



RESEARCH ARTICLE

Between limits and abundance: A degrowth transition as a threat or a promise?

Birte Strunk ^a

^a The New School for Social Research, New York, US Email addresses: birte@strunk-mg.de; strub451@newschool.edu

Information

Received 30 May 2022 Accepted 17 July 2023 Online 9 October 2023

Keywords

degrowth post-growth ethics constraints abundance

Abstract

In this paper, I argue that the discourse around a degrowth transition may be conceptualized as following two distinct narratives, or narrative strategies: one that highlights a threat (or a challenge) to be overcome, and one that highlights a promise to be fulfilled. Whereas the former proposes that there are no 'win-win solutions' under current conditions of capitalism, the latter argues that 'win-win solutions' are very much in reach, if only one were to reconceptualize 'winning' in terms of nonmaterialist abundance. Arguably, both narratives are valid, but at the same time they lead to diametrically opposed conclusions on ethical demands: while the threat narrative implies an 'ethics of constraint', the promise narrative implies an 'ethics of abundance'. I argue that being aware of the dialectical character of these two narratives that degrowth scholars typically make use of in different contexts will help to understand divergent policy advice and proposed leverage points, and it might help to avoid misunderstandings within the community and beyond.

1. Introduction

The climate breakdown is gaining attention in public discourses, as its inescapable effects are felt more and more. In this increasing attention, more nuances come to light in the different positions that scholars, activists, and citizens take regarding the socio-ecological transition. A core point of contention has typically been related to questions around the necessity and desirability of (various kinds of) economic growth, often structured around the 'green growth or degrowth' debate (e.g. D'Alessandro et al., 2020; Hickel & Kallis, 2020; Pollin, 2019; van den Bergh, 2011). In recent years, the recognition that some sort of post-growth system of economic provisioning may be necessary has gained more traction – to the extent that the term 'degrowth' even found its way into the 6th IPCC Assessment Report (IPCC, 2022). Beyond

the academic community of researchers who explicitly identify as 'degrowth scholars', there is an ever-larger recognition that supply-side approaches to the climate breakdown will not be adequate on their own, and a call for demand-side and sufficiency-oriented approaches is voiced in different outlets (Creutzig et al., 2018; Haberl et al., 2020). This recognition, however, has partly shifted the discourse to bring up new tensions, this time no longer primarily between green growth and degrowth, but between various possible interpretations of what such a post-growth economic system would entail.¹ Such tensions, while being part of constructive scholarly debate, warrant closer scrutiny to understand where they come from and what we can learn from them.

In this article, I therefore want to shed light on a particular tension that is rooted in fundamental aspects of narrative strategies: I argue that the discourse around a degrowth transition entails a core dialectic, whereby the narrative around this transition can be framed in terms of *threat* or *promise*. Both narratives are inherently valid, i.e. they tell logically coherent stories supported by evidence, yet they are at the same time contradictory. I call this a 'dialectic', denoting a situation in which two seemingly or genuinely conflicting things are true at the same time. While it is conventional wisdom that any transition implies both challenges and opportunities, the task of this paper is specifically to work out how postgrowth discourses can systemically be structured around being threat- or promise-focused. Notably, these two narratives, or narrative strategies, should not be seen as separate camps of post-growth scholarships, but in fact rather as 'ideal type' storylines. While some authors or specific texts might highlight one narrative over another, it is often the case that both narratives are interwoven in the works of single scholars (including my own). Nonetheless, the two narrative strategies, as I aim to show in this article, lead to (partly paradoxically) different conclusions on ethical demands, policy advice and perceived leverage points, and it

.

¹ I take the category of 'post-growth' to be broader than 'degrowth', including a variety of people who see the necessity of a shift away from growth fixation. However, since this article is concerned with debates within the field of growth-critical scholarship generally, I draw no explicit distinction between post-growth and degrowth and use the terms largely interchangeably, except for cases where scholars themselves clearly identify only with one category and not with the other.

² The most detailed exposition of this dialectic is Kallis' (2019) book on limits, in which he grapples with combining a notion of non-materialist abundance with a call for (self-imposed) limits and exposes both the potentials and contradictions of such an endeavor.

is therefore instructive to be more conscious of both their tensions and their potentialities for different audiences.

To make my case, section 2 first outlines what the two storylines *share*. Sections 3.1 and 3.2 proceed by sketching both narratives in turn, each time paying specific attention to the body of empirical evidence that supports each narrative. Section 4 outlines how the two different narratives lead to different conclusions on various questions such as appropriate policies, implied ethics, or intervention spheres. Being clear about the two different tales of degrowth transitions, I argue, is relevant to navigate the challenge ahead – and potentially to choose the right narrative strategy for the right context – without getting (too) lost in cross-talking. Section 5 concludes.

2. A common external threat

Let me begin by stressing what the narratives have in common, rather than what divides them. It is important to highlight that this dialectic is not happening in a space between green growth and degrowth proponents – the conversational frictions among those camps are by now well-known and have been analyzed at length (e.g. Kallis et al., 2012; Spash, 2020a). Instead, this analysis is about narrative constructs within the degrowth community itself – and partly even within single degrowth scholars or degrowth texts themselves. It is thus relevant to first establish the common ground that both ideal type transition narratives have in common.

To start with the most fundamental agreements, both narratives agree that climate change is an existential threat that disproportionately affects the global poor and which we have to tackle. Tackling it, in turn, means to transition out of fossil fuels as quickly as possible. The relevant time scale is what happens in the next decade, which implies a massive global shift that is unprecedented in its required adjustment speed. Up to this point, most climate scientists and green growth proponents would likely agree. Where the degrowth transition discourse differs from other discourses is that it sees technological optimism as gravely misplaced. While various technologies obviously have an important role to play in tackling climate change (we do need renewable energies, we do need to make production processes

as energy efficient as possible, and we do need some sort of negative emissions technologies), they will not be sufficient to address the crisis if they operate in a system that constantly expands consumption and production levels and thereby offsets the very gains that may have been made (e.g. Hickel & Kallis, 2020). As degrowth proponents point out, it is easier to decarbonize an economy that is smaller than the current one, than to decarbonize a growing one which doubles in size every two to three decades at a global growth rate of 3%. The naïve technological optimism that all degrowth narratives criticize enters the mainstream narrative at two distinct logical points: broadly speaking, one refers to a decoupling of economic effects from emissions, and the other refers to a decoupling of emissions and temperature increases.

The former is the idea that through increased efficiency, economic growth and production can be decoupled from environmental effects (referring to resource use or emissions). This argument occupies a core position especially in the discourse around green growth. By now, there have been a number of review articles that synthesize empirical evidence of decoupling. They show that there is no evidence of absolute *resource* decoupling in the global economy. Even though there is some evidence of absolute *emissions* decoupling, the rate is not fast enough to achieve the necessary drop of emissions to zero while remaining within the carbon budget (Haberl et al., 2020; Hickel & Kallis, 2020; Vadén et al., 2020; Wiedenhofer et al., 2020).

