

Perceptions of wellbeing in climate-just futures among youth climate activists

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Abstract

This paper merges the two fields of degrowth and climate education through reconsidering narratives of wellbeing and what constitutes these ideas of wellbeing in the capitalist present and in envisioned climate-just futures. Wellbeing is a key aspect of ‘degrowth’, an academic field and emerging social movement that advocates reduced production and consumption while shifting ideas of ‘progress’ from economic growth towards wellbeing for all within ecological limits. Yet, climate education discourse skirts around challenging limits to economic growth and falls in line with ‘green growth’ narratives, despite the clear necessity of decreasing overconsumption in the Global North to meet the required climate targets. Formal and non-formal education are key sites for shifting cultural common senses and practices towards those that are both compatible with ecological limits and ensure that basic needs are met for all people. This study uses participatory visual research methods, namely ‘cellphilm’, to explore youth climate activists’ perceptions of wellbeing in the context of the climate emergency and in visions of climate-just futures. Participants identified justice, interconnectedness, collaboration and cooperation, and longtermism as aspects of a holistic understanding of wellbeing needed to imagine and prefigure climate-just futures. Participants identified several themes in their cellphilms that align with ideas in the degrowth discourse. While this study did not have the scope to go beyond this exploration of wellbeing to link to degrowth explicitly, it does begin laying foundations for merging climate change education and education for degrowth.

Keywords: Degrowth; climate change education; wellbeing; participatory visual methods; education for degrowth

Foreword

This Major Paper contributes to the fulfillment of the requirements of the MES Program at the Faculty of Environmental and Urban Change at York University. Specifically, this research project addresses all three of my learning components: Environmental Education, Degrowth and Participatory Research Methods.

Degrowth

- 1) This paper *demonstrates a comprehensive understanding of the degrowth literature*. I have identified the need to theorize education for degrowth and make explicit the connections and similarities between degrowth strategies, participatory research, environmental education and critical pedagogy.
- 2) It will *contribute to the degrowth literature*, because I will revise this paper into an article for submission to an academic literature; I have also presented this preliminary work at ESAC 2024 and hope to present the full project at a future conference.
- 3) This paper *demonstrates the relevance of degrowth to climate change education* and vice versa. By focusing on wellbeing in the context of climate just transitions and climate activism, this research merges climate change education and climate activism by holding a space for youth climate activists to learn and reflect on wellbeing together and create outputs exploring these ideas.

Environmental Education

- 1) This paper *demonstrates a comprehensive understanding of environmental education and, specifically, climate change education literature*. The theoretical framework for this project developed from this understanding and identifying gaps and opportunities in the climate change education literature.
- 2) Similar to the degrowth learning objective, this paper *will contribute to climate change education literature*. Based on the gaps in the literature identified, I plan to write a journal article based on this project.
- 3) This project also fulfils my learning objective of *gaining experience facilitating environmental education*. This research project is a form of community-based climate change education that merges climate change education with climate activism.

Participatory methods

- 1) This project shows my ability to *evaluate and select appropriate participatory methods for a project*. By selecting cellphilms as an arts-based output for this research design, I have identified and acknowledged the call in climate change education to engage in more arts-based, participatory and action-oriented pedagogies.
- 2) I gained *practical experience in participatory research methods* by planning, organizing, adapting and conducting this 3-part workshop series.

3. I also gained *competency in creating collaborative outputs for knowledge mobilization/dissemination beyond academia*. During this project, I successfully facilitated a collaborative arts-based output with youth (their cellphilms). At the time of writing, there is a plan to share at least one participant's cellphilms at an external screening, and to co-author a submission to an edited blog series with participants.

This exploratory study and Major Paper lay the foundations for my emerging doctoral studies. During this project, I recognized that I wanted to continue this work and needed more time and space to further these ideas. I was accepted into EUC's PhD Program with my proposal to build on this work.

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My MES journey would not have been the same or as fulfilling and enjoyable if it were not for my Degrowth Team: Lina Brand-Correa, Elaine Howarth, and Anna Stratton. Collectively, they always encouraged me to aim high and degrow.

Thank you to the Land. I am writing, working and living on the traditional and future home of the Anishinaabeg Nation, including the Ojibwe, Odawa and Pottawatomi Nations, collectively known as the Three Fires Confederacy. The territory is more recently also home to the Wendat Nation. This Land is subject to Treaties 16 and 18 of the Lake Simcoe Purchase between the Upper Canada Government and the Ojibwe, who today include the Chippewas of Rama First Nation. Zhoonyaa-Gaaming (Lake Simcoe), on whose shores Barrie was developed, has been a place of meeting and travel by various Indigenous Peoples since time immemorial, a use that continues for many peoples to this day. As a white settler who loves this Land, it is my responsibility to engage with questions and ethics of Truth, Reconciliation and Decolonization in all my work and strive towards co-creating futures that make space for Indigenous futurities and sovereignty, and right relationship with our more-than-human neighbours and kin.

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Introduction

Hesitance to challenge economic growth and capitalist ideas of ‘progress’ create roadblocks for the realization of climate justice. The societal buy-in to the pre-eminence and permanence of economic growth as universally good and desirable, due to decades now of corporations and governments pushing neoliberal ideology, has narrowed our collective ability to imagine alternative ways of organizing our economies and self-organizing each other. Dominant cultural norms of consumerism and individualism impede real climate action. This has given rise to the discourse that economic growth can and should continue in this climate emergency. This ‘green growth’ results from the greenwashing and co-opting of climate discourse to continue increasing production and consumption, and thus economic growth. However, evidence continues to suggest that a green growth scenario is inadequate for reducing carbon emissions in the timeframe necessary to avert the worst of runaway climate change (Diesendorf, 2022; Haberl et al., 2020; Keyßer & Lenzen, 2021; Mastini et al., 2021; Meadows et al., 2004; Victor, 2012). Degrowth is an emerging viable policy and cultural response to green growth. It offers an alternative narrative of ‘the good life’ with less materially intensive and commodified ways of living. Degrowth involves both policy tools to contract the economies of overconsuming countries in the Global North and a move towards a more ecological economics, as well as radical imaginaries and socio-cultural shifts of what degrowth futures could look like.

I situate the present research in the literatures of degrowth and climate change education. My literature review focuses on the gaps in each body of literature and points to the opportunity for praxis by bringing them together. This literature review will cover the concept of wellbeing in the degrowth literature, and the extent of cultural change and education in this literature. Following this, the review outlines the reluctance in climate change education scholarship to challenge economic growth and highlights that embracing degrowth can further transform climate change education theoretically and pedagogically. I then outline the participatory visual methodology used for this project, the ethical considerations of facilitating cellphilm creation with youth climate activists and the participatory analytical process we followed. The overarching question guiding this research is: What are youth climate activists’ perceptions of wellbeing and how do these perceptions of wellbeing fit (or not) into degrowth’s narrative of wellbeing? Additional sub-questions I ask are: What does wellbeing look like in a time of climate

emergency for youth climate activists? What do youth climate activists believe wellbeing could look like in a climate-just future? What ideas of wellbeing are needed in the transition into degrowth futures? The findings of both the participatory analysis of the cellphilms themselves and a thematic analysis of the discussions from that participatory process are presented, followed by a discussion on the implications of these findings within the broader degrowth and climate change education literature. I then conclude this paper with recommendations for further research, some of which I will be taking up as I continue to my doctoral studies to build upon and extend this work, which is an exploratory first stage in the larger project of theorizing an education for degrowth.

Degrowth: A New Hope

Economic growth cannot continue within ecological limits (Kallis, 2018; Meadows et al., 2004; Victor, 2019), and the overshoot of Earth's biocapacity (Victor, 2023) is not distributed equally. The overdeveloped countries of the Global North, mostly in Europe and the settler states of so-called Canada, the United States and Australia, are historically and currently responsible for a disproportionate share of global carbon emissions as well as other biocapacity and planetary overshoot measures. Within these countries, it is the continuing legacy of colonialism, white supremacy and capitalism that are structurally driving the climate crisis.

Continuing economic growth is still assumed as a given variable in climate modelling (Haberl et al., 2020; Keyßer & Lenzen, 2021), including in the Intergovernmental Panel on Climate Change (IPCC), until very recently¹ and even then, hesitantly and not explored in detail. For example, in their extensive literature review of the evidence of decoupling, Haberl et al (2020) found that a green growth perspective “was also common in articles that did not find empirical evidence for absolute decoupling, implying that these studies at least implicitly valued continuation of GDP growth higher than achieving set environmental goals” (2020, p. 30) and most of the articles evaluated did not question the growth-paradigm “even if the empirical evidence suggests that it contradicts officially committed climate policy goals” (2020, p. 30). This disparity is an indication of the hegemony of the growth-paradigm and neoliberal ideology. This hegemony drives the insistence despite evidence that green growth can decouple carbon emissions from

¹ Degrowth was mentioned in the 2022 IPCC a total of 15 times (Parrique, 2022).

economic growth - usually represented by Gross Domestic Product (GDP). However, green growth can only achieve *relative* decoupling, when what is actually necessary to reach climate targets is *absolute* decoupling (See Haberl et al, 2020 for an overview of decoupling).

An important part of the degrowth movement is crucial to establish here. Even *if* absolute decoupling and green growth were possible to meet climate targets and successfully keep global temperature rise under 1.5°C or 2°C (Calvin et al., 2023) , the socio-economic relations of extractivism (of ecosystems and labour), commodification and colonialism would not be challenged. The dual goal of degrowth is to get carbon emissions down within the timeframe required by the IPCC (2023) *and* to transform social relations beyond capitalistic and colonial structures of oppression. Green growth remains comfortably within the capitalist-colonial paradigm and therefore cannot achieve this socio-ecological transformation even if the evidence suddenly shifted to indicate that this trajectory could reduce carbon emissions at the rate needed (Brand-Correa et al., 2022; Hickel, 2020; Kallis, 2018; Kothari et al., 2014; Schmelzer et al., 2022).

Economic activity (in the Global North) must contract to fall back within ecological limits to mitigate catastrophic ecological breakdown and runaway climate change. This means a reduction in production and consumption in a *planned* and *strategic* way so as to maximize the health and wellbeing of all people and ecosystems in the process (a discussion of the myriad strategies for this transition is out of scope here, but see Fitzpatrick et al., 2022 for a comprehensive literature review of current degrowth policy proposals and Barlow et al., 2022 for an excellent discussion of degrowth strategies for socio-ecological transformation). Mainstream climate discourse is beginning to catch up, with a rise in publications engaging with degrowth in a variety of fields (Bozsogi, 2023; Cattaneo et al., 2022; Khmara & Kronenberg, 2023), including popular publications like *Nature* (Hickel et al., 2022), *The Conversation* (Merino & Ware, 2021), *The New York Times* (Szalai, 2024) and *Harvard Business Review* (Marquis, 2024). As the climate emergency accelerates and impacts escalate, it becomes clearer that we need much more radical pathways than what is currently on offer.

Degrowth is a movement and area of scholarship dedicated to reducing material throughput in overdeveloped countries that are consuming more than their fair share of Earth's resources, while improving wellbeing and justice for all. Borne from critiques of capitalism and the intellectual

foundations of ecological economics, degrowth acknowledges planetary boundaries and the thermodynamic need to reduce material throughput in our economy and decrease production and consumption in the overdeveloped countries in the Global North, particularly among the wealthiest (Kallis, 2018; Meadows et al., 2004; Schmelzer et al., 2022). Degrowth signals the need for a planned contraction of our economy, as opposed to ‘green growth’ and ‘sustainable development’ discourses (D’Alisa et al., 2015; Hickel, 2020; Kothari et al., 2014; Mastini et al., 2021).

Degrowth is also about living well with less and prioritizing the wellbeing of humans and more-than-humans (Hickel, 2020; Perkins, 2019; Schmelzer et al., 2022). It is indifferent to the measure of GDP and instead focuses on other ways of measuring wellbeing (Büchs & Koch, 2018; D’Alisa et al., 2015; Fioramonti et al., 2022) and ultimately, aims for “the abolishment of economic growth as a social objective” (D’Alisa et al., 2021, p. 3). It is a constellation of practices, prefigurative politics and policy proposals that all aim to decenter the capitalist growth economy in favour of respecting ecological limits, deepening democracy, enhancing human and more-than-human wellbeing and climate justice. Degrowth is not a singular, unified theory. It intentionally avoids this to allow for constant experimentation, diversity and emergence specific to place (D’Alisa et al., 2015; Schmelzer et al., 2022).

Instead, degrowth can be described as – a “movement in motion” (2022, p. 191). Nevertheless, there are some common threads amongst degrowth scholars and activists. The premise of degrowth is that of socio-ecological transformation away from continual growth and extraction towards sufficiency-oriented, participatory communities (there is an emerging anarchistic strain of degrowth scholarship that emphasizes this active and autonomous citizenship; there is an upcoming Special Issue of *Degrowth Journal* that aims to establish this strain of degrowth thought edited by Dunlap and Becker). I like Schmelzer et al.’s (2022) description: “a conscious, radically democratic process of transforming society to create the conditions for a good life for all, by pulling the emergency brake and stepping out of the capitalist and growth-driven megamachine” (2022, p. 252). Supporting policies and practices include universal basic income and/or services to allow for a reduced work week as superfluous and dehumanizing jobs are phased out to reduce material throughput while eliminating poverty; progressive taxation to cap wealth; localization of economies so that resources stay within local communities as well as

shorten the transportation and energy required for production and consumption; reestablishing commons; and a greater emphasis on non-material sources of wellbeing and happiness, such as relationships, time with nature, slower living, community participation and low carbon forms of leisure and civic engagement (Hickel, 2020; Kallis, 2018; Schmelzer et al., 2022). Degrowth futures will involve lower production, energy use and consumption; these futures will also therefore have elements like time abundance, more labour intensive but healthier and happier jobs and an overall focus on the art of living instead of adding to economic growth through ‘bullshit jobs’ (Graeber, 2019).

