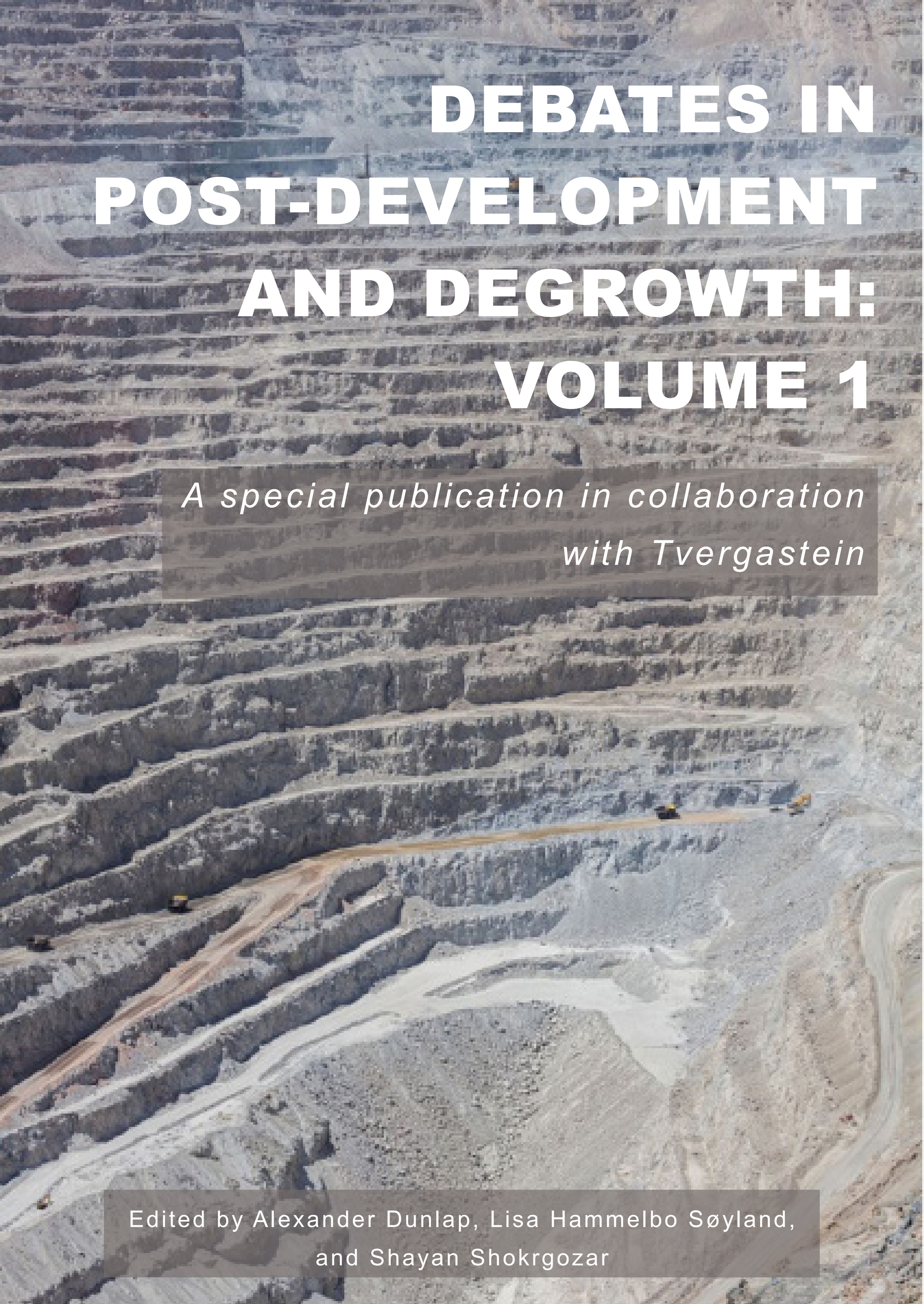

DEBATES IN POST-DEVELOPMENT AND DEGROWTH: VOLUME 1

A special publication in collaboration with Tvergastein

Edited by Alexander Dunlap, Lisa Hammelbo Søyland,
and Shayan Shokrgozar

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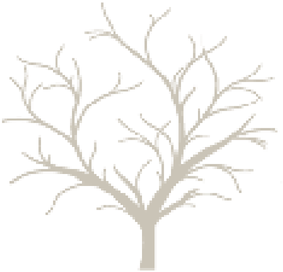

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EDITORIAL INTRODUCTION: SITUATING DEBATES IN POST-DEVELOPMENT & DEGROWTH

ALEXANDER DUNLAP, LISA HAMMELBO SØYLAND,
AND SHAYAN SHOKRGOZAR

This journal, *Debates in Post-Development & Degrowth: Volume 1*, published in collaboration with Tvergastein, emerges from the conversations, thinking, and course papers of the Spring 2021 course Debates in Post-Development & Degrowth at the Centre for Development and the Environment (SUM), University of Oslo, Norway. The University of Oslo (UiO) and, particularly, SUM – as we will discuss below – continues to sit at an important juncture between rejecting and embracing the ideology of "sustainable development" and "green growth." This journal seeks to discuss this history, struggle, and (lack of) debate. The enthusiasm of students, eager participation, and their critical engagement with the course material inspired the making of this journal, which provided students with a publication outlet to air their thoughts, concerns, provocations – and, overall, join this rapidly evolving conversation. Here, we offer exciting new papers and engagements that have undergone editorial and literal peer review by staff and students. The journal's intention is to not only widen engagements in the post-development conversation, but also expand the political thought and practice at SUM, which includes academic debates concerning the problems of development, resistance, so-called "energy transition" and, most of all, the propagation of the green growth myth.

Why Post-Development and Degrowth?

Unfamiliar readers might wonder: Why post-development and degrowth? The answer is simple. They are two interdisciplinary and mutually reinforcing academic schools of thought critically assessing, and even refusing, the stubborn narratives and practices of development and economic growth: the existential motivation and propulsive force of capitalist accumulation. This has resulted in welcoming the "Necrocene" – as opposed to the narcissism of the

Anthropocene (Bonneuil & Fressoz 2016) – that recognizes the "age of die-off, of mass extinction of life on earth" that future fossil records will reveal (Clark 2020, 10). Currently, 40% of the planet's soils are severely degraded; earthworm biomass has dropped 83%; 85% of global fish stocks are depleted; "marine animals are disappearing at twice the rate of land animals"; 1 million species are at risk of extinction within decades; extreme storms have doubled since the 1980s; there have been multiple pollinator and insect die-offs; there has been an increase in forest fires, and the list goes on (see Hickel 2020b, 6-16; Wallace-Wells 2019). There is no shortage of new and even more alarming statistics, as increasing heatwaves break records, forests burn, and "more than 1 billion marine animals" die off in western Canada and United States (Bekiempis 2021). Meanwhile, Germany, Belgium, and the Netherlands experience extreme flooding with "at least 58 dead" (Oltermann 2021). The socio-ecological disasters are no longer restricted to Island States and the Global South: Earth has already entered the era of the Necrocene. This state of the world stresses the importance of expanding not only the conversation around post-development and degrowth but taking actions from these conversations to create concrete institutional transformations (away from "green growth") and to spread a diversity of direct action everywhere against this death-driven political trajectory.

While mutually reinforcing in attempts to stop the spread of capitalist relationships, accumulation patterns, and socio-ecologically destructive development projects, post-development and degrowth have different origins and emphasis. The school of post-development emerged from the early observations of the deleterious – and geopolitically motivated – effects of imposing capitalist development in Latin America. The original contention, as Ivan Illich (1970) expressed it, was that the model of development spread across the world by the US and Europe was intensifying pre-existing material inequalities, ecological damage, and psychosocial poverty, thereby continuing the process of European colonial conquest and destruction. In short, development as planned poverty, continuing existing colonial forms of organization and development. The new international development standards reinforced and spread new standards – similar to imposed colonial standards – mandating capitalist markets, labor regimes, resource extraction, Western schooling (Berman 1983; Daggett 2019) and national planning. The "benevolent production of underdevelopment," explained Illich (1970, 162), "allows 'rich nations' to 'impose a strait jacket of traffic jams, hospital confinements, and classrooms on the poor nations, and by international agreement call this 'development.'" The post-development school was inspired by Illich – but more so the collective efforts of people at the Intercultural Documentation Center in Cuernavaca, Mexico, notably Paulo Freire, André Gorz, Susan Sontag, Erich Fromm, among others (Hartch 2015). Post-development challenges the colonial pattern of facilitating and imposing development predicated on hierarchical forms of organization (e.g. bureaucracy, administrative decentralization), which take place through the imposition of particular Western-centric knowledge regimes (e.g. the engineer, see Daggett 2019; Davies 2021), regulated sexualities, and racialized and gendered divisions of labor that enforce ecologically destructive relationships and high-energy consumption patterns (see Kothari et al. 2019). Guided by political and Insurgent Indigenous movements in South and Central America, post-development questions the dominant technological, capitalist, and consumerist form of development, and corresponding methods of subjugation and authoritarian politics. Post-development, moreover, contends that there are ecologically, socially, and culturally appropriate alternatives to development that work with and strengthen ecosystems and peoples – and that do not require political subjugation and ecological destruction.

More recently – taking hold in the early 2000s – and with similar intellectual roots to post-development, is degrowth. Inspired by Ivan Illich, Jaque Ellul, Nicholas Georgescu-Roege, and André Gorz (Demaria et al. 2019), degrowth contends that in order to avert socio-ecological catastrophe, a planned reduction of energy and resource throughput must be organized until the economy is back in "balance with the living world in a way that reduces inequality and improves human well-being" (Hickel 2020a, 2). The expansive tendencies of capitalism – to take more than it gives – that consume labor, hydrocarbon, mineral, timber, and kinetic energy resources is placed front and center in their analysis. A key strength of degrowth is that its focus on material throughput entails a critical stance to extractivisms, industrialisms and productivisms of different kinds – whether capitalist or not. Unlike others operating under the umbrella of post-development, degrowth is highly influenced by ecological economics and has a “stronger tie to the project of rethinking the economy” and “can be said to remain more anthropocentric” than post-development, explains Arturo Escobar (2015, 6). While these gaps are in process of being filled (Hickel 2020b), degrowth is revealing the flaws of “sustainable development,” ecological modernism, and “green growth.” This includes empirically demonstrating that technological and efficiency improvements will not allow capitalist economics to “decouple” Gross National Product (GDP) from ecological impacts so the global economy can grow forever. “[T]here [is] no empirical evidence supporting the existence of a decoupling of economic growth from environmental pressures on anywhere near the scale needed to deal with environmental breakdown,” concludes The European Environmental Bureau (Parrique et al. 2019, 3). The summary findings also maintain, “perhaps more importantly, such decoupling appears unlikely to happen in the future” (Parrique et al. 2019, 3). Degrowth scholars have been at the forefront of debunking the myths of “green growth,” (Hickel 2020b; Kallis et al. 2020) but also offering viable policy solutions to avoid ecological and climate catastrophe. This editorial introduction proceeds by locating SUM in post-development and degrowth struggles. This entails briefly examining the struggle between sustainable development – later to morph into “green growth” – and deep ecology, as this struggle underlined the formation of SUM. Thereafter, the introduction argues that the post-development school, of which degrowth is a part, both share commonalities and offer corrections to the deep ecology movement prevalent in Norway in the 1970s-1990s. Arne Næss, a prominent philosopher and a key figure at SUM, first articulated the ideals/principles and platform of deep ecology, which would inspire Norwegian and other Western environmental movements across the world. We demonstrate the great similarities between post-development, degrowth, and (some strains of) deep ecology, but also the shortcomings of the latter. Interestingly, similar shortcomings persist with degrowth, though this is changing as we write. Finally, we introduce the contributors to this volume before returning to SUM and ponder the role of insights from post-development and degrowth in further discussions.

SITUATING SUM: DEEP ECOLOGY, SUSTAINABLE DEVELOPMENT, AND POST-DEVELOPMENT CRITICS

How did state-inflected market-based mechanism become the dominant approach to mitigating biodiversity loss and climate change? The quick answer points towards University of Oslo economists, and Norwegian politicians and diplomats. After the 1992 Rio Earth Summit, Peder Anker (2018, 38) explains, "Norwegian diplomats spent a large amount of time trying to convince the leaders of the world's poorest nations of the virtues of carbon emissions trading." Through abstracting how and where the emission "cuts" are made, carbon markets tend to disproportionately effect disadvantaged communities (Lohmann 2008) and generate dangerous equivalences through devising "metrics" that make environmental health and harm the same regardless of location. Sullivan (2013, 86), for example, argues, "no offset can fully replace the specific spatial and temporal ecological qualities of that which is harmed through development, making offsets a technology that creates biodiversity casualties even as it proposes biodiversity conservation." Carbon capture and storage (CCS) technologies, Anker (2018, 38) contends, was "Norway's equivalent" to the United States "moon-landing," propagating an idea which would give way to payments for ecosystem services, REDD+, and other green capitalist schemes (Cavanagh & Benjaminsen 2017; Dunlap & Sullivan 2020). The struggle to prevent the rise and globalizing of green capitalism and sustainable development, however, goes back to the 1970s when deep ecology was born and spread like wildfire into the minds of the ecologically concerned.

Deep ecology, a movement and a philosophical platform originally formulated by Arne Næss, became a noticeable player in Norway in the late 70s. "[A]t its peak in the late 1970s," explains Anker (2018, 31), deep ecology "was one of the largest (and certainly the most vocal) environmental organization in Norway, attacking industrialization and economic growth, particularly hydro-power developments." Deep ecologists, though concerned about climate change, primarily challenged the present trends of ecological degradation and destruction. Through direct action, Norwegian deep ecologists resisted the technocratic approach and policies of Gro Harlem Brundtland, who served as the Environmental Minister and later as the Norwegian Prime Minister. After Norway's discovery of large oil reserves and Brundtland Labor party's approach, deep ecologists began witnessing Norway's progressive abandonment of strong environmental policies in favor of capitalism, industrialization, and ecological extraction. One of their first civil disobedience actions was the opposition to the Mardøla waterfall hydro-power project in the summer of 1970. A few years later in 1977, the Ekofisk oilfield Bravo pipeline exploded, causing a week-long and 20,000-ton oil spill (ITOPF 2018). This led to repeated waves of new protests organized by deep ecologists. The height of their civil disobedience was the Alta case in 1979,[1] another hydro-power project. Saami, environmentalists (among them deep ecologists), and locals organized protests and blocked the access to the road (Andersen & Midttun 1985). Later, in 1980, Saami protesters camped in front of the parliament and went on hunger strikes. In 1981, for the first time in Norwegian history, the Prime Minister's office was occupied when Saami women refused to leave a meeting with Gro Harlem Brundtland that was cut short due to her dismissal of their concerns. In Alta, the civil disobedience continued with protesters chaining themselves to the construction site that same year. While more actions were taking place in the 1970s and 1980s across Norway, deep ecology – alongside Saami resistance – was igniting environmental political concerns and action amongst the Norwegian public.

In the 1990s, Brundtland established SUM and the Center for International Climate Environmental Research (CICERO) to provide science for the politicians to realize the goals of Our Common Future, also known as the Brundtland Commission report (UN 1987). This globally influential report popularized the term "sustainable development," and was (like Brundtland's other policies) quite technocratic and oriented toward "green growth." It also relied on the explanatory model of "unsustainable population pressures," and instrumentalized women's health and education as a means to reduce population growth (Wilson 2017). SUM was born out of this report and the absorption of the existing Council for Nature and Environmental Studies at the University of Oslo, which since its inception in

[1] The Alta dam was met with harsh criticism from the inception of its plan in 1968 and the resistance continued until 1982 when the Supreme Court ruled the development was legal, which led to the dissolution of the actions.

1972 had opposed Brundtland. As pointed out by Anker (2018), its members were marginalized throughout the 90s, as the center was unable to decide whether it should question the foundations of society or produce facts for politicians. Arne Næss, then an aging scholar, was the only one from the council to remain in their office by the late 90s (Anker 2018). Sustainable development, with the organized backing of the UN, corralled and defanged the critiques of deep ecology. This struggle, however, between "dark" and "light" green continues to persist, at not only SUM, but across the world. While deep ecology challenged anthropocentrism, economic growth, and industrial society, advocating various forms of contextually specific non-violent direct action (Næss 1999a/1988), post-development and degrowth – albeit from different geographies and perspectives – continue these fights against the myths of sustainable development and green growth.

DEEP ECOLOGY, POST-DEVELOPMENT, AND DEGROWTH: LINKS AND SIMILARITIES

There are numerous commonalities and lines of affinity between post-development, degrowth, and deep ecology, which we will sketch out below. However, it is important to note from the outset that there are equally important differences between, as well as within, these schools. In the US, parts of the deep ecology movement have been deeply troubling in its engagement with racist anti-immigration sentiments, nationalism, population discourse, and colonial mindsets regarding the "protection" of wilderness in national parks (Guha 1999; Watson 1989). With this in mind, we focus on Arne Næss' writings about deep ecology as they are more aligned with post-development and degrowth, for reasons that will become clear in the next section about differences and critiques.

A foundational, even indispensable, root between deep ecology, post-development and, more recently, degrowth (Escobar 2015; Hickel 2020b), is challenging anthropocentrism and speciesism. The first point of the deep ecology platform states: "The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: inherent worth, intrinsic value, inherent value). These values are independent of the usefulness of the nonhuman world for human purposes” (Næss & Sessions 1984).

Deep ecology recognizes and challenges human supremacy, which development and the ideology of progress – along with racism and patriarchy – has long subsisted. If the “rights” framework was to exist at all, Arne Næss (2005a/1993, 214) stressed to include “ecosystemic rights” in order to, as the Alta conflict anti-dam slogan proclaimed, “Let the river live!” This supports, albeit from the context of the “Global North,” respecting different ontologies, ecological relationships, and “the rights of nature,” (Ulloa 2020) which is foundational to post-development.

Contrary to other deep ecological writers, Næss’ deep ecology emphasized solidarity, relationality, and interdependence, and as well as philosophical/ecosophical pluralism, rather than sameness or oneness with the natural world (Warren 1999), which is far more aligned with the post-development pluriverse (as opposed to a one-world world) (Kothari et al. 2019). Further, the importance of protecting the diversity of cultures, peoples, religions, and spiritualities are recurring topics in Arne Næss’ writings (2005b). The deep ecological principle of biocentrism entails breaking down the hierarchical status of humans above nonhumans and ecosystems, as well as understanding humans as a part of nature. Næss, however, importantly pointed out the pitfalls of embracing this uncritically because of the way animality has been weaponized throughout history. In the anthropocentric hierarchy of beings, those who are degraded to animality are also subject to violence and brutality (Næss 2005b).

In line with both degrowth and post-development, he understood the dismantling of hierarchical structures as a necessary step toward a “greener society,” (Næss 2005a, 206) and lamented the fact that “among deep ecology theorists there are so few who are able to write extensively from within the areas of social and political theory” (Næss 1999b, 271). Related to this, Næss’ articulations of deep ecology were aligned with, and informed by, ecofeminism. This entails cooperation in dismantling patriarchy, an emphasis on care, and a critique of masculinism within deep ecology (Næss 1999b).

These themes, as many are aware, are also central to post-development and degrowth. Næss' critical stance against hierarchies also includes the centralized nature of large-scale industry, as well as national and international structures, all of which he suggested be toned down in favor of local and peripheral populations (Næss 2005a, 210). Further, he maintained that "green politics become shallow when lacking a class perspective or wider political perspective, when focused on spectacular animals or when taking advantage of the rigorous standards for scientific evidence that leave room for cautious or contradicting conclusions and cherry-picking of arguments" (Næss 2005a, 211). It is not surprising then that Næss (2005a, 216) understood the deep ecology movement as moving "more in the direction of nonviolent anarchism than toward communism."

In deep ecology's sixth principle, the affinities with post-development and degrowth are clear: "The changes in policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present" (Næss & Sessions, 1984). Contrary to much of "green economics," which he argued often disregards contextual, social, and societal influences on consumption and production patterns (Næss 2005a, 206), he supported the idea that there is enough – only if industrial societal lifestyles are not the global goal (Næss 2005, 202). Like degrowth, Næss (2005a, 217) advocated living simply and "to limit the use of energy to vital needs" in industrial states. Though Næss "suppose[d] every, or nearly every kind of green society will have some industrial production," his deep ecological idea of a future green society was decidedly not industrial (Næss 1999b). In line with refusals of techno-fixes in post-development and degrowth literature, Næss' deep ecology rejected "the superstition that a few years of research and technical development can solve any major ecological problem of any kind" (Næss 2005, 210). Green growth, closely related to such ignorant faith in technological progress, was already a problem in the 1980s: "Green politics cannot have as a part of its program the increase of GNP, which perhaps should be read as 'gross national pollution'" (Næss 2005a, 208). Næss was correct in this assertion, highlighting a problem still with us today and that is taken up by degrowth.

Another commonality between post-development and deep ecology is found in that Næss' deep ecology recognized the absurdity of development. "It is a good sign that the term development now is more of a dyslogism [pejorative] than a eulogism," asserts Næss (2005b/1988, 266), continuing: "threatened cultures are small and so-called underdeveloped – i.e., not on the (wrong) way to becoming like us." What is "wrong," in fact, is the very consumption patterns and lifestyles of the rich industrialized countries and the power elites of poor countries which are not "ecologically universalizable," as he puts it (Næss 2005b, 269). Næss emphasized the dominating role of economic development, writing, "the ideology of 'progress,' Western style, is still used when cultures are invaded" (Næss 2005b, 270). Akin to the skepticism towards technology in post-development and degrowth, Næss connected "violent extinction of cultures" to the "mindless introduction of Western technology" (Næss 2005b, 270). Moreover, Næss (2005b, 266) recognized how development aid causes conflicts "between those who will profit form 'helping' them on the way to being like us, and those who try – mostly with little effect – to help the minorities who are critical of this help." Criticizing utilitarianism and echoing critical agrarian studies (White et al. 2012; Fairhead et al. 2012), Næss (2005b, 266) saw how Indigenous territories, and nature in general, are wrongly perceived as "underutilized." Moreover, Næss' deep ecology made the connection between resisting neocolonialism and protecting nonhuman life (Næss 2005b, 269-271), and explicitly problematized the lack of links between the "movement to protect nonindustrial cultures" and the ecology movement.

Sharing similar political commitments as Ivan Illich (1978) over the importance of civil liberties more than rights, Næss himself supported direct action (Andersen & Midttun 1985). The relationship to action was important for Næss. A proponent of Ghanaian nonviolence, he could still empathize with different contexts requiring expanded forms of nonviolence that include "sabotage" and "vandalism" (Næss 1999a, 227). While, in his mind, militant actions were not appropriate for the Norwegian context because "the establishment is of an orderly, approachable, moderate kind and not of vast dimension" (Ibid.). Interestingly, in matters of self-defense he had greater tolerance for “violent” actions.[2] Speaking to the Sami context, Næss (2005a, 228) explained:

> “When a Sami [Lapp, sic!] in Arctic Norway, a member of a very different culture from the Norwegian, tried to blow up a bridge made by “invading” Norwegians, he defended a place where he belonged. He said it was part of himself. A defense of “where one belongs” is mostly made in great distress and anger. Non-violent means of defense is obviously ethically justifiable. If violence is used I would in many cases refrain from any negative judgments.”

As such, Næss was – in clear affinity with anti-colonial sentiments and post-development – empathetic towards both “violent” and non-violent Sami direct action against mega-project incursions (Næss 2005b, 1999a) from what he called the “powerful invaders” or “powerful industrial neighbors” of the Norwegian state and corporations (Næss 2005b, 268). Through his own involvement in ecological direct action and solidarity, he was among those arrested in the Alta hydroelectric dam conflict (Andersen & Midttun 1985). Speaking to the issue more generally, he wrote: “the rich nations with great coercive power have no right to reduce the diversity of cultures with less power, less ability to survive invasion – whether territorial, technical, economic, or cultural” (Næss 2005b, 270). Deep ecology demonstrates clear concerns with Indigenous solidarity and anti-colonial ecological struggle, demonstrating a strong affinity with post-development.

Deep ecology created an important platform for rejecting anthropocentrism. This also affirms the interconnection of “the web of life;” rejecting the present industrial and economic growth models; embracing solidarity and cooperation with social justice movements; creating lines of solidarity with Indigenous cultures; and supporting wide readings of non-violence direct action, which even extends to accepting violence in matters of self-defense, specifically by those self-identifying with their lands. Thereby, post-development and degrowth continue and expand deep ecological sentiments, making important additions and corrections, to which we now turn.

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[2] For an extended discussion on the violence vs. nonviolence debate, see Peter Gelderloos (2013).

DIFFERENCES, CRITIQUES, AND WAYS FORWARD

Deep ecology has faded from the academic foreground, though it remains embedded in environmental thought. Degrowth and post-development's convergence has since then filled important theoretical and practical spaces left abandoned, incomplete, and unrealized by deep ecology. This includes reconciling numerous shortcomings in deep ecology worth recognizing, which we highlight to avoid repeating in theory and practice, but we also acknowledge how post-development and degrowth (at least authors within) have mostly recognized these issues. To reiterate the first shortcoming: Saami and Indigenous issues, while mentioned positively by Næss, were largely underwritten in deep ecology. Also, by promoting biocentrism, deep ecology tended towards a broad brush of reaction against all humans, or Humanity as a totality (Bookchin 1999).[3] The consequence was needlessly reinforcing human versus nature dichotomies, which resulted in largely "strawman" debates between Bookchin and Foreman (1991) – yet the two found more in common than realized. Post-development, rooted in Indigenous struggles (e.g. Buen Vivir, Zapatistas, and countless movements), has certainly remedied this tension. Meanwhile, post-developmental influence pollinates degrowth (Nirmal & Rocheleau 2019), which has only been reinforced by anti-colonial politics (Hickel 2020b; Hickel 2021). In this sense, post-development and degrowth are antidotes and extensions of the shortcomings of deep ecology.

The more disastrous shortcoming, however, was deep ecology's reinforcement of the "pristine nature" myth. According to the myth, all humans are destructive forces, alien to intact ecosystems and, in effect, require segregation from ecosystems and/or habitats. This remains the guiding ideology in conservation, through "fortress conservation," (Brockington 2002) which deep ecology tended towards or explicitly reinforced (Guha 1999; Watson 1989). The pristine nature myth has historically reinforced genocidal campaigns against various Indigenous groups in North America (Dowie 2009), England (Perelman 2007), and continue to justify warfare campaigns and land grabbing in Africa, Asia, and Latin America (Fairhead et al. 2012;

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[3] Note that Bookchin's critique of deep ecology in this text (originally a speech) was harsh and oversimplified as it did not differentiate between different deep ecologists, which is problematic given that differences are large and consequential (Guha 1999). Nonetheless, on the point of the all-encompassing Humanity of the deep ecological platform, as well as the lack of analysis of the social roots of ecological destruction, Bookchin's critique is warranted.

Dunlap & Fairhead 2014; Marijnen et al. 2021). Political ecology, in accordance with environmental anthropology and sociology, have revealed this myth to be false. Landscapes viewed as “pristine” were in fact shaped by various Indigenous populations (Fairhead & Leach 2003; Erikson 2008), demonstrating the fact – well-known by Indigenous peoples themselves – that colonialism and those humans acclimated to industrial political economy are the people reproducing socio-ecologically destructive habits. Deep ecology’s (or segments thereof) promotion of “fortress” thinking and exclusionary conservationism extended into moments of racism, anti-Indigenous, and anti-immigration sentiments (Watson 1989; e.g. Sale in Witoszek & Brennan 1999). Contrary to Næss’ articulations, such authoritarian tendencies pervaded uncritically within deep ecology. This might be due to the wideness of the general platform of deep ecology, which in Bookchin’s (1999, 283) words, “reduces richly nuances ideas and conflicting traditions to their lowest common denominator” in a way that *does not* enable solidarity but rather, prevents it.

The pristine nature myth and the broad strokes of Humanity against Nature coincided with – and in part provoked – a careless approach to population growth, reinforcing existing authoritarianism, racism, misogyny, heterosexism, and even genocidal trajectories. On the topic of population growth, some deep ecologists – notably Dave Foreman – have made erroneous, horribly careless, xenophobic, and racist comments, which he later retracted (Bookchin and Foreman 1991), but which demonstrate how privileging the pristine nonhuman world can produce colonial practices (Watson 1989; e.g. Sale in Witoszek & Brennan 1999). While flirting with the pristine nature myth, Næss’ deep ecology was more attuned to social justice than others’ (Warren 1999). Yet, he also concerned himself with population growth as an ecological issue. Næss maintained (2005a, 213) that “either a complete restructuring of economy and technology, or population reduction” was necessary to envision a green society. The fourth principle of deep ecology, in fact, reads that “The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease” (Næss & Sessions 1984, emphasis added). While balancing the life-support capacities of ecosystems should remain a concern, mainstream framings of “the population issue” deserve careful and critical consideration.

Næss himself vehemently rejected coercive population reduction (Næss 2005, 202), and conceived of the process as one that might take place over hundreds of years. Further, his deep ecological perspective was acutely aware of the fact that the environmental impact of people in rich countries was far greater than that of people in poorer countries – he therefore advocated the “gradual decrease of population in the rich countries.” (Næss 1999c) As he put it: “one more baby in the overdeveloped countries is a much graver ecological threat” than those born in the Global South (Næss 2005a, 213). This stands in stark contrast to comments like those made by Foreman in the 1980s, along the lines of “let them starve” and “keep them out” (Watson 1989), or the writings of an anonymous essayist who claimed that the HIV/AIDS epidemic was good population control for the earth (see Bookchin 1999). While this is an extreme and marginal perspective, and later retracted by Foreman (Bookchin and Foreman 1991), it demonstrates how disproven environmental logics and broad-stroked “lowest denominator” principles can create doorways to cultivating forms of ecological fascism.

We have shown the many strengths within deep ecology, but also the significant shortcomings deserving of acknowledgment. To reiterate: paying insufficient attention to Indigenous self-determination and resistance; reinforcing human-nature dichotomies that lent themselves to coercive and racist conservation policies; and reinforcing dangerous approaches to population dynamics, which ignore racist, misogynist, and colonialist policy realities, but also the necessity of bodily autonomy. Careless engagements with “the population issue” we note (see Søyland, this issue), have also carried over to some proponents of degrowth. Our purpose is to stress the continuity and strengths of deep ecology, post-development, and degrowth, while learning from the mistakes of the past.

ISSUE CONTRIBUTIONS: ENERGY POLITICS, CRITIQUE, AND RESISTANCE

The contributors to this volume discuss a wide range of topics, highlight under-theorized themes in degrowth, and reveal important historical and practical connections in need of further attention and work. The issue is broken into three sections: “Energy, Politics and Struggle in Norway,” “Critical Engagements with Degrowth,” and “Life in Resistance.” The first section applies post-development and degrowth approaches to examine and analyze political and developmental phenomena related to Norway. The section thereafter identifies various concerns, shortcomings, and areas in need of greater consideration, principally within degrowth. The final section explores how post-development and degrowth ideas can better connect and expand practices of resistance.

The sections are first introduced by Sarah K. B. Schubert’s article “Fear and Other Options: Three Responses to the Ecological Abyss.” This article provides an excellent introduction by reviewing the three scenarios outlined by Wolfgang Sachs’ forward in *Pluriverse: The Post-Development Dictionary* (Kothari 2019). The article reviews Sachs’ “Fortress, Globalism, and Solidarity” pathways, which represent three distinct ways of confronting socio-ecological catastrophe. Schubert’s article then develops and emphasizes the importance of the solidarity pathway, developing an abolitionist approach that contends as “climate emergency deepens,” so should “solidarity, mutual aid, cooperation, plurality in resistance.” Schubert’s article provides an instructive overview, better preparing readers to go further into the various facets of energy politics, critique, and resistance developed by the other contributors. The following offers an overview of each contribution, before concluding with the necessity and importance of expanding post-developmental fields of research and practice.

Energy, Politics and Struggle in Norway

The section "Energy, Politics and Struggle in Norway" begins with Lars Henning Wøhncke's article: "A Hard Sell: Thoughts on Degrowth's Apparent Lack of Appeal to Normal People." It argues "normal people" are now officially a distinct category of voters in Norway, catered to as such by the Norwegian labor party, who desperately has attached its fate to them in the lead-up to the 2021 parliamentary elections. The article begins by exploring who *normal people* are thought to be, and muses on why degrowth – as an alternative to a capitalism that is collapsing in front of our eyes, dragging what is left of a livable planet down with it towards the abyss – is failing to get a foothold among them. It argues two central prerequisites of degrowth – scrutinizing the history of capitalism and one's place in it and accepting the likely need for insurrectionary transformation – demonstrate the challenge of making degrowth palatable to normal people by academic proponents of degrowth. The conclusion reflects on what the two prerequisites might entail for the academic proponents of degrowth and suggests a change of approach.

Next in energy politics is the article "Framing, Funding, and Justifying Energy for Development" by Vilde Norenes Hilleren, which interrogates the Oil for Development (OfD) scheme. In 2020, the Norwegian Agency for Development Cooperation (Norad) presented two different alternatives for extending its long-running OfD program into a broad Energy for Development (EfD) program. Since 2005, OfD has worked to promote sustainable petroleum management through legal and regulatory reforms, institutional capacity building, and improving public sector transparency. In light of the Paris Agreement and changing energy markets, Norad is now proposing to strengthen the environmental aspects of the program and contribute to energy transitions in partner countries. The article critically analyzes Norad's conceptualization of energy transitions by drawing on energy history, degrowth, and post-development literature, arguing that the proposed Energy for Development program contributes to energy additions rather than transitions. Starting by presenting their vision for energy additions primarily aimed at generating economic growth as an ambitious contribution to combating climate change, Norad is fueling the capitalist logic of endless accumulation that is at the heart of the climate crisis.

Finally, Shayan Shokrgozar's article explores the appropriation of wind power to serve a degrowth society. The article titled "The Case for Degrowth Energy Technologies" argues the climate mitigation discourse of "green" growth further exacerbates social fragmentation and ecological degradation in the epoch of the Necrocene. The article then explores an alternative future in which a convivial, appropriate, feasible, and viable energy system serves the values of a degrowth society. It argues through engaging with issues of scale, ownership, landscape relationship, and appropriate tool-use it is possible to produce renewables, as opposed to Fossil Fuel+, currently being produced by utility scale wind "farms." It concludes by calling for communing the necessary implements of life and resisting their capture by forces of death.

Critical Engagements with Degrowth

The special issue's second section about critical engagements with degrowth begins with Lisa Hammelbo Søyland's article titled "'The Population Question' in Degrowth and Post-Development." Søyland's article discusses how erroneous and politically dangerous Malthusian and neo-Malthusian arguments continue to underpin parts of the conversation about mitigation of social and ecological issues within degrowth literature. Further, it reveals the limited and uncritical attention degrowth has devoted to the ways that population discourse perpetuates colonialist, racist, misogynist, and heterosexist harm and violence. Cautioning against calls for "population degrowth" or population reduction – which can inadvertently support contemporary coercive and hierarchical practices of population control – the article argues that degrowth should center intersectional and anti-colonial feminist analyses and focus its attention on equitable reductions of material throughput and redistributive justice.

Next, the article "Democratizing Degrowth: Putting Transformation of the Democratic System at the Heart of the Project," by Sanne van den Boom, discusses the ambiguous role of democracy in degrowth literature, questioning whether the emancipatory degrowth vision can be implemented in today's democracies. The article interrogates the role of private actors in electoral processes, as well as the closed arenas of economic decision-making. Because of how degrowth proposals go against the interests of the most powerful actors in our societies and in current highly centralized, representative democracies, van den Boom argues there are serious obstacles to countering the economic growth paradigm. Subsequently, van den Boom purports that the degrowth project should entail a transformation of the democratic system in the direction of smaller scale, decentralized, and more direct forms of decision-making, which move power from economic institutions and elected representatives to citizens.

Finally, Peder Ressem Østring's article draws upon the ecology found in Marxism and the ecosocialism of André Gorz to examine the convergences and contradictions between Eco-Marxism and degrowth. Østring argues that degrowth can draw on Eco-Marxism to strengthen its strategies for change and its conceptual toolkit, and that Eco-marxists can learn from degrowth's emphasis on reducing material throughput as a vaccine against productivism. It is argued that degrowth and Eco-Marxism have more in common than not, particularly in their critiques of capitalism and its impact on the environment. Østring finishes by purporting that any such differences between the two fields can and should be overcome.

Life in Resistance

The final section turns to examine resistance and direct action through the lens of post-development and degrowth. "Agroecology as resistance within degrowth and post-development," by Joanna Svärd, demonstrates how agroecology can be viewed, and pursued, as a form of slow resistance. Outlining the different environmental and social problems of conventional agriculture, the article views agroecology as a meeting point between degrowth and post-development, and discusses the existing literature on degrowth and post-development from the perspective of food and agroecology. The article argues for the necessity of democratizing food systems and acknowledging a plurality of ecological knowledge, which includes conceptualizing agroecology along Latouche's "eight Rs" framework (i.e. re-evaluate, re-conceptualize, restructure, redistribute, re-locate, reduce, reuse, and recycle). "Real change," Svärd concludes, "requires the combined effort of grassroots movements across the world, built on mutual solidarity and support, allowing for a pluriverse of approaches."

Switching to examining a more confrontational approach to resistance, Jenna Stepanic's article, "Can Degrowth Struggle? – Lines of Affinity Between Degrowth and Rote Zora," demonstrates the affinity between the feminist direct action group, Rote Zora, and degrowth. While valuing and celebrating the degrowth position, this article responds to the criticisms by scholars that degrowth's political strategy and relationships to struggle is ambiguous and limited. Employing a historical approach, Stepanic discusses the formation of anti-authoritarian autonomist action groups in Western Germany in the 1970s and 1980s. The article focuses specifically on Rote Zora, who were responsible for numerous sabotage and explosive actions, and reviews and relates their actions to degrowth. Stepanic contends that by drawing a historical bridge between "more feminist ideas and the use of militant tactics as a strategically legitimate means," we may "[move] forward the degrowth agenda." By referencing history and drawing lines of affinity between militant feminist action and degrowth, the article offers an important and confrontational challenge to proponents of degrowth.

Moving to the realm of conservation, and concluding the section, Alejandro Ruelas' article, "Knowledge, Energy, Life: Possibilities for Conservation in Post-Development," examines how to resist and appropriate current conservation regimes. Recognizing conservation as another frontier in land control and capital accumulation, the article asks, how "can conservation be made compatible with a post-development future?" Complementing ideas of convivial conservation, the article proposes three alternative meanings for conservation: knowledge, energy, and life. The "conservation of knowledge" refers to conserving other ways of knowing and relating to the world. While the "conservation of energy" refers to preserving the vital force that connects and allows all beings to exist. Finally – connecting the latter – the "conservation of life" is a reminder of what conservation should do, and that it cannot do it as long as it is wedded to a capitalist agenda. Such conceptual shifts, Ruelas contends, "could have practical implications and aid in the transition towards a pluriverse." Advocating people to rise up against environmental calamity, Ruelas concludes "there is no need to invent anything new" and that conservation must support local knowledges and ecological aspirations, not a "system that thrives on death."

CONCLUSION

This editorial has introduced post-development and degrowth in relationship to SUM and deep ecology. Post-development and degrowth embody important concerns and propositions, which necessitates greater academic space and popular experimentation. Yet, despite insight from post-structuralism and feminism that rattled and re-positioned anthropology, geography, and all studies to various degrees since the 1970s, the academy still hears this phrase muttered in its hallways: “We are academics, not activists.” This phrase asserts separation, or distinction, from politics, and attempts to create and reinforce an “objectivity” claim. Academic activity, as we all know, is always performing a form of activism. Rooted in Cartesian separation (Wynter 2015; Sullivan 2017), this objectivity claim attempts to divorce itself from the political realities that engulf institutions, shape research agendas, journal metrics, organizational technologies, and inform power relations overall. Critical work influenced by anarchist, feminist, Marxist, queer, and black radical scholars are deemed “activist,” as if other positions are “neutral” and “objective.” Infrastructural design, heating, office layouts, market relationships, dominant ideologies, discrimination practices (e.g. sexism, classism, racism, ableism, queerphobia, anthropocentricism), funding requirements, and so on are clear – and by no means complete – factors in forming research subjectivities and agendas. There are disproportionate standards, issues unquestioned in theory and practice, while socio-ecological and climate catastrophe takes greater hold.

At best, academic research can be explicit about its (unspoken) bias, necessitating methodological and positionality reveals, which remain lacking across disciplines (e.g. political science, international relations). Political ecology, we should remember, was a reaction to the faulty “a-political” framing or objectivity claims of ecology (Robbins 2012). Remembering the realities of industrialization, capitalism, and the socio-ecological cost of resource extraction, all academics are preforming a type of activism – some just benefit from business as usual and the objectives of the dominant culture (e.g. capitalism, liberalism, bureaucracy) more than others, especially given that research fuels the publishing and university industries. While there are many ways "activism" can be used as self-branding (Dunlap 2020), academics, whether they accept it or not, remain activists. Given the planetary situation, and all the local forms of injustice and ecological degradation, we need to clarify what kind of "activism" our work creates and reinforces. We argue that post-development and degrowth pathways remain fundamental to confronting the problems of socio-ecological degradation, discrimination, and climate change. We need research critically assessing the key issues of our time, which means questioning the root of socio-ecological crisis and learning to act on it, be it as individuals, communities, or institutions.