It seems that therefore currently the discourse around 'net zero' is gaining more traction. Getting emissions to *net* zero (rather than just having them drop to zero), supposedly allows for countries and companies to keep emitting (and growing) if they only offset their emissions – by logical extension, this would mean the more is offset, the more can be emitted. Offsetting can happen via biological or technological means. Biological means, such as bioenergy with carbon capture and storage (BECCS), have been shown not to be likely solutions – for BECCs at a scale assumed in the IPCC AR5 scenarios, for example, a space two to three times the size of India would be required (Hickel & Kallis, 2020, p. 10). At the same time, while it might ease the pressure of the planetary boundary of climate change, it will simultaneously put greater pressure on the planetary boundary for freshwater use and will transgress even further the boundaries for land-system change, biosphere integrity, and biogeochemical flows (Heck et al., 2018). Last but not least, land as an emission sink is generally not well understood, and in

fact, the Brazilian Amazon rainforest has only recently been shown to be now a net emitter instead of a carbon sink, due to deforestation and especially human driven forest degradation (Qin et al., 2021).

Because of these issues, an increasing amount of hope is placed in geoengineering solutions or in direct air capture of emissions. However, industrial technologies are by far not on a scale large enough (and will not be able to be upscaled to a necessary amount in the upcoming decade) to be a solution (Malm & Carton, 2021; Sekera & Lichtenberger, 2020). At the same time, all but one of the IPCC models do rely on negative emissions, mainly BECCS (the 'Low Energy Demand' scenario by Grubler et al., 2018 relies on strong decoupling instead). Hence, negative emissions technologies will surely have a role to play in mitigating climate breakdown. However, their use should arguably be limited to decreasing the stock of emissions that has accumulated in the past rather than to pave the way for upholding and justifying current emissions (Malm & Carton, 2021; Sekera & Lichtenberger, 2020).

In light of these discussions, degrowth proponents have for the past 15 years proposed that tackling climate change will have to involve a component of reducing commodity production and consumption, and hence economic growth (for early references see e.g. Jackson, 2011; Schneider et al., 2010; Victor, 2008; for more recent literature see e.g. Hickel, 2022; Parrique, 2019), and would like to see this reflected in models and policy-making. The IPCC does not yet include an explicit degrowth scenario, partly because such models do not yet exist, although in 2021, Keyßer and Lenzen (2021) published a simple Integrated Assessment Model (IAM) that is comparable to the more complex IAMs in the IPCC reports but does not rely on heavy decoupling or negative emissions technologies (for similar attempts at modelling degrowth scenarios at national and global scales see also the EUROGREEN and MEDEAS models by, respectively, D'Alessandro et al., 2018; Nieto et al., 2020). This is the type of transition research that degrowth proponents generally, and among other topics, seek to develop further.

With so much common ground, where do the narrative strategies I refer to differ? As I will proceed to show, they differ in the transition consequences they stress: Is the demand to shift entirely out of fossil fuels and, to make this possible, to transition to a post-growth economy

within a matter of decades *threatening* or *promising*? A conceptual distinction between two types of threats is helpful here: the existential external threat that climate change poses to the survival of humankind, and the internal threat that refers to a discussion of macro (in)stability of economic systems in a post-growth world. While both narratives recognize the external threat that is climate change as a core starting point of their argument, the internal threat is stressed only by the 'threat narrative'. It is this narrative that we will turn to now.

3. Two degrowth transition narratives

3.1. Threat narrative

The threat narrative essentially highlights the necessity, rather than the desirability of a degrowth transition, often by emphasizing the entanglement of climate breakdown and growth-based capitalism. Scholars using this narrative frame their arguments in terms of, e.g. "critical thresholds and limitations for material welfare", whereby some wants and desires would "indeed need to be restrained" (Koch, 2022, p. 451). A degrowth transition, in this framing, "is necessary because available evidence suggests it is unlikely that global climate targets can be achieved in a context of economic growth" (Büchs, 2021, p. 1) – the narrative highlights that a transition is "require[d]" even though it comes with a range of "challenges" (Corlet Walker et al., 2021, p. 1f).

Many of the challenges highlighted in this narrative are related to the stabilizing function of economic growth in market capitalism (e.g. Rosa et al., 2017). Antal and van den Bergh (2013, p. 50), for example, name three reasons why deprioritizing economic growth may be perceived as a threat or challenge: growth is typically perceived as progress (and a lack thereof hence as a lack of progress); there is a danger of recessions in the absence of growth; and, relatedly, growth is seen as necessary to avoid job loss under labor productivity improvements - the latter is also described by some post-growth scholars as a 'productivity trap' (Jackson & Victor, 2011; see also Hardt et al., 2020). Similarly, Corlet Walker et al. (2021, p. 3) speak of five dilemmas related specifically to the provision of welfare in a degrowth economy: maintaining funding in a non-growing or shrinking economy; managing increasing relative costs of welfare without relying on growth; overcoming structural or behavioural growth dependencies; managing increasing needs; and overcoming political barriers.

Some of these aspects are rather cultural or political, but a number of them describe material features of the capitalist economic system and its perceived functioning in actual economies. While degrowth scholars continually stress that degrowth is qualitatively different from a recession, they are very much aware that under the current economic relations, a reduction of growth would lead to a recession – that is precisely why they call for fundamental reform of those very economic relations when they demand an "equitable downscaling of production and consumption" (Schneider et al., 2010, p. 511). The point is that how to reform these relations so that equitable downscaling becomes possible, in this narrative, is not trivial. Corlet Walker et al. (2021, p. 9) capture the essence of the threat narrative by saying that the challenges implied in a degrowth transition "are non-trivial, interconnected and are generally not amenable to obvious solutions."

Part of the reason why these challenges are non-trivial, according to this narrative, is that we are dealing with asymmetric causation when it comes to the relation between growth and (subjective and objective) well-being. Asymmetric causation is a type of causation where a decrease in the value of one variable may decrease the value of the variable in question, but an increase may not produce an increase (see e.g. Kincaid, 2009, p. 464). Arguably, this is precisely what happens under current economic conditions of capitalism. An increase in income growth generally does not over time produce increased subjective well-being (see e.g. Clark et al., 2008; Easterlin, 1974). However, a decrease in income growth does generally produce a decrease in well-being (e.g. Barr et al., 2012; Kentikelenis et al., 2011; Reeves et al., 2012; Stuckler et al., 2011, for empirical analyses on the effects of the great recession in various countries). This asymmetry has also been discussed by degrowth scholars in the context of loss aversion (Büchs & Koch, 2019, p. 3; Tversky & Kahneman, 1991), highlighting that people tend to be more strongly affected negatively by losses than they are affected positively by gains. Even if aggregate income growth does not collectively make people better off, in the current economic structures most workers and citizens do collectively suffer from a stagnation of aggregate income growth rates.

When describing these dynamics, post-growth scholars speak of lock-in effects (Büchs & Koch, 2019), growth dependencies (Corlet Walker et al., 2021), or growth imperatives (Richters & Siemoneit, 2019). It is a matter of contention among post-growth researchers whether

growth 'imperatives' exist, rather than growth drivers, that uphold growth dynamics but do not necessarily imply socio-economic instability if growth ceases. Some elements of the economic system that are being discussed as potential imperatives are financial and monetary growth imperatives (Cahen-Fourot, 2021), the supposed threats of rising inequality and unemployment in a post-growth regime (Jackson & Victor, 2011, 2016), and questions around long-term financing of the welfare state, especially pensions, under growing public debt (Bailey, 2015; Corlet Walker et al., 2021; D'Alessandro et al., 2020). Importantly, this is not to say that these imperatives *do* exist. Rather, this narrative demands that we have to *investigate* them, because their existence would imply that a degrowth transition may be threatening, especially for those who are hit hardest by economic instability. Generally, growth dependencies imply that degrowth policy-making comes with a range of trade-offs. And as long as there is a danger that unintended consequences of degrowth policies might end up structurally hurting low-income groups, this threat needs to be accounted for.