Degrowth transitions offer the space to slow down, reconnect to people and place, and nurture relationships with each other, our non-human neighbours, and the Land. It also reframes the climate crisis to be one of relationship with the Earth instead of one about commodities (however well we account for them). Engle et al (2022) share the term ‘placekeeping’ for the “harnessing the wisdom and history of our Ancestors to reawaken Indigenous markets of place, and re-presence Indigenous Peoples and cultures” (2022, p. 54). Remembering these connections provides possibilities to de-center the human and recognize that we are of the Earth, all living being are our kin, and it is our responsibility to live in reciprocity with them, not view them as separate and inanimate (Wall Kimmerer, 2013).

Diverse social movements are (re)emerging that show us post-growth and post-capitalist ways of organizing ourselves. And alternatives have been cropping up worldwide, especially from Indigenous societies (D’Alisa et al., 2015; Kothari et al., 2019) and resurgences (Maynard & Simpson, 2022). The climate breakdown is a *cultural* crisis as much as it is an ecological one. Much of degrowth and related discourses (Alexander & Gleeson, 2019; Barlow et al., 2022; D’Alisa et al., 2015; Meissner, 2021; Schmelzer et al., 2022) reimagine ways beyond growth-capitalism by practicing alternatives in material and embodied ways. Degrowth involves both economic policy tools to contract the economies of overconsuming countries of the Global North and move towards a more ecological economics (Victor, 2019), as well as a radical imaginary of what a post-growth life could look like. Post-growth futures will come into being through the people retrofitting parts of society, reconfiguring social norms and refurbishing place. Degrowth is about imagining a world beyond colonial capitalism by practicing and prefiguring it in the *here*

and *now* (Barlow et al., 2022; Buch-Hansen, 2018; Dartnell & Kish, 2021; Meissner, 2021; Schmelzer et al., 2022).

The goal of degrowth is for this planned economic contraction to take place while centering and securing wellbeing for all, addressing many ills of overconsumption (Hickel, 2020; Odell, 2019; Soper, 2020; Wall Kimmerer, 2013). The nature of degrowth is fundamentally bottom-up, although government policies are needed to support the transition, (D’Alisa et al., 2015; Demaria et al., 2019; Hickel, 2020; Schmelzer et al., 2022). Degrowth is not just an economic framework, model or policy proposal to ensure a managed descent to avoid a total collapse of the economy. It is just as much about the socio-cultural shift, a reprioritizing of societal values and socio-ecological transformation. This has been articulated in a recent and comprehensive review of the degrowth literature (Engler et al., 2024), which clusters publications into ‘conceptual foundations’, ‘quantitative modeling’ and ‘limits to growth’ encapsulating the former, and ‘degrowth, culture and power’, ‘flavors of degrowth’ and ‘transition management’ that includes the latter. It is this latter area of degrowth that I am particularly interested in.

Prioritizing Wellbeing Over Economic Growth

Reconsidering ‘wellbeing’ is central to degrowth transitions. Currently, ideas of wellbeing have been tightly tied to consumerism (Soper, 2020). This happens directly, through the rise of multiple wellness industries (or now, influencers), for example. But it happens more indirectly through broader normative social narratives, especially since the rise of global neoliberalism in the 1970’s and 1980’s, with much more of our lives being commodified and marketed back to us. Ideas of ‘progress’, quality of life, and standard of living have all become wrapped up in creating products and services to keep us consuming and trying to reach some perfect state of ‘wellbeing’. GDP, for example, has been taken as a ‘common sense’ indicator of standards of living for decades. However, GDP has been thoroughly discredited as a reliable indicator of individual, social or ecological wellbeing (Fioramonti et al., 2022; Giannetti et al., 2015; Haberl et al., 2020; Kallis, 2018; Kubiszewski et al., 2013; Meadows et al., 2004). Indeed, this constant cycle of work, isolation and consumerism is making us sicker. Decommodifying, decolonizing and reimagining what wellbeing actually means and how we care of each other is at the heart of degrowth transitions. The degrowth movement, in and out of academia, is delinking ‘wellbeing’ and meeting human needs from narratives of economic growth, energy consumption and

consumerism (Brand-Correa & Steinberger, 2017; Büchs & Koch, 2018; Fioramonti et al., 2022; Hickel, 2020; Schmelzer et al., 2022). Degrowth is premised on the evidence that economic growth cannot continue indefinitely on a finite planet (e.g. Meadows et al., 2004) and that, after a certain point, economic growth no longer contributes to physical and psychological wellbeing (Barrington-Leigh, 2021). However, degrowth faces major cultural challenges in a capitalist-colonial society where wellbeing and progress are conflated with overconsumption (Büchs & Koch, 2018).

One concept that degrowth discourse offers us is embracing the notion of ‘sufficiency’. An important aim of degrowth is to foster a culture of sufficiency, where people value non-material and relational goods instead of defining themselves and their lifestyles through material consumption of status goods (Alexander & Gleeson, 2019; Alexander & Yacoumis, 2018; Godin et al., 2020; Schmelzer et al., 2022). More value is placed on social relationships, care and maintaining existing goods than on individualist notions of ‘success’, convenience, and disposability. I deeply believe that most people intuitively know this amidst the ennui of everyday late-stage capitalism and overstimulation of the attention economy (Odell, 2019). Culturally, the rising interest in ‘lifestyle minimalism’ could be a point of intervention for degrowth transitions (Meissner, 2019, 2021), if framed as anti-accumulation to avoid depoliticization into merely the latest aesthetic trend accompanied by the consumption of goods and content which does not challenge consumerism itself (Meissner, 2019). This does not mean doing away with high technology or international trade; rather, degrowth argues for ‘tools of conviviality’ (Vetter, 2018), whereby people can maintain and repair the technologies and tools of their livelihoods without specialised and expertised knowledge (Schmelzer et al., 2022; Velasco-Herrejón et al., 2022; Vetter, 2018). To stay within planetary boundaries (while at the same time problematizing the universalizing tendency of this conceptualization), Brand et al (2021) argue that (Western) society needs to engage with societal boundaries, or self-limitations, as a framework for a just, socio-ecological transformation. These boundaries would “emerge from contested societal processes that lead to collectively defined thresholds that societies commit not to trespass” (2021, p. 275).

‘Consumption corridors’ are another concept that could be used to establish equitable downscaling of consumption in the Global North and redistribute to the Global South (and those

who currently underconsume in the Global North). This concept works by “setting upper and lower limits to consumption while accounting for wellbeing” (Godin et al, 2020, p. 99) and shares similarities with the upper and lower limits in the well-known concept of ‘doughnut economics’ (Raworth, 2017). It has qualitative and quantitative dimensions (actual measurable energy-use reduction and the culturally defined ideas of ‘enough’ and social norms around lifestyle). Meeting basic human needs and wellbeing within consumption corridors requires participation, health and autonomy. In Godin et al’s (2020) case study, participants found that changing their laundering habits not only had a direct, measurable environmental impact of reduced energy usage, but it also reduced their ‘mental load’. The authors conclude that “in terms of sustainable wellbeing, the challenge also showed that an absolute reduction in consumption could promote both ecological and social aims that work in synergy” (2020, p. 108), even if the process created some tensions for the participants in critically reflecting on and changing their habits.

Human needs and wellbeing are not satisfied by the focus on economic growth and continuous accumulation and consumption of goods and services (Hough-Stewart & Janoo, 2024). Ecological wellbeing is also not satisfied by – and is in fact as rapidly been deteriorated by – economic growth, including green growth. In recognition of the mounting evidence for wellbeing-oriented measures (Barrington-Leigh, 2021; Fioramonti, 2016; Giannetti et al., 2015; Hayden et al., 2022; Kubiszewski et al., 2013) instead of or, in addition to, GDP, the Wellbeing Economy is gaining traction in the realm of policy (Abdallah et al., 2024; Fioramonti et al., 2022; Hough-Stewart & Janoo, 2024; Wellbeing Economy Alliance, 2022), including here in so-called Canada (WEAll Canada, 2021). Recognizing that economic policy is a major determinant of public health (Brand-Correa et al., 2022) opens more possibilities for establishing different pathways towards ensuring wellbeing for all instead of economic growth for the few. This means reorganizing societies to operate within planetary boundaries with strong redistribution mechanisms to ensure everyone’s basic needs are met. Societal boundaries emphasize practices that precede self-limitation, such as the capacities and processes that allow participation, autonomy, and democratic deliberation (Brand et al., 2021). Human needs are the basic preconditions for being able to live well. Working in the context of energy services, Brand-Correa et al (2018) frame wellbeing within a Human Needs approach, which includes subsistence, protection, affection, understanding, participation, idleness, creation, identity and

freedom. These are the basic needs – on top of affordable housing, food sovereignty and culturally appropriate care – that need to be guaranteed by degrowth economies.

Culture and Education in Degrowth

Degrowth scholarship falls into two broad poles in the literature. The first is what I will call the ‘policy side’ of degrowth that includes the quantitative economic research and resulting policy proposals for reducing carbon emissions by scaling down overproducing and overconsuming economies. The second is the ‘culture side’ of degrowth that includes critical theory and qualitative research for socio-ecological transformation and shifting culture from growth-capitalism to various forms of degrowth transitions that brush shoulders with post-Marxism, anarchism, decolonialism and the study of social movements, behaviour change and various other theories of change (similar categorizations of the literature are made by various degrowth scholars; see (Engler et al., 2024; Fitzpatrick et al., 2022; Schmelzer et al., 2022)). The latter is where I situate my own study of degrowth.

The closest degrowth scholarship has come to a theory of education for degrowth, to my knowledge, is the ‘Culture & Education’ theme of a comprehensive mapping of degrowth policies by Fitzpatrick et al. (2022) (Figure 1). This synthesis work organizes some of the socio-cultural goals of degrowth with corresponding examples of praxis. This systemic mapping of literature links critical education with cultural shifts towards a culture of sufficiency and decolonization. Because Fitzpatrick et al.’s (2022) table affirms many of the same alignments that I had identified between degrowth and education in terms of these goals and examples, I am excited to treat this synthesis table as a keystone in my own theorizing of education for degrowth.

Appendix A. Thematic synthesis of degrowth policy proposals

Theme	Goal	Objective	Example Instruments
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
	Cultures of sufficiency	Oppose economic determinism and ethnocentrism	The Simpler Way; Voluntary Simplicity; right to simplicity; living degrowth; anti-accumulation conception of minimalism; interaction ritual theory; ancient cynicism; eco-masculinity; dépense
	Relational goods		
	Restore indigenous and local knowledge		
	Ecological class consciousness		Collective spaces and agendas of solidarity
	Individual autonomy	Decolonise the social imaginary Oppose English-language imperialism Learn to speak multiple languages	

(Figure 1. Fitzpatrick et al., 2022 p. 11)

Since degrowth is a part of ecological economics and is still largely an academic endeavour, it makes sense to start with the teaching and learning about degrowth itself in the academy. There are a few courses and programs at the graduate post-secondary level that teach about degrowth. The most well-known are the Master's Political Ecology, Degrowth and Environmental Justice and the Master's in Degrowth: Ecology, Economics and Policy at Universitat Autònoma de Barcelona (Autonomous University of Barcelona) and the Barcelona Degrowth Summer School (Research & Degrowth, 2023). Otherwise, the teaching of degrowth often falls under the teaching of Ecological Economics (as it does here at York University's Faculty of Environmental

and Urban Change). In terms of scholarship on the teaching of degrowth, let us start where degrowth starts: the teaching of economics. Just as Ecological Economics as an academic field argues for heterodox economics that center ecologies (Brand-Correa et al., 2022; Daly, 2006; Victor, 2019), we begin to see arguments for pluralist and heterodox economics in the teaching of economics itself (Sanders, 2019) and we even see a couple of recent publications calling for degrowth to be taught in business school (Bobulescu, 2022; Kopnina & Bedford, 2024).

An explicit engagement with education theory or systems is largely still to be written in the English degrowth literature². Although many of the contributions to the literature of degrowth and education are brief or specific case studies (Selwyn, 2024), there are a few exceptions where scholars have sketched out parts of an education for degrowth in more detail. Because the literature is so brief and these three articles stand out so clearly and each have a different entry point into education, I will dedicate space to reviewing each of these articles from Kaufman et al (2019) (focusing on non-formal education), Jones (2021) (a theoretical sketch) and Pradanos (2016) (focusing on post-secondary education). Given the vastness of education – formal education, schools, educational policy, non-formal education, informal education and the many subfields of education scholarship and theory – there are any number of entry points for degrowth. The articles discussed here touch on a couple of these possibilities and in doing so, open up more possibilities.