Weaving together the history of Brundtland's policies, the Norwegian Deep Ecology group, post-development, degrowth, and our location at SUM, we wonder what impact the choices of deep ecology had in the struggle between "dark" and "light" green environmentalism. Was branding industrial development and capitalism "green" a political checkmate too powerful for deep ecologists? Was faulty conservation politics instead of connection with the "environmentalism of the poor" (Martínez-Alier 2002) a lethal inhibitor of solidarity, movement building, and action? [4] Finally, did the institutionalization of deep ecology slowly acquiesce Næss and others away from publicly promoting environmental struggle and direct action, including "Monkey Wrenching" (e.g. vandalism & sabotage)? After all, Næss (1999a) clearly believed that combative environmental protest was inappropriate for the Norwegian context, referencing the language of politicians (e.g. calling civil disobedience "terrorism") and the potentiality of unfavorable legal regimes, believing "the establishment is of an orderly, approachable, moderate kind and not of vast dimension" (Næss 1999a, 227). We contend, these overlapping factors remain noticeable inhibitors for deep ecology to adequately challenge sustainable development.

Despite promoting anarchism, Næss (2005a, 216) would contend that "it seems inevitable to maintain some fairly strong central political institutions." Næss (2005a, 216) believed in central institutions to mitigate population growth and war, and, going further, stressed that "[e]xperience suggest that the higher the level of local

[4] In the first printed edition of this journal, this sentence incorrectly read: "Was faulty conservation politics in connection with the "environmentalism of the poor" (Martínez-Alier 2002) a lethal inhibitor of solidarity, movement building, and action?" Here it is corrected to emphasize the intended meaning, which was the *lack of connection* with "environmentalism of the poor."

self-determination, the stronger the central authority must be in order to override local sabotage of fundamental green policies.” How can we read Næss’ statement today? Sustainable development, or green growth today, we might say emerged as a reaction to deep ecology and Indigenous environmental struggle and uprisings, North and South of the Globe. Reflecting on what green politics have become in Norway – the flag wavers of green growth – the issues identified might serve as important lessons for degrowth as it becomes increasingly popular within universities, NGOs and, to a degree, policy circles. Næss and the Norwegian deep ecology movement prioritized institutional engagement, displaying a type of Norwegian exceptionalism. Meanwhile, deep ecologists backed away from direct action and grassroots struggle, and promoted institutional centralization to “override local sabotage of fundamental green strategies” or, more in hindsight, “capitalist strategies.” These remain important lessons as wind turbines and other industrial projects are further colonizing Saami territory (Fjellheim 2020; Normann 2020; Shokrgozar, this issue), degrading the Norwegian countryside as oil exploitation operations expand largely unquestioned (see Hilleren, this issue). Green capitalism – its infrastructure, mining, market-based conservation and technologies – was a force underestimated by deep ecologists.

Local resistance and sabotage, like elsewhere, appears as the last line of defense as environmental and civil concerns are systematically ignored in favor of political economic agendas. The mainstreaming or co-opting of deep ecology remains more relevant than ever for how “radical” ideas – or honest concerns – can be subdued and diluted to the imperatives of capital accumulation and political control (e.g. representative democracy). Given the popularity of degrowth and post-development, these are issues and conversations that deserve greater attention and experimentation, which we can only hope spread through Norway and beyond. Here is our contribution.

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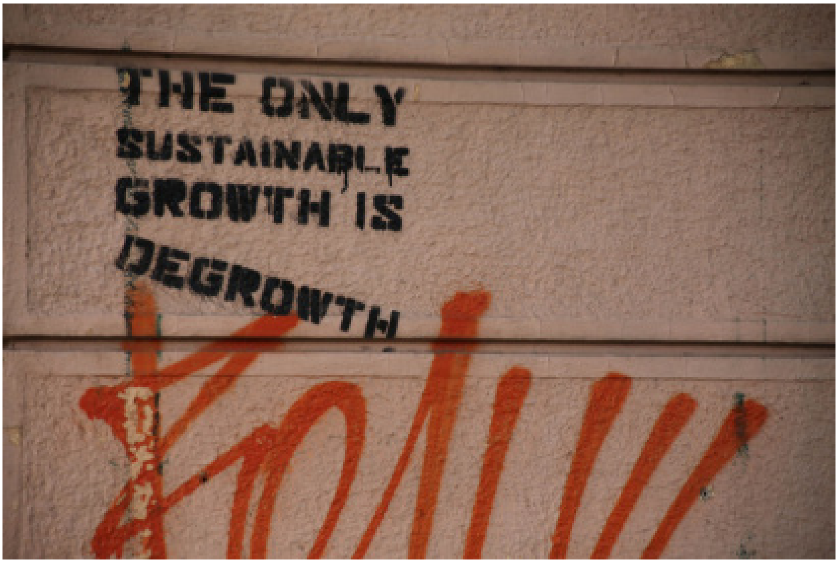
THE ONLY
SUSTAINABLE
GROWTH IS
DEGROWTH

FEAR AND OTHER OPTIONS: THREE RESPONSES TO THE ECOLOGICAL ABYSS

SARAH K. B. SCHUBERT

On April 19, 2021, United Nations Secretary-General Antonio Guterres presented the stark conclusion of the World Meteorological Organization's (WMO) State of the Global Climate report: "We are on the verge of the abyss" (UN News 2021). In 2016, the Paris Climate Agreement indicated the optimal warming range to be 1.5 to 2.0 °C. Focused only on temperature rise and carbon emissions, this report warns that "at current levels of global greenhouse gas emissions, the world remains on course to exceed the agreed temperature thresholds of either 1.5 °C or 2 °C above pre-industrial levels, which would increase the risks of pervasive climate change impacts beyond what is already seen" (World Meteorological Organization 2021, 34). Though impacts will be felt everywhere, presently there is profound devastation for communities that are disproportionately vulnerable: poor, Indigenous, and people of color. Even at a 2 °C threshold, the UN fully understands that the rate of death due to climate change will eliminate certain African and island countries (Pulido 2018). The average global temperature in 2020 was approximately 1.2 °C above the pre-industrial level.

We are now in the Capitalocene, the era of anthropogenic changes caused by ever-expanding capitalist colonialist systems of oppression that disenfranchises and exploits both the human world and the more-than-human world (Moore 2017, 2018). The era is further understood as the *thermocene*, a legacy of commodification and extraction of fossilized resources to form polluting combustibles, filling the needs of industrial expansion. It is an era of energy *additions* (Bonneuil & Fressoz 2016). The imperialist capitalism that accompanies fossil fuel driven conquest necessitates subjugation of material, earth, and bodies by rationalizing "an energetic racism that reinforced hierarchies of gender, race, and class" (Daggett 2019, 135).

Based on the rapidity of global temperature rise in the WMO report, science predicts a catastrophic future. Meanwhile, governmental representatives and multilateral spokespeople express shock from within a hegemonic framework. UN and governmental bodies assure the world the universal goal to limit temperature rise and its attendant impacts will be achieved by cutting emissions while continuing life as usual. Many nations manifest these assurances through initiatives like “green” new deals, which propose economic impetus towards “clean” energy infrastructure. As discussed below, scientists, activists, and academics are skeptical of so-called green politics as performative gestures that are neither genuinely ecologically reparative nor socially transformative. Instead, these initiatives deny the expansive industrial cause of human-induced climate change and insist a solution can be found managerially – through policy and market-driven technologies. Indeed, some argue the fostering and management of apocalyptic fears is essential to the continuing cultural politics of capitalism (Swyngedouw 2010).

There are other ontological perspectives and activities, historically oppressed and repressed, resurging in this time of fear. They are counterhegemonic and provide examples deserving exploration. These are lived realities of human existence in alliance with socially marginalized people and the earth. Such communities of practice are living the change they desire, rather than waiting for systemic change, though this is certainly desirable. These communities of practice or resistance are an indication that another way is possible.

To illustrate these counterhegemonic pathways, this article expands on three responses to the fear of climate crisis as posited by Wolfgang Sachs (2019): the narratives of *Fortress*, *Globalism*, and *Solidarity*. These narratives coexist presently in tension, and forecast dynamics and possibilities for resilience as the crisis deepens. Each of these three fear narratives will be examined in turn. By exploring Sachs’ framework, I argue the Solidarity narrative is the strongest pathway to preserving life in global climate destabilization. Lastly, examples of the solidarity framework as practiced in recent political movements are provided for further exploration.

THREE RESPONSES TO FEAR, THREE PRESENT POSSIBILITIES

Wolfgang Sachs (2019) outlines three responses to fear: the narratives of the *fortress, globalism,* and *solidarity.* These narratives distinguish likely paths forward for human society in the face of apparent ecological collapse. Fortress thinking is characterized by neo-nationalism, authoritarianism, occasional religious fundamentalism, and "affluence chauvinism." Globalism champions free-trade economics, "green growth," and smart technologies. The third narrative, solidarity, is a resistance to the dominant narratives of fortress and globalist thinking and a positive assertion of an alternative.

Fortress Narrative: Militarization, Authoritarianism, Green Fascism

The fortress narrative champions isolationism, nationalism, competition, militarization, and vertical orientations. As a response to fear of ecological collapse, this camp opts to protect their resources and territory from any opposition. For example, the United States, the nation with the largest military budget, issued its Annual Threat Assessment of the US Intelligence Community in April 2021 which posits that climate change and environmental degradation "will create a mix of direct and indirect threats, including risks to the economy, heightened political volatility, human displacement, and new venues for geopolitical competition that will play out during the next decade and beyond" (18). Thus, nations justify preparations against these destabilizing threats by reinforcing arms and borders in advance of internal and external social unrest, mass migration, and political competition for natural resources. Climate change and environmental degradation will involve dangerous consequences for society through mass extinctions, changing weather, disruption to resource access, social conflict, disease, and exposure – with disproportionate devastation along racialized and class lines. However, the actions of the fortress thinkers – who control weaponry and enforce authoritarian policy – will evoke further devastation that is otherwise within human control.

Along the state-sanctioned militarization, there is a rise of right-wing movements encouraged by "dog-whistle" politics, and a "drift toward authoritarianism from India to the USA and Europe" (Kothari et al. 2019, xxiii). The emboldened right has begun blurring the lines of extremism with the growth of hate groups and eco-fascism. Militarized hate groups have begun shedding their visible white supremacy ethos to embrace people from a variety of walks, disenchanted by any number of societal or governmental factors (Rowley 2021).

The resulting ideologies are warped and often contradictory. They meet the complexity of climate crisis with an over-simplistic framing of "enemies," which are largely figured as racial or ideological *Others*. The conflicting ideological framework has made strong inroads on both the political right and left through conspiracy theories. Climate change geopolitical conspiracies involving COVID-19 have aided the neo-fascist agenda (Ross & Bevensee 2020). In the US, because of stay-at-home orders, the fruition of disinformation is displayed in anti-mask demonstrations, storming of state capitol buildings, plots to assassinate political opponents, culminating in an insurrection at the US Congress chambers in January of 2021. The pluralism of the conspiratorial fascist messaging attracted a diverse attendance of neonationalists, evangelicals, militant hate groups, and libertarians. The convergence of different groups exemplified how a single decentralized hate group could be both anti-police and pro-police (Rowley 2021).

Authoritarianism is not just attractive to those on the ideological right. Alexander Reid Ross and Emmi Bevensee (2020, 4) argue that "fascists have worked since the 1910s to apply misleading left-wing jargon and ideas such as environmentalism to its own geopolitical designs." In response to rising climate crisis fear, the ecofascist agenda will (and is) expanding because of the complexity and intersectionality of both environmental and social concerns:

> "[R]adical green and anti-imperialist politics exist in complex relation to other tendencies, including racism, misogyny, ableism, and a desire for extreme violence […] ideology is no longer sufficient for the left to understand the rise of fascism and the Anthropocene. Like climate change, fascism manifests complex problems and requires complex approaches to combat it. While green politics and anti-imperialism are rightly associated with the left […] they can and have

> been wielded by anyone who seeks radical change, including fascists […] there is a chance that a significant authoritarian turn in the green movement could take place, with terrible consequences for poor and marginalized populations." (Ibid., 8)

In crisis, the modern ideological hegemony will fall short, leaving an existential void for fortress thinking to flourish as a simple story with tangible enemies and consolidated leadership. This framing of the climate change narrative in the public and governmental sphere leverages the apocalyptic fears in concert with a growing populism across the globe (Swyngedouw 2010). The dangerous tone of such rhetoric and posturing has very real consequences for social and environmental actors. This narrative is a significant threat to all other modes of life.

The narrative of globalism tends toward political centrists and leftists (Burkart et al. 2020) but is equally fluid across political affiliations. Fortress thinking and globalism have deep roots in colonialist imperialist conquest, as the development narrative sustained on creating Others. In the Capitalocene, we recognize that the industrial machinations of the globalist narrative and the racist militarization of fortress thinking come from the same ideological source. The outcome of their activities is ecologically devastation. This is of course much more nuanced. As Ross and Bevensee (2020, 28) conclude, more research is necessary to "understand the inherently complex root causes of both climate change and the rise of the global far-right as interconnected."

Globalism: Development, Financialization, and Reformism

In response to climate crisis fear, globalism leverages fear and apocalyptic rhetoric (Swyngedouw 2010) to promote technological fixes, funded by public-private partnerships and transnational organizations. These fixes aim to improve sustainability or make "green" the systems that already exist.

The globalist narrative has proven disastrous for the poor in all societies and earth others. It is focused on neoliberal financialization logics and a universalizing mission to "develop" countries to an imposed notion of advancement. As a mechanism designed to counter Cold War upheaval, it creates access to manipulate resources, labor, and the financial standing of countries. This development ambition created the IMF and World Bank – instruments of extractive, colonialist logics and home to global capitalist finance (Sassen 2013, 2016). Development promises an entry into global markets by way of commodification and debt, agri-monoculture technologies, removal of common lands and lifestyles, and implementation of the educational and social regimes of universal narratives of progress.

> "The problem lies not in lack of implementation, but in the conception of development as linear, unidirectional, material, and financial growth, driven by commodification and capitalist markets. Despite numerous attempts to re-signify development, it continues to be something that 'experts' manage in pursuit of economic growth, and measure by Gross Domestic Product (GDP), a poor and misleading indicator of progress in the sense of well-being. In truth, the world at large experiences 'maldevelopment', even in the very industrialized countries whose lifestyle was meant to serve as a beacon for 'backward' ones." (Kothari et al. 2019, xxi – xxii)

These pillars of globalism – development and financialization – are undergirded by power over technology and resources and a deep hegemony. Ivan Illich ([1971] 1997, 97) called this maldevelopment the "benevolent production for underdevelopment." This underdevelopment creates dependency on markets, debt, wage labor, and the planned obsolescence of commodities throughout the world. It also solidifies a manner of linear thinking that all societies "advance" on a universalized trajectory in economics, science, industry, technology, and governance structures.

As with the evolving fortress narrative, the pervasive hegemonic rationality of techno-fixes and purported apolitical financialization abounds across nations, regardless of political alliance. "There is a fuzzy line between the Right and the orthodox Left when it comes to productivism, modernization, and progress. Moreover, each such ideology builds on Eurocentric and masculinist values, so reinforcing the status quo" (Kothari et al. 2019: xxiv). In the 1970s, Illich ([1971] 1997, 100) forecasted:

> "There is a normal course for those who make development policies, whether they live in North or South America, in Russia or Israel. It is to define development and to set its goals in ways with which they are familiar, which they are accustomed to use in order to satisfy their own needs and which permit them to work through the institutions over which they have power or control. This formula has failed, and must fail. There is not enough money in the world for development to succeed along these lines, not even in the combined arms and space budgets of the superpowers."

Nonetheless, the status quo of international governments was reasserted in the UN Millennium Development Goals redux as the UN Sustainable Development goals (Sachs 2017). Today, the mission of globalism is "sustainability" whereby commodities and economic growth are rendered "green" by "decoupling" polluting industrial emissions from GDP. Globalism proposes that social and environmental ills can be separated or resolved with administrative fixes while continuing capitalist exploitation, production, consumption, and application of efficient technologies. This camp of economists and modernists advocate that growth is not the source of the problem, and a capitalist economy can continue to expand while mitigations are applied to curb pollution (Gómez-Baggethun 2020).

The most direct pronouncement of the views in this camp comes from An Ecomodernist Manifesto (Asafu-Adjaye et al. 2015) written by a collective of scientists and economists who reject any interest in working with nature. They argue specifically to intensify human activities in a (supposedly) efficient way to use less land. The scattered argument "advocates urbanization, centralized production, industrialization, agricultural intensification, and nuclear power as means to protect the environment" (Gómez-Baggethun 2020, 4) .This vision enables passive entry for fortress thinking by ignoring questions of human rights or causality, "but instead treat them as irrelevant to socio-environmental challenges at hand, excluding from the text any mention of class, worker, ecosocial, race, racialization, feminism, patriarchy, reproduction, colonialism, equity, or justice" (Paulson 2021, 2). Capitalism, imperialism, fossil fuel technological industry, environmental degradation, and racial and gendered subjugation are inextricably linked (Daggett 2019). To separate them ensures a continuation of this system. In ecomodernism, more of the same thing that caused the ecological and social abhorrence is presented as humanity's salvation.

The green growth theory is treated as a *de facto* national and international policy standard as a response to ecological breakdown advocated by the UN, European Union, World Bank, etc. (Hickel & Kallis 2020; Gómez-Baggethun 2020). Scholars and activists, particularly proponents of degrowth, have debunked the theory of decoupling and techno-fixes. A review (Hickel & Kallis 2020, 469) of the UN Environment Program and Intergovernmental Panel on Climate Change reports recently concluded, "there is no empirical evidence that absolute decoupling from resource use can be achieved on a global scale against a background of continued economic growth, and absolute decoupling from carbon emissions is highly unlikely to be achieved at a rate rapid enough to prevent global warming over 1.5 °C or 2 °C, even under optimistic policy conditions." The recent WMO data that global warming reached 1.2 °C in 2020, roundly reinforces this conclusion. Even the 2021 US Intelligence (18-19) report acknowledges the high correlation between economic growth and carbon emissions, as evident by the 2020 pandemic economic and emissions rebound.

Further, the emissions mitigation proposals in these reports promote the highly controversial bioenergy with carbon capture and storage (BECCS) technology. BECCS is the hope of multilateral technocrat globalists, but it is a high risk, experimental, worse-case-scenario technology. "The allure of BECCS is due to the fact that it allows politicians to postpone the need for rapid emissions reductions" which would threaten the economic stability of the world (Hickel & Kallis 2020, 478). This speculative technology, along with the theoretical geoengineering (climate manipulation) can hold degrading and unknown effects on biodiversity, land, and water resources (Ribeiro 2019, 55).

However, it “is empirically feasible to achieve green growth within a carbon budget for 2 °C with the most aggressive possible mitigation policies if the growth rate is very close to zero and if mitigation starts immediately” (Hickel & Kallis 2020, 480). This would entail a low energy and low consumption society – an entirely different social, economic, and cultural structure. “An ecologically sustainable world economy would have to be delinked from the drive for profits and ordered instead around the principle of deploying human capabilities to meet human needs, within the limits of Earth’s biocapacity” (Burton & Somerville 2019, 103). This proposal for a zero-growth reality holds little water to the decision makers who are invested in the political order and profiteering. Thus, a series of reformist policy solutions have proliferated from degrowthers and globalists alike.

While critical of “green growth,” some degrowth advocates suggest reformist policy to address core issues like industrialization and poverty. The reformist policy tends to be more progressive than “green new deals” and approaches a kind of “ecosocialist” agenda. These policies include cuts to industrial production/construction/distribution, a shortened working week, cuts to consumption in the developed world and global elites, electric heating from renewables, public transport (electric, hydrogen fuel), and expanding agroecology practices (Burton and Somerville 2019).

These reforms are presented with a political message: “by favoring redistribution over expansion, the degrowth utopia represents a frontal attack on the core ideology of modern industrial capitalism” (Gómez-Baggethun 2020, 5). Degrowth reformers admit these types of changes are unlikely to happen but acknowledge “there is no obvious reason to expect that the capitalist and socialist variants of the modernist project should bring essentially different environmental outcomes. If it came into being, the socialist variant shall be expected to bring a more equitable distribution of wealth, but to the extent that it still relies on an expansionary vision of the economy (and consequently on increased dissipation of resources) there is no reason to think that the effects on climate and the environment would be different from those of capitalist growth” (Gómez-Baggethun 2020, 5). “The mitigated capitalism of a ‘green new deal’ will be little help, because it leaves the overall system of commodification, and the motors of expansion, firmly in place" (Burton & Somerville 2019, 104). Perhaps ecosocialist degrowth reforms are insufficient to challenge the rooted hegemony of modern lifestyles and political will.

Yet, there are others in the degrowth movement who advocate a radically different vision of a low-scale, autonomous society (self-regulating direct-democracy, sovereign, and emancipatory) in that it is beyond capitalism, industrialization, western modernity, and patriarchy (see Esteva 2018). Such a society engenders a new "ethico-political" individual with an expanded sense of egalitarian relationality between humans and more-than-humans. This vision strives for alternative existence altogether, with open possibility for experimentation. This is a stark contrast to common notions of state or corporate order (Siamanta 2021). There is a definitive difference in the long-standing split in reformist and emancipatory ideals. "As argued by world system theorist Immanuel Wallerstein, not only are the world's economic and political elites divided between globalists and authoritarians, there is also a split within the left, between the progressive productivists who – in the tradition of the socialist and social democratic labor movement – focus on growth, productivity gains and redistribution and tend to prefer vertical forms of organization, and those movements that, closer to the tradition of anarchism, rely on self-organization from the bottom up and fundamentally question economic growth" (Burkart et al. 2020, 9-10).

This deep split is colored with critiques from another angle. Decolonial[1] scholars wonder: "Will ecosocialists develop one master plan, modeled on the [Ecomodernist] Manifesto's blueprint for reorganizing and intensifying global farming, forestry, and settlement? Or will they resist projecting Euro-American visions and values onto others, and join degrowth efforts to learn from diverse communities and socio-environmental justice movements?" (Paulson 2021, 2). This beckons a distinct move toward the solidarity narrative, but the conclusions from resistance movement advocates is clear: the tendency to reform a system of oppression and degradation is a tried and fruitless endeavor.

[1] This term signifies a specific emancipatory struggle. Per Eve Tuck and K. Wayne Yang (2012, 1): "Decolonization brings about the repatriation of Indigenous land and life. It is not a metaphor for other things we want to do to improve our societies [...] social justice, critical methodologies, or approaches that decenter settler perspectives have objectives that may be incommensurable with decolonization." Decolonization is also critical of these movements as complicit with settler colonialism. This is "unsettling" for coalition projects but understanding decolonization as specifically for Indigenous sovereignty and futurity, and incompatible with reconciliation with settler colonialism, is crucial for potential efforts of Solidarity. One can add, this unsettled Solidarity cannot be depicted in broad strokes; it is fluid at certain junctures, as seen in the growing 2020-2021 #LandBack actions or The Red Deal – both Indigenous movements in so-called North America that use abolitionist frameworks and intentionally acknowledge the liberation of black, Indigenous, and people of color (BIPOC) in coexistence with Indigenous futurity (NDN Collective n.d.; The Red Nation 2021).

“The mainstream or reformist development solutions can be said to be proven false. In responding to the ecological crisis, ‘experts’ in the global North take the categories of One World responsible for devastation of the planet as the very point of departure for their alleged solutions” (Kothari et al. 2019, xxxiii). Considering the acceleration of the ecological crisis facing humanity and the following exacerbation of social strife, it is time to try another path.

Solidarity: Autonomy, Antidote, and the Otherwise

It is essential to explore possibilities for a society that enables the best possible life outcomes for all inhabitants of the earth. We can see plainly how fortress and globalist narratives cannot afford this possibility. They are more of the same processes that caused the climate crisis, earth degradation and subjugation.

As Sachs (2019, xvi) states, there are “many paths to a social transformation that places empathy with humans and non-human beings first. These visions stand firmly in opposition to both xenophobic nationalism and technocratic globalism.” The anti-capitalist, anti-state, decolonial, anti-racist and feminist solidarity narrative is one of these paths that can engender a process to dismantle these latter visions.

Solidarity is most readily understood as cooperation. It is an innate and resilient impulse, embodied across species, as theorized in Peter Kropotkin’s evolutionary cooperation thesis: species survive by reliance on others. The theory of survival-by-cooperation balances the prevailing evolutionary notion of competition, or “survival of the fittest.” But this is the basis of all life on the planet, and it is visible in the daily reciprocal practices of people everywhere – friendships, neighborly reciprocity, giving directions to a stranger. “Life itself is an intricate and beautiful complex web of mutual aid relations” (Springer 2020, 113).

This rooted knowledge has persisted under threat from dominant hegemonic powers as the state and capitalism worked in concert to destroy this cooperative impulse – known in modern society as mutual aid – by 1) imposition of private property; 2) replacing community bonds with a national allegiance (rooted in obedience and othering rather than compassion and care); and 3) transforming reciprocal exchange into transaction of assumed value relative to scarcity (Springer 2020, 113). Despite this, the cooperation instinct persists across all society (particularly in the absence of the management of the State and the failure of capitalist economic structures, as during the proliferation of mutual aid during the COVID-19 pandemic).

The solidarity pathways remain under threat because they are forms of resistance that directly confront unjust systems under capitalism and legacy of colonialist empires while offering alternatives. The oppression of these prefigurative and resistance movements historically takes two general forms: recuperation and repression.

Recuperation is the process whereby those who resist "current power structures are induced to rejuvenate those power structures or create more effective ones" (Gelderloos 2013, 20). It is coercive in that it appears a benign, effective tool but ultimately it remains within the hegemonic structures. This could take the form of instituting instruments positioned to make "change within the system" by negotiating reforms, creating "better" capitalist enterprises, or placating those in resistance. Commonly, recuperation involves the creation of nonprofit, NGO, charity, or mission-based entities that "mostly replicate, legitimize, and stabilize the system" (Spade 2020, 26). While some of these entities can be useful in a larger strategy toward emancipation (i.e., the creation of a non-profit bail fund as practical part of a broader strategy to abolish the carceral industrial complex, etc.), such activities can often remain in a space of compromise within the hegemonic structure rather than breaking free from it. This pitfall must be avoided for the possibility of flourishing solidarity pathways.

Repression is an effort to quash oppositional presence by force and manipulation. It is inevitable in any struggle against authority. These tools are employed by governments, military, and corporations, and range from the threat-of or acts of physical violence, surveillance, internal communication sabotage, social-psychological manipulations, influencing media representation and public discourse, resource deprivation, and criminalization. It is imperative for solidarity proponents to learn the lessons and histories of previous groups who engaged in resistance movements and faced repression. This history is usually obfuscated or hidden by authorities invested in maintaining the status quo.

The solidarity impulse is threatened by state and capitalist interests but is an innate trait across species. Can this type of cooperation operate within the systems of modernist, dominant hegemony at all? Or is it relegated only to the gaps and failures of economic or state order? Esteva and Escobar (2017, 2564) described three paths for contemplating cooperation with development or reformist operators within the globalist canon:

> “(1) *Cooperation as development aid*: this is the standard form of cooperation, practiced by institution such as US AID, the World Bank and mainstream NGOs. It takes for granted the dominant world (in terms of markets, individual actions, productivity, etc.). Cooperation under this rubric might lead to some improvements for some people but it can only reinforce colonialist understandings of development and, so, dispossession. To this I’d say: let’s keep the doors tightly closed on them; (2) *cooperation as, or for, social justice*: this is the kind of cooperation practiced with the intention of fostering greater social justice and environmental sustainability; it embraces human rights (including gender and ethnic diversity), environmental justice, the reduction of inequality, direct support for grassroots groups, and so forth. Oxfam might serve as paradigm for this second trajectory. In this case I’d say: let’s keep the door open, while applying pressure on them to move towards the third trajectory; (3) could go under several names, such as *cooperation for civilizational transitions or cooperation for autonomy*. Those practicing this option would be, in my view, radical Post-Development’s natural allies. What is interesting is that this form would go beyond the binary of ‘us’ (who have) and ‘them’ (who need), and embrace all sides in the same, though diverse, movement for civilizational transitions and inter-autonomy, that is, coalitions and meshworks of autonomous collectives and communities from both the Global North and the Global South. There are no ready-available models for this third kind of solidarity cooperation, but there are groups here and there that approach it.”

In this logic, solidarity cannot flourish within the systems which thrive on powerful capitalists, coloniality, degradation of earth, dualism, patriarchy, marginalization, and individualistic competition concepts. It becomes an oppositional response against these, operating despite the hegemony, in either bold defiance or under-acknowledged areas of life. The solidarity narrative sits in active alignment with others in resistance to modernist globalism and authoritarian fortress thinking. It is a positive assertion of another way of being and aligns with ontological *difference*. It means, "phasing out the imperial way of life that industrial civilization demands, and redefining forms of frugal prosperity," by thinking globally and acting locally (Sachs 2019, xv).

Different from reformist degrowth camps, degrowthers focused on autonomy provide a "connecting thread" for a "matrix of alternatives" that depart from a society which fetishizes growth toward a construction of a new, different collection of ways of being that challenge the dominant hegemony of growth (Demaria & Latouche 2019, 149). It is not a "fixed concept" (Burkhart et al. 2020, 15), but a heterogenous solidarity narrative that "hypothesizes possible futures and involves multiple strategies at different scales: oppositional activism, building alternatives, institutional politics, research, dissemination, education and art (Demaria et al. 2013). "'Sharing', 'simplicity', conviviality', 'care' and the 'commons' are terms used to describe what these alternative futures might look like" (Demaria, Kallis & Bakker 2020, 432).

This project is informed by and in conversation with postcolonial, post-development, cooperative and insurrectionist anarchism, antiracism, and feminist scholars and movements. These social networks are living examples of direct resistance to capitalist extraction, expansion, pollution, and displacement.

Some of these living histories and contemporary solidarity movement activities are explored in university scholarship. The post-development notion of the "pluriverse" draws examples from Latin American communities in struggle against industrial extractivist projects of capital and the state, where being in community is critical to autonomous existence, such as in Zapatista, Oaxacan, and Chiapas territories. This causes a further reckoning with hegemonic constructs in reconstructing cooperative instincts, as we see "communal worlds are relational worlds, defined as those worlds in which nothing pre-exists the relations that constitute it (reality is relational through and through), as opposed to the dualist ontologies that predominate in modern worlds, where entities are seen as existing on their own (the 'individual', 'nature', 'the world'), prior to their inter-relations" (Escobar 2015, 460).[2]

However, degrowth scholarship, situated within modernist institutions, has been criticized by Padini Nirmal and Dianne Rocheleau (2019, 466) for failing to critically engage "with ontological, epistemological, and cultural difference as well as gender, class, ethnic, racial, religious, and colonial difference." To do so, scholars need to examine their positionality and center intersectionality, striving to *revalue* and *restore* other knowledge(s) and practices, so possibility can emerge or resurge. According to Nirmal and Rocheleau (Ibid., 482), this work entails

> "re-centering resistance within the discourse, while recognizing that most autonomists are committed to other worlds, not to armed violence and violent resistance. A decolonized degrowth must be what the growth paradigm is not, and imagine what does not yet exist: our separate, networked, and collective socio-ecological futures of sufficiency and celebration in the multiple worlds of the pluriverse."

The critique offered here is important beyond degrowth scholarship. As one prioritizes an extension of cooperation with others who are "being differently," this turn necessitates an examination of the hegemonic constructs that exist through and in each of us. The remembering, revaluing, and restoring of the impulse to cooperation is a form of "living-in-resistance," and is an ongoing process.

Solidarity means learning to embrace complexity, conflict, and difference. The tension in difference is strength, and enables resilience in diversity of perspectives and methods. As Peter Gelderloos (2013, 17, emphasis added) illuminates, the practice of a broad solidarity that embraces conflict makes movements and peoples more difficult to repress:

[2] Escobar has been criticized for dichotomous framing, idealization of social movements, hierarchical approach to ethnography, and being prone to generalizing statements (Knudsen 2008). On this latter point, Kiran Asher and Joel Wainwright (2019) illustrate Escobar as using "broad strokes" to depict Indigenous practices, resistance formations, and ontologies as uncomplicated and singular. This simplification is used neatly to support a theory of a heterogenous, pluriversal world-of-many-worlds. This type of romanticization, and essentialism, is an extractive, exploitative practice. Asher and Wainwright (2019, 35) apply Gayatri Spivak's theories on subaltern representation to illustrate this further, stating Spivak "challenges subaltern knowledge retrieval and shows the post-development desire to represent subaltern subjectivity to be rooted in European episteme." It is the "double bind," and aporia that adequate representation of identities and difference in others is both necessary and impossible – particularly within the canon of modernist institutions. This requires vigilance and constant critique – an ongoing process and essential practice in social transformation projects, as in this article.

> “We learn from difference, **and we are stronger when we communicate across this difference, criticizing one another but also helping one another, and all the while respecting our fundamental divergence.** There are many totally erroneous or backstabbing forms of struggle, and these should be criticized vehemently, not protected behind a polite relativism. But the goal of our criticism should be **solidarity, not homogeneity.**”

Indeed, as Gelderloos (2013, 18-19, emphasis added) asserts, embracing conflict is essential to both the transformative labor of broad solidarity practice and its success:

> “Perhaps the **demands for a philosophical unity are themselves antithetical to the project of liberation**, since we ourselves are so obviously neither identical nor unified. . . The end result of this debate is not a single definition of revolution nor a common, correct practice, since we do not represent a homogenous humanity with the same needs and experiences. The result is a **multiplicity of practices** that are more intelligent and more effective, and that either complement one another or clearly evince the unbridgeable chasm between themselves.”

Broad solidarity then resists the impulse for universalization, which is common to the practices of hegemony, and finds value in communicating across tension. As Eve Tuck and K. Wayne Yang (2012, 3) describe in the context of decolonial movements and human or civil rights projects “Solidarity is an uneasy, reserved, and unsettled matter that neither reconciles present grievances nor forecloses future conflict.” This is a useful recognition in considering the tensions of the broad solidarity described in Gelderloos’ comments. Broad solidarity requires a wholly different relationality, and because of this, can become an antidotal element of emancipatory struggle.

For those living-in-resistance in Indigenous or poor communities, forms of mutual aid become necessary practice for survival. As the crisis of industrial capitalism continues, broad solidarity, cooperation, and mutual aid will be necessary for resilience of diversity of communities. As stated by the Green Anarchy Collective (2005, 10):

> “Solidarity, support, and attempts to connect with native and anti-colonial struggles, which have been the frontlines of the fight against civilization, are essential as we attempt to dismantle the death-machine. It is also important to understand that we, at some point, have all come from earth-based peoples forcibly removed from our connections with the earth, and therefore have a place within anti-colonial struggles.”

While solidarity is the antidote, it is – and has been – threatened by globalists and fortress thinkers alike. The struggle is both cultural and external as much as internal and personal. “One overcomes this situation not by destroying capitalism, because capital is within us, but by developing a love for life, something that cannot be created artificially. Maybe that kind of love will only be reborn when humanity’s fear of self-annihilation becomes so strong that it compels us to put a sense of responsibility before the whims of our desires” (Hardt & Reyes 2012, 188-189). This narrative has not been favored, and it is where our best chances of adapting to crisis lie – embodied solidarity, learning from difference, acting from plurality, and love.

FURTHER EXAMPLES OF EMANCIPATORY STRUGGLE AND PREFIGURATIVE MOVEMENTS

While Indigenous communities and practices of poor neighborhoods are often sites of a *lived* broad solidarity, so too are the social networks holding together politicized movements. Examples from recent moments of protest can be found within the societies closest to the nexus of capitalist hegemony in:

> “**a new wave of prefigurative social movements** […] movements that ‘embody their ultimate goals and their vision of a future society through their ongoing social practices, social relations, decision-making philosophy and culture.’ And it can be seen in **the emergence of what have been called ‘transformative economies’** […] new economic models and practices around commons, agroecology and cooperativism aiming at transforming the existing economic system.” (Burkart et al. 2020, 9)

It is in the transformation of public space into commons, direct-democracy, political action, and post-capitalist imagination of the Occupy Wall Street movements (Mayer 2013; Spade 2020), which evoked the cry, coined by artist Rachel Schragis, that “All our grievances are connected” (Myerson 2011). The challenges of the squatting movement in Europe and North America to capitalist notions of private property and State infrastructure, along with tenant organizing, living in community, and political engagement are other examples (Mayer 2013).

The transformative elements go beyond economy in the sense of monetary exchange. It is exhibited in community gardens and rewilding and food bombing. Certain small-scale community renewable energy ecologies herald abundant post-capitalist futures (Siamanta 2021). The phenomena of free, locally sourced vegetarian food supplied by Food Not Bombs organizations or the Really Really Free Market (Free Store) movement provide space for nonreciprocal, non-monetary sharing of material items and skills. These latter examples trace back to the organizing efforts of the Black Panthers or the Young Lords, with even deeper lineages worthy of examination (Izlar 2019; Spade 2020). This speaks to a long-standing abolitionist praxis in the US focused on the centrality of women, relearning histories, rethinking the politics of possible, solidarity across racial lines, relations of repair, being in liberation struggle, and creating freedom by placemaking (Heynan & Ybarra 2021).

This expansive horizon of social relationality is visible in the resistance communities of the ZAD and NoTAV movements in France and Italy, where “defending territory from the outset brought together extremely eclectic and diverse groups of people around that goal […] soldering together black bloc anarchists and nuns, retired farmers and vegan lesbian separatists, lawyers and autonomistas into a tenacious and effective community” (Ross 2018, xxii).

These examples of emancipatory activities seem a world away from globalized financialization, social stratification, and environmental degradation. They are localized and plural in their relational anti-capitalist intentions and strategies. They demand and deserve deep study. “This living, pre-figurative politics is based on the principle of creating right now the foundations of the worlds we want to see come to fruition in the future; it implies a contiguity of means and ends” (Kothari et al. 2019, xxxv). Social movements and autonomous communities are *lived* and embodied efforts of solidarity. But, as mutual aid cooperation is a daily activity, we might see clearly how this prefigured future is here with us, in the now.

CONCLUSION

This article argues that the fear of human-driven ecological crisis drives broad reactions, as Wolfgang Sachs outlined: the narratives of fortress, globalism and solidarity. These concurrent reactions are driving present activities and forecast potential futures. The fortress narrative leads to authoritarian rule, militarism, fascism, racist misogyny, and resource stockpiling – regardless of political leaning. Globalism enables populist political frameworks, which leads to fortress narratives. It champions technocratic, universalistic, administrative, or economic reformism based within the same logics and activities that created the ecological and social crises of this era. These narratives are both deadly and lead to devastating outcomes The third approach – offering a multitude of pathways – is solidarity. This framework is based in the innate impulse for survival through cooperation and finds strength in complicated and critical dialogue across differences. The solidarity impulse has been repressed and recuperated by hegemonic power structures, and as with any obfuscated idea, it must be practiced to be (re)learned, while the fortress and globalist thinking within us is actively challenged. The transformative social, ecological, and economic practices of indigenous, poor, and politicized social movements can uncover the solidarity pathway(s) and rich histories of mutual aid. It is yet within human control to mitigate the crises ahead, and the solidarity narrative provides the most viable path for survival.

The rationalizing logic, or hegemony, of the capitalist, imperialist thermocene that dominates and demeans social difference (by creating *Otherness*) and degrades ecosystems (as a thing to master, control, and use) “has arguably become so dominant in the modern West as to crowd out other possible ways of imagining energy" (Daggett 2019, 20). One could add the impossibility of imagining alternative social or economic pathways. This hegemony insists on a hierarchy of value – in people, knowledges, species – thus enabling domination through a universalizing, prescriptive narrative. By limiting imagination, it also obfuscates alternatives. This is the "coloniality of knowledge" which is "the difference *made* between European and non-European knowledges and symbolic systems. The latter are seen as inferior and are deprived of scientific validity. Defined as "traditional," they are considered to have only practical and local applicability, and their theoretical relevance is limited to their status as objects of study which allow for the comprehension of local modes of life" (Álvarez & Coolsaet 2020, 53, emphasis added). "The modern colonial capitalist patriarchal world system thus marginalizes and demeans forms of knowing, such as caregiving and non-Western law, science, or economics" (Kothari et al. 2019, xxiii).

The keepers of the hegemony fail to engage outside of their framework, and an effort to start may be too little too late. The acceleration of the climate emergency is here, now – runaway effects and tipping points are evident while mass migration, water shortages, drought, death, disease, extinction, and weather disruptions are apparent. That which we considered as a distant "maybe" is a present reality. UN Secretary-General Guterres's announcement was meant to strike a sense of urgency in the missions of governments, but it also evokes fear. While some find hope in reforming existing social, political, and economic systems, there are similar preparations to shelter-in-place, close borders, and guard resources through militarized defenses. These two paths do not rise to the crises in any radical way. They are more of the same. There is an *Other* way, a pluriverse where many worlds can fit – adapting to the changing climate while dismantling the dominant hegemony through revaluing and restoring the *otherwise* knowledges and practices.

