Less and more: Conceptualising degrowth transformations

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ABSTRACT

While the notion of degrowth has gained traction in recent times, scholarship on degrowth transformations has yet to provide a conceptualisation that captures key attributes of what such transformations entail: (1) the reduction of some items and the expansion of others and (2) profound changes in various dimensions of social being, including in how humans interact with nature, non-humans, and one another, changes in social structures and changes in how we are as human beings. The present paper develops a comprehensive and non-reductionist conceptualisation of degrowth, understanding it to involve deep transformations on four interrelated planes of social being: material transactions with nature, social interactions between persons, social structure, and people's inner being. On each plane, these transformations consist in reducing, and ultimately absenting, some currently existing items while expanding others. The paper considers the implications of the conceptualisation for degrowth practice and theorising, focusing on top-down eco-social policies, bottom-up initiatives and self-transformation. It is found that degrowth would benefit from considering more seriously the effects of policies and initiatives across all four planes and from acknowledging diversity on each plane. Moreover, it is concluded that more attention should be paid to the plane of peoples' inner being.

1. Introduction

The concept of degrowth is frequently used by scholars and activists arguing for the need to significantly reduce the matter and energy throughput of economies and consumer societies in the materially rich countries. As its proponents are keen to point out, however, degrowth is not just a question of downscaling; it is a question of doing things differently (Latouche, 2009; Vetter, 2018). Producing and consuming differently, organising work differently, having different gender relations, being less exploitative and more democratic, striving for more human (and non-human) wellbeing and social justice are some of the characteristics of a transformed mode of social being that degrowth scholars advocate (Bonnedahl and Heikkurinen, 2019; Latouche, 2009; Schmelzer et al., 2022; Trainer, 2012). It is often overlooked that in calling for things to be done differently, those arguing for degrowth are, both explicitly and implicitly, advocating *growth* in many items. Not, to be sure, most forms of economic growth, growth as an ideology or growth as an indicator of the health of economies (for critiques of such growth, see e.g., Büchs and Koch, 2017; Jackson, 2017). But growth of, for example, particular technologies (Vetter, 2018), specific sectors (Jackson, 2017), moral agency (Nesterova, 2021) and social justice

(Demaria et al., 2013). These growth 'items' are not merely optional components of degrowth; they are essential aspects of it. To put it differently, degrowth not only involves moving towards less (or nothing) of all that which is currently destroying planetary life and the planet more generally as well as all that which undermines social equity; it equally concerns how to expand that which could prevent such an outcome. Degrowth, in other words, entails less of some items *and* more of others.

Further to this, degrowth can be understood to involve changes in various dimensions of social being. That is, changes in how humans interact with nature, non-humans, and one another, changes in social structures and changes in how we are as human beings (e.g., what we value, what we strive for etc). Although these dimensions are interrelated, existing scholarship tends to treat them in a fragmented fashion. Moreover, it tends to give primacy to some dimensions while omitting others. Overall, then, in existing research little is found by way of a conceptualisation of degrowth that systematically highlights how change would take the form of both less and more while taking into consideration the different interrelated dimensions of change. Against this background, the present contribution proposes a holistic (re)conceptualisation of degrowth which builds on the thinking of critical

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realist philosopher Roy Bhaskar who proposed a model of social being comprising four interdependent planes (Bhaskar, 1993).[1] The purpose of developing this conceptualisation is to offer a more nuanced perspective on degrowth, both in terms of what it involves and how it could come about.

The paper is structured as follows. First, we situate degrowth in relation to the four planes and specify what it entails more of and what it entails less of on each plane (Section 2). We then consider how the conceptualisation helps transcend reductionist and binary thinking, emphasising the importance to degrowth practice and theorising of recognising the interrelatedness of the planes – and diversity on them (Section 3). The following section concerns implications of the conceptualisation for top-down (state) policies and bottom-up (civil society and business) initiatives. Such policies and initiatives are widely held to be key mechanisms that may potentially trigger degrowth transformations (Section 4).[2] In the final section before the conclusion, we focus on the plane that has been neglected the most in degrowth scholarship, namely that of peoples' inner being. We argue that transformations on this plane, i.e., self-transformations, are of the utmost importance albeit they should not be thought of as *the* origin of degrowth (Section 5). In the conclusion, we summarise our reconceptualisation of degrowth (Section 6).