One of the few articles that does explicitly draw the connection between Environmental Education and degrowth is Kaufman et al. (2019). They (2019) critically review Education for Sustainable Development (ESD) to illustrate some of the ways that inherently unsustainable assumptions of economics have become reified in this field. Formal educational systems play a normative role in reproducing a market ideology that presents a neoliberal ‘free’ market as unquestioned and natural. Similarly, because ESD in particular, and climate education in general, is so rooted in the green growth paradigm and instrumentalist pedagogies that:

“Focussing on measurability mostly means focussing on cognitive argumentation and the promotion of solutions that tend to be superficial or onesided: for example, proposing different forms of consumption instead of reflecting on why consumption per se—especially conspicuous consumption—has become such a crucial part of our notion of the good life; or promoting

² Note that there is a notable portion of degrowth literature that is only available in French and German, because these countries are where the scholarship began. My research is limited to the English literature.

technological efficiency as the key solution to ecological sustainability rather than asking why we regard nature only as something to be exploited for its resources” (Kaufman, 2019., p. 934-935).

Because degrowth brazenly calls out the hegemony of economic growth and capitalism, it is unsurprising that Kaufman et al (2019) emphasise non-formal education experiences. Kaufman et al (2019) ultimately argue for education to create spaces to support people in reflecting epistemologically on these societal assumptions (e.g. economic growth is always better for everybody) and to repoliticize education. These are both central elements of critical pedagogy (very similar to the Freirean terminology of ‘conscientization’ or ‘conscientização’ in Portuguese) (Freire, 2005). This field, stemming from Marxist and neo-Marxist thought, has historically focused more on the typical Marxist issues of labour exploitation, class conflict and the intersectionality of these with race and gender (Giroux, 2011) rather than with climate justice and the economic roots of the ecological crisis – with the exceptions of ecopedagogy (Misiaszek, 2020; Misiaszek & Torres, 2019) and critical pedagogies of place (Greenwood, 2012; Gruenewald, 2003). Kaufman et al (2019) briefly identify a few other elements that are important to support in this deep reflection and politicization: interacting with existing ‘niches’ (in the language of degrowth, these might be ‘real utopias’ or interstitial strategies), safer spaces, and experiential learning. The authors acknowledge that degrowth in education faces many more barriers in formal educational settings, which are founded on individualism, competition and white supremacy.

In the context of teaching Hispanic Studies in a post-secondary setting, Pradanos (2016) illustrates some of the potentialities for critical pedagogy to reach out to degrowth ideas. In fact, Pradanos (2016) identifies one of the clearest examples of challenging economic growth in environmental education literature that I have been able to find myself from Orr’s now 30-year old *Earth in Mind*, arguing that “we cant help but arrive at David Orr’s conclusion: it is illogical (and even suicidal) to educate our students to contribute to economic growth and to compete in the global economy” (2016, p. 156). He explains that environmental education has largely failed to move education towards genuine sustainability after being bent towards ESD as well as the continuing neoliberalization of education. Additionally, Hispanic Studies in particular, and education in general, is “most of the time unconsciously, disseminating in our classrooms dominant discourses, narratives, and metaphors that promote anthropocentrism, technological optimism, competition, the commodification of reality, utilitarian and hierarchical values” (2016.

p. 158). A main challenge is facilitating an unlearning of the hegemony of economic growth, development and ‘progress’, anthropocentrism and the disciplinary boundaries at universities.

To challenge ESD narratives, Pradanos (2016) instead argues for three interventions. ‘Unlearning by reversed critical pedagogy’ acknowledges that critical pedagogies must be attuned differently in, for example, a university setting because most of these students are relatively privileged and not the ‘oppressed’ that critical pedagogy emerged from. This is consistent with elements of degrowth’s focus on reducing overconsumption in the Global North, insisting that ‘we get our own house in order first’, while acting in solidarity with movements and resistance across the Global South. Secondly, a meta-pedagogical critique of curricula - learning to recognize and counter dominant narratives and ideologies in curricula and teaching materials – similarly opens space for students to question normalized narratives about economic growth, false human-nature dichotomies and Western colonial notions of development. Lastly, Pradanos (2016) advocates for the inclusion of activities inspired by Indigenous Knowledges (in Pradanos’ context, this is the philosophies of the Indigenous Peoples of the Andes). While this would look different based on specific context and place, in this example, it includes the democratization and decentralization of teaching-learning, emphasizing active listening over speaking, establishing a cooperative learning community and recognizing students as co-producers of knowledge. All of these pedagogical interventions can be found in the literatures of critical pedagogy, decolonial education and environmental education (all of which increasingly overlap one another). Ultimately, Pradanos (2016) outlines a ‘green critical pedagogy’, rooted in the work of Freire and Giroux (which appears to be very similar to ‘ecopedagogy’ – more on this below).

Finally, Jones (2021) gives us one of the more comprehensive sketches of an education for degrowth, a ‘pedagogy of limitations’. Critical pedagogies’ critique of capitalism needs to continue to evolve with each iteration of late-stage capitalism to respond to the cascading crises that continue to unfold and escalate. Jones (2021) argues that critical pedagogies need to go beyond critiquing capitalism and explicitly call out the productivism and unending growth that drives it (such productivism is often included in various socialist and traditional Marxist visions too, which have been critiqued for their disregard for the environmental implications of such). To this, it is proposed that degrowth can inform education through simplicity, conviviality, care, and ritual destruction of accumulation. Here, it is worth quoting Jones (2021) at length:

“An education wherein the telos is simplicity would require an ecological conscientisation (Stables and Scott, 2001); it would develop individuals, communities, a citizenry and a global village committed to simple living and dematerialising resource use. Vis-à-vis conviviality, education should seek to model and produce interdependence—both an understanding of our interrelationship to earth and others and an actual symbiotic relationship to earth and others. An ethic of care as a goal might entail ensuring developing student preference for putting others first. And the ritual destruction of accumulation means an active approach in every aspect of education to counter the tendency to accumulate more resources and knowledge. Though each of these concepts are taken up more fully in the following four sections, it is important to approximate them here, too, as the telos of a degrowth education.” (2021, p. 15)

While the connection is not explicitly made in this article, Jones’ (2021) question: “*What is an educational good?*” very much echoes what David Orr asked in a now classic Environmental Education essay from 1990: “*What is education for?*” (Orr, 2011). Jones (2021) responds with ‘limits’. Limits are “the educational good, the unique contribution beyond capitalism and the avarice imaginary that education can offer the world.” (Jones, 2021, p. 13). This theorizing is rooted in the Freirean critique of capitalist education and echoes many pedagogical recommendations and calls to action from critical pedagogy scholars. I would argue that Jones (2021) largely positions colonialism in the past and underestimates its ongoing power in post-colonial and settler states by reifying capitalism as *the* monolithic cause of current crises³. However, this pedagogy of limitations does emphasize an ethic of care throughout education and schooling practices, which includes valuing and legitimizing unspecialized and traditional knowledges.

What Jones (2021) contributes to the conversation is putting concepts from critical pedagogies and decolonial education into degrowth terms. This highlights the alignment between degrowth and many of the ideas found in critical education literature and praxis. The exception here – and unique contribution – is the idea of introducing ‘anti-accumulative habits’ or a ‘ritual destruction of accumulation’ into pedagogies and classroom practices (Jones, 2021). This is not something that I have come across in education literature and gives this ‘pedagogy of limitations’ a uniquely degrowth flavour.

³ The discussion of how much of a singular ‘thing’ or monolith capitalism actually is falls beyond the scope of this paper. See Gibson-Graham (2006) for a comprehensive take on this.

Transitions: Towards Degrowth Futures

Once the theoretical groundwork of establishing degrowth within ecological economics matured, a groundswell of degrowth scholarship around the question of *transitions* emerged (Alexander & Gleeson, 2020; Brajdić Vuković et al., 2020; Buch-Hansen, 2018; Büchs & Koch, 2018; Kruger, 2020; Vandeventer et al., 2019). How do we transition to degrowth futures? This is still very much an open question that I do not have room to tackle here. However, in the following, I situate my own understanding of degrowth transitions within this budding literature. Notably, I refer here to degrowth ‘transitions’ and ‘futures’ in the plural. There cannot be a singular degrowth transition, just as the degrowth literature is quite explicit that degrowth is not, and is not intended to be, a singular proposal or program for socio-ecological transformation. This refrain is common to degrowth scholars in response to critiques that degrowth is not ‘realistic’ or ‘practical’ because there is no unified program laid out ready to be adopted by a nation-state, city or community. This is intentional. The question of scale is an ongoing debate in the degrowth literature; however, there is near consensus that degrowth ideas must be grounded in a local socio-cultural and geographical context that is attuned to the specific needs of those inhabiting that place. Therefore, degrowth would and should look a bit different depending on a particular history, culture, environment and economy of a place. Likewise, most degrowth scholars recognize that within the context of a community, regardless of the scale, there are various systems of oppression at play and social justice must be kept at the forefront of any attempts to enact the ideas of degrowth. This is why strong redistributive practices or policies, guaranteed universal basic services and autonomy are so consistent in the literature. What works in one place, space or time does not necessarily work in others. Degrowth tends towards decentralization, diversity and adaptation as a challenge to the centralization, supremacist ideologies and economic orthodoxy of capitalism and colonialism. Thus, there can and should be many ‘degrowths’ based on the awesome diversity of people, places and Lands who practice them.

Degrowth and Strategies

Like many degrowth scholars (Barlow et al., 2022; Schmelzer et al., 2022), I have been deeply inspired by the foundational thought of Erik Olin Wright. Wright outlined three transformation strategies: ruptural, interstitial and symbiotic (Wright, 2010). Ruptural strategies are those of revolution, of taking back power by force; symbiotic strategies are those that work with the state,

try to ‘make change from within’, and fight for policy changes; and interstitial strategies are those that are autonomous practices outside or in parallel to dominant systems (such as housing cooperatives, community-run urban farms, mutual aid networks and other forms of collective provisioning outside of capitalist markets). Most degrowth scholarship focuses on either symbiotic or interstitial strategies, with Barlow et al (2022) even noting that ruptural strategies are less relevant. However, Meissner (2021) considers resistance (or ‘ruptural strategies’, in Wright’s terms) in the degrowth movement necessary. Wright’s work has been comprehensively synthesized with strategies for degrowth (Figure 2).

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.	<u>Resisting</u> E.g. a climate justice demonstration	<u>Escaping / Building alternatives</u> 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.	<u>Taming</u> E.g. a policy that establishes absolute caps on national CO ₂ emissions	<u>Dismantling</u> 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).	<u>Halting</u> E.g. a disobedience action	<u>Smashing</u> E.g. a factory occupation by workers

Figure 2: Strategic canvas for degrowth that builds on Wright’s work from Barlow et al (2022)

My thought mostly aligns with interstitial strategies. Interstitial strategies are the practices or ‘niches’ (Monticelli, 2018) that evolve and become alongside the dominant systems to create ‘utopias’ in the cracks of the present. This includes many branches of prefigurative social movements and community organizing. For example, the localization movement (which challenges the globalization of production and consumption and its inherent waste and

exploitation, working to localize and decentralize production, governance, energy, etc); nowtopias (living alternative social configurations here and now) (D’Alisa et al., 2015; Demaria et al., 2019); speculative fiction (Streeby, 2018); the slow movement; Blockadia (Klein, 2015), the Transition Town movement (Hopkins, 2019); as well as simple local initiatives like makerspaces, urban agriculture, participatory budgeting, co-housing projects, direct democracy, voluntary simplicity and so much more (Barlow et al., 2022; D’Alisa et al., 2015; Kothari et al., 2014; Monticelli, 2018). This radical, hopeful imagination is what we need to both reduce our extraction of the Earth and emission of carbon, and to make the deep cultural and epistemological shifts towards a different way of organizing and living ‘the good life’ (i.e. degrowth transitions).

Prefigurative Politics

Interstitial strategies are closely linked to prefigurative politics (Monticelli, 2021) – that is, practicing the futures that we desire in the present time and the material places where we are. I do not provide a comprehensive overview of prefigurative politics here, as this has been done elsewhere (Monticelli, 2021; Raekstad, 2018; Yates, 2021). Monticelli (2018; 2021) notes that the bigger theme of prefigurative transitions to post-capitalist societies has been thoroughly taken up across the social sciences and in social movements, particularly since the 2008 financial crash and the Occupy movement in particular (Graeber, 2011; Solnit, 2016). Here, I want to merely delineate how prefigurative politics fits into degrowth transitions as relevant for this paper.

Prefigurative politics evolved out of anarchist and feminist theory, and “is predicated on the idea that the future will be different from the present and developed through the production of spatial processes, material engagements, embodied practice, and affective atmospheres” (Jeffrey & Dyson, 2021., p. 645). There are Black feminist queer abolitionist organizers working in this space too, if they do not always use the term ‘prefigurative’. Writers and organizers like adrienne maree brown (brown, 2017), Andrea Ritchie (Ritchie, 2023), Mariame Kaba, Kelly Hayes (Hayes & Kaba, 2023), Robyn Maynard (Maynard & Simpson, 2022) and so many more have also influenced my understanding of prefigurative politics.