Yet there has always been an "otherwise." It persists and resists domination. As the earth rebels against the abuses against it, so do those subjugated by imperialist, racialized, colonial, patriarchal capitalism. As resilient – and heterogeneous – as the oppression has been, so too is the plurality of emancipatory paths. Scholars from post-development, degrowth, diverse economies, and feminist camps engage this effort bringing forth the possibility of social-cultural transformation to address the increasingly uninhabitable planet and incredible social strife. “A pluriversal world overcomes patriarchal attitudes, racism, casteism, and other forms of discrimination. Here, people re-learn what it means to be a humble part of ‘nature’, leaving behind narrow anthropocentric notions of progress based on economic growth” (Kothari et al. 2019, xxviii). These practices are prefigurative acts – living examples of “being the change” desired – but doing it now. Prefigurative actions are a crucial site of resistance, an act from the radical, abolitionist imagination. These resistance formations provide examples of the community needed to dismantle the hegemonic capitalist paradigm and its attendant oppressions against earth and people.

As the climate emergency deepens, solidarity, mutual aid, cooperation, plurality in resistance, and diversity in tactics are the social constructs and enhanced personal practices required for transformative relationships. These are necessary to counter deadly fortress thinking and complicit globalism. This is the best beginning to learn how to adapt – together. This is how we face the abyss.

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ENERGY, POLITICS AND STRUGGLE IN NORWAY

A HARD SELL: THOUGHTS ON DEGROWTH’S APPARENT LACK OF APPEAL TO NORMAL PEOPLE

LARS HENNING WØHNCKE

INTRODUCTION

To get it out of the way right from the start, the term *normal people* is borrowed from the Norwegian labor party’s most recent campaign slogan: “Now it’s normal peoples’ turn.”[1] More on that is to follow below. The idea that there is such a group within society comprises an assumption that they represent sociological norms in some way and make up the majority of citizens within a given society. Under conditions of democracy, then, this group will have a decisive say of how society shall be organized. It follows that if capitalism is to be supplanted by something else, like a society organized along the principles of degrowth for instance, it must be desired, or at least accepted, by that majority. *Normal people*, it can thus be said, hold the key to changing the social order into an alternative one that respects natural limits of resource extraction and energy use.

Starting from this assumption, this commentary will first briefly explore who these normal people actually are thought to be. It will then draw up some key questions that arise from the degrowth literature that at the same time can be suspected to trouble the acceptance of degrowth as a concept among *normal people*. The commentary closes with some thoughts on of how to proliferate the idea of degrowth beyond academic circles and what this means for the promoters of a degrowth agenda.

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[1] Translated from Norwegian: ”Nå er det vanlige folks tur” (Arbeiderpartiet 2021).

CAPITALISM IN CRISIS

The British documentary maker Adam Curtis (2021, 0:00:27) starts his newest work *Can't Get You Out of My Head*, a 6-episode series collaged in his trademark eclectic style, with the following observation:

> "We're living through strange days. Across Britain, Europe and America societies have become split and polarized, not just in politics, but across the whole culture. There is anger at the inequality and the ever-growing corruption, and widespread distrust of the elites. Yet at the same time there is a paralysis, a sense that no one knows how to escape from this."

This core question, asking why it is so hard for us to imagine an alternative reality despite the one we are living through being so obviously inadequate, seems to be at the core of what Curtis attempts to approximate answers to in the remainder of the series.

It is also highly relevant for degrowth advocates. Indeed, degrowth makes for an appealing alternative concept to contemporary capitalism, a social order that is undeniably in a deep crisis of legitimacy, as Curtis rightly observes.

Put simply, "[d]egrowth is a planned reduction of energy and resource throughput designed to bring the economy back into balance with the living world in a way that reduces inequality and improves human well-being" (Hickel 2020b, 2). It abandons the growth fetish that is so central to capitalism and replaces it with an ambition of realizing a good life for everyone in harmony with nature. Though such a framing might not immediately trigger enthusiasm in every corner of modern society, when explained and reflected upon it is difficult to see how it would not make for a more attractive alternative than the current glaringly disintegrating capitalism. Yet, degrowth thinking remains mysteriously elusive outside the ivory towers of academia. Why is it that hardly anybody outside the academy is talking about degrowth?

For Curtis, technology and our relationship to it seems to be an important part of the puzzle. Although this would be an excellent rabbit hole to dive into in the context of degrowth, this commentary resists that temptation and instead explores the question of why degrowth seems to be so unappealing to *normal people*, as the Norwegian labor party calls them. To do that, however, one must first understand who *normal people* actually are.

NORMAL PEOPLE

The Norwegian labor party's aforementioned recent reorientation towards *normal people* marks the latest of several desperate attempts to evade the fate of their European social democratic sister-parties, a destiny fittingly named pasokification (The Economist 2016) after the Greek labor party Pasok – a party that pioneered the now universal trend of steady decline into political insignificance among social democratic parties all over Europe. Abandoning the urban elites from which most of their top political personnel is recruited, and whose votes are increasingly hard-fought in the face of a crowded party landscape, can of course be suspected to be more of a strategic choice than an ideological one. This assumption can easily be derived from a brief glimpse at the current political terrain and the dynamics that drive it in the lead-up to the soon-to-be held parliamentary elections. It remains to be seen whether it will have been a wise decision in the medium and longer term. Be that as it may, this commentary does not intend to analyze this deeper. Of value for the topic at hand, however, is the political notion of *normal people* reflected in the slogan above, and what it can contribute to better understanding the task of advancing new ideas like degrowth in the public discourse.

The Norwegian labor party's recent turn towards *normal people* in the domestic context overlaps significantly with a turn to the periphery. Yet, while the centre-periphery cleavage has long been recognized as one of the more defining conflict lines in Norwegian politics (Rokkan 1967), it is far from the only antagonism at play in Norwegian politics today. Needless to say, wealth and income are still valid indicators of class divisions, especially in times of rapidly increasing inequality (Aaberge, Modalsli & Vestland 2020). However, as in other countries, there seems to be another split across western societies that cannot be described by geography or inequality alone, nor be grasped through traditional left-right scales. The economist Thomas Piketty (2018, 3) describes this other-dimensional rupture as “a ’globalists’ (high-education, high-income) vs ’nativists’ (low-education, low-income) cleavage.” The British journalist David Goodheart spans the line between *anywheres* and *somewheres* (Goodhart 2017), the former being the mobile and educated beneficiaries of globalization, the latter making up the stuck-in-place losers. He also attributes the emergence of identity politics to this division. The anthropologist David Graeber (2019) drew up the conflict as one between the *managerial class* and the *caring classes* (care understood in a wider than conventional sense, also including all unpaid care work). The novelty of these tools for political analysis lies in the observation that they run along dimensions that are not only political, but also markedly cultural.

All of these concepts would probably fit the labor party’s perception of *normal people* nicely (nurses and teachers are for example often mentioned as examples of *normal people* in speeches and debate contributions from the labor party these days, matching Graeber’s category of the caring classes). Goodhart seems to be more read among Norwegian labor party functionaries (e. g. Støre 2021), however. The observation that *normal people* (sometimes implicitly, sometimes explicitly) tend to be contrasted with an equally vague notion of *elites*, gives another clue to where *normal people* may be located on these scales. As referred to explicitly by the labor party’s campaign but doubtlessly thought of as such by many more, *normal people* can thus safely be assumed to be equal to those on the less (formally) educated and lower-paid end of the described scales: the nativists, somewheres, or caring classes.

This exaggerated depiction is of course aware of the inevitable shortcomings of caricaturing complex political conflicts along such simple lines. As also the labor spin-doctors will be aware of, these are stereotypes that will rarely be observed in real life. One should also be cautious not to overestimate the structural explanatory utility of these models, certainly in the Norwegian case (Jenssen 2021). Needless to say, one could also problematize the attempt of defining these boundaries from arguably the very elite standpoint that one tries to delimit. But this is not the place to go any deeper into this because, again, the only thing we are after here is an operationalizable notion of *normal people* for the purpose of this commentary, however rudimentary. In essence, all we need to take away from this is that *normal people*, by and large, do not include academics. This is relevant, because it is almost exclusively academics who theorize about degrowth (certainly in the global North). If degrowth is going to develop in Norway, however, this cleavage needs to be bridged. The following sections will look closer at where challenges lie.

DEGROWTH – AN ALTERNATIVE TO CAPITALISM

Recalling that capitalism is in a severe crisis, one would assume that this would be fertile ground for alternative ideas of how to organize society, such as degrowth. Yet, as Curtis reminds us, that is not at all the case. People seem to be frightened of change, despite the mayhem all around us and climate and environmental crises rapidly worsening. The often-cited expression that ”[i]t is easier to imagine the end of the world than the end of capitalism,” (Jameson 2003, 76) is one manifestation of this fear of change.

Still, alternative ideas have emerged. As one of the more prominent ones, drawing on inspiration from environmental activism (Jordan 2020), indigenous resistance movements (Nirmal & Rocheleau 2019; Demaria, Kallis & Bakker 2019), as well as postcolonial and post-development theory (Escobar 2015; Esteva & Escobar 2017; Gudynas 2019), degrowth is now rapidly gaining traction across academic disciplines to the point where it seems to be on the verge of spillover to society at large. This, however, has not happened yet.

What are the main barriers holding back such a spillover? The following tries to outline some central aspects of degrowth thinking, selected by virtue of the resistance they are likely to encounter among *normal people* that do not think about concepts like these for a living.

One immediately striking feature of degrowth literature is that it often tends to start with tracing the historical origins of modern capitalism. That is, a capitalism with perpetual growth at its core, an element without which it would cease to be what it is; in Hickel's (2020a, 40) words:

> "When we think of capitalism we think of things like markets and trade, which seem natural and innocent enough. But this is a false equivalence. Markets have been around for many thousands of years, in different times and places. Capitalism, however, is relatively recent – only about 500 years old [...] What makes capitalism distinctive isn't that it has markets, but that it is organised around perpetual growth. It is a system that pulls ever-expanding quantities of nature and human labour into circuits of accumulation."

One debate where this view has manifested itself was sparked by the proliferation of the term *the Anthropocene*. The term is generally accredited to Paul Crutzen (2002) and is widely accepted. The reasoning behind the term is that Earth, for the first time in its age-old history, finds itself geologically shaped by the forces unleashed by human activity.

There is a myriad of problems with this term, of which only a few can be mentioned here. To begin with: it displays an anthropocentrism that is in itself part of the problem (Somma 2006, 39). Furthermore, rather than speaking of *the* Anthropocene, or a singular climate crisis, it makes more sense to describe the situation humanity faces as multiple "mounting capitalogenic environmental crises" (Siamanta 2021, 48). A number of critical engagements with the term find that it would be more appropriate to speak of a *Capitalocene*. This, it is argued, is because the geologically determining factors, such as the spectacular rise in climate gas emissions, coincides not with human activity per se, but with the unprecedented levels of extraction and accumulation characteristic to a capitalist organization of human societies, which is a much more recent phenomenon (Moore 2017; Bonneuil & Fressoz 2016; Hickel 2020a). Alternatively, John Clark

(2020, 10) argues for naming a geological epoch not according to what has caused it but according to what is occurring within it: “the most accurate, Earth-centered, term is ‘Necrocene’, the ‘new era of death.’ Ours is the age of die-off, of mass extinction of life on Earth, and this is what the fossil record will record.”

Whatever terminology one prefers, degrowth rejects the notion that humanity and nature principally stand in conflict with each other. On the contrary, its advocates argue that humans and the natural world can live – and for most of human existence have lived – in reciprocal harmony with each other. That is, as long as natural limits are not exceeded in the name of growth – which under capitalism tends to the benefit very few, and kills off everything that gets in its way. The latter point adds an important social dimension to the critique of capitalism. Degrowth, therefore, challenges both the premise that humans are by nature competitive rather than cooperative, as exemplified by the concept of *homo economicus* (Demaria & Latouche 2019), and the antagonistic human/nature dualism that is necessary for any extractive relationship with Mother Earth (Hickel 2020a).

As Arturo Escobar writes, “[e]nvironmental struggles are often ontological struggles, that is, they involve contests over the basic definition of life and the world” (Escobar 2015, 460). If it is also true that ”[h]istorical capitalism is not only a social formation but an ontological one,” (Moore 2017, 600) understanding degrowth perspectives necessitates critically confronting the mainstream and internalized assumptions of our current economic reality and how it came about. Hence, the task at hand is to unlearn, as a society, the myths that have underpinned western culture and education at least since the Washington Consensus. Many argue that it goes much further back, some as long as 500 years, coinciding with the advancement of enclosure in Europe in the early 1500s and colonization abroad, beginning with the discovery of America by Columbus in 1492 (Hickel 2020a, 45–54).

Already Ivan Illich (1973, 18), one of the intellectual ancestors of degrowth, knew that

> "[o]ur present attitudes toward production have been formed over the centuries. Increasingly, institutions have not only shaped our demands but also in the most literal sense our logic, or sense of proportion. Having come to demand what institutions can produce, we soon believe that we cannot do without it."

Needless to say, undoing five centuries of capitalist cultural programming is no small task.

To return to the Norwegian example once more, the issue is complicated further by what Anne Terese Gullberg (2014, 372) has called *collective cognitive dissonance* in the context of the paradoxical self-image of Norway being a "climate-friendly oil nation."[2] Elisabeth Eide et al. (2014, 18) put it more carefully:

> "Is it perhaps the case that politicians, with their advisors and their daily or weekly press appearances dressed in media-friendly rhetoric, reach through to their audience easier with their political realism, defined by the desire to win the next election (four-year perspective) than what researchers with their threatening and complicated hundred-year-perspectives do?"[3]

Affirming the cognitive dissonance diagnosis, they go on to speculate that from this viewpoint, people are not critical because they question the soundness of the research, but because of what it would mean for them if it were true (Eide et al. 2014). In other words, critically engaging with the history of the Necrocene entails scrutinizing one's own role in it. As in any country, to expect *normal people* to do this is a tall order in a place like Norway, a country where the boomer generation especially has benefited from fossil fuel extraction, while its environmental and social costs have been largely externalized. Although Norway seems to be an extreme case, the phenomenon of collective cognitive dissonance is by no means limited to Norway but a universal phenomenon across western civilization (see Hickel & Kallis 2020; Hickel 2020a; Jordan 2020).

[2] Translated from Norwegian: "klimavennlig oljenasjon" (Gullberg 2014, 372).

[3] Translated from Norwegian: "Er det kanskje slik at politikere, med sine rådgivere og sine daglige eller ukentlige medieopptredener iført medievennlig retorikk, når lettere frem til publikum med sin politiske realisme, preget av ønsket om å vinne neste valg (fireårsperspektiv) enn det forskerne med sine truende og kompliserte hundreårspespektiver gjør?" (Eide et al. 2014, 18).

TRANSITION VS. TRANSFORMATION

As indicated in the foregoing section, one of the appealing features of the degrowth argument is that if the human/nature dualism is a false premise, and if the exploitation of nature goes along with the exploitation of humans, the environmental and the social question are inseparable. The question that follows from this, then, is: how can the current and unsustainable capitalist social order be overcome? This is not a trivial question, but it necessarily follows from the above realization.

Still, degrowth advocates – certainly the more mainstream ones – are reluctant to address this question directly, which is understandable considering the effects insurrectionist labels can have on academic reputations and careers (Aall 2018). Nonetheless, the degrowth debate – especially when contrasted with green growth – is closely related to the debate between transition versus transformation. It therefore seems appropriate to briefly outline this debate, but first the term *green growth* should be explained.

Green growth is the dominant strategy in academic and policy responses to the climate catastrophe. Some of its proponents label themselves *ecomodernists*, attempting to occupy the position of modernism and thereby relegating alternative schools of thought to the opposite. The attribute *modern* is narrowly interpreted in technological terms in this discourse. Accordingly, "[e]comodernism foresees salvation in technology" (Bliss & Kallis 2019, 43). However, green growth is also advocated by more moderate, pro-market eco-reformists (Bliss & Kallis 2019). Green growth "rests on the assumption that absolute decoupling of GDP growth from resource use and carbon emissions is feasible [...] and at a rate sufficient to prevent dangerous climate change and other dimensions of ecological breakdown" (Hickel & Kallis 2020, 469). As such, it is conceptually much closer to contemporary capitalism and would therefore require much lesser societal change than degrowth, let alone a radical departure from the ruling capitalist logic. Unfortunately, however, it is also a deeply flawed idea, both empirically (Hickel & Kallis 2020), logically (Ward et al. 2016), and operationally (Dunlap 2021).

The terms *transition* and *transformation* have been widely used in academic literature, both in environmental contexts and beyond, so they naturally have many (sometimes contradictory) meanings. Michael Child and Christian Breyer (2017, 19) have made the effort to streamline both terms in the context of the debate on "change in the progress towards future sustainable energy systems." They found that "there currently seems to be an overlapping of the semantic representations and usage of the terms transition and transformation. In some cases, it also appears that the words are being used interchangeably." Although they start from a rather "soft" understanding of transformation – which may be owed to their focus on energy *systems* – their research highlights an important point: To fruitfully discuss different concepts there first has to be an agreement on language and usage of terms.

Andrew Stirling (2014, 13) has offered a more pronounced distinction between the two terms:

> "Societal transitions, it may be recalled, are mediated mainly through technological innovation implemented under structured control, presided over by incumbent interests according to tightly-disciplined knowledge, towards a particular known (presumptively shared) end [...] Social transformations, on the other hand, are based more around wider innovations in social practices as well as technologies [...] driven by incommensurable, tacit and embodied knowledges, involving more diverse, emergent and unruly political re-alignments that challenge incumbent structures pursuing contending (even unknown) ends."

If green growth strives to maintain the growth regime, just under different (non-)material conditions, while degrowth aims at reconfiguring social and human/nature relations entirely by doing away with growth, it is not difficult to see how these concepts pair with the transition/transformation duality. While degrowth proponents, in general, understand that degrowth will have to be brought about by "transformation strategies" that span over a range of diverse and unruly movements and alliances, green growth advocates "tend to prefer vertical forms of organization" (Burkhart, Schmelzer & Treu 2020, 20, 10).

Though still juxtaposing fossil fuel with so-called renewable energy (see Dunlap 2021 for why this is a misleading term), Peter Newell (2019, 26) criticizes transition approaches for having a narrow, socio-technological focus whilst continuing "to neglect questions of politics and power beyond specific management strategies and governance practices." While ecomodernism in essence views climate change as "a technical challenge that does not require social or cultural transformation" (Bliss & Kallis 2019, 45), Newell (2019, 27) maintains that a

> "more explicitly political and historical analysis allows us to move beyond glib statements about 'green growth' and 'win-win solutions' to the climate crisis to reveal the conflicts, trade-offs and compromises implicit in a fundamental re-structuring of an economy and the relations of power that will determine which pathways are pursued."

Introducing the Gramscian term *trasformismo* to the energy debate, Newell goes on to argue that disregarding questions of power risks co-opting alternative ideas by absorbing them into the old hegemony and thereby frustrating the emergence of organized opposition. In Newell's words, "trasformismo is the political attempt to manage this terrain: to ensure that politics and policy reinforce a market liberal approach to transitions within capitalism as opposed to more sweeping transformations of it" (Newell 2019, 29). Whether or not green growth exemplifies trasformismo in this sense is a question that lies beyond the scope of this commentary. However, it is a useful concept to illustrate that compliant reform of capitalism would at the very least be complicated.

Degrowth scholars tend to doubt that it is at all possible for capitalism to transition away from destructive growth, or even just into a lower gear, because aggressive growth is its defining characteristic:

> “The history of capitalism is one of dramatic ups and downs. Periods of unprecedented growth are followed by catastrophic crises of value destruction (including by war) clearing the ground for fresh accumulation [...] Prices are not adjusted so much by the market, as they are by crises and devaluations, at the peril of the most vulnerable segments of the population [...] [Schumpeterian] [c]reative destruction is the distinctive feature of capitalism […] Capitalism does degrow, but not by choice and not stably. A smooth price adjustment to an externally imposed limitation, such as a cap, is therefore unlikely.”
> (Kallis, Kerschner & Martinez-Alier 2012, 177)

Thus, a transition (in Stirling’s sense as quoted above) into a ”tamed” or ”friendly” version of capitalism is deemed unlikely by most degrowth scholars. Indeed, it would oppose the very nature of capitalism. The limited theoretical possibility for a smooth transition – as well as the experienced history of the opposite – can be said to be central to the emergence of degrowth as an idea in the first place. Hence, at best, degrowth may need to be brought about by a “fortuitous combination of popular struggle and collapse of the capitalist system” (Burton & Somerville 2019, 104).

Mark Somma (2006, 38) unsentimentally asserts (though in a more general environmentalist context) that, ”[t]he change required is *revolutionary* – it is systemic and far-reaching in scope: it demands a different conceptual paradigm, new values and lifeways, and a dramatically different set of social institutions.” Echoing the voices cited above, he adds that ”[l]ike a vehicle not equipped with brakes, the momentum of economic growth seems to have an inertia that can only be stopped with a crash” (Ibid., 41). While it is not necessarily required that everyone engages in active resistance,

> “without a culture where acts of resistance (from protest to sabotage) are supported by a wider population than that which is actually ready to take part in them, we will not have the systemic change necessary to achieve justice and avoid the collapse of our life support systems on this planet.” (Jordan 2020, 68–69)

This insight also does not bode well for the prospect of awakening an appetite of degrowth among *normal people*. If Curtis is right and people already are paralyzed out of fear of change as it is, the prospectof an unruly uprising against capitalism makes it unlikely that a sufficient number of *normal people* would buy into the idea of degrowth before things get significantly worse. One of the reasons for this morbid complacency could be that, as Serge Latouche (2014) has highlighted, “when we speak of the colonization of the imaginary we are dealing with a mental invasion in which we are the victims and the agents. It is largely self-colonization, a partly voluntary servitude.” Thus, challenging the ruling social order means challenging our role in upholding it. As with reinterpreting one’s position in history, this can be an unpleasant exercise.

CONCLUDING THOUGHTS

These concerns go much deeper than the more common prompt for degrowth to “become as sexy as capitalism is” (Jordan 2020, 67). Even if degrowth manages to shake off its unjustified image of a mode of existence that has to say no to everything and instead also in popular mainstream culture becomes the positive vision that it is, a break from a capitalist interpretation of history and a readiness for unruly transformational change remain necessary requirements for accepting the idea. In the current climate of fear of any change, that Curtis so aptly portrays, one can perhaps understand why the Norwegian labor party, fighting for its life, goes down the safer avenue of promising a politics that sounds a lot like the “good old days” – days we cannot return to because we are running out of planet. It nonetheless seems irresponsible.

As for academia, could it also be that *normal people* reject the idea of degrowth – or any alternative path for that matter – because it is handed down from above by lofty academics, the anywheres, who have detached themselves from *normal people* to an extent that they no longer understand their reality? Is the problem perhaps not just the message, but also the messengers? Without wanting to overtax the old image of the ivory tower, much suggests that academics need to reconnect with *normal people*, or better, become more like *normal people* in a structural sense. Philosophizing about the epistemological and ontological underpinnings of degrowth is not without virtue, but it is far from enough if the ambition is that degrowth shall actually see the light of day at some point. If academics, as an undeniable part of a societal elite, continue to soar above *normal people* without genuinely desiring their involvement and companionship, degrowth is doomed to remain in the lofty realms of theory. A credible engagement with *normal people*, on the other hand, requires that academics put themselves into their struggles and demonstrate a sincere will to listen and to understand – and beyond that to combat the trend of ever-expanding inequality between elites and *normal people*.

Yet, even if all that should succeed, time is short. Under ordinary circumstances, the process of de-colonizing our minds (Kothari et al. 2019, xvii) is a multi-generation project. As the capitalist order continues to bleed legitimacy, the demand for new ideas might accelerate. Still, despite the age-old calls for a "spiritual awakening, ecological education and fundamental political and economic change" (Somma 2006, 42), it is hard to see all that materialize in the short time left to avert total environmental collapse (in favor of mere disaster). This poses uncomfortable questions to the individual agency of those of us who have the insight and the ability to confront necrocenic capitalism on a more direct level. But it does not foreclose the importance of building and participating in communities that work towards re-adjusting our imaginaries towards a degrowth reality. It is not a binary relationship. On the contrary, perhaps what is needed to prepare the ground for a degrowth reality for people, regardless of where they stand, is exactly direct involvement both on the individual *and* the community level.

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FRAMING, FUNDING AND JUSTIFYING ENERGY FOR DEVELOPMENT

VILDE NORENES HILLEREN

In the autumn of 2020, the Norwegian Agency for Development Cooperation (Norad) proposed two different pathways for extending its long-running Oil for Development (OfD) programme into a broad energy programme (Norad 2020a). Since 2005, OfD has worked to promote "economically, environmentally and socially responsible management of petroleum resources which safeguards the needs of future generations" (Norad 2021). The overarching goal of the programme is to reduce poverty through "sustainable economic growth and welfare for the citizens," which it aims to achieve through strengthening regulatory frameworks, building institutional capacity, and fostering public sector transparency (Norad 2020a, 4).[1] In their newly proposed Energy for Development (EfD) programme, Norad suggests that "climate concerns" should be considered equally important to the goal of reducing poverty, and provide two options for achieving this. The first option consists of merging Oil for Development with Norad's Clean Energy Initiative (Ren), which aims to improve clean energy access and production in countries in the Global South,[2] as well as to increase the focus on climate and the environment in both these programmes. The second alternative involves combining this merge with funding mechanisms for the production of renewable energy (Norad 2020a).

This article will analyze three related, but distinct aspects of Norad's EfD proposals: its conception of "energy transitions"; its introduction of financing mechanisms for energy sources to replace coal and oil; and its understanding of the global responsibilities of rich countries to curtail the current climate crisis. The article argues that by presenting large-scale renewable energy production aimed primarily at generating economic growth as a viable pathway to mitigate climate change and reduce poverty, Norad is reinforcing the capitalist logic of endless accumulation that is at the heart of the climate crisis.

[1] OfD's current partner countries include Benin, Colombia, Cuba, Ghana, Iraq, Kenya, Lebanon, Mozambique, Myanmar, Somalia, South Sudan, Sudan, and Uganda (Norad n.d.).

[2] Ren's partner countries include Bhutan, Ethiopia, Haiti, India, Indonesia, Liberia, Mozambique, Myanmar, Nepal, Palestine, South Sudan, Tanzania, Timor-Leste, and Uganda (Norad 2017, 64).

The first part of the article will give a brief overview of the OfD programme in its current form, followed by a review of different histories and literatures of energy transitions and their relationship to growth, development, and the climate crisis. Building on the literature of degrowth and post-development scholars in particular, the article will then analyze how the EfD proposals conceptualize energy transitions. The third part of the article focuses on the second EfD alternative and examines its proposed funding mechanisms for expanding renewable energy production. Drawing on research about the material consequences of growth-driven extraction for renewable energy, it also problematizes some of the report's assumptions about the development of "clean" energy sources. Finally, it contrasts Norad's portrayal of Norway's global responsibility in climate crisis mitigation with literature on historical and contemporary ecological debt.

OIL FOR DEVELOPMENT

Oil for Development was launched in September of 2005, with the aim of transferring Norwegian petroleum management expertise to partner countries. Since its inception, the programme has focused on good governance, capacity building, and transparency, with an overarching goal of contributing to poverty reduction by generating stable oil revenues. A government press release from the launch of the programme also highlights OfD's strategic importance for Norway's influence on global oil production, stating that "the government wants Norway to play a central and clearly defined role in the international dialogue on oil and development" (The Norwegian Ministry of Foreign Affairs 2005). Former Minister of Petroleum and Energy Thorhild Widvey is quoted as saying that "increasing the stability and reliability of petroleum production in developing countries will also boost global petroleum supply security" (Ibid.). Some of the ways the programme works to achieve its aims include influencing petroleum legislation and regulation in partner countries, holding training sessions for relevant public sectors, and working with civil society organizations to promote petroleum sector transparency and accountability. Between its establishment in 2005 and 2019, the annual OfD budget grew from 50 to over 230 million NOK, and in the same time period the programme has operated in 30 different partner countries.

A common argument across these country partnerships is that OfD helps "face the petroleum curse" (Norad 2008; 2013; 2020a; 2020b). In an OfD report from 2008 (Norad 2008, 2), then-Minister of the Environment and International Development Erik Solheim writes the following:

> "Oil should be a blessing, not a curse. Governments should use petroleum revenues to provide essential services for the many, and not line the pockets of the few; local communities should experience new economic opportunities from petroleum activities, and not the destruction of their livelihoods through environmental degradation; countries rich in petroleum should prosper, and not slide into violent conflict and political chaos."

The premise of the so-called resource curse is that many countries with rich sources of oil and minerals also experience lower levels of economic growth and other measurements of development than other countries. Norad claims that there are a mix of political and economic reasons for this, including governments that were either unable to manage resources due to the volatility of the market, or that "were weak, unstable or corrupt, and thus directed resources into private pockets rather than activities for the public good" (Norad 2013, 74). This analysis leads to the conclusion that OfD can help counter the "resource curse" by strengthening institutional petroleum management in partner countries.

OfD envisions "a holistic approach to petroleum management," which entails a "profitable and sustainable management of petroleum resources" (Norad 2015, 3). In order to achieve this, institutions should create frameworks that provide "a fair share" of petroleum income to the state and ensure that investors and producers retain "sufficiently attractive returns."

Norad does not specify what a "fair share" consists of, nor how this amount is determined. The environmental concerns of the approach focus on disaster prevention, taking the environment into account during "all phases of petroleum exploration and production" as well as "issues related to climate change" (Ibid.). Some OfD annual reports refer to specific environmental successes, such as developing petroleum-related Health, Safety and Environment regulations of partner countries (Norad 2016), boosting environmental data management capacity (Norad 2018), or helping relevant institutions address the challenges of gas flaring (Norad 2019). However, the language of "addressing" and "accounting for" climate change or environmental impact remains incredibly vague and says little to nothing about the material consequences these considerations will have for petroleum production. Promoting environmental responsibility that ends after the point of production also enables petroleum companies and oil-producing countries to frame their ever-expanding extraction as "green."[3] This narrative is also present in the EfD proposals, in which Norad argues that the continuation of OfD in a broader energy program will enable Norway to push petroleum production in a less pollutive direction (Norad 2020a, 3).

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[3] For example, Equinor's 2020 sustainability report boasts about the "record-low operational CO2 emissions" of the newly opened Johan Sverdrup field, despite its potential to increase Norwegian oil production by 37 per cent (Equinor 2020, 2; Helgesen 2011).

A key justification for broadening Oil for Development into Energy for Development is to contribute to partner countries' energy transitions, purportedly in the hopes that this will reduce emissions and help stop climate change. However, critical historical analyses tell a different story about these transitions and their transformative potential. Historically, changes in energy production and consumption have been tightly connected to economic growth and increasing energy demand. Despite its positive reputation in mainstream development, the logic of continuous growth is at the heart of the climate crisis, thus technological energy innovations alone do not challenge the root causes of climate change.

In his book *Energy transitions: history, requirements, prospects*, Vaclav Smil (2010, vii, emphasis original) defines energy transitions as the "change in the composition (structure) of primary energy supply, the gradual shift from a specific pattern of energy provision to a new state of an energy system." Energy historian Arnulf Grubler (2012) argues that the energy transitions of the past were driven by technological innovation, improved efficiency, and the scaling up of new forms of energy production. The study of historical changes in energy production, he argues, "can reveal patterns, dynamics, and drivers of past changeovers" that can inform contemporary strategies for the transition of the future (Ibid., 8). York and Bell (2019) argue that energy transitions cannot just be defined as *changes* in energy provision, but instead entail a simultaneous process of "developing the infrastructure for and expanding the production of a new energy source" and "a transition away from (i.e., a genuine decline in the use of) more established energy sources" (Ibid., 40, emphasis original). Building on this definition, they challenge recent announcements such as that of Michelle Grayson (2017, 133) in *Nature*, who claims that "the transition from fossil fuels is well underway." It is true that the consumption of renewable energy has increased by an annual average of 13.7 per cent in the past decade, and that this consumption was the highest on record in energy terms in 2019 (British Petroleum 2020, 53). However, this has not led to a proportional reduction in fossil fuel consumption. Between 2008 and 2018, global oil consumption increased by an annual average of 1.4 per cent, coal increased by an average of 0.8 per cent and natural gas increased by an average of 2.5 per cent (Ibid., 20, 47, 36). While these developments do reflect changes in the global energy mix, they do not fit the definition of energy transitions.

From a historical perspective, Bonneuil and Fressoz (2016, 91, emphasis original) similarly argue that "the history of energy is not one of transitions, but rather of successive additions of new sources of primary energy." Contrary to mainstream energy historians, they argue that "there has never been an energy transition" (Ibid.). For example, both Smil (2010) and Grubler (2012) consider coal's shrinking percentage of the energy mix as the use of oil, gas and electricity to be a successful past energy transition that contemporary policy makers can learn from. Meanwhile, Bonneuil and Fressoz (2016, 91) highlight that although "the use of coal decreased in relation to oil, it remains that its consumption continually grew; and on a global level, there was never a year in which so much coal was burned as in 2014." Moreover, they emphasise that the history of energy transitions and additions is not one of technical innovation, substituting scarce or depleted resources or improving economic efficiency. Instead, they argue that this history is "above all one of political, military and ideological choices" (Ibid., 94). Thus, not only do mainstream histories of shifting energy use and production "[obscure] the persistence of old systems," (Ibid., 92) they also depoliticise the reasons for these changes.

In his book *Fossil Capital*, Andreas Malm (2016) provides a historical account of the political drivers in changes of energy production. More specifically, he demonstrates how the advance of steam power cannot be reduced to its efficiency gains or innovative technology. When it was first adopted, the steam engine was less energy efficient and more expensive than many other available energy sources. However, the mobility of the steam engine allowed capitalists to move factories from rivers in the countryside to factories in the middle of growing cities. This gave factory owners more control over production, and more control over labour, which was much more replaceable in urban areas than in rural ones. In reference to Malm, Cara Daggett

(2019, 30) writes that "the demand for profit by some at the expense of others drove capitalists toward a fuel that could be mobile, privatized, highly controlled, and burned all night." In this sense, Malm (2016, 272) argues that "the steam mill did not give us society with the industrial capitalist, but precisely the other way around."

This energy history tells a very different story about the drivers of change than the narratives that present technological developments as independent of politics and the logic of capital accumulation. Situating industrial growth and expansion at the centre of recent energy history brings attention to different "patterns, dynamics, and drivers of past changeovers" than the ones Gruble emphasises (2012, 8). This allows us to not see fossil fuels in themselves as the only problem to be solved in order to end the climate crisis, but also the infinite logic of growth and accumulation that the production of these energy sources has been used for.

HISTORIES OF GROWTH AND THE CLIMATE CRISIS

Jason Moore (2018, 269) coined the term Capitalocene to describe how the current climate crisis has not been created by an undifferentiated category of human activity, but rather by "the endless accumulation of capital." He argues that the project of capitalism functions by attempting to externalise nature from society and human relations, cheapening nature and putting it at the service of economic growth (2017). Understanding how this dualism works to devalue both life and land is therefore essential to understanding the origins of capitalism's social, economic, and environmental crises. In the case of Energy for Development, this means paying attention to the ways in which nature continues to be devalued through capitalist "solutions" to the climate crises, as well as how human and nonhuman relations are severed in the process.

One way to counter this is through degrowth, which describes a "matrix of alternatives" to capitalism and economic growth (Demaria & Latouche 2019, 149). Degrowth scholars argue that building alternatives to the capitalist reliance on continuous expansion must involve a reduction of the overall throughput of industrial economies, i.e., “the materials and energy a society extracts, processes, transports and distributes, to consume and return back to the environment as waste” (Kallis 2010, 874). This rejects the notion that economic growth is innately positive, or that it can continue globally as long as it is fuelled by renewable energy. In response to the green growth claim that improved energy efficiency and the substitution of fossil fuels for renewable energy can produce ecologically sound economic growth, Hickel and Kallis (2020) illustrate that the decoupling of GDP from carbon emissions is both historically unprecedented and extremely unlikely. They argue that in order to meet the already detrimental levels of global warming stated in the Paris agreement, global throughput must be considerably reduced. In order to reach the goal of 1.5 degree warming[4] specifically, global energy demand must be reduced by 40 per cent within the next three decades (Ibid., 480). The proposals for Energy for Development are, in part, motivated by efforts to achieve the goals of the Paris Agreement. Nevertheless, Norad (2020, 1) justifies continued petroleum aid as long as it is complemented by financing renewables, on the basis that “petroleum will continue to be produced to meet the world’s growing energy demand for decades to come.”

Post-development scholar Arturo Escobar (2015) critiques the tendency for some degrowth scholars to argue that it is only rich countries that must degrow, whereas poorer countries should continue to “grow” or “develop” in the name of poverty reduction and the eradication of inequalities. Escobar highlights that growth should not be seen as the driver for reducing poverty or inequality. Instead of portraying economic development as the path to better living standards for the poor, Escobar calls for transitions that centre the rights of nature and Buen Vivir. Buen Vivir means “Good Life or collective wellbeing according to culturally appropriate conceptions” (Ibid., 455), and is rooted in Indigenous struggles in Latin America. It is also a central aspect of post-development, which decentres development and growth-oriented extractivism as the hallmarks of progress.

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[4] The treatment of the 1.5-degree goal as merely preferable rather than vital also illustrates the racist indifference towards the catastrophic effects global warming will have on island states and many African countries. During the 2009 UN climate summit in Copenhagen, African delegates called the 2-degree warming goal a “death sentence for Africa,” and protested it saying “two degrees is suicide,” “1.5 degrees to survive,” and “we will not die quietly.” (Pulido 2018, 120)

Nirmal and Rocheleau (2019) provide another perspective on the ways that degrowth can better engage with and learn from Indigenous struggles in the Global South against growth by deterritorialization, often involving large-scale extractive projects in the name of development. These critiques emphasise that economic development is not a positive project that rich countries must sacrifice for the good of the planet, but instead involves deterritorialization, dispossession, and environmental degradation at all levels in the quest of capital accumulation and growth. In light of these histories and ongoing challenges, Norad's technocratic presentation of energy transitions without reductions, and conflation of renewable energy production, economic growth, and poverty reduction require closer analysis.

VISIONS FOR TRANSITION IN ENERGY FOR DEVELOPMENT

Norad emphasizes the need for energy transitions as one of the key justifications for widening the scope of its energy aid. They argue that changing Oil for Development into Energy for Development will contribute to "developing and implementing an energy transition strategy, including mapping, planning and financing projects for renewable energy and energy efficiency" (Norad 2020a, 2). Financing energy production would introduce a new dimension to Norad's energy aid programmes, as the Oil for Development programme has been restricted to governance measures and capacity building rather than direct funding. The report states that "Norwegian aid to the petroleum sector is not about funding infrastructure or projects, but rather focuses on managing the sector responsibly" (Ibid., 8). Norad, however, does offer financial support to "suppliers of offshore oil and gas industry" through its grant scheme, which is currently separate from the Oil for Development programme (Norad n.d.). Other potential contributions to energy transitions mentioned in the report include "policy development, knowledge of sources of finance, capacity building, risk analysis, employment opportunities, cooperation with private investors, et cetera" (Ibid., 14). They emphasise the need for renewable sources of energy to make up "a continuously increasing share of the energy mix," (Ibid., 9) but also highlight that "the development of natural gas resources can contribute to replacement coal power plants” (Ibid., 8). On this basis, they present the identification possibilities for natural gas extraction as a substitute for coal as one of several ways that the new Energy for Development project could contribute to the goals of the Paris agreement.

All of the suggested contributions to the energy transitions of partner countries focus on energy additions rather than reductions. Norad writes that the aim of their report was to “review the profile and aims of the Oil for Development programme, as well as considering aligning the programme with the Paris agreement’s goals of reducing greenhouse gas emissions” (Ibid., 1). The authors argue that it seems reasonable to consider gradually dissolving petroleum aid down the line, but current debates about dissolving the programme altogether is considered beyond the scope of their task. They do raise questions about the legitimacy of petroleum related aid but justify the continuation of OfD based on its contributions to responsible resource management in countries with little responsibility for global emissions. Based on the prediction that oil will continue to be produced for many years to come, they argue that continued energy aid through Energy for Development can contribute to a greener, more “environmentally friendly petroleum production” (Ibid., 8). Thus despite the claims that Energy for Development will be considerably more environmentally ambitious than its predecessor, it remains committed to absolve petroleum producers of their ecological responsibility beyond the point of production.

The vision for energy transitions without reductions is symptomatic of the contemporary and historical narratives of energy transitions outlined by York and Bell (2019) and Bonneuil and Fressoz (2016). Through its proposed energy additions, Energy for Development may production, and changing the energy mix of partner countries, but this in itself is not an energy transition. It could be argued that it is not Norway’s role to call upon its partner countries to dismantle their petroleum production when this has not only been the historical source of Norway’s economic wealth, but is also continuously produced and actively searched for both domestically and internationally today.