2. The four planes of degrowth

Thinking about degrowth, what it means and how it can come into being, entails reflecting on and theorising the relationship between (social) agents and (social and natural) structures. In the late 1970s, Roy Bhaskar developed a distinct approach to the agency-structure relationship under the rubric of the 'Transformational Model of Social Activity' (TMSA) (Bhaskar, 1998[1979]). According to this model, human beings are confronted by pre-existing social structures such as institutions and economic conditions. That is, social structures are always the outcome of human activities undertaken in the past rather than made by the human activities currently taking place under them. Yet through their current interactions with each other, agents can reproduce or change the social structures conditioning future interactions. On this view, then, the interactions of people contribute to either reproduce or transform structures. But they never *create* social structures, inasmuch as interactions never unfold in a structural vacuum. This is not to say that new institutions, spaces and social entities cannot be brought into being, it is to underscore that they will always be created within the framework of pre-existing social structures. The TMSA serves as an important corrective to approaches that privilege agency over social structure or vice versa, reducing one side to a by-product of the other side. Elsewhere we noted that this model contains important insights for those thinking about degrowth (Buch-Hansen and Nesterova, 2021). One such insight is that if 'degrowth societies' were to materialise, they would evolve from transformations of the structures of currently existing capitalist societies (and reproduction of the structures which are already in line with degrowth), rather than from a process starting from scratch and ending out in the creation of new structures.

Bhaskar subsequently developed the TMSA into a comprehensive ontology (theory of being) of the social world, an ontology taking into consideration not only social structures and social interactions but also

transactions with nature and peoples' inner being (Bhaskar, 1986). He came to refer to this social ontology, which comprises all of the social world, as 'the four-planar social being' or 'the four planes of social being' model (e.g., Bhaskar, 1993). The four planes, then, are [a] material transactions with nature, [b] social interactions between persons, [c] social structure, and [d] peoples' inner being. Any social phenomenon, including every act and every event, exists at once on these four "dialectically interdependent" planes (Hartwig, 2007: 135).[3]

Bhaskar observed that "real and good social change" can materialise only by acting on all the planes (Bhaskar and Scott, 2015: 18) and that such acting is possible due to humans' capacity for creativity, love[4] and freedom (Bhaskar, 2012). Degrowth would for sure be an example of real change – and demand humans' creativity in several domains – inasmuch as it is both anti- and postcapitalist. That is, it is both opposing capitalism and transcending it by envisioning a future without it. In our conceptualisation, then, degrowth entails deep transformations on the four planes. On each plane, these transformations would involve moving towards *less of some items and more of others* (Table 1).

On the plane of [a] transactions with nature, an overall far smaller throughput of matter and energy with *less* waste, pollution and greenhouse gas emissions would be necessary for economies and societies in the materially rich countries to become ecologically sustainable (Georgescu-Roegen, 1971, 1975). As the degrowth literature points out, this for instance requires less production and consumption of unnecessary goods and services, less flying and fewer transportation miles (Trainer, 2012). Such changes necessitate a different attitude towards nature, which means less exploitation and instrumentalism (Naess, 1989) and less transformation of nature into built environments and industrial sites (such as monoculture plantations of food crops and forests) (Nesterova, 2022b). At the same time, *more* clean energy forms and more behaviour premised on regard for both planetary boundaries and for the characteristics of local regions would be required, as well as valuing (rather than evaluating monetarily) biodiversity, non-human beings and life in themselves (Naess, 1989). This entails more nature- and place-based economic activities carried out with care towards unique constellations of natural (as well as social) structures in different locations (Nesterova, 2022a).

Degrowth also entails profound transformations in [b] social interactions between persons. Such interactions would have to be premised *less* on for example competitiveness, greed, individualism, intolerance, racism, sexism and climate change denial and *more* on, for example, empathy, sufficiency, kindness, tolerance of diversity, spontaneous right action, fellow-feeling and respect and concern for others (Sayer, 2011). The possibility of such transformed interactions is based

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[1] Various scholars have brought together aspects of critical realism with degrowth or other growth-critical perspectives. Some examples are Bhaskar et al. (2010), Morgan (2021), Næss (2021), Schoppek (2020), Spash (2012) and Xue (2013).

[2] In the present context, a mechanism is understood as something that contributes to making something else happen (Buch-Hansen and Nielsen, 2020). As such a mechanism can assume a wide variety of forms. In reality, a mechanism can manifest, for instance, as or via an institution, a policy, a practice (personal or collective).

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[3] Bhaskar's philosophy unfolded in three overall stages of development. Having developed the basic critical realist philosophy of science in the first stage (e.g., Bhaskar, 2008[1975]; 1998[1979]; 1986), Bhaskar (1993) introduced a broader philosophical system called dialectical critical realism in the second. The last stage witnessed the emergence of the philosophy of MetaReality, a philosophy consolidating Bhaskar's spiritual turn (Bhaskar, 2002; see also Buch-Hansen and Nesterova, 2021). The four planar model appeared already in the first stage, where it was labelled "the social cube") (Bhaskar, 1986). Yet it also formed part of the complex philosophical systems of the later stages. Some critical realists, such as Andrew Sayer, are sceptical of key aspects of the dialectical and MetaReality stages in Bhaskar's thinking. Yet Sayer also recognises the value of the four planes of social being model (cf. Sayer and Morgan, 2022: 457). In the present paper our aim is to make productive use of this model in conceptualising degrowth transformations, rather than to focus on critique or difference among critical realist scholars.