Prefigurative politics merge the means and the ends of practices, striving for ‘means-ends consistency’ (Trott, 2016) or ‘means-ends equivalence’ (Yates, 2015). Prefigurative politics have two broad and simultaneous dimensions: prefiguration as a means of doing protest (e.g.

practicing direct democracy or abolition in community organizing or holding political events) and prefiguration as a project-based construction of alternatives (e.g. housing cooperatives or makerspaces) (Trott, 2016; Yates, 2021). Yet, central to prefigurative politics is experimentation (Jeffrey & Dyson, 2021; Monticelli, 2021; Yates, 2015, 2021). What is “connecting all of these movements is precisely that they seek to push towards the realisation of a post-capitalist society by embodying it in the present.” (Monticelli, 2018, p. 511).

Certainly, there have been critiques of prefigurative politics and interstitial strategies, that I will briefly touch on here. One critique of prefigurative politics is that it can become exclusive, as in the case of ecovillage participants, wherein they ‘exit’ society and close themselves off to live in their concrete utopia without meaningful solidarity with other movements, or potentially in the case of the Occupy movement being largely made up of more privileged groups (Jeffrey & Dyson, 2021; Monticelli, 2021). However, prefigurative politics are particularly impactful in changing attitudes through offering spaces where people can actually have embodied and affective experiences of alternatives (Jeffrey & Dyson, 2021). It has also been argued (Monticelli, 2021; Yates, 2021) that whether or not prefigurative politics are ‘effective’ should not be the focus; instead, it is a question of how prefigurative politics work within and between movement strategies. I would also argue that even as Yates (2021) and Monticelli (2021) attempt to sketch out the landscape of prefigurative politics for the 2020’s, we are already seeing new (re)configurations in the post-lockdown era (e.g. in the worldwide student encampments for Palestine under far more repressive conditions than most faced during Occupy).

In learning about prefigurative politics, I have been exceptionally inspired by emergent strategy as articulated by adrienne maree brown (brown, 2017). Emergent strategy (or ‘strategies’, plural) is a theory of change grounded in democratic community organizing, Black feminist thought, speculative fictions and liberation theory. Many threads of thought I have encountered in academic literature as well as writings from activist and organizers (e.g. Hayes & Kaba, 2023; Loach, 2023; Ritchie, 2023) keep aligning with the principles of emergent strategy that brown (2017) illustrates so well: Fractals (the small represents the whole); adaptive; iterative and non-linear; resilience and transformative justice; interdependent and decentralized; creates more possibilities (instead of a single programme of action). This also fits with the concept of the ‘pluriverse’, a world where many worlds fit (Escobar, 2017; Kothari et al., 2019). These

principles are reflected in the natural world, and also (be)come as a reiteration of knowledges that Indigenous people have held for generations (Maynard & Simpson, 2022; Wall Kimmerer, 2013). These small emergences are those spaces of enacting futures practices, radical hope, and being ‘otherwise’ that set the groundwork for a much larger radical transition to grow from.

Given the extremely tight hold that the hegemony of economic growth (Kallis, 2018; Meissner, 2021; Schmelzer et al., 2022) has across the political spectrum (particularly in the Global North), Jeffrey & Dyson’s (2021) claim that “acting ‘as if’ can challenge dominant claims about there being no alternative to existing structures of power” has clear relevance for degrowth. Here, I will cop to the degrowth scholar cliché of citing that ‘it’s easier to imagine the end of the world than the end of capitalism’⁴. Prefiguring degrowth transitions, backed by the evidence of climate science and ecological economics, delegitimizes this doctrine of economic growth itself, thereby creating new possibilities to actually transition beyond growth to post-capitalist formations. Meissner (2021) proposes – and I agree - that a cultural politics of degrowth requires prefiguration. The cultural shifts in some form might have to precede structural shifts (Alexander & Gleeson, 2019; Trainer, 2019). In other words, revolutionizing the imaginary to *act* on the reprioritization of wellbeing and ecological limits over economic growth and profit is the first step to materializing degrowth transitions.

Climate Change Education

Environmental Education is an umbrella term that encompasses many different traditions and practices of education, in formal and nonformal settings. While many (including myself) assert that ‘all education is environmental education’, the literature more explicitly recognizes various areas of scholarship and practice. This includes nature-based education, outdoor education, environmental science, place-based education and climate change education to name a few. Environmental Education literature is now bringing critical and decolonial lenses into these pedagogies to interrogate the colonial and Euro-Western philosophies about the still dominant human-nature dichotomy. Strains of Environmental Education are now also asking critical questions around the climate emergency and what education should look like in this era of global crises. I am particularly interested in these latter two areas of the literature. Those that look

⁴ This quote and variations of it, are credited to Frederic Jameson and popularized by Slavoj Žižek and are common throughout, but not limited to, degrowth literature.

critically at our relationships to the more-than-human, what Environmental Education means in a settler society, and how education can facilitate healthy, (re)generative responses to the multi-crises we face.

Climate Change Education (CCE) is the area of Environmental Education I am focusing on in this work. Here, I am using CCE to encapsulate a variety of terms that relate to teaching and learning about the climate crisis. This includes Climate Change Education, Education for Sustainable Development, Sustainability Education and Climate Justice Education. There are important distinctions between these, but these have been taken up elsewhere (Cantell et al., 2019; Munroe et al., 2019; Rousell & Cutter-Mackenzie-Knowles, 2020). For my purposes, I am interested in looking at the overall narratives that are present in CCE broadly.

Climate Education Has a Green Growth Problem

Climate change education has thus far largely avoided confronting limits – economic and ecological. It has also lacked a sustained and substantial critique of capitalism or economic growth. Much of CCE falls into sustainable development narratives (‘Education for Sustainable Development (ESD)’ or ‘Education for Sustainability’) or is disciplinarily locked into STEM fields (Rousell & Cutter-Mackenzie-Knowles, 2020). Such narratives are problematic, as they tend to reproduce colonial patterns and do not adequately consider issues of justice. They also operate under questionable assumptions about decoupling economic growth from energy and resource use and do not take into account projections around energy descent (Alexander & Gleeson, 2019; Haberl et al., 2020; Kallis, 2018; Meadows et al., 2004; Victor, 2012), all while depoliticizing the climate crisis (Kaufmann et al., 2019; C. Trott, 2024).

This depoliticization is dangerous. As Trott (2024) attests: “educating for climate justice requires attending to the ideologies and systems fuelling the climate crisis and multi-faceted social injustices, including human and white supremacy, coloniality, racial capitalism, Euro-American epistemic hegemony, and more” (2024: p. 3). Most climate change education centers the climate science of limiting global temperatures; it does not engage with the reality that continuing economic growth is thermodynamically impossible and the future will be an energy descent future (D’Alisa et al., 5 2015; Kallis, 2018; Parrique, 2019; Schmelzer et al., 2022). Nor does it fully consider the disproportionate responsibility for and impact of climate breakdown. There are several possible reasons for this. Climate change itself has become politically polarizing – let

alone questioning economic growth. Efforts by industry to suppress climate change awareness and action (namely the phase out of fossil fuels by the oil industry) has also limited the ability of policymakers and educators to challenge these assumptions. These limitations faced by educators lead to educational content that reduces the climate emergency and its roots in capitalism and colonialism to a technological ‘problem’ to be ‘fixed’ (Munroe et al., 2019; Trott, 2024; Trott, 2021).

There has been considerable critique of CCE to these points from some environmental education scholars (e.g. Karsgaard & Davidson, 2023; Misiaszek, 2020) and especially from Indigenous scholars (Calderon, 2014; Seawright, 2014; K. Whyte, 2017). CCE is a pressing opportunity for this because “while [education for sustainable development] developed in response to environmentalist, conservationist and even economic rationalist concerns, climate change education emerges *at a time when such humanist ideologies of unmitigated progress and technocentric management are necessarily being called into question.*” (Cutter-Mackenzie & Rousell, 2019, p. 101, my emphasis). The field of critical pedagogy (e.g. Giroux, 2011) has been more explicit in challenging capitalism and reproducing capitalist practices in education. Critical perspectives in environmental and place-based education are also becoming common (Gruenewald, 2003; Seawright, 2014). Despite the strong evidence that economic growth cannot continue on a finite planet, this prognosis has not made its way into climate change curriculum. Widespread curricula has been too focused on technological optimism, market solutions, ‘Sustainable Development’ and individual actions (Kopnina, 2015; Martusewicz et al., 2011; Misiaszek, 2020; C. Trott, 2024; Vamvalis, 2023). Climate change has been limited to a scientific and technological problem to be solved in curricula that do not tackle the underlying systemic issues that have created this situation – and Canadian schools leave much to be desired even to this point (Wynes & Nicholas, 2019).

Beyond Teaching Green Growth

Some CCE literature gets close to directly challenging economic growth and the capitalist mode of production as the root of the climate emergency that needs to be unrooted. Yet, it seems to skirt around degrowth. But the understanding of the kind of socio-ecological transition needed *is* there, just as so many social movements, groups and projects come to similar understandings regardless of the terminology used (Barlow et al., 2022; Burkhart et al., 2020; D’Alisa et al.,

2015) – particularly Indigenous peoples and peoples in the Global South (Dengler & Seebacher, 2019; Escobar, 2017; Pérez Orozco & Mason-Deese (translator), 2022; Perkins, 2019). Here, it is important to clarify that, while the field of CCE broadly does not engage with questions of limits to economic growth, there are scholars and educators in the field reaching these challenging questions.

There are some exciting exceptions to this skirting around the question of economic growth. Karsgaard & Davidson (2023) insist on CCE “engaging non-dominant knowledge systems; *questioning naturalised conceptions of growth and development*; exploring the historical victories of social movements; learning from practical successes in energy transition and reorganisation of production and considering radical alternatives to dominant climate actions” (2023, p. 88, my emphasis). In a reflection on the field of Environmental Education, Stevenson et al. (2016) writes: “I am driven by what I see in our society as an urgent need for reconnection to a sense of identity and to the ‘real world’, and *towards a focus on wellness and wellbeing in contrast to continuous economic growth* as the measure of ‘the wealth’ of nations.” (2016, p. 4, my emphasis). In Trott (2021) we find mentions that “‘the good life’ is defined by a culture of over-consumption and excessive waste... what is needed are diverse and creative ways of living and interacting in the world that confer a sense of meaning and *well-being while respecting planetary boundaries*” (2021, p. 302, my emphasis). That “young people are challenging mainstream ways of life (e.g. materialism, overconsumption) and reimagining ‘the good life’ for the well-being of their own and future generations” (Trott, 2021, p. 302) raises the question of reimagining wellbeing. Here again, the premise is set up to challenge the doctrine of economic growth, and the author very nearly gets there. Critical global citizenship education also comes close (Karsgaard & Davidson, 2023; Misiaszek, 2017; Vamvalis, 2023), as it adds a decolonial lens to studying global issues like the climate emergency. Vamvalis’ (2023) argues that “*climate justice education necessitates questioning dominant understandings and paradigms of unlimited economic growth and progress* rooted in modernity’s extractive (and often violent) energy and economic projects” (2023, p. 4, my emphasis). I hope that in bringing together degrowth and CCE in this literature review helps to close this (admittedly, shrinking) gap.

Youth Climate Activism as Climate Change Education

There has been research with youth climate activists seeking to understand their motivations, affect, and coping strategies (Nissen et al., 2021; O'Brien et al., 2018; Trott, 2016, 2021; Vamvalis, 2023). Karsgaard & Davidson (2021) argue that “educators have a responsibility to inform students about climate change, but even more crucially, to help students *envision and enact alternative futures*” (p. 74, my emphasis). Youth often learn more about the climate emergency and responses to it through their activism than they do in formal educational settings (Trott, 2024). There is growing recognition that CCE must incorporate more climate activism, both in supporting students who are already climate activists and including action-oriented and civic/political engagement (Vamvalis, 2023). The inverse is also true: climate activism can be an excellent pedagogical tool, where youth can learn more deeply in more participatory ways (O'Brien et al., 2018; Trott, 2024). O'Brien et al (2018) share a typology of youth climate activism's forms of dissent: dutiful, disruptive and dangerous dissent. This typology is strikingly similar to Wright's (2010) typology of socio-ecological transformation strategies, with dutiful dissent aligning with symbiotic strategies, disruptive with ruptural, and dangerous with interstitial (and notably, the authors directly name the degrowth movement as an example of dangerous dissent, i.e. that which focuses on creating alternative systems and cultures – or *prefigurative politics*). Environmental education as a discipline has long called for more participatory, creative and action-oriented pedagogies than what is currently laid out in school curriculum (David Orr, 1992; Sobel, 2013).

Youth-led climate change education, by challenging the epistemological norms of adult or ‘expert’ led education, can also “consider creative and visionary alternatives that deviate from anthropocentric and scientific modes of education” (Cutter-Mackenzie & Rousell, 2019, p. 98). A study from Trott (2021) considers the ‘everyday activism’ of youth – individual and household level actions. While affirming the inadequacy of focusing on individual actions, Trott (2021) argues that we should not disregard these actions by children and youth. Importantly, these ‘individual actions’ can be more than green consumerism (while perhaps still being this) and have potential to be culture shifting – fractal (brown, 2017), interstitial (Wright, 2010), prefigurative (Jeffrey & Dyson, 2021) - of the worlds and futures youth want.