However, by presenting the financing of renewable energy additions and managing as an ambitious plan for contributing to climate change mitigation, Norad fuels the dominant, yet false narrative that technological innovation and expert-led resource management is a sufficient, desirable, or even possible pathway for mitigating the ecological crisis. The portrayal of a win-win-win scenario of economic growth, greenhouse gas reduction, and poverty reduction obscures the ways in which development and its associated processes of capital accumulation create both poverty and environmental degradation. This includes the extractive processes involved in the supply chains of renewable energy production (Dunlap forthcoming; Baka 2017; Yenneti et al. 2016). While it may not be the place of an oil nation to call for reductions in fossil fuel production in partner countries, Norad is contributing to the idea that renewable energy production on its own can reduce carbon emissions through market mechanisms. By putting renewable energy production at the service of economic growth, and by centering economic growth as the pinnacle of progress, the Energy for Development proposals reinforce some of the very same capitalist dynamics behind the poverty and "climate concerns" the programme seeks to address.

THE BUSINESS OF RENEWABLE ENERGY AID

Through its introduction of funding mechanisms that require increased productive capacity and continuous growth in job creation, Energy for Development is embedding renewable energy production into the same growth-based imperatives of capital accumulation that have led to the bloating of the global economy. As research documenting the dispossession, violence, and ecological degradation involved in wind, solar, and hydropower production grows (Yenneti et al. 2016; Baka 2017; Dunlap forthcoming), there is an increasing need to challenge the conflation of renewably fuelled economic growth, environmental protection, and poverty reduction.

In its second alternative for a broader, more climate-oriented programme for energy aid, Norad (2020a, 16-17) presents three existing development financing mechanisms that Energy for Development can incorporate to help finance renewable energy in partner countries by incorporating existing development finance mechanisms. The first of these is the continuation of existing bilateral aid, which includes financing the expansion of renewable energy production and transmission and distribution grids, as well as the impact assessments related to these projects. The second involves financial support for multilateral funds related to climate and energy, including the Green Climate Fund. The final mechanism relates to encouraging commercial investments in renewable energy through business incentives and risk-aversions for the private sector, as well as direct investments through Norfund.

The encouragement of commercial investments prioritizes the continuous growth in the capacity and scale of renewable energy projects. The first of these financing mechanisms is Norad’s grant scheme for businesses, which aims to contribute to economic growth and energy access in the Global South by reducing investment risk for the private sector. Energy access is framed as particularly important because of its importance for “business development and job creation in developing countries” (Norad n.d.). The support to the energy sector includes both renewable energy and providers for the oil and gas industry.

Although reduced emissions from the energy sector is an objective for the grant scheme, the performance criteria do not involve any environmental requirements. They do, however, require documentation of increased productive capacity and private sector job creation. In this sense, Norad's current grant scheme may contribute to both strengthening the supportive base of the petroleum industry and adding renewable energy sources to the energy mix, but this in itself cannot be characterized as an energy transition.

The second mechanism is the State investment fund for business in developing countries (Norfund). Around 50 percent of Norfund's investment portfolio is invested in wind, solar, and hydropower in Latin America, Asia, and Africa. The businesses Norfund invests in range from producers of mini-grids and grids for household use, to large scale power plants. Similar to Norad's grand scheme, Norfund highlights that it invests in "clean energy" because "lack of access to energy is a key constraint for businesses in low-income countries," and across their website they highlight the constraints that lacking energy access puts on economic growth (Norfund n.d.). In their theory of change, Norfund portrays the development of clean energy sources as merely an issue of mobilizing sufficient financing and effective project designs (Norfund 2020). Furthermore, this theory highlights the need for private investments specifically, because "reliance on state utilities drains public resources and is less efficient" (Norfund 2020, 7). In presenting these arguments as evident facts, Norfund obscures the ways in which producing solar, wind, and hydropower for the purpose of economic growth and business expansion reproduces many of the same issues as petroleum production, albeit with lower emissions.

In recent years, a growing number of researchers have critically analyzed the environmental injustices produced by the use of large-scale construction of solar, wind, and hydropower. Yenneti et al. (2016) write about the construction of large-scale solar parks in Charanka in the Indian state of Gujarat. The land allocated to these parks was located in state-owned areas considered "wasteland," however, many of these areas were important grazing and farming lands for the local Rabari population.

The enclosure of these areas for the construction of solar power plants thus removed important local sources of livelihood, and the developmental promises of economic growth and job creation did not materialise into better living conditions for the people affected. Baka (2017) introduces the term “energy dispossessions” to describe how energy-related development projects cause dispossessions and the enclosure of commons in the name of “providing forms of energy incommensurate with local needs” (Ibid., 977). Dunlap (forthcoming) writes about how large-scale renewable energy production not only creates sacrificed zones to make space for new power plants, but also to mine the materials necessary for the production of “clean” energy. In light of the immense amount of mineral extraction and fuel needed for “mining, processing, manufacturing, and transporting raw materials and manufactured components” for both the energy production and transmission lines predicted in a renewable energy transition, Dunlap argues that “renewable energy” is better described as “fossil fuel+” (Ibid., 7). This research complicates the binary of bad fossil fuels and good renewable energy which permeates much of energy transition discourse (Ibid., 1). As marginalised communities in the Global South bear the brunt of environmental injustices and degradation caused by industrial renewable energy production, the narrative that reducing throughput reserved for the Global North distorts the consequences of capitalist economic development in poor countries.

GLOBAL RESPONSIBILITIES AND ECOLOGICAL DEBT

Norad states that part of its motivation for broadening the Oil for Development programme is to better align Norwegian developmental programmes with the aims of the Paris Agreement, as well as Norway's responsibility as a rich country in global climate change mitigation. The report states that "rich countries are expected to contribute with the largest reductions, and should additionally aid developing countries to reach their national climate goals through technology and knowledge transferral, as well as financial support" (2020a, 6).

In the book *No More Looting and Destruction: We the Peoples of the South are Ecological Creditors*, Aurora Donoso (2003, 13) defines ecological debt as the contemporary and historical debts that the Global North owes to countries of the Global South "for having plundered and used of their natural resources, exploited and impoverished their peoples, and systematically destroyed, devastated and contaminated their natural heritage and sources of sustenance." She argues that some of the mechanisms that have accumulated ecological debt include: the structural imposition of privatization, facilitation of foreign direct investments, and expansion of the energy supply and natural resource extraction in order to increase production. The fossil fuel and mining industry are two of the book's key areas of focus in analyses of contemporary accumulations of ecological debt.

Norad's recognition of rich countries' responsibility in global climate change mitigation perhaps seems more motivated by its obligations according to the Paris Agreement than by its historical responsibility for the climate crisis or an attempt at settling its ecological debt. However, the portrayal of financing and investing in renewable energy production as a purely environmentally friendly endeavour obscures the reliance on fossil fuels and intensified mineral production for large-scale wind, solar, and hydropower production. This narrative also hides the processes of dispossession, displacement, and violence that the enclosure of commons and creation of sacrifice zones for energy production often entails. The promise that these projects will generate economic growth and in turn reduce poverty also distract from the historical and contemporary ways in which industrial energy production has produced poverty and deepened inequalities.

CONCLUSION

The developmental projects of rich oil states are perhaps not the most constructive places to look for transformative, anti-capitalist solutions to the climate crisis. The purpose of this article was to identify the ways in which state-led development projects, such as the proposed Energy for Development programme, can contribute to deepening the crisis when put at the service of continual capital accumulation. This article argued that by presenting large-scale renewable energy production aimed primarily at generating economic growth as a viable pathway to mitigate climate change and reduce poverty, Norad is reinforcing the capitalist logic of infinite growth that is at the heart of the current planetary predicament. By portraying renewable energy additions as synonymous to "energy transitions," Norad is contributing to the narrative that wind, solar, and hydropower will slowly make fossil fuels obsolete through innovation, competition, and other mechanisms of the market. Contrary to this, the research of York and Bell (2019) and Bonneuil and Fressoz (2016) illustrate that energy sources that have shrunk in proportion to others have continued to grow in absolute terms. Furthermore, it obscures the reliance on fossil fuels and intensive mineral extraction in the supply chains of renewable energy, as demonstrated in Dunlap's research (forthcoming). The funding mechanisms for renewable energy production further cater to business expansion and necessitate continuous growth in productive capacity and job provision. Petroleum production and private-sector focus on economic development are only some of the ways in which Norway has accumulated ecological debt towards countries and communities in the Global South. However, this debt cannot be settled through the same growth-based logics that have brought about climate change. As states ramp up their responses to the climate crisis, there is an increasing need for critical attention to proposed solutions that deepen the structural operations that are fuelling the current climate crisis.

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THE CASE FOR DEGROWTH ENERGY TECHNOLOGIES

SHAYAN SHOKRGOZAR

INTRODUCTION

Recent decades have witnessed the onset of the Anthropocene, which in no small part is a result of "an unprecedented upsurge in energy mobilization: first with coal, then with hydrocarbons and uranium" (Bonneuil & Fressoz 2017, 9). This epoch is witnessing an upsurge of forest fires and hurricanes, among other "natural" disasters, alongside record-breaking temperatures. These realities impose the threat of anthropogenic climate change, ozone depletion, and ocean acidification. Together, they threaten the lives of human and more-than-human worlds, and lead to catastrophic effects on societies and ecosystems (see Wallace-Wells 2019). Beyond the Anthropocene, Clark (2020, 10) argues that Earth's history is "a struggle between the forces of life, regeneration and creation, or Eros, and those of death, degeneration and domination, or Thanatos," arguing these times are better describe as the Necrocene, or the new era of death, consisting of mass extinction of life on Earth.

The threats of ecological depletion and climate change have led to scientists advocating for rapid response (e.g., IPCC 2018), and they have been joined by international agencies e.g., UNEP 2011), policymakers (e.g., Ministry of Environment 1989), and environmental NGOs (e.g., Zero 2018). Proposals for combating the crisis have primarily come through "green" growth and, before that, a "sustainable" development approach (Anker 2018). Today, these efforts are spearheaded by a vocal group of Ecomodernists who advocate a technological and innovation-based response to the climate crisis (see Asafu-adjaye et al. 2015). On the other hand, and often away from the pomp of technocratic and bureaucratic institutions, Deep Ecologists and the advocates of Degrowth and Post-Development have called for a social and ethical change to how we live (see Næss & Sessions 1984; Kothari et al. 2018; Hickel & Kallis 2019).

Drawing from the literature on Degrowth and Post-Development, this article argues that the climate mitigation discourse of the Ecomodernist and "green" growth variety further exacerbates social fragmentation and ecological degradation. It instead calls for a Degrowth-oriented approach that seeks to reduce energy and material throughput fundamentally, in a socially just and redistributive manner. To exhibit an example of how a Degrowth-oriented technology would differ from one based on the values of "green" growth, this article investigates Degrowth energy technology. More specifically, the appropriation of windmills to serve the values of a Degrowth Society.

BACKGROUND

The debate amongst those who favor social and ethical modifications to our lives and societies and those who think more technology will solve the problems caused by technology go back several decades. The Club of Rome and their publication of *Limits to Growth* (Meadows 1972) is one event that brought this debate to the forefront. In modern days, this debate is carried out between the advocates of Ecomodernism and those of Degrowth.

Ecomodernists such as Asafu-adjaye and colleagues (2015) have called for populations to move to cities to allow for using less land; modern energy infrastructures (including nuclear energy) to "decouple" development from nature; and the preservation of "wild nature for aesthetic and spiritual reasons" (27) – describing meaningful climate mitigation as "fundamentally a technological challenge" (21). They call for significant governmental spending to fund the research necessary for making the crucial technological breakthroughs required in these times (Bliss & Kallis 2019). Alongside Ecomodernism, there is a sizeable institutional momentum for "green" growth, which in essence calls for furthering human well-being and growing income "while significantly reducing environmental risks and ecological scarcities.” (UNEP 2011, 16) Within the “green” growth paradigm, one finds oneself in the company of OECD, UNEP, and the World Bank. As pointed out by Hickel and Kallis (2019, 2), institutions such as UNEP and OECD come from a tradition of believing “technological change and substitution will improve the ecological efficiency of the economy, and that governments can speed this process with the right regulations and incentives.” These hegemonic institutions, which sit atop the current modality, are in the company of nation-states such as Norway, where this article is written.

Norway, in fact, has been at the forefront of arguing for a technological, financial, and innovation-based response to climate change. As pointed out by Anker (2018), much of the beliefs about carbon taxation, carbon trading, and technological solutions stem from how Norwegian politicians, starting with the Brundtland administration, increasingly looked to technology to be a climate pioneer while extracting fossil fuels – attempting to reconcile growth patterns, Petro-fueled wealth, and consumption with its “green” and Nordic profile. The Center for Development and the Environment (SUM) and CICERO were developed in the early ’90s to provide scientific knowledge to politicians according to realizing the World Commission’s vision for “sustainable” development (Anker 2018).

The limitations of lower-carbon energy infrastructure and carbon taxes in allowing Norway to reach its climate and emission goals have led it to further investment in carbon capture and storage (CCS) technologies, with a commitment of NOK 16.8 billion towards the world’s first full-scale CCS project, dubbed Longship. Longship will pump CO2 emissions to a reservoir beneath the sea through pipelines (Ministry of Petroleum and Energy 2020). Longship, and the transport and storage elements dubbed Northern Lights will be a joint project between the three fossil fuel giants Equinor, Shell, and Total.

These technological responses and investments further cement incumbent powers such as investment banks and large energy companies. The existence of multi-national incumbent powers is also prevalent in the so-called “transition” to lower-carbon energy, according to Giotitsas and colleagues (2015, 32):

> “[I]nstead of creating a new energy regime, renewable energy sources are considered as substitute for conventional ones in the same system, leading to efforts for renewable energy production that are, like their predecessors, detrimental to the environment and may cause severe problems to local communities.”

Deep Ecologists such as the Norwegian philosopher, Arne Næss, have called such bureaucratic and technocratic responses a form of shallow ecology, which consists of “a reform oriented, technocratic outlook that seeks accommodation with the existing corporate economic and interest-group political system.” (Næss in Somma 2006, 37)

REFLECTIONS ON DEGROWTH AND ENVIRONMENTAL JUSTICE

Hickel and Kallis (2019), in their review of historical trends and model-based projections of “green” growth, conclude that absolute decoupling cannot be empirically supported. They argue even under optimistic predictions, attaining an absolute decoupling at a rate to keep global warming below 1.5 or 2 degrees Celsius is unfeasible. Furthermore, infinite growth and attaining absolute decoupling in the long term are unattainable since there is a thermodynamically defined maximum efficiency (Ward et al. 2016). In other words, since material footprint is growing just as quickly (if not faster) than GDP (Wiedmann et al. 2015), energy and material use will continue to expand even at maximum efficiency. These variables lead to recognizing that it is imperative to explore alternatives to “green” growth. One such option is Degrowth.

Given the power of incumbent powers, such as fossil fuel corporations, charting a new trajectory remains an uphill battle. In reflecting on these issues, Ivan Illich (1997, 100-101) argues:

> “Defining alternatives to the products and institutions which now preempt the field is difficult, not only, as I have been trying to show, because these products and institutions shape our conception of reality itself but also because the construction of new possibilities requires concentration of will and intelligence in a higher degree than ordinarily occurs by chance.”

Despite these challenges, the past decade has witnessed the rise of Degrowth across much of the global North – growing in popularity and momentum, as shown in the growing number of publications on the topic in recent years. Degrowth, Hickel (2020, 2) argues, is "a planned reduction of energy and resource throughput designed to bring the economy back into balance with the living world in a way that reduces inequality and improves human well-being." Degrowth "emerged largely via grassroots activist critical of globalization and capitalism, who lived and advocated simpler living" (Demaria et al. 2019). Degrowth aims to work towards disaccumulation, decommodification, and decolonization (Hickel 2020). Degrowth is often confused as a strategy for reducing GDP, which it is not. Instead, Degrowth is an effort to reduce energy and material throughput in a just manner. Degrowth faces an uphill battle today, for the same reason it did decades ago, which Illich (1974, 58) described as:

> "Most people have staked their self-images in the present structure and are unwilling to lose their ground. They have found security in one of the several ideologies that support further industrialization. They feel compelled to push the illusion of progress on which they are hooked."

Thus, reformist efforts are often pushed ahead, such as the "energy transition" agenda, which intends to move capitalist economies from fossil fuel energy systems to lower-carbon infrastructures (McCauley & Heffron 2018). However, as discussed by the historians Bonneuil and Fressoz (2017, 91), if "history teaches us one thing, it is that there has never been an 'energy transition,'" instead they believe the "history of energy is not one of transitions, but rather of successive additions of new sources of primary energy." This is noticeable in the growing emissions from fossil fuels in Norway (Skjærseth & Jevnaker 2018) and globally (IEA 2020). The limitations of "energy transition" aside, there is a growing literature on attaining such as transition through a fair and equitable manner, often described as a just transition (Jenkins et al. 2018), such as through energy democracy. Burke and Stephens (2018, 89) describe energy democracy as an:

> “immediate resistance to fossil fuels coupled with the deployment of renewable energy systems at a pace that sustains and can be sustained by democratic governance, lest projects of democratization collapse and renewable solutions rapidly transform into the next human catastrophe.”

Nevertheless, even advocates of a transition carried out in a just and democratic way admit that these frameworks fail to adequately address modernism, industrialism, and human progress, especially with regards to the spatial reconfiguration of social, economic, and political patterns (Burke & Stephens 2018). Therefore, such frameworks are inherently reform-oriented, built on assumptions about the benefits of growth and bureaucracies and state mechanisms. And given the reliance of lower-carbon energy infrastructures on roads and fossil fuels, they comprise a part of Infrastructural brutalism “in which industrial capitalism has met the limits of its expansion and domination, and yet continues to press for unprecedented commitments to build more oil pipelines, more large dams, more roads, more paved surfaces than at any time in human history,” (Truscello 2020, 4) which lower-carbon energy infrastructures also rely on (Sovacool et al. 2020). Dunlap and Jakobsen (2020) describe these infrastructures and systems as the *Worldeater*, manifesting itself as a mega-machine entity causing climate change and the Anthropocene as it consumes the planet.

Furthermore, energy justice fails to question the extreme forms of violence inflicted on peoples, especially non-European and Indigenous societies, in the name of “progress” and “development” (Dussel 2013; Álvarez & Coolsaet 2018). It also fails to see modernism as a mode of life that values material accumulation over human and more-than-human worlds (Dussel 2013). As pointed out by Hickel (2021, 1):

> “Economic growth in the North relies on patterns of colonization: the appropriation of atmospheric commons, and the appropriation of Southern resources and labour [...] Just as Northern growth is colonial in character, so too “green growth” visions tend to presuppose the perpetuation of colonial arrangements. Transitioning to 100 percent renewable energy should be done as rapidly as possible, but scaling solar panels, wind turbines and batteries requires enormous material extraction, and this will come overwhelmingly from the global South.”

Thus, Degrowth in the North allows southern economies to shift away from being a source of cheap labor and raw materials and instead focus “on developmentalist reforms: building economies focused on sovereignty, self-sufficiency, and human well-being” (Hickel 2020, 5). According to Nirmal and Rochealeau (2019, 482), “a decolonized Degrowth must be what the growth paradigm is not, and imagine what does not yet exist: our separate, networked, and collective socio-ecological futures of sufficiency and celebration in the multiple worlds of the pluriverse.”

Here is where the literature on Post-Development shines through, which calls for the rejection of development and instead advocates for alternatives to development, as opposed to development alternatives (Ziai 2015). Moreover, unlike reformist frameworks such as energy justice, Post-Development not only scrutinizes capitalism but also extends that critique to power relations in modernity – reflecting on discourse, representation, and identity.

WIND ENERGY DEVELOPMENT

Recent years have witnessed a significant increase in wind energy development in Norway (Statistics Norway 2020) and throughout the world. The debates around “renewable” energy production capture the multiplicity of issues at play here, such as modernity and growth. Industrial wind turbines rely on a lifecycle consisting of extraction, processing, transportation, manufacturing, installation, operation, and decommissioning – which entail labor and ecological challenges – extending from the global South to the North (Sovacool et al. 2020; Dunlap & Jakobsen 2020; Dunlap 2021). The proliferation of voluntary UN standards such as Corporate Social Responsibility, private auditing firms, and free, prior, and informed consent processes are "Band-Aid solutions," which under a particular light could even be perceived as coercive pacification technologies (Verweijen & Dunlap 2021; Dunlap 2021). Moreover, the use of lower-carbon energy infrastructure, instead of reorienting society for confronting the climate crisis, is geared towards the continuation of green capitalism (Cavenagh & Benjaminsen 2017).

In Norway, wind energy development, which the government initially advocated in 1999 through adopting a 3 TWh wind power generation plan 2010 (St. meld nr. 29 1998-1999), has been growing in its share of the energy mix. At about 9.9 TWh of wind power in 2020, amounting to 6.4% of energy production, and expected to increase to 13.1% in 2021, wind power generation capacity is rising in Norway (Energifaktanorge 2021). These targets were initially adopted to increase the diversity of production methods in the energy mix and for national security reasons (Blindheim 2013). They were later strengthened by international agreements such as the Renewable Energy Directive (EC 2021). This development, however, has come under solid contestation and controversy in recent years (Shokrgozar forthcoming).

On the one hand, conservationists are upset about the loss and infringement upon nature, calling this development the industrialization of mountains. Within Saepmi, these developments have led to even further controversy due to the loss of pastureland, forcing Saami herders to buy pellets to feed their herds (Nilssen 2019), which the president of the Saami parliament has contested as green colonialism (Normann 2020).[1] As explained by Blindheim (2013, 342): "implementation of onshore wind power in Norway has also been controversial. Environmental impact, local acceptance, demands for national plans and regulations of land use for wind power purposes, have been the most disputed issues, in addition, to support schemes."

Norway is witnessing multiple direct actions against wind factories in recent years. Organizations such as Motvind have organized land protection efforts by setting up tents, barricading themselves, and blocking roads leading to development with chains to stop the blasting work in the mountains (Imeland 2020). When the Minister of Oil

[1] Saepmi is the Indigenous Saami territory that spans the nation-states Norway, Sweden, Finland, and Russia.

and Energy tried to open up the new Utsira Nord wind factory, she was confronted by protesters. Thus, the projects are contested but are still being carried out, such as the upcoming Øyfjellet industrial wind "farm," where land defenders have blocked access to the roads (Strøm & Olaisen 2021).

Advocates of lower-carbon energy infrastructure, such as Burke and Stephens (2018), argue that these energy infrastructures offer advantages that exceed simple fuel switching beyond its ability to reduce emissions. These advantages include broader availability of distributed energy sources and their ability to allow for new forms of ownership (Soutar & Mitchell 2018; Siamantha 2021). At the same time, so-called "renewables" are harnessing vital wind forces (Dunlap 2021), changing atmospheric turbulence, and enhancing landscape roughness (Abbasi et al. 2016). Scholars, such as Dunlap (2020, 122), argue:

> "The green economy has renewed the infrastructural colonizing force that creates more climate change and more ecological and habitat disruption, but also psychological fragmentation with the so-called "clean" or "green" infrastructures. In the end, infrastructural colonization necessitates an insensitivity toward habitats, nonhuman entities, and people themselves, an insensitivity and carelessness that root the onslaught of climate and ecological catastrophe."

In the face of such realities, how can such projects be considered renewable? And more so, how can energy infrastructure be compatible with a Degrowth Society?

DISCUSSION: ALTERNATIVE FUTURES

Some scholars argue Degrowth technologies have the potential of assisting with the effort to reorient societies in the face of the climate crisis and ecological depletion (see Kerschner & colleagues 2018). The spectrum of Degrowth technologies, however, is vast. Though a precise definition of Degrowth technologies remains contested, Metze (2018, 1743) describes them as ones that are downscaled, decentralized, and based on "renewable energy technologies." Likavčana and Scholz-Wäckerleb (2018) call for reorienting technology to serve Degrowth goals instead of markets and neoliberal growth.

Along the same lines, Illich (2001 [1975], 37) argues, “it would be a mistake to believe that all large tools and all centralized production would have to be excluded from a convivial society.” On average, convivial, appropriate, feasible, and viable technologies are supported by a majority in the Degrowth community (Kerschner et al. 2018; Eversberg & Schmelzer 2018). Degrowth technologies are, furthermore, built on the principles of reducing overproduction, increasing the lifespan of products, lowering energy and material use, and decentralizing production (Hankammer & Kleer 2018). Through these efforts, as pointed out by Likavčana and Scholz-Wäckerleb (2018), technology can be reoriented to serve Degrowth’s goals.

Despite the advantages of Degrowth Technologies, it remains imperative to lower energy and material throughput, through which much of the necessity for new infrastructure can be eliminated. Lower consumption is important since all technological efforts consistently face the dangers of unintended side effects such as solving one problem while creating another, known as the hydra effect (Kerschner et al. 2018). This includes the deployment of infrastructures in ways that harm others. Thus scholars within the Degrowth tradition call for a conscious minimization of technology use in our lives (Kerschner et al. 2018).

According to Smil (2010), up to about 110 GJ per capita energy use leads to an increase in the quality of life, after which there is no measurable benefit to the quality of life. Smil (2010, 724) further argues that:

> “[A] society concerned about equity, determined to extend a good quality of life to the largest possible number of its citizens and hence willing to channel its resources into the provision of adequate diets, good health care, and basic schooling could guarantee decent physical well-being with an annual per capita use (converted with today’s prevailing efficiencies) of as little as 50 GJ.”

Illich (1974) goes so far as to suggest there is a technological threshold which, if passed, would lead to adverse environmental and social impacts without satisfying demand.

For wind energy, playing with the elements of scale, ownership, and materials used, when combined with a spirit of living a subsistence-based lifestyle, allows for the production of what may resemble renewable energy. Without these elements in place, so-called “renewable energy” is simply Fossil Fuel+, as not only does it rely on fossil fuels for extraction and manufacturing, but it also requires large-scale control of natural resources (Dunlap 2021).

Fossil Fuel+ entails corporate industrial wind “farms” with materials mined in other parts of the world instead of a locally sourced wind turbine for a small community, shared in common. However, before discussing an energy system based on the principles of a Degrowth Society, it is vital to recognize a point made by Gómez-Baggethun (2020), which is that engaging with a technological utopia of modernism instead of one based on Degrowth reinforces the status quo and offers a false solution to environmental challenges. The Degrowth utopia advocated by Gómez-Baggethun (2020) is one that is ecologically and scientifically informed, thus a concrete utopia (see Martinez-Alier 1992). A concrete utopia is in sympathy with Illich’s (2001, 27) argument in favor of guidelines for action instead of fantasy. He argues: “A modern society, bounded for convivial living, could generate a new flowering of surprises far beyond anyone’s imagination and hope. I am not proposing a Utopia, but a procedure that provides each community with a choice of its unique social arrangements.”

Wind turbines can be sustainable if, instead of fiberglass, the blades are made of wooden blocks. Fiberglass is not recyclable and requires a large amount of material and energy use. Based only on wind turbines in service in 2015, Ramirez-Tejeda and colleagues (2016) estimate under conservative circumstances, composite materials from wind turbine blades worldwide will reach 418,000 tons per year by 2040. In addition, alongside the blades, the towers of turbines are made from steel and other metals, and while steel is recyclable and easier to repurpose, it still relies on a toxic lifecycle to produce, which includes extracting and burning fossil fuels (Sovacool et al. 2020). Industrial-scale wind factories require clearing forests, destroying wildlife habitats, and compacting soil to create the space for their operation. They, furthermore, need large foundations for concrete, along with other chemicals. During their operation, they leak oil, which damages the land for grazing and pollutes the water

(2021, 60) offers a nuanced approach to concerns about scale, technology use, and ownership by calling for Community Renewable Energy Ecologies (CREE) which: 1) acknowledges interrelationships; 2) goes beyond individual and local collective benefits; 3) embodies care for and affective relations between humans and between humans and earth others; and 4) is oriented towards a commons-based economy for more ‘thriving’ and egalitarian sustainabilities.

Giotitsas and colleagues (2015) call for a commons-based peer production (CBPP) of energy, with the principles of producing use-value, as opposed to profits. CBPP comes from the same tradition as free/open-source software (FOSS) in which many people, often voluntarily, contribute to a project that others are allowed to use and modify. An example of FOSS in the energy domain is provide by Kostakis and colleagues (2013), who designed and printed a wind turbine, dubbed the Helix_T. Their work demonstrates the potential of “design global” and “manufacture local” (DGML) energy hardware.

These variables bring us to practicing alternatives while resisting the growth paradigm and creating movements that can show desirable alternatives, while being prepared to resist the current system (Jordan 2020). Undoing the current modality and moving towards being and sharing the world requires “confronting and dismantling unjust structures of power to make way for other cultures to flourish” (Jordan 2020, 69). Thus, the effort to move away from structures of domination and destruction, which industrial-scale lower-carbon energy infrastructures are a part of, towards a harmonious and convivial society within a pluriverse allows for a Degrowth Society.

CONCLUSION

The article has explored the various paths to climate change mitigation. It started by exploring mitigation efforts to address the climate crisis through CCS, carbon taxation, and lower-carbon energy infrastructure (“energy transition”), most strongly advocated by eco-modernists. It then described the limitations of such approaches, like the high energy and material use levels that their implementation entails, as well as lack of vision in bringing about a new modality. It furthermore argued that reform-oriented efforts such as energy justice fail to account for the violence that new infrastructural development projects entail along their lifecycle and supply chain on human and more-than-human worlds. For a project to be renewable, it must first address issues of industrial development, energy consumption, injustices, and exploitative labor relations across its lifecycle. It must then benefit the local community, often through co-ownership, and finally made sustainably to be considered renewable energy. Thus, utility-scale energy infrastructures fail to produce renewable energy.

This article then discusses deep ecology, Degrowth, and Post-development as an alternative to the “energy transition” and “green” growth discourse. It explores what a convivial, appropriate, feasible, and viable energy system aligned with the spirit of a Degrowth Society would entail. It argued that working towards a Degrowth utopia, as opposed to “green” growth, empowers societies and resists incumbent powers that have brought about the climate crisis.

This article used the example of wind energy to highlight different variables of social, political, and technological issues within climate change mitigation, discussing what it would actually mean to make sustainable wind energy. It argues that renewable energy needs to engage with scale, ownership, landscape relationship, and appropriate tool-use to be considered renewable, and not an example of Fossil Fuel+. This article calls for communing the necessary implements of life to strengthen Eros and resisting their capture by the forces of Thanatos.

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CRITICAL ENGAGEMENTS WITH DEGROWTH

"THE POPULATION QUESTION" IN DEGROWTH AND POST-DEVELOPMENT

LISA HAMMELBO SØYLAND

INTRODUCTION

At a time when social inequalities, systemic oppression of various kinds and environmental destruction are rampant, transformation is needed. Degrowth and post-development are distinct yet overlapping movements that locate the problems with the model of perpetual growth and techno-industrial progress underpinning many transnational processes today, and formulate the needed transformations as degrowth or alternatives to growth-based development. Their case against growth is rooted in the harmful ecological and social consequences that the pursuit of growth entails. While some proponents emphasize natural limits and irreparable environmental degradation as barriers to perpetual growth, others focus on political, social, and cultural reasons to choose alternatives to growth because of its harmful effects.

Some interrelated topics that are often sidelined in mainstream debates in degrowth and post-development are those of reproduction, the global "population" and "population growth." The "problem" of population growth is a common-sense understanding that proves pervasive and persistent across many movements and schools of thought. Because the idea of population growth is often cited as a driver of environmental destruction and poverty, it is of the utmost importance to interrogate what kind of a role it plays in any proposed transformation. Precisely that is the focus of this article, which begins by considering what population and reproduction might be understood as, followed by an introduction to degrowth. Then the article will discuss how degrowth, and some of its post-development influences, relate to "the population question," before turning to the realities of population control that some degrowth proponents seemingly overlook or implicitly accept by way of careless referrals to population growth. The article argues that the specter of neo-Malthusianism lingers within parts of degrowth and post-development, as in many other movements, with potentially dire implications for bodily autonomy and reproductive justice.

WHAT IS POPULATION?

The concept and science of "population" is key to what Michelle Murphy describes as "the economization of life" – a valuation regime for the worth of life based in quantification and calculation, which serves the macro-perspective of the economy (Dow & Lamoreaux 2020, 476-477). At this conceptual scale, "human beings recede from view, rendering "population" as an experimental object (lab rat, guinea pig) in need of governance" (Clarke 2018, 14). Critically, the idea of the population as an entity for states to govern or manage involves preoccupations with increasing (pro-natalism) or restricting (anti-natalism) the reproduction of different (groups of) people (see Foucault 2003 [1975]). The wealth of states has always depended on their population and their ability to produce, allocate, and manage the "labor" or "human" resources of a country, in competition with other civilizations and nations – what Foucault (1998, 26) calls "the political economy of population."

As Dow and Lamoreaux (2020) state, when it comes to reproduction, population, the economy and the environment, the importance of scale cannot be understated. It has been noted by several others that narratives of global population growth are very grand-scale, unspecific, detached, and disembodied (Wilson 2017; Dow & Lamoreaux 2020; Harcourt 2020) – prime examples of what Donna J. Haraway (1991, 188) calls the "god-trick of seeing everything from nowhere." Disembodied statistics and references to population growth in general serve to obscure inequality and preclude specificity in favor of blaming population growth rates and demographic dynamics (Wilson 2017, 440). Abstract notions of the governable global population pair well rhetorically with the abstract notion of the whole earth in need of saving. As Markantonatou (2016, 37) writes, the earth is instrumentalized in ongoing concerns about overpopulation and "the number of humans that 'Earth can support.'" While the term "population" may sometimes designate local scales, debates on "overpopulation" often focus on local populations in the global South and the growing total global population, for which the global South is made responsible.

WHAT IS REPRODUCTION?

In order to consider how degrowth and post-development proponents deal with reproduction and "population," it is necessary to first establish how reproduction might be understood. Debates on reproduction, reproductive rights, and justice often center on individual choice, reproductive healthcare, access to contraception, and access to abortion. While these elements are vital to ensure bodily autonomy, and the struggles for them are ongoing, such rights are often framed in ways that resemble individualized consumer choice (Gaard 2010). Further, the assumed "reproductive agent" is the Woman – whose personhood is reduced to motherhood, woman reduced to womb – despite the facts that reproduction requires more than a single person, and that sex/gender and sexuality does not always neatly fit the binary understanding of the modern/colonial system of gender (Lugones 2007).[1] The assumed "site" of reproduction is the (White) heterosexual, monogamous nuclear family, in which reproductive and care labor is divided by sex and feminized. There has been much resistance to this kind of control over women's bodies, as well as the control over sexuality (in the form of compulsory heterosexuality) and reproduction. This is clear in anarchist and feminist refusals of procreation or reproductive labor, like that advocated by Emma Goldman, who theorized that "once women withdraw their reproductive, commercial and affective labour, the cogs of capitalism, militarism and religious ideology will grind to a halt" (in Hemmings 2014, 62). It is also clear in queer refusals of heteronormativity, homonormative reproduction and futurity (see Edelman 2004).

Reproductive injustices such as coercive reproductive control, sterilization, and sexual violence are also highly gendered, targeting

[1] My discussion of reproduction therefore does not assume the heterosexual, feminized reproductive subject, but acknowledges that this is the dominant category and an important (but non-exclusive) category for struggle.

feminized subjects. Despite this, reproductive rights are currently often co-opted and equated to mean only “abortion rights, family planning, and population control” (Nirmal & Rocheleau 2019, 468). Contrary to this narrow and individualist notion of reproduction, Dow and Lamoreaux (2020, 476) understand reproduction as less about “individual (decision) making” and more about the “inequalities and infrastructures that make reproduction (im)possible and that make environments (in)capable of supporting life.” Reproduction reaches beyond the realm of the reproductive body – or rather, reproduction and bodies cannot be separated from the social and naturalcultural environments of which they are a part (see Alaimo 2010). Dow and Lamoreaux (2020) also discuss the notion of “distributed reproduction,” which draws attention to the unequal socioeconomic conditions under which reproduction takes place, while the notion of “environmental infrastructures” describes the degree to which different environments are capable of supporting life, and by extension how they make reproduction possible or impossible. The infrastructures of reproduction are thereby not only understood as contexts for the bearing, but also the rearing, of children. Therefore, environmental and socioeconomic infrastructures of reproduction also affect different groups’ possibilities of reproducing their cultures and ways of life (Ibid.).

Unequal socioeconomic conditions and (un)livable environments are deeply interrelated, which is clear when considering access to housing, land, food security, non-toxic environments – or their opposites: environmental racism, exposure to toxicity and localized pollution, and housing or food insecurity (Ibid.). Displacement, dispossession of land rights, extraction, and accumulation constitute corporate and state-led violent disruptions to reproduction, and these issues should therefore not be neatly separated from reproductive justice (Wilson 2017). With increasingly and unevenly polluted environments, waste and toxicity are important aspects of the infrastructures of reproduction. Toxic environments affect reproduction both in immediate and intergenerational (epigenetic) ways by changing bodies, increasing infertility, and causing harm (Lee & Mykitiuk 2018). Additionally, exposure to ubiquitous, but unequally concentrated, toxic and endocrine-disrupting substances trouble the stubborn common understanding of sex as a binary in ways that require careful response to avoid feeding into queerphobia, misogyny, and ableism (Agard-Jones 2013; Davis 2015; Lee & Mykitiuk 2018).

The ways that reproduction, social, and natural environments are inextricably intertwined each other make the coalitions between reproductive and environmental justice seem obvious and necessary – and in recent years there have been several calls for *environmental reproductive justice* as a framework (see Sturgeon 2010; Hoover in Dow & Lamoreaux 2020).[2] Such coalitions will not exist through the connections proposed by narratives of degradation, scarcity and population reduction, but on the basis of intersectional attention to the interrelations between socioeconomic structural inequalities, racism, heterosexism, ableism, colonialism, misogyny, environmental degradation, and pollution due to industrial extraction, production, consumption, and waste. As Michelle Murphy (2018, 109) writes, "reproductive justice bleeds into environmental justice, which includes water, land, and non-human relations, as well as policing, food, shelter, schools, reserves, carceral systems, war, structural unemployment, and pollution. If you cannot drink the water, there is no reproductive justice." In this regard, it is noteworthy that both the environmental justice movement and the reproductive justice movement were, from the beginning, born out of struggles against the intersections of racist, misogynist, and classist oppressions

DEGROWTH AND NEO-MALTHUSIANISM

Introducing Degrowth and Post-Development

Degrowth is the umbrella term for a heterogeneous movement and strain of thought that seeks to abandon the ideology of endless growth, interrogate the social and environmental harms that "growth" cause, reduce the material throughput of production and consumption, and downscale in an equitable, democratic, and redistributive way (Markantonatou 2016).[3] The concept of "degrowth" (décroissance) is understood to have emerged in the 1970s in Europe when the French philosopher André Gorz made his critique of capitalist growth based on how it interferes with ecological considerations and the possibilities of climate change mitigation (Demaria et al. 2019, 432). According to Fabrice Flipo's speech at the *First International Conference on Economic Degrowth for Ecological Sustainability and*

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[2] Despite the term "justice" being a result of the critique of the term "rights," the framing in terms of justice has been argued to assume the state as a provider of justice, even when state and corporate actors often perpetuate environmental and reproductive harms. The environmental and reproductive justice I argue for is not necessarily provided by states. See: Demaria et al. 2019; Demaria & Latouche 2019; Nirmal & Rocheleau 2019; Álvarez & Coolsaet 2020.

[3] Arguably, this is a far too wide umbrella term, as degrowth is often critiqued for vague and unsubstantial proposals, as well as Eurocentric universalism. My discussion will also make clear the glaring contradictions that are subsumed under the heading of "degrowth."

Social Equity in 2008, the main conceptual roots of degrowth include concerns with natural constraints, carrying capacity, ecological equilibrium, protection of the biosphere, relocalization (or anti-globalization), overpopulation, and the negative impacts of technology (see Markantonatou 2016, 31). Parts of the degrowth movement are explicitly anti-capitalist, while others are not.

The early degrowth movement brought the political ecological critiques of productivism and economism together with the critique of international development projects and aid offered by post-development scholars (Demaria et al. 2019). These post-development critiques of growth-based modes of development often understand development as a continuation of the colonial project of expansion and control driven by the narrative of linear progress (Ibid.). In recent years, degrowth scholars and advocates have increasingly been in conversation with those of post-development with the (sometimes) shared goal of finding alternatives to growth-based development, though tensions and differences between the movements remain (Escobar 2015). Post-development has brought important interventions and perspectives into debates within degrowth by focusing on colonialism, imperialism, and extractivism in the global South – all of which widen the scope of what are understood as the main problems and needed transformations.