This should not be understood to imply that this narrative is uncritical of welfare states and their deep entanglement with capitalism. To the contrary, it often stresses the problems of precisely this entanglement, since it drives the above-described lock-in effects (Büchs, 2021; Büchs & Koch, 2019; Koch, 2022). The fact that this narrative stresses trade-offs does not mean that it cannot be firmly grounded in a critique of capitalism. It simply highlights that, precisely due to the dynamics of capitalism, degrowth transitions might make some workers and citizens worse off than they currently are, at least in material terms – which are the terms that, in a capitalist society, often matter for a decent life. It is moreover relevant to note that the negative effects of shrinking economies are presumably greater in very unequal economies such as the US, where wage income (rather than subsistence production or welfare provisioning) is the main pillar of social provisioning. Capitalism does not have a single face, and among the varieties of capitalism, some may be better – or simply differently – equipped to deal with non-growing economies in a socially just way than others (Koch, 2022). According to this narrative, then, it is necessary to find out which, and how.

Note that there are a range of underlying assumptions in this narrative of which two are worth highlighting. Firstly, this narrative points out that in the Western world, people live in a very privileged situation, with the privileges of welfare states, high consumption levels, and, at

least until the 1990s, a secular decline in working hours. Büchs and Koch (2019, p. 2), for example, explicitly speak about the "comparatively high levels of objective and subjective wellbeing that Western countries presently enjoy", and note that it is an open question whether a degrowth transition can uphold these high levels. A core assumption here is that the good things about these privileges, especially the welfare state (not so much the high consumption levels), are worth guarding. This is also expressed in the literature around Doughnut economics that demands a fulfillment of social standards within environmental limits (Raworth, 2017) – something that currently no country achieves (O'Neill et al., 2018). Especially the rich, Western countries, i.e. those countries that provide relatively good welfare outcomes, largely overstep planetary boundaries – despite having strong domestic environmental regulations (Cahen-Fourot, 2020). In the face of the climate crisis and the limits it implies, these privileges, the narrative suggests, need to be guarded and expanded for other countries.

Secondly, however, there is an acknowledgement in this narrative that these privileges rest on shaky foundations: they are unjust and unsustainable. Rich countries using up a larger share of environmental sinks and sources is problematic because it implies an 'imperial mode of living' (Brand & Wissen, 2012). For climate change, the use of the carbon sink is of particular importance. Here, Hickel (2020) for example argues that rich countries are responsible for 92% of global excess emissions that have accumulated in the atmosphere over time. However, even if one were not to care about global injustice, one would have to recognize that climate change puts an end to *fossil* capitalism, and thus threatens the systems that for the past century have safeguarded welfare in the rich countries. Change will have to come one way or another, or as the degrowth tagline suggests: We need degrowth by design, not by disaster (Victor, 2008).

There are thus two core assumptions implicit in this narrative: that, firstly, the social standards people enjoy in the rich countries are privileges worth guarding, but that, secondly, they rest on highly unsustainable and unjust foundations. From this dual venture point, the narrative of threat is unavoidable. Post-growth scholars recognize that to achieve a transition to a more sustainable and just system in rich countries that guards their welfare may be difficult. As D'Alessandro et al. (2020, p. 3) suggest when describing their results of a post-

growth transition model: "The simulation results suggest that there are no win—win solutions. Each policy mix generates trade-offs".

All in all, one may thus conclude that the threat narrative is characterized by an ethics of *constraint*. There may be no first-best solution, if Western countries are faced with limits to exploiting nature and people in poorer countries. The task, according to this narrative, is to find policy mixes that tackle the challenge ahead in the most socially just manner. In the words of Corlet Walker et al. (2021, p. 7): Questions around a degrowth transition, especially related to welfare states, "are not always intuitive or straightforward, and they are particularly challenging in a context where the jury is still out on whether we have enough resources to meet any agreed minimum level for everyone, globally." Put differently, this narrative argues that things *have to* change, which may be threatening, but with sensible policies, this transition may happen in an equitable way. The starting point for an ethics of constraint, however, is one that focuses on limits, and on a responsibility to right historical wrongs and live up to responsibility to future generation, even if that comes with considerable challenges for current macroeconomic systems.

3.2. Promise narrative

The description of the threat narrative ended with pointing out that post-growth proponents are a lot more skeptical of supposed win-win solutions compared to, for example, green growth proponents, who assume that we can tackle climate change and keep up current privileges (including not only the welfare state but also high consumption and production levels). We now turn to the second narrative within the degrowth universe which puts yet another spin on this argument. This narrative proposes that to some degree it is true that win-win solutions should be regarded skeptically: there are always winners and losers. However, according to this perspective, in the case of a degrowth transition, the distribution of winners and losers would in fact make life better for the majority — maybe not for individuals as consumer and producers, but surely for individuals as workers, citizens, and human beings. Maybe, then, we *should* after all be talking about win-win solutions. How does this storyline play out?

The starting point of this narrative is radically different from the one we have just dealt with above. The story this time fundamentally contradicts the narrative that current economic systems (in their entanglement of welfare and economic growth), despite their problems, brought a range of important privileges. It rejects the narrative that, generally, climate policy in rich countries should guard the supposed privileges from the threat of climate breakdown and its implied necessity to reduce our material throughput. By contrast, the starting point of this narrative is the polar opposite: Things are in fact quite bad now. The imperial mode of living does not imply that most people in rich countries live good lives — this mode of living is not only unjust but does not even benefit the majority of its recipients, who still experience precarity in one way or another. We live in a time of multiple crises, the story goes, and the fact that climate change puts a definite end to 'business as usual' is not primarily a threat, but an *opportunity* to do away with a system that benefits the few, not the many.

To start this storyline, one might take a brief look at things that have 'gotten worse' in rich countries in the past decades. Much of it has to do with the global rise of neoliberalism since the late 70s, bringing along in many countries e.g. the flexibilization and precarization of labor markets, increasing inequality, and a deterioration of mental health due to, among others, increased stress levels (Harvey, 2005; Piketty, 2014; see also Büchs & Koch, 2019, p. 4). For a long time, mainstream liberal and conservative discourses tended to suggest that this is not a major cause of concern as long as the least well-off continue to be increasingly better off. This promise, however, does not seem to hold under current relations of capitalism. Consider, for example, that in the US in the past decades of neoliberal policy making, real wages of workers in the lower income brackets have stagnated or even decreased. As Howell and Kalleberg (2019) point out, the average real market income for the bottom 50% income earners in the US fell by 6.2% between 1980 and 2014, even though the economy grew by 77% in that time period. Critique of neoliberalism is not specific to post-growth proponents, of course – a range of mainstream, liberal economists would criticize neoliberalism on these grounds as well (including prominent economists such as Krugman, Stiglitz, or Deaton). But, according to the post-growth narrative here described, it is not just neoliberalism that brings economic precarity for many. More fundamental dynamics of capitalism bring social calamities as well, and overcoming capitalism thus holds a promise of ridding ourselves of these calamities.