Envisioning alternative climate futures also blurs distinction between climate activism and climate education. Visioning climate futures can be helpful for processing complex climate emotions as well as prompt critical reflection about whether these are truly climate-just futures and youths' active role in creating these futures (Ferguson, 2022). Working with/through climate futures with youth also takes climate change from abstract science and frightening facts to a more affective and visceral undertaking to ground thinking about climate justice. It also prompts more thinking through of the interconnectedness of various social issues that would be changed in a climate-just future (Hall, 2015). Speculative fiction, or climate fiction, is a related area of work that also thinks through and sits with questions of climate justice and imagining alternative futures to our current global trajectory (brown, 2017; Streeby, 2018; Whyte, 2018). Hall (2015) asserts that "creatively imagining the future in a world with a changed climate is one way of fostering and testing a student's depth of understanding climate change." (2015, p. 5). Speculative fiction has been used in environmental education (e.g. Nxumalo & ross, 2019), but, I would argue, not nearly enough. Imagining climate-just futures challenges dominant dystopian narratives of the climate crisis thereby creating hopeful counter-narratives that in turn support the cultivation of active hope. Such practices also blend climate change education with climate activism, creating educational spaces for youth to learn, think, and act.

It has been well established at this point that climate education must be facilitated with an ethics of care and creating intentional spaces for climate emotions, especially with young people (Ferguson, 2022; Karsgaard & Davidson, 2023; Kelsey, 2016; Vamvalis, 2022, 2023; Wray, 2022). Cultivating hope is increasingly recognized as central in climate change education. Lawrence et al (2022) have found that "through hope-infused, complicated conversations, educators could open up imaginations to dramatically different sets of future possibilities." (2022, p. 108). Following the adage from David Orr, "hope is a verb with its shirtsleeves rolled up" (Orr, 2011), hope is intrinsically connected to action. Youth need hope and a high degree of worry about the state of the world to change behaviour (Ojala, 2012) to more sustainable lifestyles and getting engaged with collective action to make structural change. Hope is active and must be cultivated. Likewise, taking action – especially collective action – on issues, locally or globally, in turn creates more hope.

Critical education literature consistently finds that action-oriented, participatory and creative learnings and projects – whether in schools or communities or a blend of these spaces – motivates youth to action and, most importantly, fosters climate hope to better hold climate emotions (Lawrence et al., 2022; Rousell & Cutter-Mackenzie-Knowles, 2020; Tayne et al., 2021; Trott, 2021; Vamvalis, 2023; Wray, 2022). CCE requires addressing complex emotional realities and the wellbeing of youth in the face of the climate emergency. Scholar-educators are calling for participatory, youth-led, engaged pedagogies for CCE (Cutter-Mackenzie & Rousell, 2019; Rousell & Cutter-Mackenzie-Knowles, 2020; Trott, 2021; Vamvalis, 2023). Here, I want to remind us of the pedagogical similarities between what cultivates active hope and climate action, and what Kaufman et al (2019) argued for when learning about degrowth: experiential education, safer spaces with longer time horizons – or ‘slow pedagogy’ (Payne & Wattchow, 2009) - to allow learners to be present and embodied. This in turn prioritizes wellbeing and supports critical thinking.

I am particularly interested in the forms of education-activism arising from place-based pedagogies and practices that nurture hope and collective agency in youth (Kelsey, 2016; Lawrence et al., 2022; Vamvalis, 2023). This type of education constructs a more hopeful lived experience and expands the sense of what is possible (Freire, 2005; Giroux, 2011) when (re)imagining place, which opens possibilities for imagining and practicing degrowth as well. Critical pedagogies of place are informed by many of the same participatory and action-oriented theoretical foundations and often look similar on the ground, with youth co-creating knowledge in their community. This allows space to develop the capacities to recognize root causes of personal and community problems, understand how they interconnect with societal structures and, most importantly, to collectively work to do something about it. This project-based and action-oriented approach has been found to be important in climate change education (Munroe et al., 2019; Trott, 2024) and “CCE should always be a bridge to action” (2024, p. 14). Critical pedagogies of place provide space for youth to learn about the world holistically rather than as disconnected pieces of knowledge and so develop the agency to act collectively to prefigure alternative futures.

Ecopedagogy

Ecopedagogy emerged from Freirean critical pedagogy as a response to the increasingly urgent climate emergency and the need for a critical lens in environmental education. While Paulo Freire passed just as he was beginning to write more explicitly on the environment, this work has been taken up by others, like Misiaszek, who is a leading ecopedagogy scholar. A basis of Freirean thought is that reading the word, or the use of theories and texts is useless without an understanding of the socio-historical context - or reading of the world. Ecopedagogy educators push this further, arguing that the socio-historical context cannot be understood without being situated in the environmental and geographical context (Gadotti, 2008; Misiaszek, 2017, 2017, 2020; Misiaszek & Torres, 2019). In other words, the reading of the word and the world must simultaneously be a reading of the Earth.

As Freire regularly and adamantly encouraged, scholars have reinvented his work in numerous ways, for countless contexts and to address various limitations. This includes reinventions of critical pedagogy to attend to the climate emergency, as awareness of this existential threat has flooded academic and public discourses. Ecopedagogy is an educational movement grounded in Freirean thought, aiming to "teach to critically understand the connections between human acts of environmental ills and social conflict (socio-environmental issues) for praxis to end oppressions" (Misiaszek & Torres, 2019, p. 465). This approach to pedagogy is not just about protecting the environment, but centers the interrelatedness of socio-environmental, as well as biocentric relations, while rejecting an anthropocentric framework (Gadotti, 2005; Misiaszek & Torres, 2019). We cannot enter into praxis of critical pedagogy or any form of transformative work without seriously involving the Earth's oppression. Not only because the climate emergency is an urgent and massive threat to humanity, but because ecological exploitation and domination are tied so intimately and historically with social exploitation. The colonial and economic domination of countries in the Global South, environmental racism, ongoing colonialism, and violation of Indigenous and land rights across Turtle Island and beyond all run in parallel with unsustainable extraction and disregard for ecosystems. Critical pedagogy and active hope are so important here because they reject the fatalism of colonial-capitalism and foster the capacity to act collectively to create change, making critical consciousness inherently future-oriented.

I believe these missing pieces of the conversation in both the degrowth and CCE literature have incredible potential if brought together more explicitly, which is what I attempt to begin with this study. I see the need to bring these areas into conversation to address both gaps and generate more possibilities for climate-just transition through education, community practices, and prefigurative politics. Or, *education for degrowth*.

The Present Study

Reimagining ‘wellbeing’ away from the capitalist notion of material wealth, individual freedom and power is key to the cultural shift that degrowth (and climate justice more broadly) calls for. Buchs & Koch (2018) sum up this argument by saying that “it has convincingly been argued that many of people’s ‘real’ needs such as meaningful relationships and work, identity, opportunities to shape community life and politics, can be achieved with low resource inputs.” (p. 8). Buchs & Koch (2018) also envision beginning deliberative dialogues around “minimum and maximum levels of needs satisfaction and their resource implications” (p. 9). Engaging young people in these kinds of discussions, especially considering how disproportionately the multi-crises of climate, biodiversity loss, affordability and democracy impact them, can encourage visions of the future and prefiguring those futures with active hope (Solnit, 2016) for climate-just futures.

This could also motivate deeper discussions around socio-ecological transformations – or degrowth transitions, with more diverse strategies for climate justice centered around wellbeing for all peoples. If we accept the degrowth premise of reduced production and consumption, ecological limits and energy descent according to the best available climate science and the equity lens of climate justice, then we can treat these as our conceptual parameters for climate-just futures and get on with the work of envisioning and practicing the best possible futures for all. This is the project of degrowth.

The importance of conceptualizations of wellbeing that are located outside of capitalist socio-economic norms – outside of consumerism, outside of neoliberal individualism, and outside of colonial understandings of wellbeing that have been enforced on many populations – is becoming starkly clear. There are, of course, many ways that wellbeing has been operationalized: physical wellbeing, mental or psychological wellbeing, ecological wellbeing, social wellbeing, economic wellbeing, etc. While I am situating my understanding of wellbeing in post-capitalist

understandings of wellbeing rooted in the degrowth literature, in the present study I want to leave the (re)defining of wellbeing up to participants and learn what *they* understand wellbeing to be.

Scholars, educators, researchers, organizers and activists need to attend to the wellbeing of youth in CCE and climate activism (Karsgaard & Davidson, 2023; Ojala, 2012; Trott, 2016; Vamvalis, 2023). This is a prefigurative practice to center just and decommodified forms of wellbeing in pedagogical and movement spaces that prefigure the prioritizing of wellbeing needed in degrowth transitions towards wellbeing economies. Wellbeing is a means-end, and the calls to hold climate emotions and attend to holistic wellbeing in climate education and climate movements is an existing entry point into the CCE conversation for degrowth ideas to further strengthen these spaces. It is important to remember when doing this work, that “nurturing wellbeing in the climate crisis involves attention to how meaning, purpose and hope are cultivated and sustained in young people” (Vamvalis, 2023, p. 6). This project is a small example of one of these wellbeing-oriented entry points to intervene into climate educational-activist spaces (non-formal education in this case). It does this by prompting youth climate activists to (re)consider what wellbeing means at this moment and what it *could* mean in a climate-just future, creating a space for youth to speculate and critically reflect together on some of these ideas based on their own experiences learning about and acting for climate justice.

Arts-based methodologies are effective for communicating about and engaging people with the climate emergency and climate justice. This includes filmmaking (Tayne et al., 2021; Walsh & Cordero, 2019), digital storytelling (Neas, 2019), and photovoice (Cai & Marks, 2021; Herrick et al., 2022) – all with methodological and conceptual similarities to cellphilm (Flicker & MacEntee, 2023). Trott (2020) utilized photovoice as an arts-based participatory methodology with children in an informal climate change education program. This included knowledge-dissemination in the community through action-oriented projects led by the youth participants. In this way “children can serve as intergenerational climate change communicators” (p. 547), as important agents of the prefigurative cultural shifts towards climate-just futures. As the science of climate change has thus far been the primary engagement in formal education, there is plenty of room for arts-based engagements with youth to learn about and co-create meaning about the climate emergency and about climate-just futures.

The present research explores youth climate activists' perceptions of wellbeing while living in a climate emergency and what wellbeing may look like in a climate-just futures. Using the participatory arts-based methodology of 'cellphilm', this project engages youth climate activists in reflexive workshops to explore their ideas of wellbeing and explore what 'the good life' might look like in a climate-just future. This methodology provides an opportunity for collaborative learning to more deeply consider the question of wellbeing in this era of climate collapse and cultivate a greater sense of collective hope in the process. Cellphilm also creates possibilities for further combining CCE and climate activism because the knowledge mobilization of participants' cellphilms, if they desire, could in of itself become non-formal spaces of CCE facilitated by the creators of the cellphilms – youth climate activists themselves.

I am researching as a queer white settler on Turtle Island. I acknowledge that, despite best efforts, I still necessarily write from a white settler perspective. As a whole, degrowth scholarship has not yet adequately considered degrowth in settler states. This is another area where degrowth could benefit from more collaboration with critical education scholars, who have already been working on decolonizing environmental education in settler states like so-called Canada (e.g. Nxumalo, 2019; Tuck et al., 2014; Whyte, 2017), which degrowth literature can learn from. In research, it is also important to recognize the power dynamic between researcher and participant. I am a white researcher holding space with racialized participants. While I do not consider myself *too* far from the experiences of the participants in this project (I may be ahead of them by a decade in age, but they are a decade ahead of me in activism!), there is an inherent hierarchy in research and in academia, especially when working with youth. I tried to mitigate this and create a more horizontal power dynamic during this research, as will be discussed in the Methods section below.

Methodology

Cellphilm as Climate Pedagogy

For this research, I chose cellphilm methodology as a participatory visual method. One of my intentions from the outset in working with youth climate activists was engaging in a project that can benefit them and their own activist work through both process and output. Creating a series of cellphilms provides this group with an output that can be put to use as they wish after the project. Cellphilm was used in this research (Flicker & MacEntee, 2023) because cellphilms

are an impactful visual output that can be easily shared. They can be created relatively quickly and easily (especially with young people who are already savvy with the technology) and they "bridge research and pedagogy." (2023, p. 5). These are short films created on participants' cellphones in response to a question or a prompt. In this project, the prompt that participants were given was: "What does wellbeing look like in a climate-just future?" This method allows participants creative license to present their ideas how they want, that does not necessarily require the level of literacy that written outputs for, for example, would. It creates space for creativity and experimentation with how participants choose to present and communicate their ideas.

Cellphilm Workshops

The workshops were initially offered in-person, but I added a virtual option during the recruitment stage, after a suggestion from a youth that a virtual option would be more appealing to youth. This proved to be very valuable feedback, as a majority of participants opted for the virtual option. I pivoted from planning in-person meetings with paper, sticky-notes, a physical recorder and snacks to holding the meetings on Zoom, using the virtual brainstorming tool Miro and sending participants gift cards to order snacks for delivery.