[4] Here love should not be understood as an emotion uni-directed at something singular or someone. Rather, Bhaskar understood love in terms of circles and as all-encompassing. "These circles are the circle of love for yourself; for another human being; for the totality of other human beings; for the totality of other beings in creation; and for the source or sustaining power in creation itself" (Bhaskar, 2012, p. 181).

Table 1
Degrowth: less and more.

	Less	More
Transactions with nature	Matter and energy throughput, extractivism and instrumental treatment of nature, waste, pollution, greenhouse gas emissions, production and consumption of unnecessary goods, transportation/food miles, built environments, artificial obsolescence	Cleaner energy forms, regard for planetary boundaries, valuing and preserving biodiversity and life, place-sensitivity, place-based activities/ localisation, nature-based economic activities
Social interactions between persons	Competitiveness, greed, individualism, intolerance, racism, sexism, climate change denial, homophobia, xenophobia, hate, fear, alienation, instrumental treatment of humans	Empathy, compassion, peacefulness, solidarity, sufficiency, kindness, generosity and tolerance of diversity, spontaneous right action, fellow-feeling, respect and concern for others, care, mutual learning, democracy
Social structures	Growth imperative, competition, inequality, patriarchy, rigid hierarchies, bureaucracy, structures of oppression, exploitation, domination, poverty, suffering	Collaboration, equal distribution of economic and other resources, flat hierarchies
Inner being	Egoism and ego-realisation, egocentrism, equating the ego with the self, short-term orientation, entitlement, possessiveness and materialism ("to have"), hedonism	Love, creativity, oneness, gentleness towards being and beings, awareness, curiosity, transcending the narrow ego/self, seeing oneself as part of the broader existence, self-realisation, fulfilment, harmony, joy, reflection/ mindfulness

on assuming general human goodness but not necessarily absolute human goodness or human sainthood (Tuan, 2008). This is in stark contrast to a more pessimistic and mechanistic view on human nature exemplified in, for instance, the theories of Thomas Hobbes (Miller, 1993).[5] It can be seen as part of human nature that we have the *powers and potentials* to interact based on these 'more items' (Bhaskar, 2012; Sayer, 2011). Such powers and potentials would need to be actualised on a much large scale for degrowth to materialise on the societal level.

Degrowth transformations on the plane of [c] social structure, would entail moving towards socio-economic orders – locally, nationally and globally – with *less* competition, less economic and social inequality, less bureaucracy, fewer rigid hierarchies and structures of oppression. In transformations towards such socio-economic orders, the growth imperative driving capital accumulation under capitalism would become decreasingly prominent. At the same time transformations on this plane would bring about *more* collaborative relations, more flat hierarchies (Trainer, 2012) and a more equal distribution of economic and other resources (Koch, 2020).

Finally, degrowth would entail major changes on the plane [d] of inner being (Nesterova, 2021). Most people would need to change themselves – become *less* egoistic, egocentric, possessive, hedonistic and materialistic and *more* capable of transcending their narrow ego/self, more capable of seeing themselves as part of the broader existence, more attuned to joy, reflection and mindfulness (cf. Fromm, 2013; Naess, 1989). This is because the inner being is the only site from which one can act and thus exercise agency in the world (Bhaskar, 2012) and participate in the "struggle for a higher, more richly differentiated global social unity practising an ethic of people- and world-care" (Hartwig, 2007, p. 104).

Does some underlying principle exist that can guide transformations across the various planes? In our view, gentleness and care could be those principles (Buch-Hansen, 2021). That is, for degrowth to materialise on the four planes, *gentleness and care for and towards nature*

(including non-humans), society, other people and one's inner being would have to be pervasive and sustained. A precise definition of gentleness does not exist (Dufourmantelle, 2018), hence here we offer our own definition of gentleness.[6] In the present context, we understand *gentleness* to involve felt sensitivity to the condition and suffering of others (Bhaskar, 1993; Sayer, 2011), both human and non-human (cf. Naess, 1989), a reflective and genuine concern and intentional humanness and kindness towards being and beings manifested in our actions. In this sense, gentleness is existential and lived, i.e., it concerns our being and acting in the world. In the words of Schweizer (2022: 80), gentleness "is not conceptual but lived; [...] sensually experienced and demonstrated. [...] Gentleness comes about by what we do, and by what is done to us."