There are, however, certain tensions between mainstream degrowth and its decolonial, intersectional feminist, and post-development proponents. Several authors critique degrowth from within, stating that "the thorny distributive questions (who gets to decide new limits, whose voice is going to be heard in those processes, who will suffer and how will that suffering be justified) have not yet been the focus of extensive concrete analysis" (Demaria et al. 2019, 435). Rather, much of the writing on degrowth is conceptual, philosophical, and normative (policy-oriented), with the issues painted in broad strokes and from macro perspectives – whereas more empirical, situated studies are just beginning to emerge (Ibid.). As such, several have made the point that "the degrowth imaginary often abstracts and universalizes" (Kallis in Nirmal & Rocheleau 2019, 472; Demaria et al. 2019, 439). Critical studies and discussions of the roles that intersectional issues of race and gender play in growth-oriented development, colonization, industrial extraction, and capitalist accumulation are also lacking in much of the degrowth literature (Demaria et al. 2019). More optimistically, new scholarship increasingly engages with decolonial struggle, pluriversal post-development, environmental justice, the importance and de-/re-valuation of care work, intersectionality, gender equality and situated case studies (Ibid.). It is nonetheless important to remain critical of the ways that subsuming various movements, struggles, and people under the umbrella and exonym of degrowth may perpetuate Eurocentric appropriation and cause harm – particularly in the context of academia (see Tuck & Yang 2014).

Scarcity, Limits and the Specter of Malthus

Surrounding the birth of the degrowth movement, public debates about the environment, population growth, and human relationships with the nonhuman world were, at the time, particularly driven by narratives of scarcity, environmental destruction, and monolithic notions of humanity. Garrett Hardin's influential article, "Tragedy of the Commons," and Paul R. Ehrlich's best-selling book, *The Population Bomb*, were both published in 1968, and both based their arguments on resource scarcity and the destructivity of humans. Degrowth emerged in the same decade as, and was in part prompted by, the infamous *Limits to Growth* report (1972), which argued that population growth and infinite production could not be sustained on a finite planet with limited resources. Demaria et al. (2019) maintain that degrowth was already then more political than the seemingly apolitical *Limits to Growth* report, as it was concerned with social issues, democracy, justice, and development. This focus also sets degrowth apart from sustainable development, which hardly poses a threat to capitalism and growth-based development (Ibid.). They also state that degrowth operated with a different notion of limits than the report, which understood limits as the result of external and natural scarcity, while degrowth already then understood limits as socially constructed (Ibid.). This genealogical sketch might, however, be destabilized by the fact that degrowth is a heading applied to many different movements and proponents, some of whom were preoccupied with natural limits and overpopulation, and some of whom still are.

In the recent book *Limits: Why Malthus Was Wrong and Why Environmentalists Should Care* (2019), the degrowth scholar Giorgos Kallis rethinks the role of economist Thomas Robert Malthus in how limits, resource scarcity, and population growth are understood. It is commonly held that Malthus predicted the limits to growth by arguing that overpopulation drives scarcity; therefore, as Kallis (2019, 18) writes, "the adjective "Malthusian" is reserved today for those who believe natural resources are limited and thus put a limit on growth and on our numbers." Shifting this narrative, Kallis proposes that Malthus was "a prophet of growth" who sought to prove the inevitability of inequality and the impossibility of there being "enough for all to have a decent share" (Ibid., 21-22). According to this logic, it is due to the limitless reproductive potential and desire of humans that "nature's bounty is scarce" (Ibid., 22-23). By bringing scarcity, population growth, productivity, and inequality together, "Malthus was not an advocate of limits, but someone who invoked the specter of limits to justify inequality and call for growth" (Ibid., 25).

These shifts in the understanding of Malthus entail the need for careful attention to the ways that scarcity-driven narratives are dubbed "Malthusian" or "neo-Malthusian." The two can be distinguished from one another in that *the Malthusian argument* was about bountiful resources, limitless human desire, propelled growth, and justified inequality, while *neo-Malthusian arguments* have to do with the finitude of natural resources and their clash with the growth paradigm (both economic and population-wise). Unlike Malthus himself, neo-Malthusians like Garrett Hardin and Paul Ehrlich "attributed scarcity to the nature of resources and land, not human nature," and therefore "called for birth control or coercive restrictions on populations by the state" (Ibid., 66). While some degrowth advocates and scholars maintain that limits are social and political constructions rather than natural truth (see Demaria et al. 2019; Kallis 2019), others remain very explicitly rooted in the limits to growth-thinking about the finitude and scarcity of the natural world (Markantonatou 2016).

As several scholars focused precisely on the "population question," transnational feminism, and environmental issues maintain, this notion of scarcity and finitude is intimately connected to neo-Malthusian ideas about carrying capacity, food security, poverty, and population growth (see Wilson 2017; Dow & Lamoreaux 2020; Hendrixson & Hartmann 2019). However, closer considerations of agribusiness and industrial food production (often predicated upon the dispossession of land) in food-insecure and so-called "overpopulated" places find that such practices drive the very food insecurity they purport to solve (McMichael 2016). Further, McMichael (Ibid., 686-687) states that there is "an emerging scientific consensus that the relative yields of organic/agro-ecological versus non-organic farming are sufficient to provision the current daily average consumption of calories across the world," and small farms are in fact more productive than large farms. Still, the persistence of the narrative is clear: "the constant specter that stalks population discourse is food insecurity" (Dow & Lamoreaux 2020, 480). In the following, I turn to how different degrowth proponents reproduce or refuse Malthusian and neo-Malthusian arguments in their considerations of population growth.

Reproducing Population Growth in Degrowth Literature

As mentioned, different strains of degrowth deal with the "issue of population," or refute it, to varying degrees. While some degrowth proponents do emphasize "the need to link population issues to feminist emancipatory politics," (Escobar 2015, 457) mentions of population growth, "overpopulation" or reproduction remain unspecified in many accounts. Many degrowth adherents do not engage with population discourse at all, purportedly because "their concerns are not primarily demographic in nature" (Demaria et al. 2019, 32). Nonetheless, population growth is often mentioned in texts about degrowth, "although somewhat obliquely," as Escobar (2015, 457) writes.

In many cases, unsustainable population growth is referred to as a driver of social and environmental issues without much further explanation: the scarcity/overpopulation narrative seems to be held as an inevitable, immutable truth. In an article that focuses on various degrowth-oriented approaches to technology, Kerschner et al. (2018, 1620) begin with the IPAT-model (crafted by the aforementioned Paul Ehrlich) which purports that harmful environmental and social impacts can be mitigated by "either reducing the human (P)opulation (for example, by decreasing fertility), by reducing the consumption of materials and energy (Affluence) or by advances in (T)echnological developments." In their article, the reference to this model serves only to pick out the T – technological developments – and critically review the possibilities and pitfalls of degrowth-oriented technologies. While the authors are quick to declare the IPAT-model controversial and population control "highly controversial," they nonetheless reproduce the notion that population growth is one of the key issues at stake in staying within "biophysical limits," (Ibid.) and do not further engage with "the population question."

Similarly, the degrowth proponents Burton and Somerville (2019, 100-101) quote ecological economist Herman Daly in their article "Degrowth: A Defense," maintaining that "environmental impact is the product of the number of people times per capita resource use." Burton and Somerville reaffirm Daly's position on population growth: "Daly is correct to argue that population size is an important part of environmental impact" (Ibid., 100-101). While they correctly point out that population growth has slowed significantly while emissions still rise, thereby placing less emphasis on the impact of population size, they go on to rehash the argument for *stabilization* of the global population, this time by way of ensuring "rising living standards, urbanization and education, particularly for women, […] primary health care as well as modern contraception" (Ibid., 100-101).

The connections between degrowth and arguments for population reduction/control are more explicit in other cases. In 1991, Herman Daly also claimed that ecological disaster was bound up with population growth, and continues to do so (see Daly 2015).[4] To mitigate ecological disaster, he suggested the introduction of "birth licenses" that would empower states to mandate the right to bear one child for every woman, as well as legalize the punishment of "excessive" childbearing (see Markantonatou 2016, 35-36). This suggestion included not only state control and policing of reproduction, but also the establishment of a market in which women could purchase or sell their birth licenses according to their desires for large families or their need for more money (Ibid., 35-36). Daly furthermore had the audacity to argue that this system could *benefit* poor people, when it

[4] At a roundtable discussion in 2015, Daly once again brought "the population issue" to the fore, stating that "degrowth currently pays too little attention to population growth" (Daly 2015). It is also noteworthy that Daly raised some rather vague concerns about population growth from net immigration in this same roundtable. Despite being somewhat differently positioned because he argues for steady-state economics, Herman Daly is an active participant in degrowth debates.

might better be described as a classist system of reproductive control or a market-mediated state eugenics. As Dow and Lamoreaux (2020, 482) caution when discussing another imagined system of population reduction:[5]

> "One doesn't need to be immersed in science fiction to imagine the dark sides of this thought project, where individually allocated tokens would be bought and sold internationally, or controlled and distributed through mechanisms of reproductive governance. Indeed, scholarship that documents the realities of transnational surrogacy and cross-border reproductive care perhaps forecasts how such a scheme could play out."

As a counterargument to top-down or institutionalized population reduction proposals such as Daly's and others', Martínez-Alier and Masjuan have argued for "bottom-up action and empowerment of women" with the explicit goal of *population degrowth* (Martínez-Alier & Masjuan in Markantonatou 2016, 36). This is understood as necessary in order to "halt the increase in global population (and the impact of population on ecosystems and biodiversity)" (Ibid.). Martínez-Alier (2012) dubs this *feminist neo-Malthusianism*, and in so doing, references that same IPAT-equation.

These degrowth proponents' engagements with "the population question" vary greatly and exemplify some tendencies within debates on the topic. Some, like Kerschner et al. (2018), are meager mentions, without specification of what reduction would entail. Others, like Martínez-Alier (2012) are calls for bottom-up action, for cultural change, and personal accountability. Then, there are policy suggestions for state-controlled population reduction like Daly's, and finally, the newer family planning development schemes like what Burton and Somerville (2019) propose. What they all share is an underlying assumption – in Markantonatou's words, that "these ideas are variants on the key Malthusian idea that an "objective" problem exists, namely an excess of human beings on earth" (Markantonatou 2016, 37).[6] For these degrowth proponents, "overpopulation" may not be the main problem they seek to address, but it is nonetheless a part of the equation that is considered important enough to receive recurring mentions.

[5] The system Dow and Lamoreaux discuss is Haraway's from *Making Kin Not Population* (2018), in which people of reproductive age in rich parts of the world would commit to "a sliding-scale approach to global reduction in human numbers,' in which tokens are distributed to all people of 'reproductive age' and to become 'bio-parents,' individuals would need to collect a certain number of tokens from other individuals, who have opted out of bioparenting" (Dow & Lamoreaux 2020, 481-482). While Daly's and Haraway's suggestions differ fundamentally in terms of how such a system would be reinforced, and in the fact that Haraway focuses her suggestion on rich and high-consuming regions, Dow and Lamoreaux's caution nonetheless holds.

[6] Keeping with Kallis' discussion of Malthusianism thought, these variants are of the neo-Malthusian kind.

Refusing Population Growth in Degrowth Literature

Contrary to Markantonatou's (2016) summarization of the growth critiques in degrowth, there are proponents who explicitly oppose the Malthusian or neo-Malthusian premises of discussions about environmental degradation and growth – and, by extension, the valorization of population growth. For example, Erik Gómez-Baggethun (2020, 3) plainly states: "Degrowth is not sympathetic to Malthus neither to top-down population control." Gómez-Baggethun understands limits as politically constructed, and acknowledges the "racist, classist and patriarchal underpinnings of reactionary discourses on environmental degradation and overpopulation, as well as the misuse of limits to shift responsibilities to the poor or marginalized" (Ibid., 2). In line with this understanding, Kallis refers to Hartmann's empirical studies of the racist, classist, misogynist, and colonialist violence of actions targeting "overpopulation" or the "inappropriate presence" of humans in protected natural environments (Kallis 2019, 97). Nirmal and Rocheleau (2019, 468) also oppose the use of neo-Malthusian arguments in degrowth imaginaries, specifically Martínez-Alier's "bottom-up feminist neo-Malthusianism," which they claim, "raises the specter of population control, which can bring a most unfeminist framing and enforcement of control over women's bodies."[7] This might be understood as a caution against how even bottom-up tactics, such as what Martínez-Alier and Masjuan propose, can reinforce the dangerous narratives that feed reproductive coercion and control. Instead, Nirmal and Rocheleau align themselves with decolonial and post-development proponents who understand concerns about population growth in relation to genocide, eugenics, and violent repercussions "for women based on racial, ethnic, cultural, and class status, sexual orientation and religious affiliation" (Ibid., 468). Finally, they urge degrowth proponents to engage with intersectional feminist thought (Ibid.). These examples make clear that there is a growing body of work focused on socially just degrowth that critically interrogates population discourse and its relations to environmentalism.

To get a clearer understanding of what it is some degrowth proponents implicitly touch when *uncritically mentioning* population growth as an environmental issue in need of action, I will turn to a discussion of some of the histories and ongoing practices of popula-

[7] Interestingly, Emma Goldman and other feminists who advocated the refusal of reproduction as feminist, anti-imperialist and anti-capitalist tactics are also called feminist neo-Malthusians (Martínez-Alier 2012, 54). While I am empathetic to refusal as a tactic, there are certainly tensions between bodily autonomy, tactics of struggle and the ways that Malthusianism and neo-Malthusianism are bound up with top-down coercion. For this reason, I remain skeptical of the underlying assumptions about scale and scarcity that the language of neo-Malthusianism implies. See Kallis (2019) for his argument that Goldman was in fact far from (neo-)Malthusian.

tion control and racist, misogynist, colonialist reproductive/contraceptive technologies.

ON POPULATION: DISCOURSE, TECHNOLOGIES AND CONTROL

Population discourse, and thereby also population control, are related to degrowth and environmentalism through their (sometimes) shared neo-Malthusian reasoning. Kalpana Wilson (2017) maintains that overpopulation discourse has historically grown out of racial capitalism, eugenics, and neo-Malthusianism, which together legitimize the logic of poverty following population growth rather than poverty being the manifestation of inequalities produced by capitalism (Hendrixson & Hartmann 2019). Similarly, Dow and Lamoreaux (2020) connect the concept and "science" of population to legacies of racism, misogyny, colonialism, and eugenics. In the early twentieth century, racialized others that were conceived as a threat to national security in the global north became subject to direct interventions that sought to limit these populations, legitimized by what seemed to be a technical, policy-oriented science of demography (Wilson 2017). These legacies linger on today, as gendered and racialized representations of vulnerable brown women and aggressive brown men serve to justify efforts at "providing reproductive rights," likened by Wilson to what Gayatri Spivak has called "[saving] brown women from brown men" (Spivak in Wilson 2017, 436). Population control has also functioned to intensify the gendered, classed, and racialized labor of women in the global South by increasing their productive participation in global market wage labor at the cost of their reproductivity (Ibid.).

With the rise of environmentalism in the 1970s, such population discourses fused with the narrative of degradation, which blamed poor people living in "overpopulated" places in the global south for environmental destruction (Ibid.). The valorization of population growth diverts critical attention from the key role of high and unequal consumption patterns globally, as well as the extraction and production which underpins these structural inequalities (Ibid.). According to Wilson, this idea was central to the emerging discourse of "sustainable development," which in the Brundtland report instrumentalized women’s health and education as a means to reduce population growth (Ibid.). Today, population growth is still often cited as a driver of environmental degradation, climate change, or a barrier to their mitigation (Ojeda, Sasser & Lunstrum 2020). Contemporary population discourses are neo-Malthusian in the ways that they interweave issues of migration, climate change, and conflict under the banners of “family planning,” “women’s empowerment,” “gender equality,” and “reproductive rights and choice” (Hartmann 2016; Wilson 2017; Hendrixson & Hartmann 2019). While these banners may sound benign, there are reasons to be wary: critical feminist scholarship has shown that development aid focused on women’s empowerment, health, and education has often been advocated “only to the extent that they serve [its] population control objectives” (Hartmann 1997, 542).

As several feminist scholars make clear through empirical studies, population control through direct interventions is *not a thing of the distant past* (Hartmann 1997; Wilson 2017; Hendrixson 2018; Bendix et al. 2020). Development aid (especially from the US but also other governments), non-governmental organizations, the United Nations, the World Health Organization, and corporate actors make up what Betsy Hartmann (1997) calls “the Population Establishment.” In recent years, the population establishment has sought to reframe itself in terms of “family planning” and “women’s empowerment,” in part by explicit – and exaggerated – distancing from the violence and coercion of earlier population control and eugenics. This distancing provides ground for the rhetoric of “breaking taboos” when speaking of population growth or overpopulation (Wilson 2017). Yet, as Dow and Lamoreaux (2020, 477) echo, the narrative of “population has never really gone away,” but persists in ecological sciences, development, and the mainstream imaginary.

A recent and horrific example is the Family Planning 2020 project launched in 2012 by the Bill and Melinda Gates Foundation (one of the largest development aid foundations in the world), which aimed to “encourage” 120 million women and girls to engage in family planning by 2020 (Hendrixson 2018). The plethora of methods used – which added up rather than replaced one another – include often dangerous (sometimes deadly) sterilizations, implant contraceptives that are impossible to control for the user, contraceptives discontinued in the global North, and contraceptives with extreme side effects (such as increased HIV risk, which are then administered in regions where HIV is prevalent). In some places, the effectiveness of spreading these population control technologies was encouraged by privatization and the setting of targets backed up with economic incentives. In India alone, 4.5 million sterilizations have taken place every year since 2000, against the backdrop of the continued erosion of the Indian health care system (Wilson 2017). These unacceptable coercive practices are enabled by abstract narratives like those attached to "overpopulation," environmental destruction, development, and women's empowerment.

CONCLUSION

As I have argued, the "facts" of detrimental population growth, "overpopulation," natural scarcity and carrying capacity still escape critical consideration in degrowth and may therefore be reproduced even when the argument is seemingly tangential to the debates. By referring to the scale of population, it is as if the *mere presence* of "humans" – "too many humans" in general and "too many of certain humans" in particular – is understood as a driver of scarcity in a finite world. These are precisely the universalized and abstracted elements that so often quietly coalesce into Malthusian acceptance of inequality and neo-Malthusian fear of population growth and generalized destruction – in environmentalisms of nearly all kinds, the development establishment and regimes of security, policing, and militarization (Hendrixson & Hartmann 2019). Therefore, these notions require careful and critical attention from anyone devoted to socially just societal transformation.

Though I am certainly not claiming that all degrowth advocates reproduce the inevitability of inequality or promote contemporary population control because of it, it seems clear that neo-Malthusian arguments continue to underpin parts of the conversation, and as such, their deeply problematic implications often pass unnoticed or unaddressed. As this brief peek into the continued practices of population control shows, it is dangerous to reproduce the extremely generalized argument that “overgrown” population size is a key driver of environmental degradation. Moreover, this *does not make sense in highly unequal societies*. The capitalist system clearly is not the only problem, as parts of degrowth do capture in critiquing the productivism of different techno-industrial systems of extraction, production, and consumption. Nonetheless, to the extent that degrowth is preoccupied with population (de)growth, it obfuscates the issues at hand and risks, as Dow and Lamoreaux (2020, 479) write, “[letting] capitalism off the hook.” In making clear the way that population growth diverts attention from the role of capitalism, racism and other systems of oppression, Murphy (cited in Dow & Lamoreaux 2020, 479) writes:

> “The fantasy of simply reducing human numbers is so attractive because it does not require the rearrangement of all the other world orders, and particularly the orders of too much accumulation that have accreted in sites with low fertility rates, such as North America, Europe, and East Asia” (in Dow & Lamoreaux 2020, 479).

With these understandings in mind, the solutions should not be located within population reduction or urged individual choice to not procreate, but in reducing material throughput in an equitable fashion, in redistributing wealth and power, in dismantling systems of oppression that fuel inequity and injustice – and in deconstructing the *pro- and anti-natalism* as well as the heteronormativity that population discourse brings with it. Proponents of post-development, postcolonial scholars, transnational feminists, and Indigenous feminists seem much more attuned to the problems of population discourse and population control in imperialist and developmentalist activities, past and present. The post-development concept of the pluriverse, as opposed to the One World-world (Kothari et al. 2019), is far more aligned with critical and situated understandings of environmental infrastructures and socioeconomic conditions of reproduction, as well as environmental degradation. Returning, finally, to what reproduction is, it seems that some proponents of degrowth and alternatives to growth-based development still operate with a narrow notion of what reproduction entails and how it relates to many complex and interrelated socio-environmental conditions. There is little attention to the ways in which reproductive (in)justice and environmental (in)justice – as well as ecological degradation, pollution, toxic waste, and destructive extraction – are deeply intertwined. Following environmental reproductive justice approaches, degrowth and post-development proponents should move towards considering and struggling against situated and intersectional connections between environmental damage, systems of oppression, and socioeconomic relations, rather than risk leaving the door open for population discourse and its related deeply harmful practices of contemporary population control.

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DEMOCRATIZING DEGROWTH: PUTTING TRANSFORMATION OF THE DEMOCRATIC SYSTEM AT THE HEART OF THE PROJECT

SANNE VAN DEN BOOM

Degrowth is presented as not just an economic proposal – “a planned reduction of energy and resource throughput” (Hickel 2020, 2) – but also as a political project. Latouche (2010, 519), one of the most influential degrowth thinkers, characterizes degrowth as “a political slogan with theoretical implications.” Parrique (2019) also emphasizes the evolving nature of the degrowth discourse through his analysis of the concept over time. In this analysis, he has observed an evolution of degrowth that moves from an environmental, to emancipatory, to utopian based denotation. The question that this article takes up is: can the emancipatory degrowth vision be implemented in today’s democracies or would that entail a radically different politics? As Deriu (2012, 554) puts it:

> “[D]oes the theme of degrowth represent a reading of conflict and a political view that may be proposed as one ‘theme’ or ‘objective’ among others, simply to be picked up by one or more traditional parties (or possible new parties) without any discussion of the forms and processes of political institutions? Or does the perspective of degrowth imply also the need for a deep reform of the institutions and of the democratic forms of participation?”

When one looks at degrowth proposals like reducing working hours or changing the taxation system it may seem that degrowth can compete with other political programmes on equal footing, as the first question suggests. However, in current highly centralized, representative democracies there are serious obstacles to countering the economic growth paradigm. Therefore, a transformation of the democratic system in the direction of smaller scale, decentralized, and more direct forms of decision-making should be a central aspect of the degrowth project.

Before reaching this conclusion, the article will take several steps. In the first section, the ambiguity in the literature about degrowth as a political project will be explored. Here, idealised narratives about democracy are identified which are found to minimize the power relations at play. The second section will go more into the relationship between democracy and degrowth, which is always assumed but often undertheorized. The third section will discuss a proposal for a liberal version of degrowth which is understood to be the theoretical justification for the idealised narrative about democracy just mentioned. The fourth section then, will problematize this version of liberal degrowth which relies on the capacity of a society to correct its course of action based on public deliberation. The conclusion contends that when it comes to a working economy this does not hold true because the democratic mechanisms to alter the societal course of action are weak. The final section argues that to counter these weaknesses we need smaller scale, decentralized, and more direct forms of decision-making. Because degrowth has been derived mainly within the western context, this article also focuses on these countries. In other words, it focuses on representative democracies characterized by a high degree of centralization and technocracy.

While there is agreement on the need to counter the economic growth paradigm, there is no agreement on the kind of politics needed to move towards a degrowth society, nor on the political implications of reducing production and consumption. Therefore, we can say that there is ambiguity about degrowth as a political project. This section discusses how this ambiguity is present in several ways.

First, within the degrowth movement, there is a diversity of political and ideological views, some of which may be in fundamental conflict with each other. Eversberg and Schmelzer (2018, 247), who surveyed the attitudes of people that associate themselves with degrowth at the 2014 International Degrowth Conference, identify five currents within the *degrowth spectrum*: “sufficiency-oriented critics of civilisation; immanent reformers; voluntarist-pacifist idealists; the modernist-rationalist Left; and the alternative practical Left.” For instance, while the first group rejects contemporary industrial civilization and is focused on building small-scale alternatives, the second group promotes “a pragmatic and gradualist transformation within existing institutions” (Eversberg & Schmelzer 2018, 258). This diversity of political views inevitably leads to disagreements concerning the “how” question: when we roughly agree on what a degrowth society would look like, how can we get there?

Then, there is the paradox, first noted by Cosme et al. (2017, 331) in their extensive review of the degrowth literature, that “although degrowth is often described as a bottom-up local process, the proposals are largely top-down with a national focus.” Indeed, some of the recurring proposals are taxing pollution and resource use, putting caps on CO2 emissions and extraction, reducing working hours, restricting advertisements and creating a basic income (Cosme et al. 2017). All of these require top-down intervention, which suggests the need for a strong state. Kallis et al. (2020, 116) add to that the need for “a strengthening of the mechanisms of international governance, such as the UN, the EU, and the IPCC.” In contrast to what these top-down proposals suggest, however, much of the degrowth discourse revolves around grassroots action, bottom-up transformations, the autonomy of local communities and values like conviviality,[1] care, and simplicity.

Related to this paradox of describing degrowth as a bottom-up process while proposing top-down interventions is the general underdevelopment of a theory of social change in much of the degrowth literature. What or who is supposed to bring about change, what structures act as fundamental barriers, and how does power play into this? We can surely be critical of this shortcoming but should also keep in mind that degrowth is still a relatively young field. For instance, D'Alisa and Kallis (2020, 1-2) admit that their earlier work has neglected the question of the state, "a core force in social change," and that the scholarship on degrowth transformations "has not questioned sufficiently power asymmetries or shed light on structural obstacles." Their current work is more concerned with theorizing about how necessary political transformation can take place. Still, their comment about Tim Jackson's (2008) *Prosperity without Growth* seems to apply to some of the degrowth literature as well, mainly those proposing top-down interventions such as caps and taxes:

> "Like other policy advice it appeals with reason to enlightened policy makers who are supposed to serve the public. What if though, as Jackson recognizes, the state machinery is not neutral but part and parcel of the pursuit of economic growth?" (D'Alisa & Kallis

The relationship between the state – which pursues increasing GDP – and the economic growth paradigm is certainly not absent in the degrowth literature, but it is often not given nearly enough weight. Here we can think of the rather optimistic characterisation of politics that is given in *The Case for Degrowth*:

> "As degrowth-supporting practices and ideas circulate and take root in everyday culture and civil society, conditions ripen for their expressions in official politics. Ideas that are talked about and desired among constituents are taken up and advanced by some political parties and attacked by others." (Kallis et al. 2020, 113)

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[1] From Ivan Illich's (1973) Tools of Conviviality where he chose to endow the concept with a different connotation: "a technical term to designate a modern society of responsibly limited tools." Barkin (2019, 136) puts it this way: "conviviality is a platform from the forging of a new society, one that transcends the profound limitations of our present world, to move towards a socialism that would require 'an invasion of our present institutions and the substitutions of convivial for industrial tools' [Illich 1973: 12]."

This narrative in which good ideas will eventually be taken up by official politics when the time is right may be hopeful, and even true, but it can also be misleading. The fact that political parties embrace some proposals (perhaps reducing working hours or taxing pollution) does not mean they stand for the full degrowth vision as ideas will always be co-opted. Furthermore, this narrative neglects the power of vested interests (beyond parliament) as well as the struggles of those who are fighting against these interests.

The optimism in question is found in much of the degrowth discourse that envisions a world in which we all care about each other and our environments. But degrowth proposals go against the interests of the most powerful actors in our societies and the degrowth community has no choice but to grapple with that fact. As Cosme et al. (2017, 328) aptly articulate:

> "Although a transition to a degrowth society is idealised as democratic and voluntary, history tells us that changes in the status quo are usually not free from violence, controversy, and/or public contestation. Economic globalisation is the current reality, led by powerful transnational corporations, focused on increasing profit and maintaining power. A change towards a more autonomous and convivial society will not bring advantages to the existing power structures, and so how to effectively deconstruct these structures is a debate that degrowth proponents should engage in."

Degrowth, therefore, needs to take seriously the power involved, and should critically examine official politics and the ways in which it is lacking. That includes acknowledging that the location of decision-making power in current democracies gives little reason to think that the capitalist system and the economic growth paradigm will be parted with any time soon.

Despite the disagreements and ambiguity about several aspects of degrowth as a political project, it is made clear in all literature that the degrowth project goes beyond material degrowth, i.e. reducing the throughput of the economy. In their survey of the degrowth community, Eversberg and Schmelzer (2018, 247) find that there is consensus about two main pillars: "the insistence that economic growth as such is destructive, requiring a reduction of the level of material wealth in the Global North; and the demand that this be achieved in a peaceful, democratic and generally emancipatory manner." Democracy, we must acknowledge, is mentioned in almost all discussions of what degrowth entails. Degrowth authors always make sure to associate their ideas with democracy and reject eco-authoritarian ideas. In a discussion on extraction and emission caps, Kallis and Martinez-Alier (2010, 1573) warn of the risk of eco-authoritarian tendencies that might come with a-political or technocratic proposals, from which they explicitly distance degrowth:

> "People might democratically choose to destroy the environment for the sake of short-term growth. But democracy should not be suspended under any circumstance, even for the sake of perceived environmental problems of survival. There is no choice between the environment and democracy; sustainable degrowth should be a democratic process of transition or nothing at all."

Not only do degrowthers side with democrats, but they often claim that degrowth goes hand in hand with further democratization and that degrowth is "also a call for a deeper democracy outside the mainstream democratic domain, including problems generated by technology" (Demaria & Latouche 2019, 148). This supposedly positive relationship between degrowth and democracy, however, is often not further elaborated on or theorized about. Rather it is assumed that the two go hand in hand without making explicit why that is the case.

An exception to this is the special issue on “Politics, Democracy and Degrowth”, published by the journal *Futures* in 2012, which had the following aim: “Our special issue is motivated by the need to consider what forms of democracy and democratic institutions can make the degrowth transition possible and socially sustainable, and by the somehow inverse need to consider what are the implications of economic degrowth for democracy” (Cattaneo et al. 2012, 515). The special issue contained various interesting contributions that reflected upon the relationship between degrowth and democracy which, in much of the other degrowth literature, is more of an afterthought than the main concern. The contributions varied from Ott (2012) who argues that a Habermasian deliberative democracy is most compatible with degrowth, to Trainer (2012) who envisions a radically different “Simpler Way” with inclusive and participatory democracy at the local scale.

This article continues this conversation about the relationship between degrowth and democracy started with Cattaneo and colleagues’ (2012) special issue. The transformation of democracy will be a necessary condition for moving towards a degrowth society. Even though degrowth is always associated with democracy, it is not at the heart of the degrowth proposal. For instance, *The Case for Degrowth*, written by some of the big names in the degrowth community (Giorgos Kallis, Susan Paulson, Giacomo D’Alisa, and Federico Demaria), mentions democracy only briefly without much elaboration (Kallis et al. 2020). Degrowth policies (as they are outlined in the literature rather than their weakened versions) will not be smoothly implemented by enlightened policymakers when people are ready because they go against the interests of governments and industries, a fact which has to be taken seriously. In the next section, I will discuss an example of a liberal version of degrowth that does not take the power involved seriously enough and instead argues for the compatibility between degrowth and liberal democracy as we see it today.

The narrative in which degrowth ideas and practices circulate in society, after which they may be co-opted by political parties and implemented at a large scale as soon as there is a political majority, can be called the "liberal approach to degrowth." Strunz and Bartkowsi (2018) present a theoretical exploration of consolidating degrowth and liberalism. In the works that are specifically about the relationship between degrowth and democracy, this is certainly the most moderate view that we find. Therefore, it might seem unreasonable to focus on it but, for the purpose of this article, it serves as a valuable springboard to unpack their reformist position a bit more.

Strunz and Bartkowski (2018, 1163) warn degrowth scholars not to conflate a critique of modernity with a rejection of liberal democratic institutions and emphasize that liberal values and freedom-guaranteeing institutions cannot be taken for granted:

> "Imagine this scenario: disappointment with existing institutions leads to welcoming institutional breakdown in the hope of rebuilding a more just society out of the debris, whereupon 'true democracy' fails to materialize and the values of liberal cosmopolitanism are sacrificed somewhere along the way."

Instead of opting for radical change, the authors urge the degrowth movement to hold on to Habermas' notion of the *unfinished project of modernity*: "the striving for a just society via the autonomous development of science, morality, law and the arts" (Strunz & Bartkowski 2018, 1159). They characterize liberal democracy, then, as the current institutional embodiment of this unfinished project and use the following minimal definition for liberal democracy: "(i) it is egalitarian in terms of rights; (ii) it is nondictatorial in Arrow['s] (1951) sense; and (iii) its institutions allow for corrections of the societal course of action on the basis of public discourse" (Strunz & Bartkowski 2018, 1159). It is the third requirement which remains important, the so-called *ideal of self-correction*. In liberalism, the need to allow for corrections of the societal course of action follows from the principle of limited knowledge (which also motivates liberalism's push for maximising personal freedoms): there always is the possibility of being wrong, especially regarding moral values. Therefore, society should not be “locked-in” to a course of action but instead be “open” to change. Following Habermas (and others), Strunz and Bartkowski emphasize that continuous open and free discourse is at the core of a liberal (or open) society.

They then relate degrowth to this ideal of the liberal society by focusing on language as a force of social change. Based on Rorty’s pragmatist perspective, they frame degrowth as an attempt to promote new vocabularies: “vocabularies represent a means of re-describing and re-framing the world, and thus of introducing new ideas which, if taken up by the ‘audience’, would contribute to the achievement of the goals of the degrowth movement” Strunz & Bartkowski 2018, 1163). The task of the degrowth movement, then, is to tell attractive stories about the degrowth lifestyle and to promote the use of notions like “sufficiency” and “conviviality.” This will proceed slowly but is crucial to create a political majority. A focus on language as a force for change is often present in debates about sustainability, although people usually do not give a theoretical justification for such a focus, as these authors do. In this article, the focus on language ultimately relies on a sense of trust in liberal democracy and its ability to act based on deliberation in the public sphere.

In summary, Strunz and Bartkowski defend liberalism because of its essential value of self-correction through public discourse, which is why they understand degrowth to essentially be a challenge of promoting new vocabularies. They do admit that representative democracy has become rather unresponsive, which is why they suggest that it has to be complemented by formalised as well as informal public deliberation. However, they do not see a fundamental problem with degrowth competing against other political programmes in liberal democracies. In what follows, the article demonstrates that this idealised version of liberal democracy in which “institutions allow for corrections of the societal course of action on the basis of public discourse” (Ibid., 1159) does not hold true in practice when it comes to challenging the economic growth paradigm.

BARRIERS TO SELF-INSTITUTION

To understand the barriers to democratic self-correction as described above, it is helpful to bring in Castoriadis' work on autonomy. Castoriadis defined autonomy as "the capacity of a society to collectively and continuously reflect upon (i.e. put in question and change) its norms and institutions" (Cattaneo et al. 2012, 516). Autonomy is the process of self-institution, and an autonomous society makes its own laws while being aware of doing so (Asara et al. 2013). Democratic rule should not be understood as a guarantee for autonomy as "most of the instruments of coercive power that we consider oppressive in a monarchy, or a dictatorship operate no differently in a democracy" (CrimethInc. 2017, 28). The opposite of autonomy, according to Castoriadis, are religious dogmas as these cannot be questioned (Cattaneo et al. 2012). Thus, autonomy cannot only be hindered by material or legal barriers, but also by mental or ideological ones. This is a nuance that is missing in the liberal depiction of self-correction, as outlined by Strunz and Bartkowsi (2018). Castoriadis' idea of collective and continuous reflection seems similar to liberalism's focus on public discourse, but the presence of an arena for public deliberation does not guarantee that this discourse is also unconstrained. In fact, Castoriadis (1985) holds that in secular capitalist society the notion of economic growth works as a religious dogma. That means that the desirability of growth is generally assumed and questioning it has no place in the public discourse. Discussion of the economy is hardly part of the public sphere: "In Western societies economists are the secular experts who hold the truth of the economy, the only ones capable of deciphering its 'messages', akin to religion's priest" (Cattaneo et al. 2012, 516). The notion of autonomy or self-institution shows what the liberal version of degrowth is lacking. Because degrowth is going against the current paradigm of endless economic growth, it not only requires a language change but a more fundamental deconstruction of the kind of dogmatic thinking that this paradigm is characterized by.

In current highly centralized, representative liberal democracies, we cannot speak of self-institution when it comes to the economy. For this, various reasons can be given but I will focus on two of them: the depoliticization of the economy and problems with the democratic system itself.

First, related to Castoriadis' notion of economic growth being like a religious dogma in western societies, is the increasing depoliticization of the economy, which means that part of economic decision-making or institutions are no longer part of the realm of politics, where they can be questioned and debated. Hickel (2020, 4) states that growth has become like a propaganda term, which conceals that in reality growth is, "a process of elite accumulation, the commodification of commons, and the appropriation of human labour and natural resources, a process that is quite often colonial in character." Instead of being the object of political debate like other policy objectives, economic growth has been conceived as a precondition of other political goals (Deriu 2012). As a result, economic decision-making has been moved to the realm of expertise. This undermines autonomy because it limits what a society can deal with collectively (Cattaneo et al. 2012). Centres of power like the World Bank, the IMF, Federal Reserves, Economic Ministries as well as private actors such as corporations, banks, and investors effectively make many important decisions. Furthermore, "[m]ultinational corporations and financial and economic elites are increasingly avoiding democratic control and contribution in terms of taxation, compliance with social and environmental laws, protection of workers' rights and, more generally, respect for citizens and populations" (Deriu 2012, 555).

In sum, the depoliticization of the economy has led to strong economic and market actors and weak citizen power. "The result is that citizens are in fact at the mercy of immense and impersonal powers, which are difficult to be controlled, at least with the current instruments of traditional democracies" (Deriu 2012, 556). Liberal degrowth sets its hope on altering the societal course of action through public deliberation, but because economic growth is like a dogma in western societies and economic institutions are removed from the political sphere there is no space for unconstrained collective reflection on the economy.

Second, for continuous reflection upon society's norms and institutions we mostly rely on parliament and politicians, but there are also problems with the democratic system itself. Van Reybrouck (2016) diagnoses many of the western democracies with what he calls "Democratic Fatigue Syndrome," stemming from both a legitimacy and an efficiency crisis. He argues that due to continuous media attention as well as being bound to actors and regulations ranging from multinational corporations to international agreements, official politics has become more and more about "incidentalism." Rather than continuously reflecting upon the norms and institutions of society, as is essential to self-institution, politicians are focused on the issues of the day. An important reason for this lies in the specific democratic system we have: the electoral-representative democracy. For many, the words "elections" and "democracy" have become almost synonymous, as if elections are not just a method to pick our representatives but a goal in itself. Van Reybrouck (2016, 41) calls it "electoral fundamentalism": "an unshakeable belief in the idea that democracy is inconceivable without elections and elections are a necessary and fundamental precondition when speaking of democracy." The excessive focus on elections combined with increasing media attention for every political decision makes for politicians that are constantly focused on being re-elected rather than governing their country in the long term. One could take this critique further and say that "[r]epresentative democracy offers a pressure valve: when people are dissatisfied, they set their sights on the next elections, taking the state itself for granted." (CrimethInc. 2017, 29) In that sense, the election of representatives diverts attention from the deeper problems of official politics.

One such problem is that in politics, some interests have always weighed heavier than others. That is, unsurprisingly, those interests that are financially backed. As stated above, economic institutions have been removed from the political sphere, where they cannot be controlled by the public. At the same time, however, economic and private actors heavily mingle with politics by financing electoral campaigns and using professional lobbyists (Deriu 2012, 554). To give one example, in ten years, the five largest oil and gas corporations together have spent at least €251 million lobbying the EU (CEO 2019). As another example, in the United States, Citizens United v. FEC decided in 2010 that restricting independent expenditures for political campaigns by corporations, wealthy billionaires, and committees established for the purpose of fundraising, went against the free speech clause. The government was therefore prohibited to implement such restrictions.

As Cagé (2020, introduction) states: “Money still occupies center stage in politics; democracy means who pays wins.” She has shown how election campaigns, think tanks that advise policymakers, and media reporting on politics are all heavily shaped by money. In many places, the situation is getting worse because political parties increasingly depend on private donors and attempts to restrict the financial mingling of private actors have been inadequate (Cagé 2020). Politicians are, therefore, not only influenced by the wish to please voters in the short term to be re-elected, but also by the wealth of private actors. All of this means that long-term and citizen interests are neglected, and little real questioning of underlying norms and values is taking place in politics. Electing representatives, therefore, does not make a society autonomous and the depth of critical reflection present in current democracies is not enough to counter the growth paradigm.

TRANSFORMING THE DEMOCRATIC SYSTEM

There is a lot of work done on how to make democracies more responsive and get more citizen participation (e.g. Van Reybrouck 2016), more deliberation (e.g. Habermas 1996), and decrease the influence of money (e.g. Cagé 2020). Some authors only propose minor changes, while others envision radically new ways of doing politics (e.g. Fotopoulos 1997). Within the degrowth literature, there is disagreement about what changes in the democratic system are necessary to reach the objective of reducing consumption and production in a socially emancipatory manner:

> "Some see this as possible within a plausible evolution of parliamentary democracy, while others see a fundamental interconnection between liberal democracies, capitalism and economic growth, calling for a radical overhaul of the political-economic system and a re-institution along lines of direct, localized democracy and economy." (Cattaneo et al. 2012, 517)

To get more autonomous societies, in which there is critical reflection on the economy, technology, production, consumption, and more, democratic transformation towards smaller scale, more direct, and decentralized forms of decision-making is necessary.