Most notable among these afflictions in both popular culture and academic discourse, aside from inequality, is likely the notion of alienation. In Marxist theory, alienation is most prominently linked to the institution of waged labor, and Marx's early writings illustrate how wage labor alienates workers from their product of labor and the natural world, from the labor process, from others, and from their species-being (Marx, 1944). From the perspective of alienated workers, most people living (and working) in rich, Western countries should not revel in the supposed privilege of having a relatively large amount of freedom in commodity consumption, or of having medical expenses paid after wage work deteriorated one's physical or mental health. Instead, waged labor should be recognized for what it is: exploitative. David Graeber, in his popular science book 'Bullshit Jobs' (2018), reported that many people work in jobs that they themselves deem irrelevant. The alienation inherent in dedicating the largest part of one's day (and, by extension, one's life), in jobs that do not feel meaningful, should be a significant point in favor of overcoming a system predicated on creating enough wage work – even 'bullshit' jobs – simply because much of the basic needs provisioning (housing, health care, education) for many people is only accessible via wage income.

Given that this narrative focuses on the 'promise' aspect of a degrowth transition, how would degrowth promise a better life? Let us briefly regard this again for the two facets discussed above: inequality and alienation. Regarding inequality, degrowth scholars might first point out that wealth and income inequality are significant drivers of high emissions, and that curbing excessive wealth would go a long way in curbing emissions (Millward-Hopkins & Oswald, 2021; Oswald et al., 2021). Fighting inequality and fighting climate change would then be closely entangled. Oswald, Owen, and Steinberger (2020) show, for example, that the energy footprint of the top 10% income bracket (over 86 countries) accounts for 39% of total energy consumption, whereas the bottom 10% bracket accounts for only 2% of energy consumption. Similarly, the UNEP Emissions Gap Report (2020) disaggregates per capita and absolute CO₂ consumption emissions by four global income groups for 2015, and shows that in 2015 the top 1% global income earners (with an annual income of above \$109k PPP) accounted for 15% of total emissions that year. One may surely criticize such a purely consumption-based storyline: What about big firms that produce in a particularly dirty way? What about carbon-intensive steel-production for the military? Yet, there is something to be said about the large inequalities in consumption levels and related inequalities in carbon

emissions. Last but not least, various studies around the relative income hypothesis suggest that inequality drives status consumption (Bertrand & Morse, 2016; van Treeck, 2014) and compels middle classes, especially in the US, to go into debt to 'keep up' with rising consumption levels. If climate change demands especially for the rich to heavily cut down their energy consumption levels (e.g. via a heavy tax on carbon consumption, coupled with a redistributive mechanism for poorer households), then this holds a promise of actually making poorer households comparatively *better* off, rather than putting them at a greater risk of economic hardship.

More radically, scholars arguing for degrowth transitions essentially question pillars of current economic thinking such as the drive for profit (Hinton, 2020) or the organization of economic systems around marketized waged labor (Barca, 2017; Barca & Leonardi, 2018). Thereby, they demand an overall decrease of the power of capital. Whereas the type of inequality discussed above mainly referred to *personal* income distribution, economists also discuss the functional income distribution, i.e. the distribution of total income between capital and wages. Degrowth scholars focusing on the promise narrative would point out that in a degrowth transition, the structural shift away from the power of capital would strongly benefit citizens as wage workers (though not as investors or shareholders, of course). Stratford (2020), for example, argues that to be effective in its climate targets, a just degrowth transition demands closing down channels for rent seeking, because otherwise rent-seeking behavior will either undermine the very goals of an environmental policy, or lead to detrimental social outcomes. Similarly, a degrowth transition that would succeed in decoupling social provisioning from selling one's labor power on the market would decrease wage dependence – another factor that strongly shifts bargaining power from capital to labor (on the role of non-marketized social provisioning, see especially feminist economists, e.g. Dengler & Lang, 2022; Dengler & Strunk, 2022; Power, 2004; for a Marxian perspective see e.g. Lange, 2018, p. 486). In fact, some degrowth scholars therefore promote a radically different model of welfare that does not rely as much on the state but re-embeds welfare in local communities via mutual aid and 'radical help' (Corlet Walker et al., 2021; Cottam, 2018; Quilley & Zywert, 2019). All in all, degrowth scholars see a very tight link between inequality and emissions, for both personal and functional income distribution. According to this narrative, inequality and emissions have a common cause (global capitalism), but also have

direct effects on one another, so that decreasing inequality should be part of climate action, while, vice versa, strong climate action would also help to decrease inequality.

A similar picture emerges if we consider alienation. Barca (2017, p. 3) argues that "the alienation of the producers from the products of their work is what leads to the reinvestment of surplus into increased production", i.e. that there is a direct link between worker alienation and the growth fetish in capitalism, where the former enables and spurs the latter. If this is the case, then, according to the promise narrative, a degrowth transition would tackle not only climate change, but by addressing the supposed underlying drivers of climate change (i.e. the ever-increasing production fueled by an alienated workforce), it would put into question precisely the alienating dynamics of capitalism. According to Barca, this might work via "a truly democratic, worker-controlled production system where this alienation is actively countered by a collective reappropriation of the products of labor" (2017, p. 1). In line with this, other degrowth scholars speak of a socialist re-organization of ownership and a societal revaluation of local commons for social provisioning (e.g. Dengler & Lang, 2022). The channels through which a post-growth transition would then offer a promise of decreased alienation would be two-fold: on the one hand, it would decrease alienation by restructuring wage work per se, i.e. via different ways of organizing ownership and wage work; on the other hand, by granting a larger role in social provisioning to commons, including education, health care, and other basic services (as opposed to providing these via the market), wage income becomes less relevant for decent living standards and market dependence decreases. Many scholars in the post-growth discourse are in favor of a reduction of time spent in wage work or work sharing (e.g. Dengler & Strunk, 2018; Kallis et al., 2013), and even if wage work relations were to remain alienating, this alienation would play much less of a role if we were subjected to these relations for ten hours per week, as opposed to forty.

All in all, then, one might frame this narrative as one that promotes an ethics of *abundance*, rather than of *constraint*. In fact, degrowth scholars like Clive Spash (2020b, p. 11) imply that *even if* green growth was possible (and societies were hence not faced with ecological constraints), economic growth would still be an undesirable policy objective, especially since the logic of economic value brings along with it problematic ethics such as "self-interest, individualism, consumerism and competition at the expense of community and solidarity" (p.

14). This debate is sometimes also framed in terms of 'social limits to growth' as introduced by Hirsch (1976), which, albeit referring to 'limits', implies that growth does not fulfill the promise of ever-greater quality of life, and that this promise might instead be fulfilled in a system that overcomes the individualist, utilitarian ethics of capitalist growth-based economies.

In this framing, then, there are in fact 'win-win' solutions for the majority of people, it is just the definition of 'win', i.e. of abundance, that is different from the usual tropes of modernity: progress, innovation, material prosperity, economic growth (see e.g. Hickel, 2022, on this perception of abundance). In other words, the majority *will* be better off through a degrowth transition – not in material terms, necessarily, but because it would lead to societies and lives with less alienation and less inequality. In this narrative, degrowth societies will be more just and more convivial, and it is this we should focus on, rather than on what environmental limits presumably make us lose.

