to unpaid care work contributions; Incentivise men to equitably share care work; Expand community volunteering	5, 34, 54, 74, 99, 104, 108, 168, 192, 231, 306, 313, 356, 406, 408, 413, 415, 429, 436, 444
	Social ecological jobs	Proactive retraining and procurement programs	Increase government support for (re)training both directly and through funding nonprofit or community organisations to help redevelop basic household skills (e.g. social farms); Renewable energy production, environmental reclamation and management; Ecological restoration work	45, 93, 256, 295, 313, 358, 390, 393, 436

B

APPENDIX – SURVEY TEMPLATE

Dear participant,

The following study is being conducted by the Centre for Environmental & Sustainability Research (CENSE) at NOVA University, Portugal. The purpose is to strengthen the degrowth community by analysing (1) the attitudes of degrowth researchers and activists; and (2) by examining how people interested in degrowth approach politics, power, and praxis. The survey covers four key areas: (1) social demographics; (2) personal practices; (3) strategies and tactics for social-ecological transformation.

All answers will remain anonymous, confidential, and untracked during collection and publication. Your participation is considered consent, but you have the right to withdraw your participation at any time. Data stored in compliance with EU General Data Protection Regulation (GDPR - 2016/679).

You can complete the survey in writing or online here – https://questionarios.fct.unl.pt/844781?lang=en. Please return printed responses to marked collection boxes within the conference venue, thank you!

Nick Fitzpatrick
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PhD Candidate, NOVA University, Lisbon, Portugal

Which category below includes your **age**?

- ☐ 0 – 26
- ☐ 27 – 42
- ☐ 43 – 58
- ☐ 59 – 77
- ☐ 78 +

What is your current **gender?**

- ☐ Female
- ☐ Male
- ☐ Transgender
- ☐ Non-binary
- ☐ Prefer not to answer

What is your country of **citizenship**?

_____

What is your country of **residence**? (e.g., I live in Croatia)

_____

What is the highest level of education **you** have completed?

- ☐ Less than high school degree
- ☐ High school degree or equivalent
- ☐ Some university but no degree
- ☐ Undergraduate degree (e.g., bachelor)
- ☐ Postgraduate degree (e.g., master, PhD)

What was the main **subject** you studied?

_____

What is the highest level of education **your parents** completed?

- ☐ Less than high school degree
- ☐ High school degree or equivalent
- ☐ Some university but no degree
- ☐ Undergraduate degree (e.g., bachelor)
- ☐ Postgraduate degree (e.g., master, PhD)

What is the highest level of education **your grandparents** completed?

- ☐ Less than high school degree
- ☐ High school degree or equivalent
- ☐ Some university but no degree
- ☐ Undergraduate degree (e.g., bachelor)
- ☐ Postgraduate degree (e.g., master, PhD)

Which of the following categories best describes your **employment status**?

- ☐ Full-time employed
- ☐ Part-time employed
- ☐ Not employed, BUT looking for work
- ☐ Not employed, NOT looking for work
- ☐ Student
- ☐ Retired
- ☐ Not able to work (e.g., for health reasons)

What is your race and/or ethnicity? (optional)

_____

What is your native language(s)?

_____

How many **languages** can you speak?

- ☐ 1
- ☐ 2
- ☐ 3+

Do you consider yourself to be a person with a disability? (e.g., physical, mental, learning, etc)

- ☐ Yes
- ☐ No
- ☐ Prefer not to answer

How would you describe your living situation?

- ☐ Renting alone
- ☐ Renting with others
- ☐ Homeowner with debt (i.e., mortgage)
- ☐ Homeowner with **no debt**
- ☐ Other_____

How many people live in your household?

_____

Please list all the **sources of income** that apply to you.

- ☐ Employment (e.g., wages)
- ☐ Self-employment (e.g., freelancer)
- ☐ Property (e.g., rent)
- ☐ Capital (e.g., shares, dividends)
- ☐ Transfers (e.g., social security payments)
- ☐ Other_____

What is your yearly household **income** (**after tax**, in euros)?

- ☐ Less than €20,000
- ☐ €20,001 – €40,000
- ☐ €40,001 – €60,000
- ☐ €60,001 – €80,000
- ☐ €80,001 – €100,000
- ☐ More than €100,000
- ☐ Prefer not to answer

Strategies and tactics

Are you a member and/or active in any of the following groups?

	Member	Active
Political party	○	○
Workers union	○	○
Non-governmental organisation (NGO)	○	○
Alternative economy project	○	○
Student organisation	○	○
Scientist-activist network	○	○
Political body (e.g., local or city council)	○	○

Tell us about the group (e.g., name, importance, length of involvement, tactics used)

Do you drive a **car**? If yes, how many kilometres do you drive per week on average?

_____km

How many times have you **flown** in the last 3 years? (round trip = 2 flights)

_____

On average, how would you describe your **diet**?