First, for a society to be autonomous or self-instituting, it must be small-scale. Of great importance here is Illich's work on the inverse relationship between scale and democracy (Illich 1973). The larger a system, the more complex it becomes and, therefore, the more reliant a society becomes on experts (Bonaiuti 2012). This creates a ruling class and an unequal distribution of power (Cattaneo et al. 2012). Because "only small-scale systems can be democratically and collectively controlled," (Cattaneo et al. 2012, 516) degrowth should push for decision-making at a smaller scale if it values autonomy. This is at odds with some degrowth proposals that ask for more state regulation and, therefore, require a larger bureaucracy and a stronger national state. Of course, not only decision-making but also the economy itself has to be of a smaller scale. The global economy cannot be democratically controlled because of its scale but also because of its speed, which does not match the pace of democratic deliberation (Parrique 2019). Several new spatial arrangements have been brought forward like "ecocommunities, demoi, urban villages and bioregions," (Mocca 2020, 82) all of which share a focus on downshifting and decentralizing the economy and the exercise of political power.

Then, there is also a need for more direct forms of decision-making, in contrast to the current electoral-representative system. The premise of representative democracy is that people elect representatives who get the responsibility (and trust) to govern the country, so we, as citizens with the right to vote, do not have to spend as much time and energy doing so. However, as discussed in the previous section, the current democratic system has proven not to be capable of dealing with long-term problems. Therefore, when we look at, for instance, climate action we see that elected representatives have not been doing nearly enough in mitigating climate change (IPCC 2018) and, overall, have failed to take responsibility. One might say that there is no guarantee that citizens will make more sustainable and fairer choices (as they are the same people that elected these politicians), especially when the choices to be made involve self-limitation. To a certain extent, this is true. That is why not only a democratic transformation but also a cultural shift towards frugality and care and away from extraction and capital accumulation is necessary.

There is, however, also evidence that citizens, when they get the time and resources to get informed and deliberate amongst each other, make more sustainable choices than their governments do. We can think of citizens' assemblies on the topic of climate change that have taken place over the last years in Ireland, the United Kingdom, and France. Here I would like to bring in the example of the French citizens' convention on the climate crisis that was held in 2019/2020. The Convention Citoyenne pour le Climat followed unrest in the country surrounding the new climate policy by President Macron. In 2018, Macron, who presents himself as a world leader in tackling the climate crisis, decided on a fuel tax. Protesters known as gilets jaunes (yellow vest movement) took to the streets to demonstrate against this tax that they perceived as unfair towards the working class and rural areas. During the violent escalations, the police used exceptionally harsh repressive measures against protesters (Fassin & Defossez 2019). The protests turned into a more general (and at times far-right) anti-government movement (Chrisafis 2018). The gilets jaunes can be characterised by the diversity of peoples' grievances and demands but Fassin and Defossez (2019) claim that the major themes are social justice and democratic renewal.

As a response to societal divisions and the protests, Macron decided on a citizens' convention on the climate crisis, promising to submit for adoption the proposals that this group of citizens came up with (through legislation, executive decree, or referendum, although he did give himself three vetoes). This initiative of citizen participation was unprecedented in France, a highly centralized state. The citizens' assembly consisted of 150 citizens, selected by sortition (lottery) and representative of the French population in terms of gender, age, education, jobs, residency, and region. Its task was to come up with socially just proposals to reduce greenhouse gas emissions by at least 40% (compared to 1990). They convened during seven weekends for hearings of experts and deliberations in small groups. Eventually, they came up with a set of proposals that were generally perceived as very ambitious (Van Langendonck 2020). It is often assumed that lay people cannot be trusted with difficult problems like climate change or that they will just decide what is in their best interest, which is why we need experts and bureaucrats to make objective and neutral evaluations. But this citizens' convention showed that when people get the time and resources to deliberate amongst each other, they might make more sustainable and long-term decisions than their governments do.

I am not arguing, however, that this model of decision-making is what degrowth should be pushing for. In the end, power was still in the hands of the French state, not with the randomly selected group of citizens. In fact, President Macron got rid of one of the most profound proposals: making environmental conservation part of the constitution. Furthermore, he is also unwilling to go against the power of corporations which was demonstrated by him rejecting the proposal for a dividend tax (Van Langendonck 2020). In parliament, the proposal to ban short-haul domestic flights was also weakened from 4 to 2.5 hours after objections from Air France-KLM (BBC 2021). What all of this shows is that the conventional democratic mechanisms are weak when it comes to altering the capitalist system and standing up to economic powers. Indeed, "what Americans call 'free market democracy' is in fact a regime with a strong power of market actors and a weak citizen power" (Deriu 2012, 555).

The French citizens' convention, at first sight, seemed like a promising democratic experiment. Ultimately, however, it was still a tool for the centralized state. Therefore, besides smaller scale and more direct forms of democracy, decision-making needs to be decentralized. For a much more radical vision on the potential of citizens' assemblies, we can turn to Bookchin (2015) who saw political transformation as being at the heart of ecological transformation. With his theory of libertarian municipalism, he aims to provide a "democratic alternative to the nation-state and the market society" (39). The meaning of the word politics, he holds, is not simply the practice of statecraft but should instead "return to the word's original Greek meaning as the management of the community, or polis, by means of direct face-to-face assemblies of the people in the formulation of public policy and based on an ethics of complementarity and solidarity" (78). These popular neighbourhood and town assemblies are where policymaking will take place and should be open to all. Confederations of municipalities will then replace the nation-state. These confederations are purely administrative and practical, based on the interdependence of municipalities, as municipalities make their own policies. Degrowth can benefit from engaging with programs of radical democratic transformation like Bookchin's, not least because they offer first steps towards greater democratic transformation. In the case of libertarian municipalism, these minimal steps involve "initiating Left Green municipalist movements that propose popular neighborhood and town assemblies–even if they have only moral functions at first," (Bookchin 2015, 84) which is something that could easily be taken up by the degrowth movement.

CONCLUSION

In this article, the idealized narrative in which degrowth proposals can simply be implemented in current democratic societies, has been problematized. A liberal or reformist version of degrowth will not do and our hopes should, instead, be with the more radical currents on the degrowth spectrum. This is because, when it comes to the working of the economy, democratic mechanisms to alter the societal course of action are weak. Therefore, a transformation of the democratic system in the direction of smaller-scale, more direct, and decentralized forms of decision-making should be a central aspect of the degrowth project. This conclusion resonates with Trainer's (2012, 12) claim that "the changes associated with degrowth will permeate just about the whole of society, i.e., they will require the scrapping or remaking of many central institutions and systems." Because degrowth proposals go against the interests of the most powerful actors in society, these changes will have to include transformations in the democratic system to move power from economic institutions and elected representatives to citizens.

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DEGROWTH AND ECO-MARXISM: AGAINST THE NARCISSISM OF SMALL DIFFERENCES

PEDER RESSEM ØSTRING

> “[...] like-minded people working to solve the same problem will engage in continuous civil war with each other over methods, thus destroying their chances of success. Why does that happen, do you think? The narcissism of small differences. That’s an odd name. It’s Freud’s name. Means more regard for yourself than for your allies or the problems you both face.”
>
> Kim Stanley Robinson, *The Ministry for the Future*

Degrowth and Eco-Marxism agree on the central point that growth for growths’ sake is better suited to describe the ideology of a cancer cell – not as a principle for society. Despite overlapping stances when it comes to fighting the unwanted social and natural consequences of an unrestrained free-market economy, the two traditions differ on several key points such as the role of the working class, general strategies for change, and technology. Nevertheless, through a critical engagement with one another, degrowthers can expand their roadmaps for change and conceptual toolkit, while Eco-Marxists can learn to avoid the pitfalls of blind productivism.

Degrowth is a movement which has recently gained traction. The term and body of work has manifested itself most notably in western academia, but also with activists centered around issues such as climate justice mobilizations in Germany and the Zone à Defendre (ZAD) movement in France (Andreucci & Engel-Di Mauro 2019). Jostein Jakobsen, a researcher at Norway’s Centre for Development and the Environment (SUM), laments the limited discussion of degrowth in Norwegian discourse, and highlights the absence of degrowth in the Marxist journal *Gnist*’s special issue on climate and capitalism as a case in point (Jakobsen 2021).

This article aims to rectify this lack of discourse between Eco-Marxism and degrowth by sketching out a preliminary assessment of the convergence and contradictions between them, helping facilitate meaningful exchange and dialogue between the two. This article defines Eco-Marxism as the critique of capitalism in its inherent tendency towards ecological destruction, based on the seminal works of Karl Marx and Friedrich Engels. The term ecosocialism is used somewhat interchangeably throughout the text as a similar concept, with more emphasis on a positive program for change rather than mere critique of capitalism, and with lesser connotation to the founding fathers of Marxism.

THE ECOLOGY OF ANDRÉ GORZ AND THE REALM OF FREEDOM

An early figure at the intersection of Marxism and degrowth was André Gorz. He coined the term *décroissance* in 1972, after having inquired whether a steady state economy would be possible under capitalism. Gorz was inspired by Ivan Illich's concept of convivial tools, where only those technologies that could be controlled by a community, enhance autonomy, and promote reproduction of life should be developed (Barca 2019). However, in contrast with Illich, Gorz was not fundamentally against industrialization and automation, and his vision of technology was to be subjected to principles of autonomy, not the other way around (Leonardi 2019). For Gorz, the "promethean" project of mastering or domesticating nature was not necessarily incompatible with a concern for the environment, if non-renewable resources were carefully managed, and renewables were not depleted to the extent where they could no longer regenerate at sufficient rates. He reasoned that all culture relies on the modification of the biosphere and encroachment upon nature to some extent (Gorz [1980] 1997, 21). On the left, such a "prometheanism" would find resonance with socialist modernists like Leigh Phillips (2015), Matthew Huber (2021), or – in its most extreme form – Aaron Bastani (2019) and his vision of a fully automated luxury communism, which includes transhumanism and a hyper-modernist program of space mining as means to overcome our current crisis. For Gorz, however, self-imposed limits to the scale of productive technologies were central to his utopian vision, as well as a rejection of certain technologies deemed fundamentally destructive and authoritarian like nuclear power (Gorz 1980). Gorz thus represents a middle ground between primitivism and eco-modernism, in that his pragmatic endorsement of the use of technology is contingent on its liberatory potential.

Gorz' anti-work ethos can be tied to the Marxist concept of expanding the "realm of freedom" over the "realm of necessity" (Koch 2019). This does, however, rest on the ability to have productive power that can sustain lives where people are free to pursue their own diverse interests, without being confined to an exclusive sphere of activity imposed by the division of labor as a means of maximizing profit.[1] Expanding the realm of freedom is not just a goal because of normative notions of justice and the full development of human potential, but also a precondition for a new sensible relation with nature (Saito 2017a). Even though several Eco-Marxists – most notably American sociologist John Bellamy Foster (2000) – argue against notions of Marx as productivist and "promethean," such ideas can be read into certain passages in his work, such as the ambiguous assessment of capital as a "civilizing influence," found in *Grundrisse* (Marx 1993, 458).

For Marx, however, it was capitalism, in all its destructive and alienating force, that would provide the productive forces on which to build communism – thus shifting productive forces towards human needs (Koch 2019). Such a vision does not need to be in contradiction with degrowth, since values lead to a quite different demand than in an economic system governed by *exchange* values, in that it can reach levels of saturation (Kallis 2017). Through placing use value and the maximization of the realm of freedom as the guiding principles of economic relations, growth goes from being a hegemonic concept and a goal in itself, to becoming something historically specific to capitalist society, paving the way for communism – or post-growth.

There are many different views on technology coming from the degrowth camp (Kerschner et. al. 2018). Through drawing on Gorz and Marx, however, common ground can be located between degrowthers

[1] This point can be read from the following passage in The German Ideology: "For as soon as the division of labour comes into being, each man has a particular, exclusive sphere of activity, which is forced upon him and from which he cannot escape. He is a hunter, a fisherman, a shepherd, or a critical critic, and must remain so if he does not want to lose his means of livelihood; whereas in communist society, where nobody has one exclusive sphere of activity but each can become accomplished in any branch he wishes, society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow, to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticise after dinner, just as I have a mind, without ever becoming hunter, fisherman, shepherd or critic." (Marx & Engels 1970, 53).

with a pragmatic stance towards modernity, the application of technology and productive forces derived from capitalism, and certain Eco-Marxists. On the other hand, tendencies engaging with the degrowth movements such as revolutionary romanticism, primitivism, or broader anti-civilization critiques would not be compatible with the ecological visions of Gorz, neither with Marx's ontology of social change, as his historical materialist critique of utopian socialism makes clear.[2] Gorz did, however, distance himself from the traditional Marxist class-based strategy (Barca 2019), an issue to which the article will now turn.

STRATEGY AND CLASS

After being elaborated as an academic concept and area of inquiry in the 1970's, degrowth resurfaced as a provocative slogan during the anti-globalization demonstrations of the early 2000s – a term which aimed to cut right to the core of commonsensical growth ideology. As a biting slogan, it was hoped degrowth would avoid the same co-opting which terms such as "sustainability" had undergone before (Demaria & Latouche 2019). However, Trantas (2021) warns that degrowth might not be resistant to such a subsumption into hegemonic bourgeois discourse. Furthermore, degrowthers are inclined towards bottom-up approaches to social change, eschewing party politics and full blown ecosocialist political programs in favor of more general principles of transition. The problem with this is a strategic one, in which the actual manifestations of degrowth are hypothesized to only work in the fringes of capitalist modes of production (Huber 2019; Trantas 2021). The structural power of labor should be acknowledged within degrowth, wherein often the construction of ecovillages or academic arguments are without regard for the working class and its structural labor power. In this way, strategies that have so far been atomized and which have largely disregarded workers agency could come together in a potent alliance against the death drive of capital. In other words: an emphasis on class politics along with an explicit critique of capitalism would be the best vaccine against capital, but also against the potential co-opting of degrowth.

[2] Marx did not advocate for a return back to a harmonious past before the rise of class society, but rather for taking the capitalist mode of production as the point of departure for revolutionary political organization. His oft-quoted passage from The Eighteenth Brumaire reveals a lot in this respect: "Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past." (2006 11)

The death drive of capital, however, also requires including reproductive labor in working class struggle. Barca (2019, 229) has pointed towards a fundamental contradiction within the environmentalist labor movement which she calls the eco-modernist dilemma of labor: "The advancement of a working class ecological consciousness was consequential to the development of the forces of production, in the sense that only an advanced industrial apparatus could grant the occupational levels and political strength that were necessary for workers to develop their role as defenders of the environment." Her narrative, drawing on the Marxist author and literary critic Raymond Williams, holds that the failure to see the realm of reproduction as the common ground between the labor and environmental movement made way for the labor movement finally embracing capitalist and eco-modernist ecologies. She further holds that eco-feminism would be a necessary component in a true "qualitative alteration of socialism" – away from productivism and on to a green path. The movement for a reduction of the working day is but one example of how production, reproduction, and the environment are all intrinsically linked together.

Degrowth has been criticized for being a slogan in search of a program (Pollin 2018). To go beyond the ivory tower and a strategy confined to the fringes of capitalism would require actively pursuing change that people involved in the direct production of value under capitalism would also embrace – not because the working class is the most marginalized, but because of their strategic position in the economic system. However, a strategic emphasis on workers does not have to fetishize production, since the sphere of reproduction is also essential to fuse environmental and labor issues (Federici 2018). It is first under capitalism that production (of exchange value) is put center stage (Postone 1996). New social movements advocating different causes such as feminism or just cities are thus also important arenas for working class struggles and should not be shrugged off as "identity politics." The challenge is to build bridges and articulate the common interests of all these movements, without saying a final farewell to the working class.[3] When it comes to engaging in the working class struggle however, degrowth advocates might have set up a difficult task for themselves.

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[3] "Farewell to the working class" was the revealing title of an essay by Andre Gorz (1980), where he explained why the position of the industrial workers had been weakened to the point where new social movements would take its place as a driver for progressive change.

Those with even the most rudimentary insight into degrowth literature would see through certain bad-faith critiques of degrowth. One such critique comes from economist Robert Pollin (2018), who sidelines degrowth with austerity. As degrowthers are at pains to establish, this is not the case, as a transition to a degrowth economy would involve a planned descaling of material and energy throughput in accordance with just and democratic principles (Hickel 2020). Nevertheless, the problems of navigating deeply entrenched discursive elements like growth is no easy task: "When people say 'growth' they normally mean growth in GDP, so one might reasonably assume that degrowth is likewise focused on reducing GDP. Proponents of degrowth are therefore condemned to perpetually clarify that degrowth is not about reducing GDP, but rather about reducing material and energy throughput" (Hickel 2020, 2). Degrowth is then packaged as a "missile" word, spearheading a discursive crusade against the "one-way future consisting only of growth," to use the words of science-fiction author Ursula K. Le Guin (1982). In the quest for developing a provoking slogan while simultaneously creating a broad movement capable of societal change, degrowthers ride two horses at the same time.

In the same article, Hickel reinforces that the total minimizing of throughput in the economy is the key issue, and that there can be room for certain forms of growth in the Global South as well as for those balancing on the edge of subsistence. Giorgos Kallis (2017) agrees that certain use values might have to increase, but does not want to name this growth, given the modern economic use of the word. But if we go back to the etymology of the word, and to nature, growth suddenly has a different meaning – trees, plants, and babies all grow – which is a good thing. It is under capitalism that this concept is perverted in its disregard of limits. Ecosocialists and degrowthers agree on the impossibility of an eternal, exponential growth. If one, instead, focused on growth of use values (which Kallis explicitly mentions cannot grow forever), convergence between degrowth and ecosocialism becomes possible, at least on what counts as a "desirable" society.

Faced with a working class that has seen stagnant wages and lived under harsh policies of austerity and neoliberalism, "degrowth" might not be the best choice of name. This is not because of its content when elaborated, but because of the pedagogical challenges of explaining what is really meant by a word that is ideologically entrenched and etymologically ambiguous. Instead of focusing on the symptom – growth – the main goal should be to strike at the disease, which is capitalism. By putting the symptom center stage, degrowth is liable to the pitfall of focusing on the realm of consumption (Huber 2019). Such an approach eschews what Marxists has always emphasized, namely, ownership relations. Capitalism, and with it the privileging of exchange value over use values, cannot be reduced to growth, as it also relies on enclosing the commons, imperialist wars, extractivism and universal alienation. Altering these relations would require a strategy that goes beyond small scale projects of "nowtopia" (Carlsson & Manning 2010).

WHO WILL FORCE THE CAKE SPATULA AWAY FROM THE HANDS OF THE BOURGEOISIE?

Growing the economy and increasing wages have been key accumulation strategies under Fordism. By "baking a bigger cake" and making sure workers gets a slice of economic growth, inequality can persist along with a relatively pacified working class. However, without economic growth as the relief valve for social tension, class struggle will have to commence. It is likely that the bourgeoisie will not hand over the cake spatula voluntarily, and that intense struggles over the distribution of the remaining cake will follow in full force. In the words of Kallis (2017, 202): "In a capitalist world without growth, exploitation increases and social tensions and redistributive conflict intensify. This is not something socialists should be afraid of. If the pie cannot grow, then it is time to share it. Given that capitalism cannot redistribute without passing through barbarity, these are times for socialism."

When it comes to addressing this aforementioned problem, degrowth falls short by lacking an effective strategy and analysis of power for a way out of the growth paradigm. This becomes clear when compared to propositions such as the green new deal (GND) as articulated by socialists on both sides of the Atlantic, which speaks to people's concerns over jobs and welfare. They have formulated a cohesive list of demands for reforms and non-reformist reforms – that is, reforms which go beyond the capitalist status quo and pave the way for revolutionary change. Degrowth's pluriversal strategy cannot match the specificity and perceived realism of the GND. A few general programmatic points about a reduction of the working day, expansion of public goods and services and progressive taxation are mentioned (Hickel 2020), but how to get there remains strikingly vague, and is reduced to pointing to different bottom-up "nowtopian" processes, or to the concept of coevolution between "humans, more-than-humans, cultures, things, bodies and so on coming together in networks, as well as nature and society evolving together" (Siamanta 2021, 59) .These buzzwords lack straightforward operationalizability as well as inciting potential. The Bolsheviks did not manage to topple the tsar by chanting "we want a pluriversal co-evolution now!" but rather through calling for peace, land, and bread. Given that those who profit from the fossil economy and environmental destruction will not give up their privilege without a struggle, it is also worth taking a critical look at degrowth's methods.

Degrowth has been criticized for not engaging with movements that have successfully made use of a diversity of tactics and direct action (Dunlap 2020). While degrowth has ambitious goals, its tactical toolbox is surprisingly modest. I believe there can be no a priori assessment of nonviolence as the best strategy for a movement that aims to curtail the warming of the planet. Rather, the proper tactics must be evaluated case-by-case. Environmental struggles have a long but often obscured history of direct action and sabotage which continues today, often informed by autonomist and anarchist traditions (Tsolkas 2015, Mauvaise Troupe Collective 2018). Recently, Andreas Malm (2021) has also argued from an ecosocialist position that the environmental movement should not fetishize pacifism, and that the natural conclusion that should be drawn from state governments and the unwillingness of big oil to stop the systematic heating of the planet, should be to target their infrastructure in an organized fashion, not stopping short of attacking property and infrastructure to stop the structural violence of global warming. He points to how movements as diverse as the suffragettes and Earth First! have obtained concessions from capital and the state, not by playing by the liberal democratic rules but by actively pursuing direct action. When it comes to strategy and tactics then, Marxist currents like Leninism and autonomism have long traditions of engaging with diverse tactics and are thus in a better position to adjust action in accordance with the problem one is confronted by, be it the colonialism described by Franz Fanon or the structural violence of climate change. However, this is a delicate topic whose further elaboration is well beyond the scope of this article. From the very practical discussion of tactics, I will now turn to the more abstract – but still fundamental – philosophical position of nature in Marxism.

THE PHILOSOPHICAL UNDERPINNINGS OF ECO-MARXISM

A critique of Eco-Marxism is that the very political foundation on which this tradition stands – the writings of Karl Marx and Friedrich Engels – are oblivious to environmental concerns. The criticisms start out at the ontological level, where Marx is accused of anthropocentrism and a subsequent dualist split of humans with nature, separating two entities that are intrinsically linked. Such a split is conceived to stem from enlightenment thinking, applying Cartesian dualism to a whole array of other concepts, legitimizing devastation of the natural world, as well as sexism, racism, and colonialism (Kothari et al. 2019). This makes Marxism into a modernist driver of the domination of nature (Escobar 2008, 8). There is criticism even from within Marxist circles. For instance, Jason W. Moore (2015) has criticized John Bellamy Foster and his concept of metabolic rift for falling into said dualisms. If Marxists are to "break radically with the ideology of linear progress and with the technological and economic paradigm of modern industrial civilization" (Löwy 2005, 16), it is necessary to see what the philosophical underpinnings of Eco-Marxism actually are.

Kohei Saito (2017a) offers a response to these objectives, particularly in regard to the problem of dualist thinking. Saito draws on Marx's central works and his natural scientific notebooks, published only recently and still being translated.[4] The metabolic rift is elaborated from Marx's conception of ecological crisis under capitalism, where the metabolic relation between man and earth is thwarted by the dominance of capitalist social relations which leads to the separation of town and country, and alienation of the worker from both her own labor and from nature. According to Marx: "[Capitalist production] disturbs the metabolic interaction between man and the earth, i.e., it prevents the return to the soil of its constituent elements consumed by man in the form of food and clothing; hence it hinders the operation of the eternal natural condition for the lasting fertility of the soil. Thus, it destroys at the same time the physical health of the urban worker, and the intellectual life of the rural worker." (Marx 1976, 637)

However, this process of division is best understood as ideologically produced by capitalist relations, and human independence from and mastery over nature can only be an idealist creation, since nature is the trans-historical prerequisite for labor (Saito 2017a). This conceptual unity of humanity and nature in Marx can already be revealed in his early writings: "Man lives from nature, i.e., nature is his body, and he must maintain a continuing dialogue with it if he is not to die. To say that man's physical and mental life is linked to nature simply means that nature is linked to itself, for man is a part of nature." (Marx 1977, 328) Later, in the *Grundrisse* (489), a similar position is taken where the metabolic rift can also be identified:

> "It is not the unity of living and active humanity with the natural, inorganic conditions of their metabolic exchange with nature, and hence their appropriation of nature, which requires explanation or is the result of a historic process, but rather the separation between these inorganic conditions of human existence and this active existence, a separation which is completely posited only in the relation of wage labour and capital."

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[4] The natural scientific notebooks from Marx's later life is available in German through the latest addition of the Marx-Engels Complete Works [Die Marx-Engels-Gesamtausgabe (MEGA), IV, 18 Exzerpte und Notizen. Februar 1864 bis August 1868].

Marx's ecology can best be understood if one takes into consideration his philosophy of internal relations and dialectics, where concepts like "humanity" and "nature" cannot be grasped independently, but only by their relations of interdependence in a totality (Ollman 2003).[5] It is thus capitalism, through a reification of nature (conceiving it as a "thing") and alienation of the worker, that upsets an otherwise stable process of metabolism between people and ecosystems, that is, a metabolism in which humans contribute to a balanced exchange of nutrients to the soil. The natural and the social realm are dialectically interlinked in a totality, and as long as humans work, their consciousness and existence is conditioned by nature. The process of alienation and metabolic rift is also a result of the value form intrinsic to capitalism, where value only reflects labor time, all the while eschewing natural and social forces of reproduction that are essential for capitalism, but not given value (Saito 2017b, 287; Saito 2017a).

DEGROWTH AND THE METABOLIC RIFT

In his article "Is Less More … or Is More Less?", political ecologist Paul Robbins (2020) tries to show the potential for socialist modernism which involves automation and industrial technology at scale as a way to obtain "freedom from drudgery" (Robbins 2020, 2). Even if the article proclaims to identify a common ground between degrowth and modernist environmental improvement, he comes down (rather bluntly) in favor of the latter as the preferred strategy. His position stands in stark contrast with degrowth, in particular Illich's (1973) concept of convivial tools and low-entropy energy as well as Kallis' (2017) claim that all surplus in practice rests on exploitation. However, metabolic rift theory shows how Robbins' idea of socialist modernism has no root in Eco-Marxism – and should more correctly be labeled eco-modernism. Marx's (1973) earlier insights explicitly point to capitalist agriculture as a driver of the metabolic rift, which Robbins ignores in his vision of fully automated mega-farms. By enclosing the commons, creating vast infrastructures of communication and large-scale agriculture, the natural cycle of nutrients in the soil is disturbed, and what used to be nutritious manure for the field

[5] Dialectics and the philosophy of internal relations in Marx, thoroughly laid forth by Bertell Ollmann (2003), can help explaining how Marx can speak of both nature and society as different abstractions, withouht claiming that the two terms represent independent spheres of reality.

is turned into excess waste which again pollutes urban rivers. Just as the large-scale farm described by Robbins would require a large amount of external input (e.g., fertilizers, pesticides, and pellets for feeding of livestock) so did the intensive agriculture of Marx's time require large imports of wheat, guano, and bone meal. This was described by Marx in terms of robbery, both in the sense of robbing the soil of its nutrients, but also the robbery of distant countries by the imperialist metropole – and not development (Saito 2017a; Foster & Clark 2020). The imperialist and exploitative relations that supported this system can easily be translated to contemporary literature on the extractivist industries involved in mining or monocultures (Dunlap & Jakobsen 2020).[6]

Marx also showed how modernizing agriculture did not necessarily result in better conditions for the working class, pointing to Ireland as an example where colonial relations resulted in the great famine in the mid-nineteenth century (Saito 2017a). For Marx, a sensible and rational treatment of the earth had to break radically with the extractivist logics of capitalist modernization. Contemporary voices on the left such as La Vía Campesina and the grassroots movement for agroecology also share the strategy for a minimization of external input in the (agricultural) economy (Rosset & Val 2018), a demand which is fully in line with degrowth. Furthermore, Marxist epidemiologists have also warned of how large-scale agriculture (of which Robbins's case is a prime example) has worked as a pressure cooker for new zoonotic diseases and mutations, because of the density of livestock in modern farms (Wallace et al. 2020). The land footprint of agribusiness is also leading to the displacement of wild animals and their habitat, increasing the likelihood of contact between feral and domestic animals, as well as humans.

In his discussion of the growth-technology-environment nexus then, Robbins has not articulated a convincing reconciliation between socialist modernism and degrowth. Rather, he has helped highlight a convergence between degrowth and Eco-Marxism, which share a fundamental critique of his proposed socialist modernism in which the rational management of the metabolism between people and nature is disregarded.

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[6] Phosphorus mining and monocultures of soy play a big role in modern agribusiness and both can be regarded as contemporary manifestations of extractivism.

LIMITS

Ever since the Club of Rome released their report *Limits to Growth* in 1972, the question of material limits has been connected to the environmental debate. For Marx, his deep dive into agrochemistry and metabolism at the end of his life contributed to his understanding of limits. Capital must always expand, lay claim to more and more of the earth's resources and drive the exploitation of workers to its maximum. Yet, all these internal drives in capitalism have certain absolute biophysical limits. However, these limits always have to be perceived as mere barriers that can be transcended by capital itself: "capital is the endless and limitless drive to go beyond its limiting barrier [...] Every limit appears as a barrier to be overcome" (Marx 1993, 334, 408). Long before taking an interest in the chemistry of the soil, Marx and Engels clearly articulated there being a point of saturation in the development of the productive forces: "In the development of productive forces there comes a stage when productive forces and means of intercourse are brought into being, which, under the existing relationships, only cause mischief, and are no longer productive but destructive forces (machinery and money)" (Marx & Engels 1965 [1846], 92).

Marx and Engels thus share the conception of limits which is central within the degrowth movement, which stands in stark contrast to strategies such as ecomodernism (Asafu-Adjaye et al. 2015). On the same note, scholars engaging with degrowth have dealt thoroughly with the second law of thermodynamics, asserting that green growth is not possible in practice due to the basic workings of entropy (Dagget 2019, Hickel & Kallis 2020).

Locating these limits, however, is a constant struggle for narratives, and in the end also an epistemological question, where political ecology traditionally has challenged Malthusian assumptions of limits to population, and more recently the notion of planetary boundaries

(Robbins 2020). In a retort to Robbins, Gómez-Baggethun (2020) contends that even though limits have a certain flexibility – the world will not be a blazing inferno at the very moment the atmosphere hits a CO2 level of 450 ppm – this does not make them less relevant. He goes on to mention how the flexibility of capital accumulation, with its propensity for temporal and spatial fixes, can allow for the coexistence of capitalism along with environmental decline for a long time. Such a conception of limits stresses the importance of doing away with the destructive economic system, because leaning back and hoping for its inevitable demise would not be a viable alternative, as highlighted by the Swedish ecosocialist and human geographer Ståle Holgersen (2020). André Gorz has also criticized the notion that experts could determine some exact limits "out there," a posture deemed as anti-democratic. For Gorz, self-limitation went hand in hand with both governing the metabolism with nature and regaining autonomy and control over production (Demaria, Kallis & Bakker 2019). This idea resonates well with Marx's call for free associated producers' conscious and self-regulated socio-natural metabolism (Saito 2017a).

The epistemological dimension of limits is also highlighted by Gómez-Baggethun (2020, 3). Through deconstruction, post-modern scholars aimed at dethroning naïve realist assumptions about the world, but ended up producing an intellectual climate where meaningful analysis of reality was made increasingly difficult. This, in turn, paved the way for the reduction of very real phenomena like climate change to mere discourse. Degrowth could benefit from taking an active stance in epistemological discussions, drawing on Marxian-inspired philosophy of science to avoid the intellectual fog of postmodernism. Critical realism is such a framework, which asserts that questions of what the world is like (ontology) should not be reduced to what can be known about the world (epistemology). This is what critical realists describe as the epistemic fallacy, which is committed by constructivists and positivists alike (Sayer 2000). When thinking about the concept of limits then, a critical realist approach would be to acknowledge that all knowledge is fallible, and that we cannot get an exact operationalization of how to avoid crossing certain tipping points or planetary boundaries. Nevertheless, said limits should still be deemed real, and such an assessment would require applying precautionary principles and an active strategy to stop the mechanisms driving us closer to the precipice.

CONCLUSION

Since the very beginning, degrowth can be said to have “coevolved” together with Eco-Marxism. This article has identified both eco-modernism and its socialist counterpart, socialist modernism, as common enemies for Eco-Marxists and degrowthers alike. Furthermore, both would agree that compound growth amounts to a “madness of economic reason,” in the words of David Harvey (2017). Capitalist relations must be uprooted – although this point appears much less explicit in degrowth literature. The reluctance to take a firm anti-capitalist stance among certain degrowth advocates might have contributed to friction between Marxists and degrowthers. While on the other hand, Giorgos Kallis’s call for a socialism without growth has contributed to healing the rift, articulating how degrowth principles are contradictory to fundamental workings of capitalism (Andreucci & Engel-Di Mauro 2019). These later developments in degrowth discourse, as well as its genesis, the writings of Andre Gorz, shows how it can coexist comfortably with Eco-Marxism – and that they have more in common than not. While this article has stressed how degrowth might draw lessons from ecosocialist emphasis on class and its strategies and tactics for change, the focus on a descaling of the material throughput of society serve as an important reminder for any socialist movement concerned with the impacts of climate change.

Faced with the current crisis, it is imperative that the anti-capitalist environmental movements go beyond the narcissism of small differences. Our collective energy should be reserved for the real enemy, rather than nitpicking comrades. To take a pluriversal approach in the dialogue between degrowth and Eco-Marxism, would be to acknowledge that there might be room for a certain division of labor and differing tactics to invoke change, where both the counter-hegemonic struggle of degrowth, and the Marxist movements more inclined towards direct action, reform, and revolution, could have their place.

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LIFE IN RESISTANCE

AGROECOLOGY AS RESISTANCE WITHIN DEGROWTH AND POST-DEVELOPMENT

JOANNA SVÄRD

Around the world, critical voices and resistance against industrial agriculture have emerged in full force since the mid-1900s. Following centuries of colonial agricultural expansion and export, the so-called Green Revolution of the 1960s imposed increased intensification on agricultural land, especially in the Global South. As the natural regeneration of soils became depleted, chemical fertilizers and pesticides were introduced, further creating the need for biotechnology. In India, the take-over of monopolized genetically modified (GMO) seeds have, during the last few decades, led to mass debts and the suicide of farmers (Dunlap 2015). In South America, critique against Western-imposed developmentalism and "agroextractivism" (McKay 2017) have created strong social movements uniting farmers, indigenous groups, afro-descendants, and rural populations around ideas of "buen vivir" and agroecology. The international peasant movement La Vía Campesina was founded in the early 1990s as a global grassroots resistance to corporate agriculture (La Vía Campesina n.d.). In the last year, thousands of farmers in India have been protesting new market-friendly laws that threaten their livelihoods (Mashal et al. 2021). Also, in Norway, farmers from all over the country are demanding recognition from the government (Moen Holø et al. 2021). Put into a wider context:

> "Small producers are waging an ongoing agrarian struggle for a total redistribution of land and a reconfiguration of the overarching agricultural and food systems where the agroextractivist and large landholding structures would be banned. Besides being a protest against capitalism, this refusal to coexist is also grounded in ecology, given that agroecological science has shown that a diversity of plants and animals in the fields, forests, and wilderness areas can help boost biological control, pollination, and soil fertility." (Giraldo 2019, 76)

In the Global North, especially in Europe, criticisms are first and foremost taking place within the context of organic farming, local food production, and the idea of degrowth. Contrary to the growth-based modern industrial agriculture, degrowth scholars believe transitioning to a society where the energy and material throughput (primarily within production and consumption chains) is reduced according to the biophysical limits of the planet (Demaria & Latouche 2019; Gomiero 2018). They aim for a reorganization of society where concepts such as "sharing, conviviality, care, commons, justice could stand at its foundation, and replace the call for economic growth, which is, obviously, biophysically unsustainable" (Gomiero 2018, 1824). Degrowth should not be confused with negative growth or recession (see Hickel 2020), but envisions a transformation of society altogether, including our social reality and imaginaries (Nelson & Edwards 2021; López 2018). Following the call for actual scenarios and models for a degrowth society that combines "the socioeconomic and biophysical dimensions of degrowth," (Gomiero 2018, 1825) agroecology may potentially be an answer.

In the Global South, it instead fits into the larger discourse of post-development and rejection of the West-imposed development ideas that began with colonialism and have resulted in the loss of traditional and indigenous cultures, languages, and knowledges. Essentially, post-development rejects the idea of a linear development as it is proposed by global governance institutions and Green Revolution technologies (Kothari et al. 2019). Deconstructing the universalist notion of development allows for a "pluriverse," consisting of transformative ideas, initiatives, and movements from around the globe. In their book *Pluriverse: A Post-Development Dictionary*, Kothari and colleagues (2019) include, for example: buen vivir (Latin America), ubuntu (southern Africa), swaraj (India), critical versions of world religions, eco-socialism, deep ecology, eco-feminism, degrowth, as well as numerous indigenous cosmovisions. The point of this so-called "world of many worlds" (from the Zapatista worldview) is that "political agency will belong to the marginalized, exploited, and oppressed" and that transformations will happen in multiple dimensions through "horizontal and respectful dialogue" (Kothari et al. 2019, xxix-xxx). Post-development emphasizes how systems of domination and oppression (e.g., patriarchy, racism, colonialism, human-nature dualism) are linked, as a "modern colonial capitalist patriarchal world system," (Kothari et al. 2019, xxiii) and that resistance comes in many forms. In the struggle against the development project of agro-industry, agroecology stands as "a crucial scientific, technological, intercultural, and socio-political instrument that confronts the ecological and social crises of the contemporary world, as one searches for a post-industrial, alternative modernity" (Toledo 2019, 88).

This article investigates how agroecology might serve as a meeting point between degrowth and post-development, providing a (plural) path of resistance. First, it outlines the different environmental and social problems of the conventional agricultural model which motivate a shift towards degrowth and post-development approaches to food and farming. Thereafter, it discusses the existing literature on degrowth and post-development from the perspective of food and agroecology. Based on these three sections, the discussion goes on to explore how agroecology can be viewed, and pursued, as a form of slow resistance.

PROBLEMS OF THE MODERN AGRO-INDUSTRY AND ECOMODERNIST SOLUTIONS

In his analysis of "food regimes" through modern history, McMichael (2009) presents the main processes that since colonial times have built up and deepened into a food crisis. From the early global trade networks during colonial times, to the Green Revolution of the mid-1900s, to today's mega-corporations and supermarkets, the driving force within agriculture has been capital accumulation. These processes, especially the adoption of Green Revolution technologies, land reforms, as well as institutionalized markets have left large parts of the world's arable land under the control of large-scale agro-industry, characterized by monoculture production, mechanized technology, and use of agrochemicals (fertilizers and pesticides). For large parts of the Global South, this is simply an extension of colonial domination. Land reforms have resulted in the concentration of land into the hands of few powerful actors, displacing farmers and rural populations. Moreover, seed patents and a manufactured reliance on chemical pesticides and fertilizers, lead to a concentration of economic profit. For example, the profitability of the giant biotech company Monsanto is 1190% while the profitability of farmers is only 3.3% (López 2018). As explained by López (2018, 599), the modern agro-industry is "a type of agriculture increasingly distanced from the needs of farmers, directed towards the interests of the concentration of power of a few companies."

However, the modern agro-industry does not actually feed the world. One of the main purposes of the Green Revolution was to increase the productivity and efficiency of agriculture in order to feed a growing world population, especially in "third world countries." Despite this, and despite ambitious development goals of reducing world hunger, around 10% of the world's population is chronically hungry or malnourished (FAO et al. 2021). In 2020, this number increased dramatically, likely relating to the COVID-19 pandemic. However, the latest SOFI report states that even before the pandemic, the target of ending world hunger and malnutrition by 2030 would not be met (FAO et al. 2021). This is not due to a shortage of food, but "a problem of distribution, politics, conservation, productive chains, and marketing" (López 2018, 600). Many agricultural resources go into the massive industry of crops that become animal feed or biofuels (López 2018), while 70% of the world's food is produced by small farmers (ETC Group 2017).

Where agriculture used to be the main energy source for society, research by Infante Amate and González de Molina (2013) shows that today mainstream agriculture has become resource-intensive and highly dependent on fossil energy. Their calculation shows that "for each unit of energy available in the form of food, 6 units of energy have been consumed in its production, distribution, transportation and preparation" (Ibid., 30). They continue: "in each and every one of the processes involved in the food chain, the consumption of resources multiplies, resources that not only make the end products more expensive, but are also responsible for so many other environmental problems, such as the depletion of scarce resources, climate change or acidification" (Ibid., 31).

Other scientists agree on the environmental consequences of the modern agroindustrial form of agriculture, just in order to maintain normal levels of productivity, and even more for increasing it. These include land and soil erosion, depletion of soil fertility, loss of biodiversity, depletion of natural irrigation systems and water contamination, extensive greenhouse gas emissions, and increased vulnerability of agroecosystems to natural hazards as well as new pests and diseases (López 2018; Gordon et al. 2017). Essentially, the loss of diversity also means disappearance of alternatives, as monocultures fail because of soil or water depletion, leading to farmers losing already scarce income.