Table 1. Perspective on 'win-win solutions' in green growth versus degrowth narratives.

Green growth		Win-win solutions	Sustainability and material prosperity (growth) can be combined
Degrowth	Threat	No win-win solutions	Sustainability and material prosperity at odds; focus on trade-offs
	Promise	Win-win solutions, but with a redefinition of 'win'	Sustainability and non-material prosperity (abundance) can be combined; focus on utopia

4. Degrowth dialectics between threat and promise

4.1. The dialectic

Trivially one might say of course a socio-ecological transformation implies both a threat and a promise – after all, every change brings with it a set of risks and opportunities, and the same should be true for a post-growth transition. Let me therefore spend more words on why, nonetheless, there are fundamental *contradictions* in the two narrative strategies by which

the threat narrative makes the promise narrative implausible and vice versa. These contradictions, I argue, can only be partly resolved: the threat narrative focusing on macro instability, for example, would have to be not only uninteresting for the promise narrative perspective, but in fact incoherent. At the same time, to reiterate an important aspect of this analysis, these two narratives should not be seen as separate camps of post-growth scholarships, but in fact one can find both narratives in the works of single scholars. I will work out these contradictions in greater detail before I move on to illustrate why it matters to be aware of this dialectic. Importantly, my point is not to criticize the existence of these contradictions, but to highlight them as a necessary and inherent part of any transition dynamics whenever the transition includes a radical shift between different, incommensurable paradigms.

Firstly, let us highlight how the two narratives are in fact contradictory. This should be easy to see: if we think that the current economic system based on growth does carry real benefits for working and middle classes, then it is hard to argue that overcoming this system will make people's lives unambiguously better, even though they might lose out on some of the benefits they obtained from this system. At the same time, the framing of 'constraint' does not really fit with the promise narrative – if we expect post-growth societies to be inherently more just and livable, why then would we speak of a responsibility that we have of constraining ourselves for reasons of climate justice? In the world of the promise tale, post-growth is in fact a concrete utopia, a 'first-best' solution, rather than a second-best solution that we need to adjust to because of the external and unavoidable threat of climate change. A narrative that highlights the concept of 'trade-offs' (as does the threat narrative), cannot plausibly at the same time highlight its 'utopian' character (as does the promise narrative), and vice versa. We can partly dissolve these contradictions in various ways, but further below I argue in favor of recognizing them as genuine ambiguities in the social reality of societal transitions. I nonetheless start by describing two partial solutions to the contradictions between the two narratives.

One partial solution is already foreshadowed by saying we live in a system that 'serves the few, not the many', where we can try to solve the contradictions by disaggregating: it may be true that even the median person in a high-income country exceeds the carbon budget, while

this person may at the same time be in a precarious situation, suffering from capitalist and neoliberal working conditions that lead to alienation and financial precarity respectively. However, this is only a partial solution, because the threat story would not buy entirely into the 99 vs 1% narrative. If it was that clear-cut who benefits and who loses in the current system, then the story would be entirely reducible to one of class struggles against elites, and the challenge would be purely political, not intellectual (as the threat story suggests). From the perspective of the threat narrative, we currently do have societal and economic structures which genuinely benefit middle- and low-income classes, implying that post-growth may bring a real danger of losing the positive externalities that capitalism does provide. The point is that safeguarding those may not be purely a matter of wrestling power from elites, as the promise narrative might suggest.

Another partial solution may be saying that the necessity of a post-growth transition is indeed a *threat* to internal stability, but it being a threat to internal stability would precisely be why it is an opportunity that holds promises for a better society. This perspective would not want to safeguard current structures such as welfare states, but would want to use the opportunity of macro instability to radically build up other, local, decentralized, communalized systems of provisioning. Note again, however, that this is only a partial solution: it integrates an internal threat with the promise of a better society, but it fundamentally disagrees with the core assumption of the threat narrative as outlined above, namely that the welfare state, built upon the foundations of fossil capitalism, brought and brings many benefits to people (and not only to the 1%). Thus, the fundamental starting assumption between the two narrative strategies still diverges.

So, if they are indeed contradictory stories of the need for and implications of a degrowth transition, which one, then, should degrowth proponents follow? Are individuals in the Global North enjoying unduly privilege in the sense of an imperial mode of living, or are they suffering from multiple crises in a system that serves the few, not the many? The point here is precisely that I am *not* making a case for one narrative or the other. In fact, I argue both are inherently valid while being contradictory – precisely for that reason I claim that they draw our attention to a dialectic.

4.2. Consequences

I argue that it is relevant to be aware of these contradictions because the two tales carry different implications in terms of the problems and solutions they propose. The different solutions imply differences in intervention spheres, and there are different risks attached to each narrative. I will thus now briefly go through each of these elements to show how they diverge among the two narratives: the core problem to solve, the obstacles to solving the problem, the proposed solutions, the intervention spheres this implies, and the dangers it carries.

While the core problem for the threat narrative is the growth dependence in capitalist states, which is necessary to safeguard the historical privilege of the welfare state and other historical privileges like hegemonial power in the international system, for the promise tale, the core problem is that citizens in Western countries live in economies that do not serve most of them, but vested interests and domestic ruling classes keep up a system that is exploitative for the majority.

These two ways of framing the problem imply two different sets of 'obstacles' that are to be expected in a post-growth transition. In the threat narrative, the obstacle to be tackled is that of lock-in effects of the economic system that gets destabilized in transition scenarios. Unlike the promise narrative, the threat narrative is not framed as a question of vested interest and class struggle but assumes that even if there was political will to serve the majority, rather than the rich classes or corporations, politicians are still faced with a range of complex tradeoffs when it comes to socio-ecological policy-making, at least while operating under current capitalist dynamics. Growth dependencies are the core obstacle to be overcome domestically, while the international system of nation states leads to an entirely new set of growth imperatives that are arguably even harder to overcome. In the promise narrative, it seems that the question is more about the lack of political will and class struggle, rather than economic expertise and trade-offs.

The solutions, then, differ as well: whereas the threat narrative would campaign for economic research and capacity building on escaping growth imperatives, as well as for greater international solidarity and cooperation among state leaders, the promise narrative focuses

more on the mobilization of the masses to imagine and enact post-capitalist alternatives. This narrative assumes that there is abundance – properly, i.e. non-materialistically, understood – on the 'other side' of the transition, and the question is rather one of mobilizing to get there, than of delving into the particularities of potential short-term economic and social effects of socio-ecological transformation efforts.

By consequence, the two narratives then imply different intervention spheres: while the threat narrative suggests a larger role for policy-making and academic (especially socio-economic) expertise, the promise narrative might suggest that the core intervention sphere is civil society, and activist struggles are needed more than academic knowledge creation. At the same time, the dangers inherent in both these narratives might be different. Focusing on a narrative circled around a threat to be 'managed' might sound too technocratic, and might thereby unintentionally feed into the current discourse that tackling climate change needs expert solutions (similar to the green growth narratives), rather than broad citizen engagement. This carries the danger of not mobilizing people enough, who see it not as 'their' business to take part in these sorts of rather technical discussions (e.g. on monetary systems, interest, debt, growth drivers, productivity, etc.). The 'ethics of constraint' within this narrative, similarly, are not necessarily well-suited to mobilize people, since such ethics rest their case on a rather abstract moral duty of having to forego economic growth for the sake of others who may be distant in time and space.