Recruitment began in partnership with the Simcoe County Environmental Youth Alliance (SCEYA) and snowballed by asking these youth climate activists to share the opportunity with their peers. This resulted in about half of participants coming from Simcoe County and half coming from the Greater Toronto Area. Fortunately, the pivot to online meetings helped facilitate the participation of those from out of town. Recruitment eligibility was for self-identified youth climate activists aged 16+ and ended up being 5 participants aged 16-17, with 3 attending all three workshops. I view this difficulty with recruitment as further indication (in addition to my own anecdotal observation as a community member), of the need for community spaces and programming for youth climate activists in Barrie and Simcoe County.

In the first workshop, participants were led through Peer Interviews as both an icebreaker activity and data collection. The pairs then traded places being interviewer/interviewee. These interviews included some high-level questions about their own thoughts on wellbeing and the climate emergency and how they got into climate activism. These served as introductory discussions to get participants thinking about these questions and springboard a dialogue among

the group. The second part of this workshop was dedicated to making the first iteration of cellphilms – storyboarding, filming, editing (Flicker & MacEntee, 2023). Most participants did these individually, but there was one cellphilms done as a pair. In the second workshop, participants collaboratively analyzed the ‘texts’ of their cellphilms, beginning with a group screening of the initial cellphilms. I guided the group through the basic steps of DEPICT Analysis (Flicker & Nixon, 2015) in Miro (a project management and brainstorming platform). This included brainstorming using virtual sticky-notes (Image 1), clustering these and creating codes based on each grouping, coding transcripts and discussing the coding as a group to refine and solidify the collaboratively-developed codebook.



(Image 1: virtual sticky-notes of the group’s brainstorming of key ideas from their cellphilms)

In the final workshop, participants gathered once more to create a second round of cellphilms, to incorporate their analysis, learnings and reflections about the research questions. This provided an opportunity for reflexive and collaborative learning amongst the group to more deeply consider the question of wellbeing in the climate emergency and in climate-just transitions and futures and how this relates to their own lived experiences as climate activists. This second set of cellphilms allowed participants to ‘speak back’ and refine what they want to say in their films. A group screening of the cellphilms for all of the participants is being scheduled for summer 2024

at the time of writing, to give participants a space to celebrate their creations and contributions to this research.

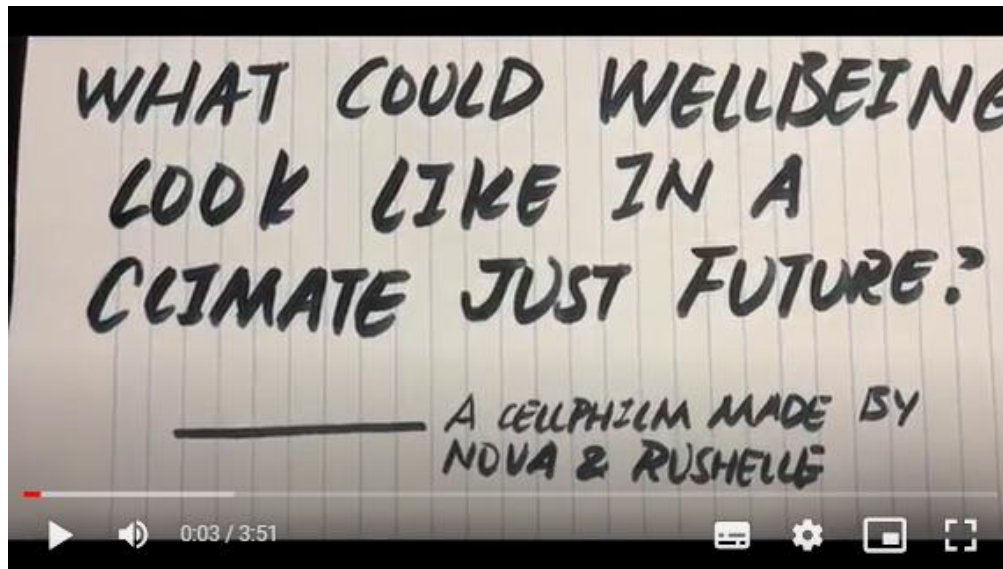
Ethical Considerations

Cellphilm as a method requires nuance and flexibility when it comes to common ethics standards like anonymity. Due to the nature of participatory research, particularly visual participatory methodologies such as cellphilm, outputs are produced by the participants – not just ‘data’. These outputs - the cellphilms in this case - and what they include or exclude and how and if they are shared is the decision of participants. This methodology recognizes the agency of youth to make this decision, which also recognizes creative agency and the legitimacy of youths' knowledge-producing capacities. Part of the participatory part of this project is to provide participants, who are all youth climate activists, the space to create outputs that can be fit for use in their activism if they choose to do so. In this regard, it is appropriate to allow participants each the choice whether or not they wish to include any identifying information of themselves in the final output.

To create space for informed decision-making about anonymity for participants, this project is split into three workshops. The final workshop is dedicated to creating a second, revised cellphilm based on individual and group reflections and collaborative analysis about the first round of cellphilms. This gave participants the time and space between workshops to deliberate and further decide what they want to include in their final cellphilms. This allows for multiple decision points about what to include or exclude, thus supporting youth in their choices.

The Cellphilms

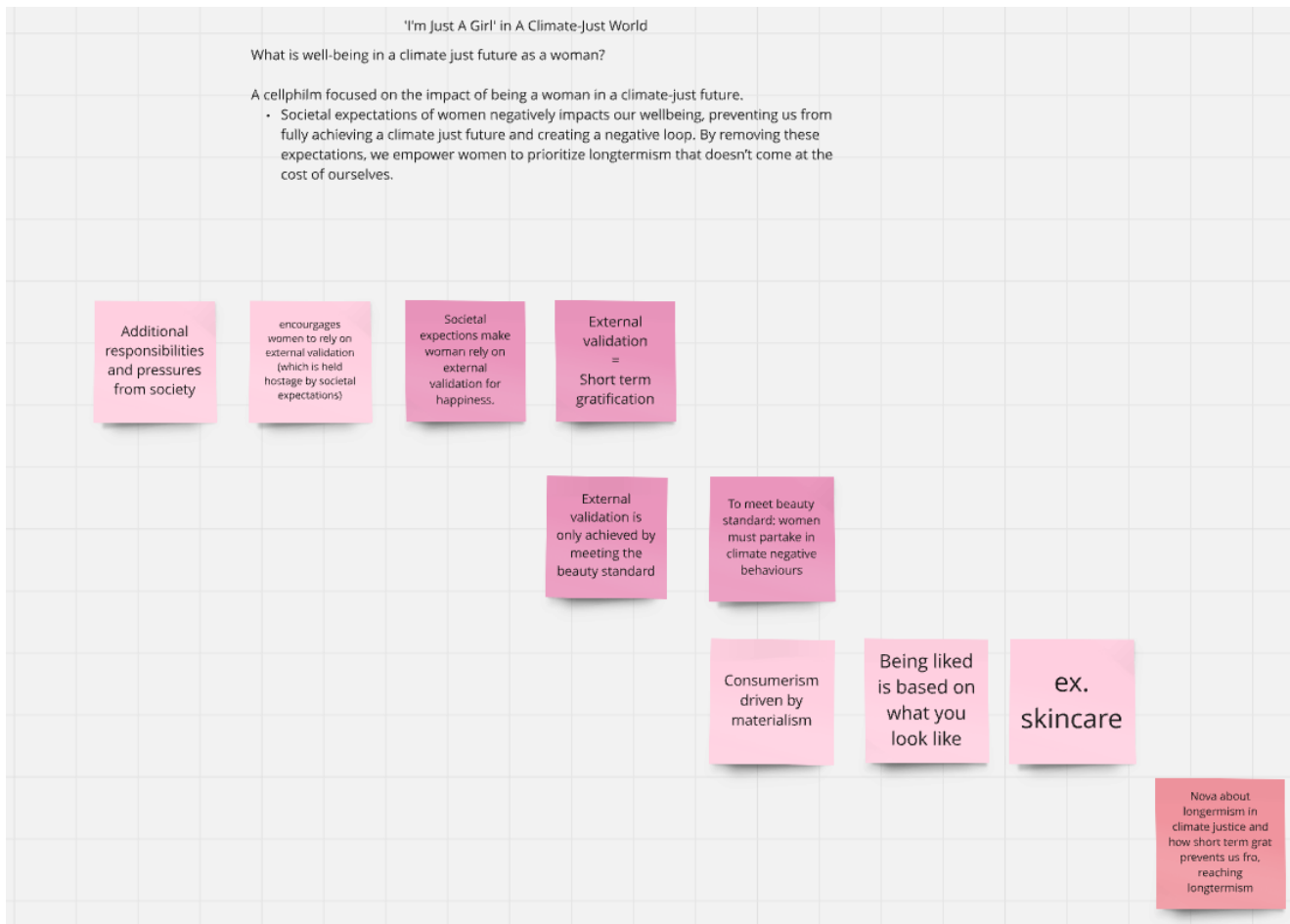
Three participants ended up completing their cellphilms. Two of them chose to pair up to create a ‘skit’ style cellphilm by stitching together clips from each of their cellphones. The difference between the first and second round of cellphilms illustrated the deep learning and reflection that occurred between the group during the analysis discussion of their films.



(Image 2: The title shot for Nova and Rushelle's skit cellphilm)

Nova and Rushelle teamed up to script a 'skit' in their first cellphilm (Image 2). The film bounced between the two youth in a conversational style, with Nova playing a youth who wants to learn more about climate-just wellbeing and Rushelle playing the 'knowledgeable' youth who was explaining some of these ideas to the audience (written to speak to other youth). Their second cellphilm, storyboarded after the coding and analysis discussion (Image 3), followed a largely different conceptual path to expand on some of the themes that emerged in the group discussions. They decided to frame the narrative around a gender analysis and the targeting of women by advertising, which leads to overconsumption and unnecessary stress and mental health burdens due to the need for external validation (which they corresponded with short-term gratification and the theme of 'longtermism') and unachievable beauty standards. Their thesis is that gendered consumerism creates a continuous need to consume, improve and perform according to endless trends, which prevents people from stepping back from consumerism and

embracing a more long-term concept of wellbeing creates the capacity to build climate-just futures.



(Image 3: Nova and Rushelle's storyboarding for their second cellphilm)

Sunny's first cellphilm was filmed vlog-style (Image 4), with a simple and continuous shot of her speaking to the camera about her thoughts on wellbeing in a climate-just future. She talks about how what really matters in life also 'makes the Earth happy', and that one needs to be able to take care of themselves to be able to take care of the planet. Sunny explains how disengaging from the consumer culture practice of fast fashion has obvious environmental benefits, but also benefits the self. By disengaging from fast fashion and not buying what is new every season, people can give themselves space to develop their own sense of style that makes them feel good about themselves and their identity. This example illustrates the theme of 'longtermism' that emerged in the cellphilm.



(Image 4: A screenshot from Sunny's vlog-style cellphilm)

In the second round of cellphilms, Sunny repeated her vlog-style filming but with a revised script that showed deep reflection on the group discussion and themes that came out of it (*“recently I was asked the question, ‘what does wellbeing look like in a climate just future?’ And I thought I had a good idea of what this meant. But after I had a really great brainstorming session with some other youth climate activists, we were able to break it down into five categories.”*). She recounts each of the themes, followed by very personal examples to help articulate them and make the themes relatable to a youth audience, implicitly positioning herself in more of an educator role by sharing the group’s newly generated knowledge.

Each of the cellphilms were beautiful, reflexive pieces that shared the perspectives of youth climate activists who care very deeply for the Earth, for others, and for their own wellbeing. By taking on the role of self-researcher and analyzing their own cellphilms, the workshops allowed a space for deeper reflection than would have likely been the case with other methodologies. After an incredibly lively, generative and thoughtful discussion as a group, the storyboarding and creation of a second round of cellphilms reflected this deeper thinking about the themes that the participants identified. The methodological combination of cellphilm and the DEPICT analysis (discussed below), created a space uniquely suited for reflection, vulnerability (as the group discussion took place after watching each others’ films) and critical thinking because it created

‘meta’ discussions about their own thoughts, feelings and understanding of concepts related to climate justice. As a researcher, I found this reflective discussion to be the key part of this project. Based on feedback after the discussion, these youth climate activists also found this discussion particularly fruitful for their own understandings and reflections. This latter point is what makes this project a resounding success as far as I am concerned irrespective of all other measures, because witnessing these brilliant and passionate young people get so excited about their own knowledge generation and ideas of how to take care of each other and the planet surpasses anything I have brought to the project.

Knowledge mobilization is still in process at the time of writing. Currently, there are plans to schedule an internal screening to share and celebrate each other’s final cellphilms as a group. At least one participant will be sharing her cellphilms as part of a larger, external screening, and invited the others to join as well. We also intend to co-author a submission for a call for blog contributions for the series *Provocations for Education from Youth Climate Activism* edited by Karsgaard, Desimoni and Silova for NORRAG at the Geneva Graduate Institute (Karsgaard et al., 2024).

Participatory Research with Youth Analysis Process

I used the DEPICT model for the analysis stage of this project (Flicker & Nixon, 2015) to create a space for participants to reflect on their own and each other’s cellphilms. This brings a dimension of reflexivity and critical discussion to the research process and brought out a much richer conversation. The DEPICT method consists of six steps: Dynamic Reading, Engaged Codebook Development, Participatory Coding, Inclusive Reviewing and Summarizing of Categories, Collaborative Analyzing and Translating (Figure 2).