Ecomodernists' solutions take the form of continued agricultural intensification, which through technological innovation is assumed to decouple human development from environmental impacts (Asafu-Adjaye et al. 2015). Ecomodernists tend to romanticize "green growth" and view degrowth and agroecology as backwards and anti-modern (López 2018). However, despite the claimed solutions of ecomodernism, contradictions embedded in the agroindustrial model become increasingly obvious: environmental degradation (soil and water depletion, biodiversity loss, high greenhouse gas emissions etc.); socioeconomic consequences (economic vulnerability and dependency, price increases and devaluation); and health issues from agrochemical toxicity and industrial diets (López 2018). In short, the modern agro-industry is arguably a case of agroextractivism (McKay 2017). Agroecology provides some alternative solutions to these contradictions, while going against the proposal of ecomodernism. First, the article shows the links between agroecology and debates within degrowth, thereafter diving deeper into the post-development response of food sovereignty and, in the end, reconnecting to this opening section by arguing that agroecology can serve as a slow form of resistance to the modern agro-industry.

Although degrowth literature seldom focuses on agriculture or food, central concepts can be found that include local production, urban gardening, permaculture, short food chains, minimizing waste, banning agrochemicals, and self-sufficiency. The newly published book Food for degrowth (Nelson & Edwards 2021), offers a collection representing several of these central themes, and link the degrowth movement with a range of alternative food networks (AFNs) across the globe that pursue social and environmental justice, sustainability, and animal welfare in different ways. Examples include community-based agriculture (CSA), urban gardening, and organic agriculture, which all share a common ground with agroecology. The authors emphasize the degrowth principles of frugal abundance, autonomy, conviviality, commoning and decolonization, and state that food for degrowth "means working towards ecologically efficient, regenerative and convivial ways of living, producing and consuming" (Nelson & Edwards 2021, 2). Degrowth pioneer Ivan Illich (1973, 12) introduces the term "conviviality" as "the opposite of industrial productivity", where people interact with each other and their environment based on cooperation, sharing, and care, as well as interdependence. Frugal abundance refers to a sense of well-being and self-fulfillment based on the small, qualitative, and simple (Nelson & Edwards 2021).

At its heart, degrowth is about reducing energy consumption and material flows in our society. As put by Gomiero (2018, 1829), "we face the paradox that the higher the socio-economic development of a society, the lower the energy efficiency of its agriculture in terms of the energy input into agricultural activities and energy output as food." In their study on the energy efficiency of Spain's agri-food system, Infante Amate and González de Molina (2013) argue that only a transition to organic farming in combination with more vegetarian diets and a more local and seasonal food consumption can contribute to a substantial resource use reduction, and thereby a "sustainable de-growth." As two thirds of the energy consumed in the processes feeding the world population come from processes outside the farming itself, which are highly dependent on fossil fuels, degrowth promoters need to pay attention to the whole food chain. For example, fuels, nitrogen fertilizers and animal feed together stand for over 85% of the energy consumed by agricultural production (Infante Amate & González de Molina 2013). One way of minimizing the energy consumption of these factors is through converting to organic farming. More local markets and seasonal foods also directly reduce transportation, as well as the amount of energy-intensive preservation measures (packaging) needed for long transports.

Beyond organic farming and vegetarian diets, however, degrowth also envisions social justice and restructured wealth flows. Therefore, López (2018) argues that agroecology can be one "tool" for degrowth. He uses the framework of the eight "Rs" by French economist Serge Latouche (2009): re-evaluate re-conceptualize, restructure, redistribute, re-locate, reduce, reuse and recycle. According to López (2018), agroecology re-evaluates and re-conceptualizes the understanding of modern industrial agriculture, promoting multiple new ways of organizing food systems. It restructures food production processes "from the agroecosystem to the social system, by integrating different components in order to increase its biological efficiency, productive capacity and self-sufficiency" (López 2018, 603). Agroecological practices are re-locating agriculture in the different social and ecological contexts of each farm, integrating family farming with local networks. Redistribution refers to the agroecological principle of social justice in the way productive resources are distributed and shared. This includes inputs, economic gains and losses, technologies, as well as knowledge. Agroecology also seeks to reduce as much as possible the human impact on the biosphere and "enhances the cycling of nutrients and organic matter, optimizes energy flows, conserves water and soil, balances pest populations and natural enemies, focusing on conservation and enhancement of local resources" (López 2018, 604). Lastly, reuse and recycle refers to the agroecological principles of understanding and sustaining natural cycles, in connection to both material and energy flows.

Many of these points are integrated into the approach and organization of "ecovillages" increasingly popular in the Global North. Ecovillages are "intentional human communities that use integrative design, local economic networking, cooperative and common property structures, and participatory decision making to minimize ecological footprints and provide as many of life's basic necessities as possible in a sustainable manner" (Lockyear and Veteto 2013, 15). Unsatisfied with mainstream societal organizations (state, market, church etc.), ecovillagers seek a way of living more closely to nature and each other, rejecting nature-culture dualisms. The goal is to create communal living where social and environmental justice and sustainability is at the forefront, built on local self-reliance. However, this way of living might be considered for the few, as too much romanticizing of the local community potentially reduces solidarity with the outside world, and hides tendencies of exclusion of those who "do not belong" (more on this in coming sections).

Additionally, when talking about degrowth and the human over-exploitation of nature, it is not uncommon to mention the debate about overpopulation. For instance, Gomiero (2018) points out that to feed the world's population, a de-intensified, traditional, organic and local food system may not be enough to support the human population, but that the population itself must be contained. This argument has been heavily criticized as food security is driven by small-scale subsistence farming rather than industrial agriculture (McMichael 2016; ETC Group 2017). Additionally, different forms of population control are deeply rooted in systems of oppression and any argument in favor of population reduction runs the danger of strengthening those values. The focus should always be on the material reduction and social transformation embedded in degrowth, before approaching the argument of overpopulation. This debate is complex and sensitive and exceeds the scope of this article (see Søyland 2021, this issue).

Despite a common perception of communal living as isolated and "backwards", degrowth does not mean we have to "go primitive" and reject all modern technologies or market mechanisms. Following the eight Rs mentioned above, diets could be based more on traditional crops and wild foods, the amount and types of food available could be redistributed and diversified, and food prices could be adjusted to the actual cost of production, allowing decent incomes for farmers. Goals of self-sufficiency and autonomy have great potential here, as farmers and local populations are given control over their own immediate resources (more on this in coming sections).

These ideas showcase how food and agriculture are crucial in the path towards degrowth, while also promoting the redistribution of wealth and resources across the global North and South. Furthermore, they represent ways to “decolonise productivist imaginaries,” (Nelson & Edwards 2021, 2) meaning deconstructing beliefs based on growth, and opening for alternative ways of producing and relating to food. Regarding decolonization, Gomiero (2018) claims that degrowth can play an important part in pushing Western countries to recognize and correct previous injustices. However, degrowth scholars do not agree on what decolonization entails. Ted Trainer (2021, 3) criticizes Hickel (2020) for not sufficiently rejecting the “basic development path” that Third World countries are currently on, such as the modern industrial agricultural model. According to Trainer, fundamental transformation of society requires not only recognition of North-South divides or equal distribution of resources and wealth, but all countries “must abandon affluence, centralization, urbanization, large scale and globalization, and must adopt as the basic social form the small scale highly self-sufficient, self-governing and cooperative community” (Ibid., 3). Trainer also emphasizes how degrowth is a plural movement, and the importance of recognizing that not all degrowth visions, practices, and models can be applicable to all movements that identify with degrowth ideals. For example, basic assumptions of a degrowth society including equity in the form of living wage policies, expansion of public goods, and shorter working weeks, are not relevant for some indigenous groups (Ibid.). Moreover, Nirmal and Rochelau (2019) argue that degrowth fails to sufficiently dismantle structures of violence, especially in the Global South, and that resistance needs to be re-centered in the discourse. Post-development offers a deeper understanding of agroecology’s potential as a force of resistance.

POST-DEVELOPMENT: BACK TO THE ROOTS OF AGROECOLOGY

From a post-development perspective, agroecology can be viewed as the political ecology of agriculture. Essentially, “ecology became political because capital’s growing interest in appropriating nature generates antagonism, conflict, and battlegrounds for the defense of territory and life” (Giraldo 2019, 75). As discussed earlier, the current growth-based agro-industrial food system is a form of agro-extractivism (McKay 2017), or an “accumulation by dispossession,” (Harvey 2004) resulting in disastrous consequences for farmers, indigenous populations, animals, and the environment. According to Anderson and colleagues (2018, 531), food sovereignty “has emerged as the most important global discourse around which social movements are organizing to contest and challenge neoliberal development.” It seeks to transform the food system in a way that makes it more democratic, lifting the rights and autonomy of food producers over dominating elite interests. Food sovereignty is defined as “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems” by the international peasant movement La Vía Campesina (2007).

The Nyéléni Declaration of 2015 was the official document resulting from the meeting of the International Forum for Agroecology, which consists of food producers, farmers, fishers, peasants, and indigenous peoples, etc., from all over the world. The declaration states that “the industrial food system is a key driver of the multiple crises of climate, food, environmental, public health and others” and that “agroecology within a food sovereignty framework offers us a collective path forward from these crises” (Nyéléni 2015, 2). Thereby, grassroots movements, peasants and farmers’ organizations, indigenous communities, and rural populations are driving and developing agroecology as an alternative paradigm, and as a tool for resisting agro-industry and defending their territories, cultures and lifestyles, through bottom-up innovations, seed networks, and local markets (Nyéléni 2015; Toledo 2019).

Agroecology is an approach to food production that replicates and sustains the natural cycles of ecosystems – an approach that works *with* nature. Thereby, it increases the autonomy of food producers as local knowledge and resources are emphasized and utilized, which in itself slowly challenges existing power structures and pushes for social and ecological transformation (Anderson et al. 2018; Nyéléni 2015). The values and principles of agroecology also recognize the wide spectrum of "social, political and biocultural contingencies of place," (Anderson et al. 2018, 533) which gives each farmer or community space to learn how to best create an agroecological food production in their own local context. As such, the discourse of food sovereignty and agroecology seeks to give space and power to small-scale food producers in terms of creating their own sustainable production in their own place-specific setting.

Gutiérrez Escobar (2019, 186) prefers to talk about food sovereignty and autonomy as a dual concept, which further emphasizes the "place-based character of food production, non-liberal forms of democratic decision-making, and autonomy from state institutions." One example of this is the Zapatista Army of National Liberation (EZLN) in Chiapas, Mexico. The Zapatistas are often mentioned in connection to autonomy and self-governance, where agroecology is central for self-sufficiency in autonomous communities (see Nirmal & Rochelau 2019). The idea here is to make self-defense, food production and consumption self-sustaining and autonomous.

The many struggles against agro-industry sometimes result in violent protests, but the practice of agroecology can also be viewed as a slow, non-violent form of resistance, aimed at building a new kind of society from below. In Latin America, liberation theology played a big role in the early spread of agroecology. Together with indigenous culture, it helped enhance and bring back traditional knowledge and worldviews that were lost when the “development project”, market forces and agroextractivism spread over the continent (Giraldo 2019). Central was the method of “dialogue of wisdoms” (dialogo de saberes), and a worldview centered on the spirituality surrounding human-nature relationships, instead of economic rationality. Most important in the contribution to post-development has been the “peasant-to-peasant methodology,” which uses horizontal spread of agroecological knowledge and socialization on the grassroots level (Giraldo 2019). Opposed to the ecomodernist process based on “expert” knowledge, these bottom-up processes of knowledge-transfer and networking helped increase “the transformation of landholdings that initially depended on external inputs derived from fossil fuels and planted as monoculture crops but now are relatively autonomous and diversified landholdings, based on local innovation and the use of solar energy” (Giraldo 2019, 82). Outside of Latin America, the Zero Budget Spiritual Farming movement, or the Adivasi communities in India are using similar networking techniques to peasant-to-peasant methodology in order to spread agroecology, build social networks, and resist agro-industrial land-grabbing (Giraldo 2019, Nirmal & Rochelau 2019). Within post-development, both these and the Zapatistas use examples of “local, traditional or indigenous knowledge [which] constitutes a ‘biocultural memory of wisdom’” (Toledo 2019, 87) – wisdom which should be recognized and part of academic research.

Viewing agroecology as a transformative project involves deep learning – questioning underlying paradigms, norms, values and governance processes (Anderson et al. 2018). In other words, it not only seeks democratization of food systems, but also of knowledge. This includes allowing for different forms of knowledge, understanding how they are legitimatized, and by whom (Adelle 2019). Conceptualizing agroecology according to Latouche's (2009) eight Rs framework can be useful for understanding how it fits into the degrowth discourse. However, as institutions, governments, universities, NGOs, and others increasingly use the concept, the International Agroecology Forum clearly warns against appropriating the concept of agroecology and stripping it from its post-development, non-Western roots:

> "[…] they have tried to redefine it as a narrow set of technologies, to offer some tools that appear to ease the sustainability crisis of industrial food production, while the existing structures of power remain unchallenged. This co-optation of agroecology to fine-tune the industrial food system, while paying lip service to the environmental discourse, has various names, including 'climate smart agriculture', 'sustainable' or 'ecological- intensification', industrial monoculture production of 'organic' food, etc. For us, these are not agroecology: we reject them, and we will fight to expose and block this insidious appropriation of agroecology." (Nyéléni 2015, 2)

For example, there are recent calls within the EU of including agroecology in a reform of its agricultural policy, in the name of degrowth and sustainability (European Committee of the Regions 2021). Just as there are concerns of degrowth becoming mainstreamed, as mentioned earlier, similar concerns can be expressed regarding the mainstreaming of agroecology. It is evident that agroecology has much to offer the world, but if institutionalized, the concept runs the risk of becoming just another top-down imposed knowledge from "experts". Clearly, the experts in this case are all the farmers and communities living and producing according to agroecology principles around the world.

Another important note in imagining another world is the role of language. For example, Giraldo (2019, 94) argues that "a problem with these resistance movements is that they are inevitably arising within the system that oppresses them." Therefore, using the same concepts as we do in order to understand agro-industry, such as "productivity" and "efficiency", corrupts our ability to understand agroecology as a form of resistance and imaginary of another society. The idea of mainstream development "has made thinking about truly alternative and viable practices very difficult," but the social processes of agroecology “are precisely the space within which we can challenge development while simultaneously and dialectically imagining post-development in a pragmatic way” (Giraldo 2019, 86). As emphasized by Kothari et al. (2013): although contradictions and tensions will exist within post-development visions of the pluriverse, they may also lead to constructive exchange.

The power of the horizontal organization form is that it allows movements to grow and spread dynamically and in multiple directions, based on creativity and information sharing. Compared to the ecomodernist technocracy lead by so-called experts, this form of social organization can spread the benefits of agroecological practices in ways most natural to local communities. Furthermore, when people organize from the bottom-up, the movements become unpredictable and flexible (Giraldo 2019) – thereby more resilient to unforeseen events (insurgency, sanctions, violence, change in climate or ecology, etc.). Adapting agroecological practices to the local ecological and social conditions of place opens up the potential for new knowledge creation.

As explained by Giraldo (2019, 85), these movements have also shown that “agroecology has the ability to erode a set of supposedly unquestionable beliefs about agriculture propagated by the dominant class.” According to him, this powerful grassroots organization and the horizontal exchange of knowledge is “agroecology’s principal contribution to a post-development transition” (Ibid.). This is because it is able to increase “the ability of rural communities to use available resources, rekindle a network of human relationships, and restart solidarity, cooperation, and reciprocity that had been stifled by development practices and its Green Revolution technologies” (Ibid., 86). Furthermore, the agroecological movements have, through horizontal knowledge exchange, presented small-scale food producers and rural populations across the world concrete solutions to concrete problems, strengthened social bonds, and revitalized “traditional wisdom grounded in the ecological particularities of place” (Giraldo 2019, 87). As such, agroecology is also a real-world example of a decolonization of knowledge.

The dangers with a place-based focus, however, come in the form of localism. Self-sufficiency and local food systems are often promoted within degrowth – like the ecovillage, for example. Building local communal systems of living based on socioecological justice and minimized planetary impact is in itself a form of resistance. The US ecovillage "The Dancing Rabbit" have their own solar energy production, may only use locally harvested or recycled wood for building, and all food waste goes back into the soil (Lockyear & Veteto 2013, 17). However, local food systems do not by themselves mean that the production is free from exploitation, or that the people have equal representation or power within the community. In fact, the local scale is often a reproduction of the same power relations on national or global scale (A Growing Culture, 2021). There is a danger in romanticizing the community, when that same community can prove unhealthy or oppressive for individuals that "do not belong" or are excluded based on sex-gender, class, age, ethnicity or ability discrimination. As such, the pluriverse discourse needs to promote a balance between the community and the individual, and promote pluralism in bodies as well (Kothari et al. 2019).

Beyond the community, local movements, especially in the West, are often viewed as a form of resistance to the globalized industrial food system and the violence it has caused to communities around the world. Degrowth scholars often emphasize the need for degrowth in the Global North as a way to pursue decolonization in the Global South, through reduced material extractivism (Hickel 2020). However, when farmers across the world become dependent on patent seeds and agrochemicals, often in economic debt, they are stuck in this agro-industrial food system that provides their only income. By turning to local food systems, consumers in wealthier countries seal themselves off from this reality. As a consumer it may feel better, but as explained by the initiative A Growing Culture (2021), it helps little in the pursuit of actual transformation towards social justice or food sovereignty. Instead:

> “If a local food movement is a space where the people who have been most marginalized are represented, centered, and in positions of leadership guiding the movement; if the movement tries to come up with creative alternative structures to fight injustice in the food system; if it grapples with the tension between standing in solidarity with the struggles of farmers around the world and working at this more tractable scale; if it builds solidarity with other localities trying to do the same work; if it grapples with and turns towards the complexity of historical forces of injustice and seeks to build redistribution into its model — then local food movements can become some of the most exciting and hopeful spaces for the future of the food system.” (A Growing Culture, 2021)

According to Lockyear and Veteto (2013), ecovillages increasingly seek to build alliances beyond their own community – with other citizens, organizations or other villages. Solidarity with – and support of – movements in the Global South is a question of empowerment and representation, but also crucial in the resistance to the global agro-industrial food system. As explained by Nirmal and Rochelau (2019, 473), “the challenge is to regrow localized interdependent networks, and degrow colonial, dependent global networks while re-making the patterns and terms of connectivity across scales.” For example, the Zapatistas demonstrate how degrowing the economy and pursuing autonomy does not mean isolation, but invites a world-wide web of solidarity and support.

CONCLUDING REMARKS

Connecting the threads, there are clearly many contradictions and potential pitfalls involved in the work towards transforming the food system. Agroecology, either in the form of degrowth or post-development, is distancing itself from the structural powers (such as the state) in order to build another way of relating to each other, to wealth, to nature and, in essence, living. Within degrowth, agroecology emphasizes how food production can become re-grounded in the local socioecological potential, for example, through ecovillages. It also shows the link between reduced social metabolism and decolonization. Through post-development, agroecology challenges widespread assumptions of how food systems should function by providing horizontal on-the-ground knowledge exchange and the strengthening of social fabrics. Ranging from small-scale farmers and ecovillages to indigenous communities and Zapatista autonomy, agroecology provides a slow resistance against the modern agro-industrial food system. Real change requires the combined efforts of grassroots movements across the world, built on mutual solidarity and support, allowing for a pluriverse of approaches. As explained by Kothari et al. (2019, xxix), “honourable rhetorics of abstract justice, even spiritual paeans to Mother Earth, will not suffice to bring about the changes we want. Building a pluriversal house means digging a new foundation.” Agroecology, in unifying degrowth and post-development visions, can become the path towards that transformation.

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CAN DEGROWTH STRUGGLE? THE LINES OF AFFINITY BETWEEN DEGROWTH AND ROTE ZORA

JENNA STEPANIC

Written in early May 2021, this article shadowed the anniversary of May Day, invoking thoughts of past struggles. Amy Goodman had a special on *Democracy Now!*, where she discussed the largest mass arrest in US history, the 1971 May Day actions against the Vietnam War in Washington D.C. (*Democracy Now!* 2021). The historian L.A. Kauffman wrote in her 2017 book, *Direct Action*, that the protest, "influenced grassroots activism for decades to come, laying the groundwork for a new kind of radicalism – decentralized, ideologically diverse and propelled by direct action." (23) Further back in May Day history, Tim Parrique (2019) traces the concept of degrowth to protests which occurred in a Paris university in 1968. There, students occupied a building in a revolt against imperialism, capitalism, the ongoing wars, and colonialism. It was the largest strike in the history of France. Its participants blended existentialist, Marxist, anarchist, and early feminist thought (Christie 2007), leading to the idea of a utopian education of desire which Parrique (2019) contends gave birth to degrowth.

The anniversary of May Day protests speaks to the themes discussed in this article, mainly, the organization of autonomous groups and then employment of diverse tactics to fight state violence and economic growth-based industries.

The article argues that degrowth needs to create more correspondence with autonomist action though a diversity of tactics. The focus, here, will be geographically situated in West Germany, starting from 1974. That is where an autonomous action group (participants of May Day protests) and militant feminist autonomous action group, Rote Zora, first claimed responsibility for bombings and other militant actions.

Both the 1971 and 1968 May Day actions, and the numerous actions carried out by Rote Zora in the 1970s and 1980s, were part of a larger, anti-imperial set of movements that were in solidarity with decolonial/anti-imperial or national liberation struggles in Ireland, the Basque country, Palestine, Algeria, and many more. These extended to anti-nuclear, anti-war, civil rights, and other autonomous movements happening all over the world. These movements saw many successes, yet the struggle against capitalism, economic growth, and ecological destruction continues. The reason to investigate direct action groups like Rote Zora is to consider what can be learned from groups whose legitimacy is often disqualified by the state because of the use of confrontational tactics. Recent degrowth literature has pointed to the lack of recognition and consideration of direct-action groups that are doing the on-the-ground-fighting against large and destructive capitalistic and economically growth-based industries (see Demaria et al. 2019; Dunlap 2020).

This article begins by reviewing the degrowth literature to understand where the gaps are regarding the use of direct action in order to propel the degrowth agenda towards transformational change. To better understand the tactics used by the action group, Rote Zora, I will contextualize the social movement scene that created a breeding ground for new feminist militant groups to emerge in West Germany in the 1970s. Finally, the article takes a deeper look into the commonalities between the envisioned futures of degrowth and Rote Zora to provide a case for why degrowth scholars should align themselves more broadly to autonomist and anonymous direct-action groups of the past and present. What should unite these groups, in the end, is the realization of a common desire for transformational change that is both more socially and environmentally just, which requires critical solidarity and a diversity of tactics. The conclusion is meant to reflect on the use of “violent” tactics and the need for degrowth to align with diverse movements more broadly.

The argument, here, confronts degrowth’s ambiguity around a deeper analysis of political struggles, which includes ignoring – or under emphasizing – important struggles and groups of the past, as well as the present. This blind spot is detrimental to degrowth’s success as a transformational movement to stop growth-based neoliberalism. By demonstrating the links between degrowth and a particular feminist militant group that operated from the 1970s to the 1990s, a gap can be bridged both between more feminist ideas and the use of militant tactics as a strategically legitimate means of moving forward the degrowth agenda.

DEGROWTH & POLITICAL STRUGGLE

This section asks the question: where does degrowth stand in the reality of on-the-ground political confrontation? As implied in its name, degrowth counters the hegemonic narrative that maintains economic growth is necessary and the best solution to overcoming environmental and social crises. Degrowth's central objective is the reduction in total material and energy throughput to bring the economy into balance with human and nonhuman life on Earth – broadly including nonliving rivers, landscapes, ecosystems, and all else that sustain life (Hickel 2020a). Some end goals of degrowth include "dignified work, less self-competition, more equitable relationships, identities not ranked by individual's achievement, solidarity communities, human rhythms of life, and respect for the natural environments" (Kallis et al. 2020, 109). The end goals are seen as the means to which the desires for socially and ecologically just limits can be achieved (Demaria et al. 2019). Degrowthers emphasize lives lived in harmony with surrounding environments and ecosystems, where people are autonomous from the workings of the capitalist techno-infrastructures and the bureaucracies that run them.

These ideas are opposite to the more popularized notion of green growth, which describes the approach of most governments' environmental policies. The ecomodernist, or green growth, agenda encourages the continuation of economic growth in the name of more renewable and "greener" products as the solution o the current ecological crisis. Ecomodernism encourages technological innovation, continued digitalization, and the absolute decoupling of economic growth from fossil fuel consumption where the former can expand while environmental harm contracts (Pollin 2018). The dominance of green growth narratives and policy absorb attention away from degrowth and, considering that green growth has been empirically disproven (Parrique 2019; Hickel & Kallis 2020), indicates that governments are lagging to address ecological catastrophe and ushering in a global movement towards transformative change.

This ‘transformative change’ is at the heart of degrowth since there is a need and call for a complete overhaul of the growth-based neoliberal system that is currently in place. This can be seen by the founder of degrowth, Andre Gorz, who in 1972 first talked about degrowth at a public debate organized by the *Club de Nouvel Observateur*. There, Gorz questioned whether degrowth was “compatible with the (capitalist) system” (Demaria et al. 2019, 434). Parrique (2019, 12:01-12:33) also reinforces the need for “revolutionary emancipation” form the hegemonic growth narrative through the evolved denotation of degrowth that emerged in 2002:

> “What people realized is that there is no point advocating for less in a society that culturally glorifies more. So, [degrowth scholars] realized that growth was an ideology with physical infrastructure, mental infrastructure, the way that banks are designed, the way that jobs are being created, the way that pension systems work. […] So degrowth is not only less, but it should be this emancipation from the objective of growth.”

It is unfortunate how distant degrowth is from the mainstream because the logic of being more considerate to ecological and social limits, allowing the global biotic community to recuperate from the damages inflicted by capitalist development, seems obvious. So, how can we advance this agenda?

Jason Hickel (2020b) uses a wonderful analogy of how taking growth away from the center of the economy is like the Copernican Revolution. Before people understood the Earth to be round, there was much that did not add up, like the movement of other planets. Once the idea of a flat Earth was questioned, then disproved, new and easier solutions and imaginaries became possible. So too, with the idea that the economy must not necessarily rely on growth, can we start to imagine easier solutions to the ecological crisis. Demaria et al. (2019) agree and cite Kallis (2018, 432) in saying, “growth is not only a material and economic process with social and ecological costs, but also a hegemonic idea that obscures more ecologically friendly and egalitarian alternatives.” Parrique (2019, 13:00 – 13:25) calls this imagination of degrowth-as-destination as the third denotation of degrowth: “It’s not too sexy to just oppose the system and propose nothing else […] this does not mobilize the people […] Let’s focus on the desirable society that we can get, through this emancipation. This is really when it became a full utopia.” A need to convince the public is necessary, but the means to do this is presently being contested among degrowth proponents. For example, as a response to an article written by Hickel (2020a) , Ted Trainer (2020, 1) argues that Hickel’s perspective “conveys the impression that reduced GDP might not be necessary, it implicitly defines Degrowth in terms of a particular pattern of elements when others are conceivable, and it reinforces the impression that the global South can persist with the conventional basic development paradigm geared to prospering within the global economy.”

The degrowth community has done well to agree on the pitfalls of the growth-based imaginary and then further imagine what alternative futures could look like, one that is reliant on a plurality of economies and that prioritize the wellbeing of all Earthly humans and nonhumans. The degrowth network regularly throws around ideas about different strategies to build a post-growth future: “oppositional activism, building alternatives, institutional politics, research dissemination, education and art”; as well as what these futures might look like: “sharing, simplicity, conviviality, care and the commons,” “frugal abundance, ecofeminist sufficiency, or prosperity without growth” (D’Alisa et al. 2014 in Demaria et al. 2019, 432; see also Salleh 2009; Jackson 2017; Paech 2012).

What seems to be lacking is the acknowledgment of the different tools and histories of political struggle that can be applied to the denotation of degrowth and emancipation. How can transformational change happen and what tactics need to be employed to ensure a move away from growth-centric economies? According to Wright’s (2010) theory of transformation,[1] there are three models or visions for

[1] Following Kallis’ (2020) use of the same social theory of transformation in *The Case for Degrowth*.

the trajectory of systemic transformations beyond capitalism: ruptural (revolutionary socialist/communist), interstitial metamorphosis (anarchist), and/or symbiotic metamorphosis (social democratic). A ruptural transformation's strategic logic towards the state would be to attack it; interstitial logic encourages building alternatives outside of the state; symbiotic logic is keen to use the state and other modalities of centralized power, to struggle on the terrain of those who hold power and reform it (Ibid.). Since the ecological and social issues that we face today are so broad in scope, both spatially and temporally, systemic change on a scale bigger than we have ever seen will be necessary. I proposed that all three of these models for systemic transformation are necessary. Implementing these strategies simultaneously will provide the best chance to dismantle a system that constantly reinforces itself by concentrating power in the hands that want to maintain the system the most.

Kallis et al.'s (2020, 87-88) *The Case for Degrowth* provides many examples of degrowth as alternative lifestyles and praises the significance of "building interstitial alternatives to reduce the dependence of economic growth and perform everyday practices that shift common senses." These include the eco-community network, co-operatives, and other arrangements (Ibid.). With an enthusiastic tone, they also reference the political parties and other political arenas that are bringing degrowth into the debate, like in the UK House of Commons or the New Zealand ruling Labour Party (Ibid.). Working alongside state institutions that are fully engaged within capitalist and neoliberal systems falls within the symbiotic metamorphosis model of transformation.

Kallis et al. (2020, 88) also bring up the "reforms" that need to be advocated through "nonviolent actions, protests, uprisings, strikes, and other forms of ruptural conflict." However, there exists a contradiction in their use of the word "reform" when discussing a revolutionary transformation model, as reform signals working with the system to change it from the inside, while revolution calls for the destruction of the system to build alternatives. To borrow form Rosa Luxemburg's (2007, 65-66) *Reform or Revolution*:[2] "This wall is not overthrown, but is on the contrary strengthened and consolidated by

[2] Luxemburg writes in the context of a transformation towards socialism.

political power by the proletariat, can break down this wall.” Instead of adjusting the system, she argues from a materialist historical perspective, that a revolution is necessary to transform away from capitalism.

Beyond a few sentences, the authors of *The Case for Degrowth* do not go into much detail about what ruptural conflict could look like and what tactics can and should be employed to further the degrowth agenda. In fact, most degrowth literature focuses on building alternatives, doing more research, and providing policy recommendations (see Kallis et al. 2020; Hickel 2020). What garners less attention are ideas of “oppositional activism” as mentioned above. What would this look like and what are some examples of “oppositional activism” in practice? Kallis and colleagues (2020, 88) make quick mention of “non-violent actions, protests, uprising, strikes,” but ignore much of the real work that was previously and is presently being done. Attention to a diversity of tactics is lost from much of the degrowth literature.

Demaria and colleagues (2019) and Dunlap (2020) have both pointed to the need for more recognition of the radical and ruptural actions within degrowth literature. In their special issue introduction, Demaria and colleagues were surprised to receive abstracts that focused on more radical ideas of insurgence, resurgence, decolonization, and nowtopias that were more prominently featured than the interstitial based content they were expecting. In their concluding section, citing Nirmal and Rocheleau (2019), Demaria and colleagues (2019, 443) point to the need for more studies on the “less visible movements and peoples throughout the world [who] are also engaged in resurgence and the reconnect to reach or to recover sufficiency and remake territories and worlds threatened by growth-driven development, neoliberal globalization, and climate change.”

Dunlap’s (2020) article on “Recognizing the ‘De’ in Degrowth” provides ample examples of these less visible direct-action groups in France, Spain, Italy, and Germany. He mentions the Hambach Forest Occupation in Germany, the NoTAV Movement in Italy, the ZAD Movement in France, and the Anti-MAT Struggle in Catalonia, all resisting large-scale capitalist development projects, which Dunlap contends are contributing directly to much of what degrowth is calling for. Dunlap (2020) is very critical of how degrowth ignores or minimizes these movements within popular books and how it appears as if degrowth authors are “sanitizing political struggle” (para. 8). Furthermore, given the breadth of degrowth literature that comes out of these European states – that focus on the Latin American Zapatistas and Buen Vivir – there is much irony in omitting struggles occurring in the backyards of degrowth scholars, which deserves critical reflection. Dunlap calls on degrowth to “embrace and celebrate combative movements, spreading the knowledge of their struggles” (para. 19) and to strengthen this connection as they are “logical pathways towards degrowing the techno-capitalist system” (para. 20).

What Demaria and colleagues and Dunlap point to is a missing link between theory and real, on-the-ground action. There is an extreme poverty and disconnect from the academy to political difference, struggle, and diversity in terms of what is going on on-the-ground and how groups are fighting against growth-based, capitalist industries. By making the link between degrowth and Rote Zora, the article intends to assist in building the bridge that Demaria and colleagues and Dunlap have laid the foundations for by: first, drawing parallels between degrowth and Rote Zora and second, demonstrating the benefit and logic for the degrowth network to align themselves with the people that are and have been fighting against mega growth industries and capitalist projects since the 1970s.

CONTEXTUALIZING THE EMERGENCE OF ROTE ZORA

Anti-imperial movements across the world inspired the rise of urban guerilla groups in Europe in the 1960s. This was particularly prominent in parts of Latin America as anti-imperial struggles began to counter the interference of the United States during the Cold War and in the African continent. There, groups – inspired by Marxism, Leninism, and Maoism – began to rise-up and fight for national independence and decolonization. Western adaptations began to develop and in West Germany, the Red Army Faction (RAF) was formed. RAF was a vanguardist group with a Marxist-Leninist ideology and a centralized structure (Katsiaficas 1997). RAF's embodiment of the idea of militancy internalized the aspect of being a soldier – an armed specialist – that separated them from "the people" that they were fighting for (Smith & Moncourt 2009). These vanguardist and hierarchical tactics received much criticism from the movements at the time (Smith & Moncourt 2009), and direct armed confrontation with the state left them vulnerable to be taken down.

Criticisms of the RAF's ideology and vanguardism resulted in the creation of the Revolutionary Cells (RZ), "the newest name among groups waging small-group warfare on the established system" (Katsiaficas 1997, 132). RZ was a way for people to form their own autonomous groups that select their targets and plan their own attacks as long as the actions fit RZ's politics (Smith & Moncourt, 2009). RZ politics were "defined as anti-imperialism, anti-Zionism, and 'supporting the struggles of workers, wimmin and youth'" (Smith & Moncourt 2009, 437).[3] People were encouraged to form groups to perform militant and anonymous actions rooted in localized class struggles (Katsiaficas 1997). Members came from the local communities instead of identifying themselves strongly as representatives of a certain group, which created wider mobilization as there was a greater connection with the action groups and the "masses," (Smith & Moncourt 2009) as they were called.

[3] Quote within the quote from Autonome Forum 1988. Wimmin was an alternative way of spelling women used by some feminists to avoid the word ending in "men."

The Rote Zora formed as an informal arm of the Revolutionary Cells (RZ), initially known as the Women of the Revolutionary Cells. They were an autonomous women's "grassroots guerilla group" operating with the same tactics and styles of the RZ (Geronimo 2012, 68), but with a feminist politics at the forefront of their actions. They were independent of the RZ, but the two organizations worked closely together in "theoretical and practical matters" (Smith & Moncourt 2009, 438). It was at a time when violence against women was a central topic within the second wave feminist circles and when questions of "how broadly violence had to be defined to tackle visible and invisible forms of abuse" (Karcher 2016, 71). This was the subject of vivid debate in the New Women's Movement in the Federal Republic of Germany. Rote Zora became a militant women's group that claimed responsibility for forty-five attacks and various other offenses in Germany in the 1970s and 80s to fight back against the violence and oppressive treatment of women (Ibid.). No people were harmed in any of their attacks and their campaigns were specifically designed not to harm anyone. A prior member of the group, Corrina Kawaters, stated that they, "made sure that nobody was ever injured. It was more about about property damage. They would never accept victimizing anyone and no one was ever victimized" (Ressler 2000, 16:21 - 16:47). Rote Zora was named after the protagonist in Kurt Held's *Die Rote Zora und irhe Bande*,[4] which told the story of a red-haired Croatian girl who led a gang of orphans committed to righting injustices.

Rote Zora saw itself as a social, revolutionary, feminist liberation movement (Ressler 2000). In an interview for the documentary *Die Rote Zora*, Kawaters put it this way:

> "By means of radical militant resistance, it wanted to do away with all repression, be it directed at women or of a general nature. It did not see the use of force against women as an exception but as a universal principle of domination. It thus linked the struggle against the patriarchy and against sexist violence, with the struggle against social power relations and against the social system of the Republic of Germany. It was not interested in obtaining power, but in limiting power and ultimately bringing about a society without domination." (Ressler 2000, 3:49 - 4:23)

[4] English versions is called *The Outsiders of Uskoken Castle* and was translated by Lynn Aubry and published in 1967. A more direct translation of the title is "Rote Zora and the Gang."

Their actions were largely fuelled by second wave feminism and growing frustration women felt with regards to the sexist, patriarchal system in which they lived. “Our dream,” explained two group members in an interview with the feminist magazine EMMA in 1984, “is that there are small gangs of women everywhere; and that a rapist, women trafficker, wife beater, porn dealer, creepy gynecologist must fear that a gang of women finds him, attacks him, and humiliates him in public” (in Ressler 2000).[5]

Before moving on, it is important to critique Rote Zora’s feminist ideas, since feminism looks a bit different today than they did in the midst of its second wave. First, targeting individual people for acts they deem repressive to women runs contrary to contemporary abolitionist feminism where attack and punishment do not constitute justice (Davis 1981). Second, the pornography industry has changed, and so too have some feminists. The pornography industry is no longer understood as a purely repressive industry that objectifies and exploits women for the profit of others. There is more nuance and consideration for the rights of porn workers, as well as an increase in pornography made for and by women that are aimed at sexually empowering women and their partners (Korsvik 2021).[6] Third, and finally, is that second wave feminism is known for being the white woman’s feminism that barely considered the intersectionality of experiences across race, gender, sexuality, ability, age, and so on (Davis 1981). Calling in the contentious aspect of Rote Zora’s feminist roots is important to understand how degrowth might converge but also diverge from Rote Zora’s end goals and objectives.

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[5] Also cited in Kacher 2016.

[6] Korsvik’s book, *Politicizing Rape and Pornography*, discusses the politicization of pornography from the 1970s onward in the case of Norway and France. Similar information was not found for the German context.

The actions and attacks executed by Rote Zora articulate a degrowth practice which degrowthers can learn from. Many of the ideas perpetuated by degrowth proponents can be tied directly to some of the actions performed by Rote Zora. Though their specific reasons may not always match, their broader claims that are anti-imperialist, feminist, anti-capitalist, and against unnecessary growth, align. Below is an analysis of the interconnectedness between degrowth's ideas and Rote Zora's actions.

Feminist Roots

Many members of the degrowth community have openly aligned the movement with feminism and anti-patriarchal sentiments (Demaria et al. 2019). Degrowth does have – though mostly unacknowledged – feminist roots that can be tied into the ecofeminist critique of growth. Daniel Bendix (2017, 5) notes ecofeminist contributions to degrowth "considers capitalism's distinction between the productive and reproductive sphere and thus its disregard for the material basis of life as fundamental for exploitation not only of nature but also of women and people in the Global South." Like feminist combative tactics that go back to the Suffragettes, the feminist influence is a perspective that degrowth scholarship has so far failed to adequately recognize, and according to Gregotatti and Raphael (2019, 94) "particularly in attempts to delineate the intellectual roots of contemporary degrowth debates."

Rote Zora was a self-identified feminist group that created their own women-only arm away from the Revolutionary Cells because of sexism within the movement and due to the currents of the ongoing second-wave feminist movement. Its actions were directed towards "predominantly patriarchal institutes, companies and persons representing and building up a sexist male society, which is oppressing and exploiting wimmin worldwide" (Autonome Forum 1988). They stemmed from the second wave of feminism that was, "born of the insights and rebellious spirit of the anticolonial revolutions and the students' movement, but even more so as a result of the frustration radical women experienced when the left failed to live up to its pro-

Rote Zora implemented militant campaigns against the pornography industry, sex shops, women trafficking, and the Doctor's Guild (for reasons we shall see later) (Autonome Forum, 1988). The central themes in choosing these were linked to West German feminism and included: violence against women, transnational solidarity, issues around population control, reproductive technologies, and genetic engineering (Karcher 2016). Their actions were mostly targeted towards causing property damage for the purpose of economic sabotage of companies which supported the ideals that sought to control and subordinate woman and nonhumans.

Population Control

Although the *Limits to Growth* (1972) report emerged around the same time as degrowth, the two are distinct on the issue of population control. The report expresses concern over the limitlessness of population growth and how it could not be sustained in a finite planet (Meadows et al. 1972). This Malthusianesque critique is often considered quite problematic because of the policy implications of trying to control a population. Actions like forced sterilization have been used to prevent women from having children, while on the other side, criminalizing abortions made it so that women had to have children. Neither instance gives the women – whose bodies we are talking about – the right to choose, and are part of longstanding traditions of misogyny, racism, white supremacy, eugenics, and so on. Most literature on degrowth expresses a wider concern with social as well as environmental justice and therefore is against population control (Demaria 2019).