The promise narrative, by comparison, might be politically more attractive since it resists framing the necessary consumption changes in terms of sacrifice or constraint. At the same time, this narrative arguably also feeds into yet another problematic discourse by reinforcing that for political mobilization people need to be shown that something serves *their* interest. There is a danger here that people might not buy into the vision of non-material abundance as suggested by post-growth discourses. Historically, anti-capitalist class struggle has been predominantly focused on increasing material living conditions for working and middle classes, rather than building societies and economies that support non-materialist forms of abundance. What may be needed might be an explicitly anti-capitalist version of Soper's anti-materialist 'alternative hedonism' (Soper, 2020). Without such a perspective, it may be hard to address people who genuinely enjoy high-consumption, high-working hours lifestyles. In

addition, there is a danger involved in this narrative strategy of not taking the economics of transitions seriously enough, whereby radical change *will* imply economic hardship if simply imposed within a given system. Table 2 provides an overview of this stylized sketch on the different dimensions of these two narratives.

Table 2. Overview of the two narratives.

	Threat narrative	Promise narrative
Ethics	Of constraint	Of abundance
Core problem to solve	Growth dependence of the historical privilege of a welfare state	Vested interests, power structures, and hegemony keep up a system that does not serve most
Obstacles	Logic of the nation-state, lack of international solidarity, lock- in in the economic system with reinforcing feedback mechanisms	Embodied logic of capitalism and inability to imagine life after capitalism; ideological and material hegemony of capital
Proposed solutions	Mobilize policy-makers for greater international solidarity and escape growth imperatives	Mobilize the masses, bottom-up alternatives, new imaginaries
Intervention spheres	Policy making, economic and public policy; academic-policy oriented	Civil society, cultural theory; academic-activist oriented
Dangers	Might not mobilize people enough or mobilize only on the basis of <i>fear</i>	Might not take the economics of climate change seriously enough and relies on people buying into alternative visions of the good life

All in all, it becomes understandable why both of these narratives exist – by themselves, they do not seem to do justice to the complexity of the situation, and they highlight the tensions that are inherent to the degrowth transition. These tensions are recognized within degrowth discourses as well. For example, Büchs and Koch (2019) promote the use of objective wellbeing measurements in terms of needs satisfiers, rather than subjective wellbeing measures, precisely because they want to avoid the danger of people not buying into alternative visions of the good life and of non-materialist abundance. At the same time, Corlet Walker et al. (2021, p. 9) recognize that the "international, rights-based vision captured in the human needs approach" (as promoted, for example, by Büchs and Koch) might not be compatible with the "community-based, decentralized visions of welfare" that are stressed by degrowth scholars using the promise narrative. Corlet Walker et al. agree with my opening remark that such tensions may not be a problem *per se* and are part of constructive scholarly discourse. Nonetheless, they also highlight that "due to the partial nature of these visions, it can be difficult to identify the assumptions that underpin them, to understand what they might mean for the welfare system, as a whole, and to fairly appraise them, one against another" (ibid). Seeing these visions as parts of larger narrative constructs or strategies namely the threat or the promise narrative respectively – might help moving from the partial perspective to a more overarching one.

5. Conclusion

In this paper, I argued that the narrative around the post-growth transition can be framed in terms of either threat or promise, and that both stories are contradictory, while also being inherently valid. According to the threat narrative, climate change demands that we overcome our growth-fixation and capitalism, even though this will come with considerable economic challenges and trade-offs. These trade-offs exist because capitalist economic systems are deeply entrenched in growth imperatives, and the desirable features of these systems (such as welfare provisioning, pensions, employment) hinge on the continuation of economic growth. Overcoming negative repercussions of long-term economic stagnation or even shrinking certain industries will be difficult, but necessary. The gist of the story is that turning away from fossil fuels will not be simple and working towards it will bring considerable challenges that need to be managed in a socially just way.

According to the promise narrative, by contrast, climate change offers an opportunity to overcome precisely those oppressive and exploitative structures of capitalism that make life hard for many people to begin with – the focus is placed on the utopian character of such a transition, not on its trade-offs. This narrative strategy gives additional force to the argument that degrowth transitions may lead to simpler, healthier, and more socially just societies by turning away from economic growth and capitalism. For both of these narratives, I referred to empirical and theoretical literature that in each case supports the respective narrative, showing that both stories seem inherently coherent, although by placing them next to each other, they can also be shown to be contradictory – not necessarily in substance, but in framing, and in the ethical demands they pose.

I argued that it can be helpful to be aware of these two narratives to navigate the discourse around socio-ecological transitions. The question of such a transition draws in a host of scholars from fields as different as economics, philosophy, environmental studies, public policy, etc. Each of these fields have their own language and their own paradigms of what are justified questions to ask and appropriate perspectives to have on a given topic. Mainstream environmental economists have long tried to build a sort of 'promise' narrative of green growth, which works well within its paradigm by reinforcing the self-interested structure of arguments ('the green economy will bring economic benefit to us') while also reinforcing the types of values entrenched in mainstream economic thinking ('those benefits are jobs, progress, growth, material prosperity'). Post-growth scholars challenge this narrative, but as shown in this article, this challenge happens on two grounds: challenging the content of the promise (conviviality and non-material prosperity rather than progress and growth) or focusing on responsibility rather than promise (arguing that we, in the rich countries, might need to shift to a post-growth regime 'whether we like it or not'). The implication is that certain tensions arise in the narratives around degrowth transitions, which may lead to misunderstandings and cross-talking. Being aware of these tensions, the dialectical nature of these matters, will help degrowth scholars and beyond to navigate the discourses and to hopefully better understand each other.

Conflict of interest

The author has no conflict of interest to disclose.

Funding

The author did not receive any funding for this research.

Acknowledgements

The author thanks Jay Bernstein, Corinna Dengler and Katharina Keil for helpful feedback, as well as the members of the PhD group of the Post-growth Economics Network.

References

- Antal, M., & van den Bergh, J. (2013). Macroeconomics, financial crisis and the environment: Strategies for a sustainability transition. *Environmental Innovation and Societal Transitions*, *6*, 47–66.
- Bailey, D. (2015). The Environmental Paradox of the Welfare State: The Dynamics of Sustainability. *New Political Economy*, *20*(6), 793–811. https://doi.org/10.1080/13563467.2015.1079169
- Barca, S. (2017). The Labor(s) of Degrowth. Capitalism Nature Socialism, 30(2), 207–216.
- Barca, S., & Leonardi, E. (2018). Working-class ecology and union politics: A conceptual topology. *Globalizations*, *15*(4), 487–503. https://doi.org/10.1080/14747731.2018.1454672
- Barr, B., Taylor-Robinson, D., Scott-Samuel, A., McKee, M., & Stuckler, D. (2012). Suicides associated with the 2008-10 economic recession in England: Time trend analysis. *British Medical Journal*, *345*(2), 1–7.
- Bertrand, M., & Morse, A. (2016). Trickle-Down Consumption. *Review of Economics and Statistics*, *98*(5), 863–879.
- Brand, U., & Wissen, M. (2012). Global Environmental Politics and the Imperial Mode of Living: Articulations of State—Capital Relations in the Multiple Crisis. *Globalizations*, *9*(4), 547–560.
- Büchs, M. (2021). Sustainable welfare: Independence between growth and welfare has to go both ways. *Global Social Policy*, 21(2), 323–327. https://doi.org/10.1177/14680181211019153
- Büchs, M., & Koch, M. (2019). Challenges for the degrowth transition: The debate about wellbeing. *Futures*, *105*, 155–165. https://doi.org/10.1016/j.futures.2018.09.002
- Cahen-Fourot, L. (2020). Contemporary capitalisms and their social relation to the environment. *Ecological Economics*, 172.
- Cahen-Fourot, L. (2021). Confusion is not radical: Debunking the debunking of the debunking of the monetary growth imperative (and ways to move forward). *Working Paper*.
- Clark, A., Frijters, P., & Shields, M. (2008). Relative Income, Happiness, and Utility: An Explanation for the Easterlin Paradox and Other Puzzles. *Journal of Economic Literature*, 46(1), 95–144.