Table 1: DEPICT steps, roles and guiding questions

DEPICT step	Coordination functions	Team member roles	Questions to ask
Dynamic reading	Collate, assign and distribute a subset of transcripts to each team member.	Review a subset of assigned transcripts. Record notes on important concepts.	What ideas seem to be important in these texts? (inductive)
Engaged codebook development	Set deadlines and meeting times. Assemble supplies (e.g. post-it notes, pens) and arrange for team meetings. Ensure skilled meeting facilitation. Ensure that a preliminary codebook is developed. Coordinate pilot testing and refining of codebook.	List important ideas for categorizing data. As a group, organize categories into clusters. Come to consensus around a preliminary codebook. Participate in pilot testing.	What is our agreed upon list of categories and sub-categories that we will use for our codebook? Do we have the right categories? Do we all understand what they mean and how to apply them? Do any require further refinement?
Participatory coding	Assign and distribute a subset of transcripts for coding to each team member. Set deadlines and meeting times. Provide training and support for novices. Coordinate a strategy for managing the data.	Review and code each assigned transcript. Return coding work to coordinator (in paper or electronic form).	Which sections of the transcript fit into which categories of our codebook?
Inclusive reviewing and summarizing of categories	Generate a list of quotes associated with each category. Assign team members a sub-set of categories to summarize. Distribute guiding worksheets for summarizing categories.	Work alone or in pairs to develop category summaries. Return work to the coordinator.	What are the main ideas? Where is there disagreement? What are some key quotes? Are there silences worth noting? What else is important to note that might help in the analysis of the larger project?
Collaborative analyzing	Arrange for one or more team meetings. Ensure skilled meeting facilitation. Select a note-taker in advance. Prior to meeting disseminate summaries for review. Ensure that consensus is reached and recorded on new understandings of the data.	Review summaries prior to meeting. Participate in a collaborative meeting to make sense of data. Graphically depict or create a figure that illustrates findings. Come to consensus on new understandings emerging from the data and what needs to be shared.	What does it all mean? What were our most important findings? What do we need to share and with whom? What questions do we still have? For critical analyses, what structural factors may help us understand why people chose to tell us the stories they shared (e.g. homophobia, neoliberalism).
Translating	Arrange for team meeting(s). Ensure skilled meeting facilitation Circulate meeting report with clear action items.	Develop a knowledge translation and exchange plan for sharing research results to all relevant stakeholders. Create a plan for equitably distributing this work.	Who needs to know what? How do they need to hear it? Who are the best messengers? How do we get the word out? Who on our team will be responsible for what and by when?

(Figure 2: DEPICT steps, roles and guiding questions, Flicker & Nixon, 2015)

Participatory Analysis of Cellphilms

Transcripts of each cellphilms were provided to participants (using OtterAI), as well as the actual videos, for analysis by the group. Individually, participants read through the transcripts and recorded important ideas and brainstormed using virtual sticky-notes on Miro (a project management platform). As a whole group, participants ‘clustered’ their preliminary thematic categories using sticky-notes. Participants worked together to group these ideas by discussing what went where and how each point could be related to the other. Participants then named each cluster with a term that represented what was included in that code (for example ‘justice’ represented the cluster of ideas that related to issues of equity, distribution and uneven impacts of the climate crisis). Minimal prompting was needed by myself.

With this codebook, we went through each transcript as a group to discuss each code.

Participants explained why they chose a particular code and made their case for it when prompted by others. Some made arguments to include an additional code for a particular section

of a transcript. This coding discussion was exceptionally rich and enlightening for the participants and myself (the group actually requested a transcript of that conversation because they knew they had shared so many valuable thoughts that they wanted to be able to revisit). Participants then worked together to write summaries of each of the codes that they developed after they went through and applied the codes to their transcripts. This strengthened the understanding of the codes to ensure that everyone was on the same page. Participants discussed the coding together, which contextualized the themes from the cellphilms by demonstrating participants' reflexivity and further articulating points made in their cellphilms. I recorded, transcribed and analyzed these Participatory Coding conversations for a second layer of thematic analysis (Naeem et al., 2023).

Findings

Consumerism: "It's giving, like, competition"

In the cellphilms and discussions, material consumption based 'progress' both individually and societally was seen as incompatible with holistic wellbeing and a livable future. Consumerism was consistently seen as having negative impacts on the environment and on people's wellbeing:

"Currently, consumerism is one of the biggest issues society faces because of the large amount of things that we usually buy without needing. And a lot of people don't realize the impact that this has. So, if we start to think critically about what we buy and the prolonged effects of our lifestyle, we can strike a balance between doing things that fulfill us while also advocating for climate-just futures through our day-to-day actions"

– Sunny (cellphilm)

"I also feel like this is kind of giving, like, competition. ...The way I think about consumerism is kind of like, we're trying to compete with a past or previous version of ourselves that was kind of more connected to nature, because we were taught that that was wrong...but when I think about consumerism, and thinking about how we want to compete with ourselves, and who we're to become like, this version of ourselves"-

Rushelle (group discussion)

Here, one participant is reflecting on the competitive nature of consumerism and how it constantly feeds people new 'needs' to meet through the market. Speaking on social media's role in this, one participant said that:

"I think it can be both a source of good and bad in terms of climate justice because it helps, you know, raise awareness, maybe communicate about certain issues, but it also really feeds into consumerism, I find. You know, that's how everyone knows about the

latest trend and how so many things we compare ourselves to...materialism really comes to the forefront with social media” - Sunny (group discussion)

Participants spoke of “ethical consumption” or “conscious consumption” as a practice to lessen the impacts of consumerism. This competitiveness of the market was viewed as a counter to working towards genuine wellbeing.

Wellbeing is holistic

Participants quickly identified wellbeing in a holistic way, understanding that it spans physical, mental, social and emotional dimensions.

An idea emerged across cellphilm that one has to take care of, or ‘prioritize’ themselves to be able to care for others and for the planet. Participants identified many examples of the need to ‘balance’ wellbeing with climate activism, for example:

“And music and my cat are both things that make me really happy. And allow me to unwind so that I can be in the right space for advocacy when the time comes” – Sunny (cellphilm)

Justice

While recognizing that wellbeing is linked to capacity for activism, participants also recognized that access to wellbeing is uneven. Having basic needs or wellbeing met ‘allows’ you to be able to be politically engaged in activism.

“...Like, the oppressive group really has a monopoly over what success is...like how that impacts individual and community wellbeing and how, when we buy into that, like, fallacy, we’re really subjugating ourselves to a, like, reality where neither ourselves or communities are really happy”- Rushelle (group discussion)

“And so being able to fight for yourself is oftentimes about having the resources itself to really form that, like, opinion of yourself in the world, and be able to treat things like your mental health. That’s where justice is.” – Rushelle (group discussion)

There was an emphasis on the importance of intersectionality and intergenerational justice:

“When we invest in each other, we solve a lot of other problems, because everything is connected. So when we create solutions for our environment, we are solving so many other problems in our world” – Nova & Rushelle (cellphilm)

Agency and self-determination over what wellbeing means and how we respond to social and environmental problems also came up frequently. Participants had a nuanced understanding that

self-determination makes space for more possibilities to create wellbeing alongside environmental action:

“Well, it’s kind of, it’s not like the traditional justice that we see in, like, social media with the courtrooms and everything, but it’s more tailored towards self-betterment and being like ‘Hey, if we have self-government and autonomy and agency, and we’re able to do right by ourselves’, then that’s justice. And that justice is allowing us to do right by our environment” – Rushelle (group discussion)

Again, we see the idea that having wellbeing-related needs met creates capacity for political engagement and activism:

“For example, at school asking for extensions, when you know that you’ll need more time, and setting boundaries, those kinds of things. It’ll enable you to be able to care about the global issues that you do, or issues in your community and issues locally. Because to fight for a climate-just future, you have to be able to fight for yourself first” – Sunny (cellphilm)

Interconnectedness

Interconnectedness was the term participants chose to articulate the idea that what is good for ‘us’ is good for the planet and vice versa. Participants often talked about the Earth as holding personhood. They talked of “collaborating with the planet” and “mak[ing] the planet happy”, which shows a refusal of the human-nature dichotomy and the quality of life-climate action dichotomy in dominant environmental discourse. What is good for ‘us’ is good for the planet and vice versa, because we are all one in the same:

“I feel like we all really have a basis in our interconnectedness. Because the fact that we are so connected means that all of these other things are, like, subsequent, and they’re sort of based off that interconnectedness” – Rushelle (group discussion)

“When we invest in our environment, we’re investing in each other...it highlights the interconnectedness between our environment and our natural world and people and humanity. But at the same time, that interconnectedness, like, sort of segues into ‘hey, because we’re all connected, then our justice systems are connected’. And, like, the way we demand justice is also connected” – Rushelle (group discussion)

“People think of progress and development as external only, it’s like what you can show for it, basically your house, your car, the things you own. But it can also be internal, like your connection to nature” – Sunny (group discussion)

“I really believe that the things that really make us happy, they also make the planet happy” – Sunny (cellphilm)

Collaboration, cooperation and connection

Participants came up with the ‘Three Cs’ (collaboration, cooperation and connection) to refer to the forms of relationships and governance that are needed to create and live climate-just futures. This is summed up and said with a smile by Rushelle: A climate just future is “*cooperation over competition, every day of the week*”. There was an emphasis on working together and working with the Earth as part of creating wellbeing and a climate-just future:

“...The approach that should be taken to creating a climate-just future. And we have to prioritize working together; learning from each other; and thinking outside the box, rather than competition, profits and personal short-term fulfillment” – Sunny (cellphilm)

Reciprocity with each other and with the Earth emerged as an interpretation of this theme:

“A reciprocal relationship is basically when two parties are, like, giving and taking from each other in a way that’s, like, equal or at least equitable. They’re both supporting each other’s success”- Rushelle (group discussion)

“In a climate-just future, we’re not just taking and taking and taking. We’re giving back in both our personal relationships and our relationship with the environment” – Nova & Rushelle (cellphilm)

These quotes show an understanding of the dangers of individualism in a chaotic time and acknowledges that there cannot be place for this kind of transactional relationship in a climate-just future.

Longtermism

Longtermism emerged as a theme among participants to communicate the idea that long-term fulfillment over short-term gratification can lead to deeper wellbeing and to the ability to make long-term decisions that are needed to tackle climate and social issues.

“Longtermism...is the concept of thinking about how our actions effect the future, and both the future of people and the planet” – Sunny (cellphilm)

“We can only truly be happy as a result of long-term fulfillment over, like, short-term gratification” – Rushelle (group discussion)

One cellphilm illustrates this idea with the example of fast fashion:

“Instead of changing our fashion choices every time that a new trend or fad comes out, we can instead invest in our own style and find out what you really like. And through that, we’re feeling more fulfilled in ourselves, therefore taking care of our mental wellbeing, and be still able to kind of fit with those long-term goals of our climate” – Sunny (cellphilm)

In this example, the participants highlight how resisting the societal norm and economic structure of consumerism can have benefits beyond environmental impact. Stepping back from the constant need to consume, driven by the economic growth imperative, can give us the space to breath, get to know ourselves better and make more balanced and creative decisions for ourselves and our communities.

In this theme as well, we see the idea of needing to meet basic needs, or take care of our wellbeing, to have the ability to think and act for the long-term. Investing in ourselves is investing in the planet, and vice versa:

“When we take care of ourselves and prioritize our long-term fulfillment, instead of short-term gratification, we’re able to make choices that invest in ourselves and invest in our future” – Nova & Rushelle (cellphilm)

“Being in a climate-just future is knowing what our priorities are, it’s knowing what will benefit us in the long term and prioritizing these things over short-term fulfillment, or short-term gratification” – Sunny (cellphilm)

Through these themes, participants showed a nuanced negotiation of ‘balancing’ their wellbeing and their climate activism, while acknowledging in their discussions and cellphilms that these are very interconnected.

Discussion

The youth climate activists who took part in this research quickly identified that wellbeing is holistic, includes many dimensions, and can be hindered by consumerism in the long run. They understood justice as an integral part of wellbeing, both in terms of uneven access and that basic needs need to be met for people to have the capacity to participate in activism and creating a climate-just future. They believe that the wellbeing of people and wellbeing of the planet are deeply interconnected and that as a society, we need to practice more collaboration, cooperation and connected amongst each other and with our environments. Lastly, participants understood that long-term wellbeing and investing in oneself and one’s community and environment is more important than the short-term gratification of consumerism, exemplified in fast fashion or social

media. Participants shared how they negotiate a balance between their own wellbeing and their climate activism, understanding that they need to take care of themselves to be able to have the capacity to advocate for others and fight for a climate-just future. Altogether, the findings illustrate a nuanced understanding of what wellbeing means as climate activists, and the importance of centering wellbeing in the fight for and creation of climate-just futures that are intersectional, capable of long-term decision-making, and practice cooperation between people and planet.

My research question asked if youth climate activists' perceptions of wellbeing align with degrowth's ideas of wellbeing to identify potential points of intervention for climate change education. Importantly, the workshops in this research framed the cellfilms and discussions around 'wellbeing' as interpreted by participants; they were not exposed to degrowth terminology during these workshops. Nevertheless, many of the ideas and themes that participants brought up indeed align with degrowth ideas.