Actions against population control were justified as a need to fight a patriarchal system trying to maintain control over women's bodies. For this reason, Rote Zora targeted anti-abortion organizations, companies, and institutions, as well as The Doctor's Guild, "exponents of rape in white trenchcoats" who limited abortion reform and carried out forced sterilisations (Autonome Forum, 1988). The first high explosive attack executed by the group was in 1974 on the Supreme Court building, the day after the court had overturned the abortion law. It followed years of protest and action by the women's liberation movement who, under a unified struggle, campaigned to repeal §218 of the Basic Law, the paragraph of the constitution banning abortion under any circumstance (Smith & Moncourt 2009). Under this law, women who had an abortion could serve a five-year sentence while the person who performed the abortion could serve up to ten years. The campaign to decriminalize abortion was dealt a major blow when the Federal Constitution Court voted six to two that the legislation decriminalizing abortion violated the Constitution. The next day, bombs went off in the court's chambers in Karlsruhe, and a communique by the Women of the Revolutionary Cell claimed the attack (Katsiaficas 1997). Unfortunately, abortions are still criminally punishable in Germany today (German Criminal Code). Yet, for the argument here, anti-abortion laws are not only attempting to usurp power from women but also institute and force reproduction upon women.

Fighting for Worker's Rights

The initial proposals by degrowthers to the European Parliament included worktime reduction and a universal basic income (Demaria et al. 2019; Kallis et al. 2020). This is a fundamental aspect of degrowth as it aims to propose an alternative that is both socially and environmentally just. The overall reduction of working hours means less energy consumption, less production, and therefore a more environmentally friendly economy. By working less, the social lives of people are also anticipated to improve.

In the summer of 1987, Rote Zora targeted Adler, a clothing store with poor working conditions for their female employees in South Korea. When twelve South Korean union leaders were fired from Adler, Rote Zora and its Berlin sister group, the Amazons, firebombed 10 Adler outlets in Germany causing millions in damages. This compelled the Adler Corporation to rehire the fired workers and agree to the demands of the South Korean textile workers (Katsiaficas 1997). Parts of degrowth are centrally focused on social justice and equality. The fundamental reason for these attacks can be directly related to the reasons why degrowth calls for a change in working rights, and Rote Zora's tactics were successful in providing people with marginally better working conditions, or at the least, keeping their jobs.

Against Destructive Industries

Degrowth has also been at the forefront of criticizing eco-modernism's call for green growth. Green growth encourages the shift from fossil fuels to renewable energy sources like wind turbines and solar panels, in order to continue down the path of economic growth (Asafu-Adjaye et al. 2015). Green growth is criticized for perpetuating the problems of the growth paradigm, whereas degrowth calls for a fundamental shift away from this. For example, Dunlap (2018, 2019) and Hickel (2020b) have pointed out green growth's reliance on extractivism in transitioning to new energy sources, and the ongoing on-the-ground resistance to stop these projects. Green growth is criticized for perpetuating similar problems and instead degrowth calls for a fundamental shift away from the capitalist growth paradigm that ecomodernists want to continue to rely on.

Hickel (2020b, 270) provides five steps for the pathway to a post-capitalist future. His fifth step is to "scale down ecologically destructive industries" that are socially less necessary. This proposal comes out of the desire for a more environmentally and socially just world. Industries that are destructive to the environment or to certain social groups need to be met with resistance. This includes any growth-based industry, industries that displace peoples, and industries that destroy and damage ecosystems unnecessarily. Hickel (2020b) also points out that a shift away from the globalization of trade to the localization of production would shift the economy that is based on energy-intensive long distance supply chains to an economy where production happens closer to home.

From 1983-1995, Rote Zora targeted biotechnology and genetic engineering facilities. During this twelve-year period, they attacked Siemens communication technology, a data center of the Association of Credit Reform, the Institute for Breeding Research, a medical institute, two different institutes for genetics, the Society of Biotechnological Research, a shipyard supplying arms to the Turkish regime, and the Berlin Genetics Centre (Rote Zora).[7] These attacks included arson and explosives as means to cause property and economic damage to the companies and institutions involved in what Rote Zora considered to be destructive industries. The reason to target the bio-

[7] "Notice of Attacks" by Rota Zora were documented on freilassung.de and I was able to translate them using google translate.

> “Schering maintains the right to market all commercially viable results achieved from research in the areas of pest control and pharmaceuticals. The main areas of research conform with the company’s interest. Their interest has never contributed to the elimination of world hunger or poverty but rather, has been the cause of these problems. The supposed alleviation of these problems through the use of biotechnology will now bring advantages and profit to those responsible for creating them in the first place. An example which illustrates this is the use of fertilizers and pesticides from chemical and seed companies in countries of the so-called “Third World.” Gene technology is actually a technology of dominance. Control and subordination are inherent in all of its facets as those are the purposes for which it was originally developed. We maintain that gene technology must be fought as a whole. An articulation of our radical rejection is the bombing of the Berlin Genetics Center on October 17.”
> (Ressler 2000, 0:53 - 2:00)

The specific targeting of biotechnology and genetic engineering labs was due to the belief that the targeted companies were not doing this work for the interest of “the people,” but instead for financial self-interest. While there might be reasonable exceptions for biotechnology products, it is clear that the enterprise of genetic control, manipulation, patenting, and marketing is not in the interest of humanity, as commonly marketed. The material (e.g. research labs), personnel (e.g. scientists and administrative staff) and energy intensity (e.g. R&D, powering buildings) of genetically mortified products for profiteering remains another implicit issue connecting the actions of Rota Zora and degrowth. Destructive, economic growth-based industries that reinforced the status quo and continue to fill the pockets of the global elite is a common enemy of both degrowth and Rote Zora.

CONCLUSION

May Day 1975 marked the start of the Revolutionary Cells' annual newspaper that would explain their positions and actions. It was quickly banned but still broadly distributed and widely read regardless (Smith & Moncourt 2009). May Day 1987 saw a street party turn into a riot – and the following year, a large-scale police crackdown because of the momentum of autonomous groups in West Germany (Katsiaficas 1997). The social movements of the early 1970s engendered a whole new range of tactics to be used in the global struggle against patriarchy, capitalism, imperialism, state control, and ecological degradation. By aligning with a more diverse range of tactics and social movements from the present and past, degrowth stands a better chance at pushing forward its agenda for transformational and radical change. The use of Block Bloc tactics (see Gelderloos 2013; Dupuis-Déri 2014) – promoting anonymity by wearing all black to widen the space of direct participation in combative action – emerged during these May Day protests in Germany, and would popularly re-emerge in the anti-globalization movement, where degrowth would become visible as a political tendency.

What degrowth proponent Naomi Klein (2001, 89) calls for in her piece, "Reclaiming the Commons," is "a movement of radical change, committed to a single world with many worlds in it" and a global movement that must turn into "thousands of local movements." Degrowth had envisioned a future that entails a better work/life, human/non-human balance, and that would celebrate and (claims to) fiercely protect the right to diversity, whether that be cultural, economic, ecological, agricultural, political, or otherwise. With this is mind, it seems all too obvious that the Earth is indeed round, and that alternative futures can easily be imagined. But getting there will require that degrowthers embrace a broader sensitivity to direct action and a diversity of tactics to disrupt the current capitalist system.

But why should we accept "violence" as a legitimate tactic against growth-based industries and the capitalist system that reinforce them? Here we turn to Gelderloos (2013):

> “Aside from uncleanliness or hygiene, the principal term used to unleash a moral panic and mobilize elite action was “violence.” Among the elite, then as now, in Barcelona as in the English-speaking world, “violence” was a euphemism for a threat to the ruling order and its illusion of social peace, with which the class struggle, the brutality of patriarchy, and the murderousness of colonialism are hidden. The newspapers did not talk about violence when cops killed strikers, when landlords evicted families, or when poor people died of hunger. They talked about violence when workers went on strike, when tenants stopped paying rent, when street vendors refused to surrender their wares to the cops (who would harass them at the behest of the store owners), and when anarchists carried out sabotage or held unpermitted marches.”

In this passage, Gelderloos concisely explains the use of the language of “violence” as a cultural construct to serve specific agendas and to reinforce the system already in place. Additionally, Galtung’s (1969) theory of structural violence acknowledges the existence of state violence that is too often ignored. According to him, “structural violence” is social injustice where social conditions result in massive discrimination (Galtung 1969). It is for this reason that the use of property damage, sabotage, vandalism, and attacks against infrastructural projects for the purpose of economic and property damage, and as protest to oppressive systems, are justified and should be more regularly considered within degrowth. The role of academics not engaging in these actions, at the least, might be to create a space to support existing movements and struggles in defense of habitats, ecosystems, and against profiteering.

There are many overlaps between the desires of action groups and the degrowth academy, but the means to these ends have been very different. Put simply, degrowthers have written and theorized, discussed, and convened. Certain action groups have bombed buildings, sabotaged pipelines, chained themselves to bulldozers, created blockades, camped out on trees for days, and withstood violence and imprisonment from the state, private security, and police, for trying to defend the land from growth-based industries. Arguably neither set of tactics has been successful in achieving long lasting, transformational change, though all parties involved claim it is necessary. Affinity between these different groups, therefore, has the potential to be very fruitful. On their own, there is less of a chance of success, but coming together and supporting each other through affinity and solidarity would hugely strengthen the cause. How can degrowth, and the academy, support combative political struggle?

Degrowth would have benefited by aligning itself with the social movements that were happening en masse in the seventies and eighties. Hopefully, it can learn from these past movements and apply the tactics that were successful to the brand that is now "degrowth." As the systematic attacks of logging infrastructure in Chile reminds us (see Protests.media 2021) – among countless other daily acts (see Contra Info, Act For Freedom Now, etc.) – there are many contemporary groups fighting against growth industries that degrowth should get behind if they are serious about transformational change.

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KNOWLEDGE, ENERGY, LIFE: POSSIBILITIES FOR CONSERVATION IN POST-DEVELOPMENT

ALEJANDRO RUELAS

INTRODUCTION

Saving nature is a moneymaker. As Dan Brockington (2009, 15) puts it, "conservation policies are an ever more prominent part of economic growth strategies." Ecotourism, offsetting of environmental and carbon footprints (Büscher & Fletcher 2015), green grabbing (Fairhead et al. 2012), the alignment of environmental NGOs with corporate interests (Büscher & Fletcher 2020), among other phenomena, have bolstered the entanglement of conservation with neoliberalism, making it into a sophisticated instrument for capital accumulation (Dunlap & Sullivan 2020). In the face of the environmental crisis, the same economic system that ravages nature in search of profit now counts conservation as an increasingly necessary component of so-called "sustainable development" (Brockington & Duffy 2011). Following a critical revision of conservation and its links to capitalism, this essay asks: Is there any way to make conservation compatible with a post-development future rather than a cog in the growth-driven economy?

The meaning of conservation is diffuse. We intuitively understand it as the protection of nature, something that is good to do. On the other hand, it is not uncommon to find the word accompanied by concepts such as "development," "green growth," and even "business model". National Geographic, for instance, defines it as "the act of protecting natural resources for future generations" (National Geographic Society 2019). "Resources": something external to humans that is there to be exploited for our benefit (Sullivan 2017). It seems mainstream conservation, the kind advocated by international NGOs and popularized by global media outlets, follows the logic of extraction and profit. Büscher and Fletcher (2020) further highlight the capitalist character of the current conservation movement, which, by defining nature as "natural capital," justifies protecting it only as an effort to keep the "environmental services" it provides. Brockington (2009), in turn, recognizes three main types of conservation in its current form: conservation of biodiversity, conservation of landscapes, and conservation of wildlife.

This article is an exploration of other meanings and possibilities. It proposes three alternative kinds of conservation: conservation of knowledge, conservation of energy, and conservation of life. Such conceptual shifts could have practical implications and aid in the transition towards a pluriverse in the terms advocated by post-development thinking. The argument closely follows Büscher and Fletcher's *The Conservation Revolution* (2020) and the case it makes for "convivial conservation." This hugely important book marks an attempt to re-conceptualize conservation away from the growth imperative and beyond the human-nature dichotomy. Another remarkable proposal is Toledo's (2005) bioregional paradigm. The present article attempts to build on their ideas and foster a more explicit dialogue between conservation and post-development.

But if conservation is so entangled with an economic model that begets environmental catastrophe, why even keep the word? If we are already looking for alternatives to development (Escobar 2011), why hold on to another problematic concept with such a questionable history? Firstly, the word "conservation" carries a clear message with immense narrative power. It succinctly confers a vision of a future in which, despite all odds, things can be similar to what they are today. In short, it gives people hope. Secondly, the conservation movement enjoys an increasing momentum that would be ill-advised to waste. Further, using the popular understanding of conservation as something good (Brockington 2009) might allow for immediate policy changes and support from the wider public. New concepts – such as degrowth– have an extremely hard time catching on because they exist outside of the current frame of mind.[1] Conservation, on the other hand, is right at the center of popular environmental concerns. Thus, coming up with new meanings rather than new words might prove effective at bringing about change in the short term.

[1] Even among academic circles, there seems to be confusion as to what exactly degrowth means, which prompts crticism and resistance to the idea. These concerns have been addressed by some of degrowth's advocates, such as Hickel (2020).

Firstly, this article outlines the instances where the links between conservation and neoliberal capitalism are most evident. It connects conservation to the growth economy and shows examples where we can see this brand of environmentalism operate to extract value from nature. Next, it argues for each of the proposed meanings for conservation (as knowledge, energy, and life). These three ideas are so intimately intertwined that, at times, it is hard to distinguish their boundaries: between the knowledge that teaches us how to re-define energy, the energy that connects all forms of life, and the lives that carry with them the wisdom of their heritage.

CONSERVATION IN THE GROWTH ECONOMY

In his book *Patas Arriba: Escuela del Mundo al Revés*, Uruguayan author Eduardo Galeano (1998, 10) wrote: “Saving the environment is the most brilliant business of the companies that annihilate it.” It is indeed a notable trick. As environmental panic piles up, we are now facing a paradox in which capitalism seems to be the only way to save nature – from capitalism. Multiple authors have pointed out this process of “selling nature to save it,” (McAfee 1999) which neoliberalism has intensified giving rise to what some call neoliberal conservation (Sullivan 2006; Igoe & Brockington 2007; Büscher et al. 2012; Dunlap & Sullivan 2020), or a recrudescence of value capture and capital accumulation through the purported protection of nature.

Büscher and Fletcher (2015) propose the term “accumulation by conservation,” “ways in which conservation functions as a component of the capitalist world economy, facilitating the internalization of environmental conditions in order to safeguard or expand capital accumulation” (Büscher & Fletcher 2020, 45). Thus, they track the evolution of conservation and place it within regimes of accumulation, from the colonial world system in the late 19th century and its “fortress conservation,” to the financial instruments of current day neoliberalism. Following Brockington’s claim of intensifying unification of conservation and capitalism (Brockington 2009), I will focus on the later neoliberal stage and briefly outline four instances where this complicity is most evident: 1) offsetting and the financialization of nature; 2) green grabbing; 3) the alignment of NGOs and corporate interests, and 4) ecotourism.

Büscher and Fletcher (2015) argue that the roll-out of the neoliberal period marked a shift in conservation towards the financialization of nature, defined as an "environmental service provider." This entailed the abstraction of conservation from any one place, making it possible to buy conservation assets from anywhere in the world. By construing the world as a fuzzy whole, pulling a sort of unifying god trick (Haraway 1988; see also Søyland, this issue), damages made somewhere can be offset elsewhere through instruments such as carbon markets and "environmental marketplaces."[2] Financial devices such as Payments for Environmental Services (PES) and Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD+) render it possible to damage nature in one place and make up for it in another. This financialization, they posit, "is necessary in order to free capital from the limitations of investment in fixed resources," (Ibid., 287) which has issued a whole new phase of accumulation.

Building up from his argument, Dunlap and Sullivan (2020) offer a thorough critique of neoliberal environmental governance and market-based conservation strategies. They highlight how profit-driven conservation tends to deliver all kinds of nefarious effects to rural communities in the global south – disproportionately targeted by conservation policies (Büscher & Fletcher 2020) – and propose the term "accumulation-by-alienation" to highlight the "processes of colonization, state territorialization and security policy" that accompany these commodifying strategies (Ibid., 554).

Fairhead and colleagues (2012, 237) further define dispossession as "green grabbing", or "the appropriation of land and resources for environmental ends." They argue new forms of valuing and trading nature remotely facilitate the circulation of "green capital" – money invested to make a profit from saving nature – and accelerate "the wholesale alienation of land," as well as "the restructuring of rules and authority in the access, use, and management of resources" (Ibid., 238). These land grabs are in turn aided by narratives of local

[2] For a soberingly tangible example visit www.ecosystemmarketplace.com.

degradation (Fairhead & Leach 1995; Büscher & Fletcher 2020) and the "green credentials" of conservationists. Thus, scientific authority and the irrefutable urgency of environmental action (Brockington 2009) enable practices with deep colonial histories, deployed to protect nature from humanity. Following the logic of offsetting environmental damage, these governance mechanisms, targeted at rural populations, can be implemented in tandem with development projects to justify investments and collateral destruction.[3]

Environmental NGOs are often mediators in the alienation process. Since it is now more important than ever for businesses to appear environmentally benign, NGOs are trying to "green" capitalism by partnering up with "many of the most environmentally destructive capitalist corporations in the world" (Büscher & Fletcher 2020, 42). The interests of corporations and NGOs have aligned to such an extent that Captain Paul Watson, one of the founders of Greenpeace, has called them "feel good organizations" and "eco-bureaucracies [...] run by business people" (SubMedia 2010). The role of NGOs can be diverse, either as direct enforcers of top-down conservation policies (Domínguez & Luoma 2020), as manufacturers of consent (Osborne 2013), or as brokers for green capital (Fairhead et al. 2012).

Finally, the rise of ecotourism is one of the most conspicuous examples of environmental capitalism. Visiting wilderness has always been a primary goal of conservation. The first nature reserves were enclosures of supposedly pristine nature fenced off for the recreation of privileged classes (Cronon 1996). Protected areas required, and still do, the displacement of indigenous peoples (Dowie 2009), while they limit access to resources (Sosa-Montes et al. 2012) and create an industry that sells short-term visitation. Although tourism, even eco-tourism, markets itself as an environmental saviour, it is often either complicit or directly responsible of the destruction of nature (Büscher & Fletcher 2020). Such industry has lately boomed in the world economy. Tourism is now a pillar of sustainable development (Hall 2019), and as countries put it at the center of their economic growth strategies (Brockington 2009), business is skyrocketing. As of 2019, the ecotourism industry worldwide was estimated at USD 181.1 billion. By 2027, it is forecasted to reach USD 333.8 billion (Statista 2021).

[3] Such is the current narrative around infrastructure development plans in Mexico. See https://www.palcoquintanarroense.com.mx/noticias-de-quintana-roo/fonatur-y-conanp-impulsan-areas-para-la-conservacion-en-comunidades-de-quintana-roo/.

Although it is impossible to discuss each of these points exhaustively here, this brief outline intends to show the deep interconnection between capitalism and mainstream conservation. This is not only the kind of conservation advocated by global NGOs and international development agencies, but also the most widely broadcasted with its celebrity ambassadors, spectacular wildlife documentaries, and catchy slogans calling for 30 by 30 (Nijhuis 2021). It is this narrative power that a conservation movement in post-development must attempt to capture.

CONSERVATION OF KNOWLEDGE

Conservation has a long colonial history. Since the creation of the first national parks in the United States, it has too often been a synonym for racism, displacement, and domination (Cronon 1996). In his essay *Our National Parks*, John Muir ([1901] in Purdy 2015) wrote: “As to Indians, most of them are dead or civilized into useless innocence.” More than a hundred years later, this colonial legacy lives on in narratives of local degradation, green grabbing, and the extermination of ways of life legitimated by the hegemony of Western scientific knowledge.

As Brockington (2009) points out, conservation has the authority of science. Álvarez and Coolsaet (2020) call this the “coloniality of knowledge,” where “traditional” knowledge is portrayed as only locally applicable and made inferior to “universal” European science. Although these narratives have been dead wrong before – one landmark example is Fairhead and Leach’s (1995) account of the forests of Guinea – conservation policies continue to be implemented vertically and remotely (García-Frapolli et al. 2009). Multiple scholars have analyzed the link between hegemonic ways of knowing in conservation from a decolonial lens and pointed towards viable alternatives found in non-Western worldviews (Domínguez & Luoma 2020; Rubis 2020; López Barreto 2021). At heart, then, “conservation of knowledge” is an argument against epistemic violence – violence exerted against or through knowledge for purposes of domination

(Galván-Álvarez 2010) – in the environmental movement. It is a call for the emergence of situated knowledges (Haraway 1988), of variegated ontologies and epistemologies that provide other forms of valuing and, to echo convivial conservation (Büscher & Fletcher 2020), living with nature.

Post-development scholars have gone on this search for other epistemes and other worlds. Escobar (2016, 23) looks in the global south for "relational ontologies," which are "enacted through an infinite series of practices of all kinds of beings and life forms." These "dense webs of interrelations" are alternatives to the "dominant ontology of capitalist modernity" that rips humanity out of nature and privatizes everything held in common, "even the atmosphere through carbon markets" (Ibid., 23-24). These relational ontologies have practical utility for conservation. Drawing on her fieldwork in west Namibia, Sullivan (2017) shows how different ontologies shape the conception of nature that is lived and that must be conserved or managed. Using the concept "ecologies of selves," she argues that understanding non-humans as possessing agency allows us to get to a non-instrumental ecology. Some of these relational ontologies, she contends, are developed in parts of the world where the Western instrumentalization based on Cartesian views is seen as strange or imported.

When conservation serves "coloniality of knowledge," (Quijano 1999) it not only assimilates nature into the market, it implies the extermination of worlds. In Mexico, conservation policy has been used as a counterinsurgency tactic to pacify indigenous uprisings (Osborne 2013). By declaring nature reserves and enclosing resources in conflict zones, environmental policy and scientific knowledge served to justify warfare on the Zapatista and other communities (Sánchez 1998). In the words of the National Indigenous Congress: "War wants to kill us as peoples and kill us as persons […] When we say we are peoples, it is because we carry in our blood, in our flesh, and in our skin all the history, all the hope, all the knowledge, culture, language, identity" (CNI 2017).

Although there are many calls to base conservation policy on indigenous knowledge (Denny & Fanning 2016; Reid et al. 2021), a "conservation of knowledge" does not aim to incorporate other visions into policy developed within the capitalist framework. It is an urge to create spaces of "autonomy, ancestral revendications of education, security, justice, spirituality, communication, self-defense, and self-government" (CNI 2017). Perhaps struggles for indigenous land rights in the United States (Wilkinson 2018), movements for self-determination in the Amazon and the Andes (Hidalgo-Capitán & Cubillo-Guevara 2017), or the proposal of biocultural conservation in Mexico (Toledo 2005; Toledo 2013) can provide encouraging opportunities to articulate post-development discourses and help other ways of knowing and living flourish.

In an attempt to make protected areas – one of conservation's main tools to "safeguard" ecosystems – compatible with alternative relationships with the more-than-human world, convivial conservation puts forward the idea of "promoted areas." These are "conceptualized as fundamentally encouraging places where people are considered welcome visitors, dwellers or travelers rather than temporary alien invaders upon a nonhuman landscape," where it is possible to build "long-lasting, engaging and open-ended relationships with nonhumans and ecologies" (Büscher & Fletcher 2020, 265). To complement, I contend these promoted areas should be places necessarily inhabited by people (many reserves were in fact inhabited before being "protected") where relational ontologies and regenerative economies can flourish. As the Zapatista lay out: there should be spaces of *autonomía*, of self-government, and self-determination for those who already live outside of capitalism.

There is a peril in studying subaltern knowledges from academia and hegemonic epistemic positions. Asher and Wainwright (2019, 37) highlight the problems of representation and the risks of being seduced by "the romance of resistance." Drawing on Spivak, they argue that "the proposition that the grounded knowledge of subaltern social groups is the source of alternatives contributes to the problematic notion that 'natives will save us'" (Ibid., 27). This becomes evident in popular social media accounts that echo some post-development ideas while heavily romanticizing indigenous land defenders.[4]

[4] This fragment is taken from the Instagram account of Alice Aedy, British filmmaker and collaborator for outlets such as The Guardian: "These communities are the 'real' experts in environmental conservation, where indigenous people steward the land, we find evidence of richer biodiversity and

Nonetheless, as Donna Haraway (1988) advances in her critique of male science and objectivity, subjugated knowledges are not innocent or exempt from being critically analysed. They are preferred because they are most likely to reveal transformative accounts of the world (Haraway 1988). Based on the work of Boaventura de Sousa Santos, Escobar proposes the Epistemologies of the South can help bridge gaps in current critical theory. This framework attempts to open room to "re-engage with life and attentively walk along the amazing diversity of forms of knowledge held by those whose experiences can no longer be rendered legible by Eurocentric knowledge in the academic mode" (Escobar 2016, 13); in other words, ideas that contain "the seeds for alternative worlds" (Asher & Wainwright 2019, 30).

Ultimately, a "conservation of knowledge" must remain fiercely self-critical. Asher and Wainwright (2019, 30) call for a "historico-political perspective to trace the erasure and mobilization of 'culture' in dominant narratives." It is crucial to navigate the question of how conservation can become an ally of social movements in their struggle for other possible worlds.

CONSERVATION OF ENERGY

It should be clear from the outset: the following is not an argument parallel or complementary to the first law of thermodynamics. It does, however, build on a theory that deals with said law. This will make sense in a minute.

In her book *The Birth of Energy* (2019), Cara Daggett uses the history of thermodynamics to elucidate the metaphors that constructed the political theory of British industrialization and imperialism. Through a historical and epistemological lens, she traces the "genealogy of energy" and how it was articulated with a Protestant industrialist ethic. Energy, she argues, is not something tangible. It is not some-*thing*. It is, at the same time, a quantification of observed effects, a metaphor, a historical interaction, an epistemology, and an object of politics.

Through the first and second laws of thermodynamics – conservation of energy and entropy – she arrives at two central concepts for how the capitalist-imperialist machine conceives energy: 1) work, productive energy channeled through, say, a steam engine; and 2) waste, also called entropic heat, i.e., energy that is dispersed and can no longer be transformed into work. When paired with Protestant values, work was equated with virtue, productivity, and efficiency. On the other hand, entropy was wasteful, an enemy of industry. Together, these two concepts created an understanding of energy that legitimized the imperialist mandate to extract work from laborers in factories and colonies. It also permits for a purely utilitarian valuation of the more-than-human world that is evident in narratives that construct unexploited land as "idle" (Merino-Pérez 2004). Daggett (2019, 111) contends: "Thermodynamics does not simply describe a preexisting thing called energy, but rather invents energy as a unit of accounting (and work and waste), thereby offering new governance strategies that were particularly useful to Victorian industry."

In the face of biological annihilation and climate change, often framed exclusively as a problem with energy-as-fossil-fuels, she argues that "we need not just alternative fuels, but new ways of thinking about, valuing and inhabiting energy systems" (Ibid., 3). Hence, I ask: Could conservation – in the sense I have discussed so far – paired with post-development ideas help us find these new values and relationships?

In a review of Daggett's book, Perkins (2020, 107) observes she chooses to focus on the downsides of growth, consumption, and pollution, and "misses the other way to examine energy: services needed to maintain human life." Although Daggett does hint at other conceptualizations of energy right at the top of her introduction, Perkin's remark is still relevant. His statement, however, can be further corrected. Not *services* or *human life*, but *processes* needed to maintain *life*. Thus, energy is understood as a life-giving force that cycles (Leopold 1989) through biotic communities. Such conceptualization of energy could lead to an economy embedded in natural cycles that conserves energy and enables the indefinite reproduction of life-creating elements and relations.

Different conceptualizations of energy exist in non-Western philosophies (Kaptchuk 1995; Unschuld, Tessenow, & Jinsheng 2011). In a revision of ancient Chinese thought, Padilla (1999) talks about Tao, an incommensurable force that maintains and connects all things, and Qi, a flow of vital energy. Thus, in Taoist tradition, humans are energetic entities connected to all other beings by energy flows (Kaptchuk 1995). It is the interruption of said flows that creates imbalance and sickness. Padilla (1999, 12) links the disruption of energy cycles to modern economics by saying that "[s]o long as the concept of humans as an economic reality goes unchanged, the species will remain bereaved by sickness and will eventually cease to exist." To liberate this blockage, new economies that allow energy to flow freely must be devised.

Ethan Hughes matches this idea with permaculture by calling the universe "a co-creative force," a web of interconnected creative energies (Mann 2015). In essence, permaculture is an ecological design tool that recognizes "economic viability and social justice are interrelated with functioning ecological systems" (Lockyer & Veteto 2013, 76). These ecological systems, in turn, rely on feedback loops that recycle nutrients and energy. With this in mind, Hughes posits that "when we mimic nature in sharing energy, there's abundance […] A tree doesn't hoard its apples. When it has that abundance, it lets it fly, for humans, for birds, for compost" (Mann 2015). Thus, he points to one of Daggett's primary concerns: waste.

Contrary to the aversion to entropy and waste understood as unusable energy, in natural systems there is no waste. Waste – via compost – is a recycling process, a "sharing of energy" back into the ecosystem carried out by a multitude of species.[5] By redefining waste, it becomes a necessary link in the existence of all beings, one that enables the creation of soil, the nurturing of plants, and the continuation of trophic chains. In short, waste creates life.[6] Based on this understanding, permaculture is well-positioned to generate economies where human processes and needs are embedded in a net that fosters a diversity of interlinked species. It offers a methodology to design systems of human production, consumption and inhabitation (Lockyer & Veteto 2013) that enhance life-creating energy cycles (Kothari et al. 2019). Examples of these economies have already been implemented and can be found at different scales and with varying degrees of success, from ecovillages to post Cold War Cuba (Lockyer & Veteto 2013; Leahy 2019).

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[5] https://www.permaculturenews.org/what-is-permaculture/.

[6] Recent theories even point to entropy as the origin of life itself. Although I do not deal with them in this article, further information can be found here: https://arxiv.org/abs/0907.0042, and here: https://aeon.co/essays/does-the-flow-of-heat-help-us-understand-the-origin-of-life.

Conservation strategies must integrate regenerative economies to move away from the capitalist apparatus. This seems to be an area that needs further development in new conservation proposals. For instance, while discussing possibilities to fund the transitions from current conservation to their convivial alternative, Büscher and Fletcher (2020, 317) explain: “[C]onvivial conservation explores the possibilities of adapting existing conservation and development funding schemes, particularly payments for environmental services (PES) and cash transfer programmes, towards newly envisioned, convivial ends.”

After a lengthy argument to separate conservation from the growth imperative, they appear to concede that their plan needs to be funded by the same economy they intend to escape. Their objective is crucial: to ensure viable livelihoods for those potentially most affected by conservation policies. However, would it not be possible to imagine other ways to achieve this? Permaculture, agroecology (Toledo 2019), bioregionalism (Toledo 2005), alternative currencies (North 2019; Pérez & Gonzales 2020), community economies (Siamanta 2021; López Barreto 2021) and a host of local autonomic practices (as suggested in the above section) might be compatible with conservation and provide tools to create economies outside of capitalism that do not require – or at least minimize the need for – the goodwill of “donors, grants or patrons” (Büscher & Fletcher 2020, 318). Of course, alternatives should be highly aware of and adapted to cultural, political, and biophysical contexts. Nonetheless, the articulation between political ecology and initiatives such as permaculture can serve to empower local communities and develop sustainable livelihoods that challenge the development paradigm (Lockyer & Veteto 2013).

Daggett's analysis of energy points to a second problem. In a revision of current fossil fuel politics (Daggett 2018), she traces the links between work (understood as productive energy), freedom, and masculinity. Work, she argues, is at the core of the white masculine dream of self-sufficiency, a way to escape reciprocity, and a claim to the domination of people and non-humans. Hence, a reconceptualization of energy and work within a "conservation of energy" tends to the opposite – it is a call for radical interdependence, for relocating the economy and building strong communal ties with humans and more-than-humans (Escobar 2015). It is indeed a call for conviviality and a rejection of the industrial society through values such as self-defined work (Illich 1973). As Daggett points out, "the energy–work connection cannot claim to be a reflection of the whole truth of energy, much less the cosmos" (Daggett 2019, 111). We require a new conceptualization of energy within biological systems and a form of conservation that, by preserving energy flows, maintains the source of life itself.

CONSERVATION OF LIFE

This exercise at reconceptualizing conservation is an attempt to remind the movement of its mission, to trace new paths of meaning that bring it closer to its fundamental goal. Conservation of knowledge offers a way out of epistemic violence in environmentalism, and a road towards autonomy and overdue reparations towards oppressed peoples. Conservation of energy is a proposal to build economies that pursue social justice via enhancing natural systems. These two roads converge in a single purpose – to protect all life.

Conservation is often understood as the preservation of biodiversity and wildlife (Brockington 2009). Guided by a reduction of natural phenomena to scientifically manageable bits and pieces, it makes it its duty to safeguard fractions of nature – species, landscapes, ecosystems – through the creation of reserves and other protected areas. Thus, it objectifies nature and ignores the "social, economic, cultural, and political conditions that connect those isolated fragments." (Toledo 2005, 68) By and large, the story remains that nature needs protection from humanity (Büscher & Fletcher 2020). For this to work, the premise that nature is something external to humans must be well in place.

Many authors have scrutinized the vast history and ramifications of the human-nature dichotomy. Mueller (2017) traces the invention of "humanity-as-separation" to Descartes' feverish dreams. Moore (2017) points to the Cartesian divide as one of the roots of the Capitalocene. Haraway (2015) uses beautiful metaphors to remind us of our kinship with non-humans. Næss (1995) blazed the trail of northern European Deep Ecology. These are laudable efforts to re-learn what non-Western indigenous peoples and some rural communities within the West seem to have known for long: humans are part of nature and the value of the more-than-human world has nothing to do with the market. For conservation, this means that its job is not to protect some abstracted nature, but to engage with political, economic, cultural, social, and biological entanglements; to look for relations of humans and non-humans, what Anna Tsing (2017) calls "other worldmaking projects."

Rethinking conservation as concerning all life is an opportunity to eschew capitalist dualisms and articulate with other understandings and social movements in the pursuit of alternatives to development. Escobar (2016, 23) groups emerging "knowledges produced in the struggles for the defense of relational worlds" under the category of Transition Discourses (TD), a host of alternatives that includes Buen Vivir, the Rights of Nature, degrowth, *autonomía*, among many others. These are embodied in social movements and communities whose worldviews "go beyond capitalism and human rights, for their struggle is waged 'in the name of life.'" (Escobar in Álvarez & Coolsaet 2020) For many indigenous movements, "in the name of life" means against capitalist development and the growth economy. The National Indigenous Congress puts it plainly: "We are the peoples we still are despite 523 years of extermination, violence, domination, and plunder from capitalism and its allies, the owners of money and power, the representatives of death [...] Because the heart of our Mother Earth lives in the spirit of our peoples." (CNI 2017)

My intention here is not to fetishize indigenous struggles, it is rather to listen to the voices of peoples in resistance[7] to propose a way of thinking about conservation: If conservation is to protect all life, it cannot do so through the capitalist growth economy. If it cannot do it within the capitalist economy and its development model, then it must support the alternatives. Although it may very well be impossible for the conservation movement to immediately break away from capitalism, this mindset might help us imagine policies and mechanisms that contribute to the empowerment of Transition Discourses. Moreover, a "conservation of life" means that purported solutions such as carbon markets, offsetting mechanisms, Payments for Ecosystem Services, nature reserves that displace people, and other instances that protect wildlife or biodiversity somewhere to compensate for death elsewhere are simply not compatible with conservation.

Convivial conservation makes a similar call.[8] In its five "elements of a vision,"[9] it sets the stage to imagine conservation as part of a convivial reconstruction project "currently (and historically) pushed and supported by many post-colonial, indigenous, emancipatory, youth, progressive and other movements, organizations and individuals around the world" (Büscher & Fletcher 2020, 273). It also offers an interesting reflection regarding the separation of humans and nature. The authors contend a certain amount of human exceptionalism must be retained if we are to highlight "particular threats posed by human action to nonhuman survival" (Ibid., 270). Unless humans are in some way different, they argue, they cannot be made responsible for environmental damage. Although I agree with the political use of this assertion, as Moore (2017) points out, arguing that "humanity" as an undifferentiated whole is to blame for environmental degradation is problematic as it elides important distinctions of class, gender, and race, along with entire colonial histories.

Arne Næss further points to a problem with claiming to defend life. He brings attention to the totems of power and hierarchies that emerge when one analogises nature to humans. "I see an unconditional cult of life as being unethical […] You see nature a certain way. You see lions and their prey. You begin to say yes to brutality and exploitation" (Næss in Witoszek 2011, 221). This is an important

[7] Struggles against murderous capitalist development are not exclusive to indigenous peoples in the Global South (see Mauvaise Troupe Collective; Ross 2018).

[8] Another proposal that I have not engaged with sufficiently throughout this essay is Toledo's bioregional conservation (Toledo 2005). Through 3 axioms – biosocial, biocultural and bioproductive – it pursues ends very similar to convivial conservation and the argument I have made here.

[9] 1) From protected to promoted areas; 2) From saving nature to celebrating human and non-human nature; 3) From touristic voyeurism to engaged visitation; 4) From spectacular to everyday environmentalisms; 5) From privatized expert technocracy to common democratic engagement (Büscher & Fletcher 2020).

observation. Different movements have claimed to protect life – at least, an interpretation of it – and deviated into dangerous categories such as primitivist terrorism and eco-fascism (Savoulian 2019). A "conservation of life" must remain vigilant and self-critical to consciously stay on a path that leads towards plurality, diversity, and conviviality. Like life itself, it is eminently relational and depends on a vast mesh of human and non-human collaborations. It rests on reciprocal care (Siamanta 2021) and a feminist search for "constructing worlds less organized by axes of domination," (Haraway 1988, 585) as it attempts to build inclusive, porous communities, not fortresses. It aims to create spaces where all are entitled to simply be, worlds that are what Chilean artist Beatriz Aurora calls her depictions of Zapatista existence: "an orchestra of life" (in GIAP 2014).

CONCLUSION

I have argued for complementary meanings of conservation – rhetorical maneuvers, if you will – to put the word in active dialogue with post-development thinking. I have advocated a "conservation of knowledge" of other ways of knowing and relating to the world, and a "conservation of energy" of that vital force that connects and allows all beings to exist. These two converge in a final meaning, "conservation of life," which is a reminder of what conservation should do, and that it cannot do it if it is tied to an economic system that thrives on death.

Following these ideas and tracing their links to post-development's pluriverse, to the different worlds that are starting to emerge in the wake of a civilizational crisis, one thing becomes clear: conservation must be insurrectionary. I mean this in the original sense of the word that comes from the Latin insurgere – to rise. This is another way of saying that, in the frantic search for ways of avoiding environmental calamity, there is no need to invent anything! Other knowledges already exist. Other understandings of energy are available. Other valuations of the more-than-human world abound under the globalizing veil of capitalism and its claim to scientific truth. Conservation can help them rise, but it can only do so if it breaks ties with the growth madness; if it dares to rebel and revolt.

The time is right for it, too. As it becomes increasingly obvious that the current model is not sustainable, however often we are made to believe otherwise. The call for newfound relationships with nature grows louder, coming from multiple corners. Conservation is a potent movement at the center of these concerns. If we manage to capture some of its strength and steer it in a new direction, we might be able to use the hope and promise it intuitively brings to build autonomies, reciprocity, and futures.

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The Debates in Post-Development & Degrowth Journal, published by *Tvergastein*, is an academic journal dealing with debates and works focused on advancing post-development & degrowth thought. This journal arises as an outcome of the Centre for Development and the Environment (SUM) course 4034: Debates in Post-development & Degrowth, thereby establishing a publishing space for the works emerging from within it. The journal hopes to create the desired academic space to organize the understanding and reconciliation of the present socio-ecological and climate catastrophe, but also to make efforts in subverting this disaster ridden pathway. Let this journal serve as a forum for liberatory experimentation, allowing people to organize and align their thoughts, values and actions to raise awareness and create positive social change wherever they stand.

Write For Us!

Issue #16: Alternative Futures

For years, for decades, for centuries, we have been infused with the belief that economic growth, endlessly, is what all should serve. It had become the ultimate goal of politics, of the economy, of our labour.

It is the human paradigm of self-serving economic growth that now brings us with alarming speed into a state of the earth that yields suffering for all. For humans, for animals, for plants - for nature. And so we ask, is the endless growth paradigm really irreplaceable, inescapable? We long for your inspiration: If not economic growth, what other potential drivers of political and societal decisions are there? Are there alternatives to this paradigm? Where are they already experienced - in very small places, or at large scale?

We kindly ask for your opinion-pieces, academic articles or artworks on the subject matter: Alternative futures. Please follow this call and give us all inspiration to meet our exciting and unpredictable future.

Deadline for submission: October 1st, 2021. Tvergastein accepts submissions in two categories: Shorter op-ed pieces (2,000-5,000 chars) and longer articles (10,000-20,000 chars) in either English or Norwegian. Creative contributions will also be considered.

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