- ☐ Eat meat and dairy more than once per day.
- ☐ Eat meat and dairy once per day.
- ☐ Eat meat and dairy less than once per day.
- ☐ Vegetarian
- ☐ Vegan
- ☐ Other _____

Conceptualising - To what extent do you (dis)agree with the following statements.

	1 Strongly disagree	2	3	4	5 Strongly agree	I don't know
The personal is political	○	○	○	○	○	○
It is human nature to be selfish	○	○	○	○	○	○
Natural resources are abundant	○	○	○	○	○	○
Nature can only be saved if we put a price on it	○	○	○	○	○	○
To democratise schools we must dismantle them	○	○	○	○	○	○
Autonomy depends on how much money you have	○	○	○	○	○	○
Practising pluralism means accepting all worldviews	○	○	○	○	○	○
Profit-making is the result of exploitation and is therefore violent	○	○	○	○	○	○
Solving social and environmental issues requires taking state power	○	○	○	○	○	○
Power is a zero-sum game (i.e., if one gains power, another one loses it)	○	○	○	○	○	○
Policymakers are the most important people to help achieve sustainability	○	○	○	○	○	○
Developing countries must grow their economies before focusing on environmental sustainability	○	○	○	○	○	○
There is an negative relationship between democracy and scale (i.e., small institutions are more democratic than larger ones)	○	○	○	○	○	○

Strategies – To what extent do you (dis)agree with the following statements.

	1 Strongly disagree	2	3	4	5 Strongly agree	I don't know
Countries who take loans must repay them	○	○	○	○	○	○
Flying for business and pleasure should be banned	○	○	○	○	○	○
Resources must be rationed to achieve sustainability	○	○	○	○	○	○
Society must collapse before humans think differently	○	○	○	○	○	○
The rich will voluntarily redistribute resources and wealth	○	○	○	○	○	○
Reformism distracts from realising transformative alternatives	○	○	○	○	○	○
Interest must be abolished to overcome the growth imperative	○	○	○	○	○	○
Collective self-limitation is more effective than government intervention	○	○	○	○	○	○
Sustainability cannot be achieved unless global military spending is abolished	○	○	○	○	○	○
Degrowth can be achieved through liberal representative democracy (e.g., EU elections)	○	○	○	○	○	○
To become more caring towards nature, people should engage in out-of-body experiences (e.g., psychedelics)	○	○	○	○	○	○
Subjective (crime, terror) and objective (hate-speech, discrimination) violence distracts us from addressing the systemic violence of our economic and political systems	○	○	○	○	○	○

Tactics – To what extent do you (dis)agree with **implementing** the following tactics for social-ecological transformation.

	1 Strongly disagree	2	3	4	5 Strongly agree	I don't know
Witnessing & watching - documenting injustices or unsustainable practices	○	○	○	○	○	○
Delegitimation - challenging the veracity of accepted information	○	○	○	○	○	○
Demonstrations & mass arrests - making visible discontent and dissatisfaction that risks arrest	○	○	○	○	○	○
Social movements - creating a sustained efforts at calling for change	○	○	○	○	○	○
Permanent resistance - interfering with unsustainable practices for a long period of time	○	○	○	○	○	○
Occupation and sit-ins - interrupting the formal order and business-as-usual	○	○	○	○	○	○
Boycotts - disrupting markets and profits for private sector firms	○	○	○	○	○	○
Labour strikes - mass refusal of employees to work until demands are met	○	○	○	○	○	○
Hunger strikes - refusing to eat food until demands are met	○	○	○	○	○	○
Trespassing - challenging property rights and media attention	○	○	○	○	○	○
Blockades - physically stopping access to a project or location	○	○	○	○	○	○
Sabotage - destroying or tampering with unjust structures with no risk to human life	○	○	○	○	○	○
Hacktivism - using the internet, computers, or software to challenge hegemony	○	○	○	○	○	○
Property destruction - destroying products or other valuable assets with no risk to human life	○	○	○	○	○	○
Mass riots & looting - organising mass demonstration to incite overreaction and looting	○	○	○	○	○	○
Terrorism - perpetuating low intensity conflict and acts of violence against others	○	○	○	○	○	○
Assassination & kidnapping - undertaking targeted acts of murder or violence	○	○	○	○	○	○
Bank robbery - expropriating money or financial resources from industrialists	○	○	○	○	○	○
Paramilitary action - implementing sustained armed conflict	○	○	○	○	○	○
Bombing - detonating devices to injure or kill people or property	○	○	○	○	○	○

Do you have any additional comments or suggestions?

Thank you for completing our survey! Please return the completed form to marked collection box ☺ If you have questions or are interested in the results, please contact Nick Fitzpatrick (n.fitzpatrick@fct.unl.pt)

2024

Nicholas Paul Fitzpatrick

Organising for degrowth

Untangling relationships among policy, power, and practice