Wellbeing over accumulation

Participants emphasized that holistic ideas of wellbeing that encompass physical, mental, emotional and social wellbeing are more important than the accumulation of material 'stuff', like cars, property and excess clothing. They considered relational goods, such as time with friends (and pets!) and nature, creative endeavors and care for oneself and others, to be truer indicators of what wellbeing should be. These are very similar to degrowth's focus on relational goods in place of overconsumption, centering care work, preventative healthcare, Universal Basic Income/Services, solidarity and sharing economies, participation in community life, time in nature and anti-consumer indicators of 'progress' and 'development' replacing GDP and monetary measures in favour of wellbeing indicators, such as happiness and life satisfaction.

The concept of 'the imperial mode of living' (Brand & Wissen, 2021; Kruger, 2020) is often used in degrowth scholarship to express how the organization of lifestyles and ideas of success in Western culture is predicated on the intensive exploitation, ongoing colonization and externalization of peoples and Lands. This concept is useful to describe the (uneven) connection between the ills of overconsumption for both the consuming (those of us living in Global North countries buying and consuming despite this harming us) and the consumed (those living in the Global South who are being exploited, dispossessed and killed to feed our need for more 'stuff').

In other words, ‘living simply so that others can simply live’. While the concept of the imperial mode of living did not come up in the workshops, the attitudes around consumption line up with it.

Cooperation over competition

Consistent with existing literature (Karsgaard & Davidson, 2023; Trott, 2024), participants in this study emphasized climate justice and demonstrated a strong understanding of intersectionality. Climate justice as a discourse wielded by youth climate movements argues for climate adaptation and mitigation that addresses the uneven impacts of climate change and the disproportionate responsibility, and therefore need for accountability, for its causes and acceleration. Climate justice dissolves the false dichotomy between advocating for social justice issues and advocating for the environment, as these are deeply intertwined. Degrowth revolves around principles of climate justice, within and between communities and nation-states globally. It emphasizes international solidarity and reparations, eliminating poverty, restoring autonomy to marginalized communities, creating participatory and democratic economies and abolishing harmful industries that are most responsible for environmental racism, extraction and exploitation (Schmelzer et al., 2022). Karsgaard & Davidson (2023) posed a similar question to their youth participants, asking about (re)considering our expectations of ‘the good life’ in the context of climate change impacts and its root causes. Like in Karsgaard & Davidson (2023), the uneven impacts and the issue of justice in climate discourse including “accountability to animals and more-than-human beings” (2023, p. 82), were already familiar to and quickly identified by the participants of the present study.

Degrowth outlines various democratic governance traditions (D’Alisa & Kallis, 2020), ranging from state socialism to anarchism and confederated municipalism (Bookchin, 2021). Economic growth drives competition between individuals, groups, companies, non-profits and states – move to co-ops, deliberation and participation for economic democracy. Participants’ comments made it clear that they understood that consumption of goods here in so-called Canada harms people elsewhere as well as the environment. They also recognized that overconsumption of goods or of social media are deleterious to our wellbeing. This understanding of consumerism is consistent with degrowth’s critique. By acknowledging the competitive nature of consumerism, participants also came close to *why* consumerism makes people competitive – a capitalist

economy must grow or it will collapse. While a cultural critique of the shallowness and alienation of consumerism has been around in the public zeitgeist for decades now, linking this cultural critique to a critique of economic growth as the organizing principle for our economies and economic policy has yet to be made ‘common sense’ (D’Alisa & Kallis, 2020).

Participants also identified and practiced an ethic of care during this workshop series. This is exactly what is called for in the literature on climate change education (Karsgaard & Davidson, 2023; Trott, 2020; Vamvalis, 2023), as well as Jones’ (2021) ‘pedagogy of limitations’. The themes of holistic wellbeing, interconnectedness and the 3 C’s (collaboration, cooperation and connection) all include comments about the importance of taking care of oneself, each other and the environment. While understanding climate change as a structural crisis, participants in Karsgaard & Davidson (2023) often still came up with individualist solutions as well as guilt around consumption. However, collectivity and relationality came out when discussing the friendships made during their project. This underscores just how crucial it is to create spaces of belonging, presence and connection in climate education and activism. I believe these cellfilm workshops achieved this because the coding conversation prompted deeper thinking and more brainstorming than the initial round of cellfilms did. This indicates that this was a space that allowed participants to think together and think critically to build on each other’s comments.

Long-term over short-term

The theme of longtermism co-developed by participants is similar to Jones’ (2021) pedagogy of limits. The ethic of care emphasized in Jones’ (2021) work certainly resonates with a more long-term orientation towards decision making, lifestyle choice and how we interact with others. There is also potential here to, in deeper work, dig into the connection between ‘longtermism’ as a perspective on wellbeing for all and the ‘anti-accumulative’ practices argued for in Jones’ (2021) pedagogy of limits. While cultivating an environmental ethic or consciousness is a goal in much of environmental and climate education, taking it one step further into actively avoiding excessive material accumulation – again, for those currently *overconsuming* – is what makes this degrowth. Because embracing long-term fulfillment over short term gratification for the sake of one’s own wellbeing and the wellbeing of the planet emerged from the participants’ cellfilms and discussions, bringing anti-accumulative practices might be a viable inclusion into climate change education. Importantly, this is not the same as sacrificing or ‘giving up’ material

pleasures for the sake of the environment (even if this notion does garner some action by those particularly committed to environmental causes). Narratives of ‘sacrifice’ do not appear to be the most effective in motivating behaviour change in the context of pro-environmental action in most people. Degrowth, with its centering of wellbeing, social justice and non-material sources of meaning and fulfillment, counters the sacrifice-focused climate action narratives. This is important because it provides an alternative to doom-and-gloom and sacrifice oriented narratives that directly address the needs of people whose immediate needs sometimes supersede long-term priorities that have significant ecological and social consequences. But by focusing on wellbeing of all, ‘longtermism’ is a pathway to resolving this tension.

Conclusions

I have explicitly brought together degrowth and climate change education through this project. The findings begin addressing this gaps of potential in these areas, as I outlined in the above literature review. This research, because of the youth participation, contributes to the increasingly urgent area of climate justice education, bridging climate activism and popular climate change education. Secondly, to my knowledge, the cellphilm methodology has not yet been applied to the area of environmental education or degrowth; this project is unique in this respect. Educator-scholars call for more participatory and arts-based pedagogies to counter the overemphasis on science and STEM in climate change education. This project is a contribution to exploring more creative and participatory climate pedagogies and research methodologies. Weaving degrowth and climate change education theory and practice together can create spaces of prefigurative politics for degrowth transitions towards climate-just futures.

As seen from the above findings and discussion, participants in this study arrived at many of the same conclusions that degrowth scholars have around prioritizing wellbeing over economic growth and accumulation, with different terminology. However, while participants identified ‘profits’, ‘consumerism’ and dominant ideas of ‘progress’ as problematic, they did not actually identify ‘economic growth’ explicitly. The multidimensional concept of wellbeing conveyed by these youth climate activists is, overall aligned with ideas of degrowth. The emphasis on prioritizing meeting basic needs for everyone over capitalist goals, democratic self-determination that respects the Earth, and the focus on non-material and long-term sources of wellbeing instead of consumerism all fit into degrowth discourse. Despite not explicitly exploring the question of

economic growth (which high school students cannot necessarily be expected to be aware of, given degrowth's still somewhat marginality even in academia), these participants were able to point to many ideas that are part of the cultural politics of degrowth (Meissner, 2021).

Participants did not extend their critique of consumerism towards an analysis of economic structure (but they also were not prompted to do so). Given more scope and time, it would have been interesting to see if participants made these connections and how much prompting they would have needed to get there.

This leads me to conclude that with a longer time horizon and broader scope, climate change education research and pedagogy could indeed introduce degrowth to youth and others in the climate movement (perhaps social movements broadly). Certainly, this would still be a challenge in formal education settings. Degrowth-oriented climate change education, particularly in community-based or popular climate education projects that have more autonomy, could become prefigurative if pedagogies and practices were consistent with the curricular content. Wellbeing appears to be a useful entry point to introduce degrowth in climate justice education. By introducing degrowth ideas, climate change education can become potentially prefigurative, emergent and interstitial strategies towards degrowth transitions.

This study is limited by its small sample size and scope. A longer-term project that creates space for youth to engage with these ideas over time would be even more generative regarding wellbeing as an entry-point for degrowth in climate spaces. The research was also limited to youth already involved in climate activism. While this was intentional, it does leave out the views of the 'average' youth in Ontario, which could also be explored in a project with larger scope. Having only three participants actually attend all three Workshops out of 9 who showed interest is a clear limitation (though climate education research with a group of three youth climate activists is not unprecedented either, see Vamvalis, 2023). Although small groups were intentional and provided for a tighter knit group, it of course also limits the applicability of the findings to the perspectives of three youth climate activists. I did know that recruitment was going to face challenges from the start on this project, because of my intention to recruit youth climate activists in my community of Barrie, which does not have an active climate action-oriented community and no physical places to meet these youth where they are. SCEYA, the one youth climate group in the area that I worked with to design the study and recruit participants,

itself is facing capacity issues due to members graduating high school and leaving to other cities to attend post-secondary education (Barrie is one of the largest cities in so-called Canada that does not have its own university). This points to a lack of climate spaces in Barrie specifically (which I was already *well* aware of), which is hindered by a City Council markedly unresponsive to advocacy on a variety of progressive policies and limited number and reach of adult-led environmental organizations to provide support and mentorship for these youth. Even before this project, I had identified the need to create spaces and social networks for climate justice work in the area – and specifically spaces for youth. This is a gap in the community that I want to address in the coming years. This was an exploratory project that is only a starting point for more in-depth research. I am continuing onto my PhD for exactly this reason – there IS more I want to do with this work to expand popular climate education and activist spaces that challenge the doctrine of growth-capitalism. I view the workshops additionally as gathering youth climate activists' preliminary input into how to approach wellbeing as it might be conceptualized to lead into the larger project of theorizing an education for degrowth. This study is not only about the findings themselves but is a component of the research alongside sustained literature review in reaching for this education for/of degrowth in climate education.

Community organizing for various issues align with many degrowth ideas (for example, housing as a human right, Universal Basic Income, Indigenous-led blockades of megaprojects, food sovereignty, advocating for public transit and walkable cities and right to repair). This alignment is an opportunity for popular education for degrowth and joy in movement spaces to add to existing analyses and theories of change. There is potential for degrowth to help build coalitions and alliances across movements. Therefore, education for degrowth must include many analyses and practices that are needed in times of collapse. By bringing the fields of climate change education and degrowth together, gaps in both can be addressed. I understand degrowth, climate change education and participatory research methods as heavily overlapping in praxis because of their shared emphasis on participation, knowledge co-creation, emancipatory potential and the centering of futures. Given the prefigurative emphasis of degrowth, study of prefigurative politics in the youth climate movement (and other youth-led movements, such as the student encampments for Palestine that emerged throughout 2024) would further the potential alignments and alliances between the two.

This research shows that there is potential for spaces of CCE, climate movements and research to introduce degrowth through critical and collaboration reflection and arts-based methodologies and pedagogies around wellbeing. The present research and literature reviewed here prompts further climate change education research that proceeds from wellbeing towards exploring the various facets of degrowth. More scholarship on education in degrowth is needed to sketch out, theoretically, what this might look like and practically, reflecting on actual projects, activations and learning spaces. To this end, I also recommend a more comprehensive tracking of the narrative of economic growth in climate change education specifically and environmental education more broadly. This will help education and degrowth scholars and practitioners to identify points of intervention and emergence for action projects, research and community organizing. I intend to take up these recommendations myself in my doctoral studies. This research has served as a solid foundation for my future work theorizing an education for degrowth and developing popular climate education rooted in degrowth.

We need to see more educational spaces of consciousness raising around the individual and collective benefits of reducing overproduction and overconsumption in Global North countries and transitioning to autonomous, slow, local and caring communities – and *realizing* these communities. There are potentialities for degrowth in many pedagogical traditions, such as critical perspectives on climate change education (Karsgaard & Davidson, 2023; Trott, 2016; Vamvalis, 2023), place-based education (Greenwood, 2012; Seawright, 2014), and ecopedagogy (Misiaszek, 2020). We also see similar prefigurative themes in the emphasis on care in climate change education (O’Brien, 2016; Vamvalis, 2022) and movement spaces (brown, 2017; Ritchie, 2023), as well as work on active hope (Kelsey, 2016; Lawrence et al., 2022; Ojala, 2012; Orr, 2011; Wray, 2022). All of these areas of scholarship and practice – and more not included in this paper – all align in their diversity around the same socio-ecological transformation.

Given the acknowledged necessity of CCE and multiplying spaces in the climate movement, there is potential for these to merge and adopt or align with degrowth and its ideas to prefigure degrowth transitions towards climate-just futures. We can no longer pretend that climate justice and environmental ethics are not necessary and central parts of education. We, as a society, are not preparing children and youth to live in this disrupted world. The ubiquity of green growth narratives when climate change education *is* present is part of this inadequate preparation and

action. We need to, borrowing from David Orr, reconsider what education is for during this climate emergency. I would also extend this phrase to reconsidering what *economics* is for. If education can move beyond teaching about climate justice to practicing it to prefiguring it - that might just be an adequate response.

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