- Corlet Walker, C., Druckman, A., & Jackson, T. (2021). Welfare systems without economic growth: A review of the challenges and next steps for the field. *Ecological Economics*, *186*, 107066. https://doi.org/10.1016/j.ecolecon.2021.107066
- Cottam, H. (2018). Radical help: How we can remake the relationships between us and revolutionise the welfare state. Virago.
- Creutzig, F., Roy, J., Lamb, W. F., Azevedo, I. M. L., Bruine De Bruin, W., Dalkmann, H., Edelenbosch, O. Y., Geels, F. W., Grubler, A., Hepburn, C., Hertwich, E. G., Khosla, R., Mattauch, L., Minx, J. C., Ramakrishnan, A., Rao, N. D., Steinberger, J. K., Tavoni, M., Ürge-Vorsatz, D., & Weber, E. U. (2018). Towards demand-side solutions for mitigating climate change. *Nature Climate Change*, *8*(4), 260–263. https://doi.org/10.1038/s41558-018-0121-1
- D'Alessandro, S., Cieplinski, A., Distefano, T., & Dittmer, K. (2020). Feasible alternatives to green growth.

 Nature Sustainability, 3, 329–335.
- D'Alessandro, S., Dittmer, K., Distefano, T., & Cieplinski, A. (2018). *The EUROGREEN Model of Job Creation in a Post-Growth Economy*. The Greens | EFA.
- Dengler, C., & Lang, M. (2022). Commoning Care: Feminist Degrowth Visions for a Socio-Ecological Transformation. *Feminist Economics*, *28*(1), 1–28.
- Dengler, C., & Strunk, B. (2018). The Monetized Economy Versus Care and the Environment: Degrowth Perspectives On Reconciling an Antagonism. *Feminist Economics*, *24*(3), 160–183.
- Dengler, C., & Strunk, B. (2022). Feminisms and the Environment. In L. Pellizzoni, E. Leonardi, & V. Asara (Eds.), Handbook of Critical Environmental Politics (pp. 58–70). Edward Elgar.
- Easterlin, R. A. (1974). Does Economic Growth Improve the Human Lot? Some Empirical Evidence. In *Nations* and Households in Economic Growth (pp. 89–125). Elsevier.
- Fred Hirsch. (1976). Social limits to growth. Harvard Univ Press.
- Graeber, D. (2018). Bullshit Jobs: A Theory. Simon & Schuster.
- Grubler, A., Wilson, C., Bento, N., Boza-Kiss, B., Krey, V., McCollum, D. L., Rao, N. D., Riahi, K., Rogelj, J., De Stercke, S., Cullen, J., Frank, S., Fricko, O., Guo, F., Gidden, M., Havlík, P., Huppmann, D., Kiesewetter, G., Rafaj, P., ... Valin, H. (2018). A low energy demand scenario for meeting the 1.5 °C target and sustainable development goals without negative emission technologies. *Nature Energy*, *3*(6), 515–527.
- Haberl, H., Wiedenhofer, D., Virág, D., Kalt, G., Plank, B., Brockway, P., Fishman, T., Hausknost, D., Krausmann, F., Leon-Gruchalski, B., Mayer, A., Pichler, M., Schaffartzik, A., Sousa, T., Streeck, J., & Creutzig, F. (2020). A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part II:
 Synthesizing the insights. *Environmental Research Letters*, 15(6), 065003. https://doi.org/10.1088/1748-9326/ab842a
- Hardt, L., Barrett, J., Taylor, P. G., & Foxon, T. J. (2020). Structural Change for a Post-Growth Economy:
 Investigating the Relationship between Embodied Energy Intensity and Labour Productivity. *Sustainability*, 12(3), 962. https://doi.org/10.3390/su12030962
- Harvey, D. (2005). A brief history of neoliberalism. Oxford University Press.

- Heck, V., Gerten, D., Lucht, W., & Popp, A. (2018). Biomass-based negative emissions difficult to reconcile with planetary boundaries. *Nature Climate Change*, 8(2), 151–155.
- Hickel, J. (2020). Quantifying national responsibility for climate breakdown: An equality-based attribution approach for carbon dioxide emissions in excess of the planetary boundary. *The Lancet Planetary Health*, 4(9), e399–e404. https://doi.org/10.1016/S2542-5196(20)30196-0
- Hickel, J. (2022). Less is more: How degrowth will save the world. Penguin Books.
- Hickel, J., & Kallis, G. (2020). Is Green Growth Possible? New Political Economy, 25(4), 469-486.
- Hinton, J. (2020). Fit for purpose? Clarifying the critical role of profit for sustainability. *Journal of Political Ecology*, *27*(1).
- Howell, D., & Kalleberg, A. (2019). Declining Job Quality in the United States: Explanations and Evidence. *RSF:*The Russell Sage Foundation Journal of the Social Sciences, 5(4), 1.
- IPCC. (2022). Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press.
- Jackson, T. (2011). *Prosperity without growth: Economics for a finite planet*. Earthscan.
- Jackson, T., & Victor, P. (2011). Productivity and work in the 'green economy.' *Environmental Innovation and Societal Transitions*, 1(1), 101–108.
- Jackson, T., & Victor, P. A. (2016). Does slow growth lead to rising inequality? Some theoretical reflections and numerical simulations. *Ecological Economics*, *121*, 206–219.
- Kallis, G. (2019). *Limits: Why Malthus was wrong and why environmentalists should care*. Stanford University Press.
- Kallis, G., Kalush, M., O.'Flynn, H., Rossiter, J., & Ashford, N. (2013). "Friday off": Reducing Working Hours in Europe. *Sustainability*, *5*(4), 1545–1567.
- Kallis, G., Kerschner, C., & Martinez-Alier, J. (2012). The economics of degrowth. *Ecological Economics*, *84*, 172–180.
- Kentikelenis, A., Karanikolos, M., Papanicolas, I., Basu, S., McKee, M., & Stuckler, D. (2011). Health effects of financial crisis: Omens of a Greek tragedy. *The Lancet*, *378*(9801), 1457–1458.
- Keyßer, L. T., & Lenzen, M. (2021). 1.5 °C degrowth scenarios suggest the need for new mitigation pathways. *Nature Communications*, *12*(1), 2676.
- Kincaid, H. (2009). Explaining Growth. In *The Oxford Handbook of Philosophy of Economics* (pp. 455–475). Oxford University Press.
- Koch, M. (2022). Social Policy Without Growth: Moving Towards Sustainable Welfare States. *Social Policy and Society*, *21*(3), 447–459. https://doi.org/10.1017/S1474746421000361
- Lange, S. (2018). *Macroeconomics Without Growth. Sustainable Economies in Neoclassical, Keynesian and Marxian Theories*. Metropolis-Verlag.
- Malm, A., & Carton, W. (2021). Seize the Means of Carbon Removal: The Political Economy of Direct Air Capture. *Historical Materialism*, *29*(1), 3–48.
- Marx, K. (1944). Economic and philosophic manuscripts of 1844 (Dover ed). Dover Publications.

- Millward-Hopkins, J., & Oswald, Y. (2021). 'Fair' inequality, consumption and climate mitigation. *Environmental Research Letters*, *16*(3), 034007. https://doi.org/10.1088/1748-9326/abe14f
- Nieto, J., Carpintero, Ó., Miguel, L. J., & De Blas, I. (2020). Macroeconomic modelling under energy constraints: Global low carbon transition scenarios. *Energy Policy*, *137*, 111090. https://doi.org/10.1016/j.enpol.2019.111090
- O'Neill, D. W., Fanning, A. L., Lamb, W. F., & Steinberger, J. K. (2018). A good life for all within planetary boundaries. *Nature Sustainability*, 1(2), 88–95.
- Oswald, Y., Owen, A., & Steinberger, J. K. (2020). Large inequality in international and intranational energy footprints between income groups and across consumption categories. *Nature Energy*, *5*(3), 231–239.
- Oswald, Y., Steinberger, J. K., Ivanova, D., & Millward-Hopkins, J. (2021). Global redistribution of income and household energy footprints: A computational thought experiment. *Global Sustainability*, *4*, e4. https://doi.org/10.1017/sus.2021.1
- Parrique, T. (2019). *The Political Economy of Degrowth* [PhD Thesis in Economics and Finance, University Clermont Auvergne and Stockholm University.]. https://tel.archives-ouvertes.fr/tel- 02499463/document Piketty, T. (2014). *Capital in the twenty-first century*. Harvard University Press.
- Pollin, R. (2019). Advancing a Viable Global Climate Stabilization Project: Degrowth versus the Green New Deal. Review of Radical Political Economics, 51(2), 311–319.
- Power, M. (2004). Social Provisioning as a Starting Point for Feminist Economics. *Feminist Economics*, *10*(3), 3–19.
- Qin, Y., Xiao, X., Wigneron, J.-P., Ciais, P., Brandt, M., Fan, L., Li, X., Crowell, S., Wu, X., Doughty, R., Zhang, Y., Liu, F., Sitch, S., & Moore, B. (2021). Carbon loss from forest degradation exceeds that from deforestation in the Brazilian Amazon. *Nature Climate Change*, *11*(5), 442–448.
- Quilley, S., & Zywert, K. (2019). Livelihood, Market and State: What does A Political Economy Predicated on the 'Individual-in-Group-in-PLACE' Actually Look Like? *Sustainability*, *11*(15), 4082. https://doi.org/10.3390/su11154082
- Raworth, K. (2017). *Doughnut economics: Seven ways to think like a 21st century economist*. Chelsea Green Publishing.
- Reeves, A., Stuckler, D., McKee, M., Gunnell, D., Chang, S.-S., & Basu, S. (2012). Increase in state suicide rates in the USA during economic recession. *The Lancet*, *380*(9856), 1813–1814.
- Richters, O., & Siemoneit, A. (2019). Growth imperatives: Substantiating a contested concept. *Structural Change and Economic Dynamics*, *51*, 126–137.
- Rosa, H., Dörre, K., & Lessenich, S. (2017). Appropriation, Activation and Acceleration: The Escalatory Logics of Capitalist Modernity and the Crises of Dynamic Stabilization. *Theory, Culture & Society, 34*(1), 53–73. https://doi.org/10.1177/0263276416657600
- Schneider, F., Kallis, G., & Martinez-Alier, J. (2010). Crisis or opportunity? Economic degrowth for social equity and ecological sustainability. Introduction to this special issue. *Journal of Cleaner Production*, *18*(6), 511–518.

- Sekera, J., & Lichtenberger, A. (2020). Assessing Carbon Capture: Public Policy, Science, and Societal Need: A Review of the Literature on Industrial Carbon Removal. *Biophysical Economics and Sustainability*, 5(3), 14.
- Soper, K. (2020). Post-growth living: For an alternative hedonism. Verso Books.
- Spash, C. L. (2020a). A tale of three paradigms: Realising the revolutionary potential of ecological economics. *Ecological Economics*, *169*.
- Spash, C. L. (2020b). 'The economy' as if people mattered: Revisiting critiques of economic growth in a time of crisis. *Globalizations*, *18*(7), 1087–1104. https://doi.org/10.1080/14747731.2020.1761612
- Stratford, B. (2020). The Threat of Rent Extraction in a Resource-constrained Future. *Ecological Economics*, *169*.
- Stuckler, D., Basu, S., Suhrcke, M., Coutts, A., & McKee, M. (2011). Effects of the 2008 recession on health: A first look at European data. *The Lancet*, *378*(9786), 124–125.
- Tversky, A., & Kahneman, D. (1991). Loss Aversion in Riskless Choice: A Reference-Dependent Model. *The Quarterly Journal of Economics*, *106*(4), 1039–1061. https://doi.org/10.2307/2937956
- United Nations Environment Programme. (2020). Emissions Gap Report 2020.
- Vadén, T., Lähde, V., Majava, A., Järvensivu, P., Toivanen, T., Hakala, E., & Eronen, J. T. (2020). Decoupling for ecological sustainability: A categorisation and review of research literature. *Environmental Science & Policy*, 112, 236–244.
- van den Bergh, J. (2011). Environment versus growth—A criticism of "degrowth" and a plea for "a-growth." *Ecological Economics*, 70(5), 881–890.
- van Treeck, T. (2014). Did inequality cause the US financial crisis? *Journal of Economic Surveys*, 28(3), 421–448. Victor, P. A. (2008). *Managing without growth: Slower by design, not disaster*. Edward Elgar.
- Wiedenhofer, D., Virág, D., Kalt, G., Plank, B., Streeck, J., Pichler, M., Mayer, A., Krausmann, F., Brockway, P., Schaffartzik, A., Fishman, T., Hausknost, D., Leon-Gruchalski, B., Sousa, T., Creutzig, F., & Haberl, H. (2020).
 A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part I:
 Bibliometric and conceptual mapping. *Environmental Research Letters*, 15(6), 063002.
 https://doi.org/10.1088/1748-9326/ab8429

The author

Birte Strunk is a PhD candidate in economics at the New School in New York City. Having previously studied economics and philosophy in Maastricht, London, and Vienna, she currently pursues research at the intersection of ecological economics and labor economics, with a focus on inequality and work hours. As part of her PhD, she spent fall 2022 as a visiting research fellow at Harvard University, and she also currently pursues a Masters in philosophy at Fernuniversität Hagen next to her PhD. She has published on feminist ecological economics, degrowth and philosophy of (plural) economics.