As for *care* it can, following Fisher and Tronto, (1990:40), be understood "as a species activity that includes everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, our selves, and our environment, all of which we seek to interweave in a complex, life-sustaining web." Whereas care is a well-established concept that several scholars and activists have in various contexts emphasised as an aspect of degrowth (e.g., recognising care work as work, care for nature) (Dengler and Lang, 2022; Spash, 1993), we place it at the *core* of what degrowth transformations entail in practice. And we perceive gentleness to be the core attitude towards the world because of which the act or practice of care is exercised. At the plane of social structure, for example, degrowth societies and organisations would be societies and organisations that are organised around gentleness and that actively care for human beings, non-human species and nature in general.

3. Plane thinking: Beyond reductionism and binaries

According to Bhaskar (2016: 70), today's world faces a poly-crisis relating to each of the four planes. These include an ecological crisis on plane [a], a crisis of democracy on plane [b], a social crisis of deep and growing inequalities on plane [c] and, finally an existential crisis of, for example, apathy and centrism on plane [d]. It could be added to this that it is not 'merely' the case that one crisis exists on each plane. Rather,

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[5] We rely on the humanistic tradition which highlights humanness and human potential of our species (Moss, 2015). This tradition focuses on human qualities and abilities, such as creativity, love, freedom, growth and self-transcendence. While it is impossible with any certainty to claim that human nature is indeed inherently good (it is easy to find examples of the contrary), the humanistic tradition assumes that by presenting humans in either a pathological (as psychoanalysis has done) or mechanistic (as behaviourism has done) manner may "run the risk of harming humans by inviting them to lower their expectations of what is humanly possible." (Moss, 2015, p. 4). The humanistic view also finds resonance in the field of moral philosophy: while humans are indeed animals (with instincts and bodily needs), we also have natural capacities for care, solidarity, compassion, love and so on, and these attitudes and feelings affect our decision-making and our being in the world in general (Midgley, 2003).

[6] The concept of gentleness was conceived in ancient Greece. Here it concerned "the very relation that a human community maintains with the law, justice, war, but also with the so-called values of the 'heart' that emerges" (Dufourmantelle, 2018: 27). Whereas the concept is considered in fields such as philosophy and political thought (Mendham, 2010) and geographical research (Sambamurthy et al., 2022) in other fields, such as organisation studies (Mumford et al., 2022), it has not received much attention. Gentleness is an ephemeral term. It relates to, and finds manifestation in, other attitudes and practices such as care and solidarity. However, it is broader. For instance, as an attitude it concerns being in general, while solidarity is based on common interests.

multiple interrelated crises unfold on each plane and even amplify each other. For example, on plane [a] a biodiversity crisis and a climate breakdown are ongoing, which also has implications for the inner being of individuals (plane [d]), such as mental health issues caused by unfolding ecological degradation (Clayton et al., 2017). Seen from the vantage point of the four planes of degrowth conceptualisation, the poly-crisis is unfolding because too many of the items included in the less column in Table 1 (henceforth: 'less items') characterise contemporary capitalist consumer societies and are normalised and even presented as desirable or inevitable. Simultaneously, the items included in the more column (henceforth: 'more items') are not sufficiently prominent and are routinely suppressed or brushed off as utopian or unwise.

We adopt the terminology of 'less and more' to highlight that while degrowth entails deep transformations on each of the four planes, it would still build on practices, ideas and phenomena that *already exist.* Indeed, all the above 'more items' already exist and oftentimes even sustain 'less items' (Bhaskar, 2012; Gibson-Graham, 2006). For example, multiple degrowth-compatible initiatives, movements and modes of being already exist alongside or even within capitalist economies as well as alongside consumer societies (Burkhart et al., 2020; Gibson-Graham and Dombroski, 2020). Yet while they exist, they do not do so on the scale needed for degrowth to materialise on a societal and global level (Buch-Hansen, 2018). Examples of 'more items' sustaining 'less items' may include, for instance, love and care (exemplified in parenting or housework) sustaining existing (often exploitative and competitive) structures of production (Gibson-Graham and Dombroski, 2020) and concern for the wellbeing of a family sustaining an individual's participation in polluting industries. This brings us to a second reason for using the less and more terminology, which is to move beyond a crude either-or perspective according to which either capitalism or degrowth is the only game in town – entailing that 'less items' can be obliterated while the 'more items' become omnipresent. Degrowth transformations, if they materialise, would entail that the balance tips decisively in favour of 'more items' with ensuing deep changes in transactions with nature, interactions among humans etc. Yet just as the 'more items', typically to a limited extent, exist in capitalist societies, so the 'less items' would still be around in various forms and to varying (smaller) degrees in degrowth societies.

For example, some levels of matter and energy throughput as well as carbon emissions would exist as a necessary and inevitable part of human existence and activity. Other 'less items' would be around because social transformations, including degrowth, do not start from nothing. This point applies to all four planes. For example, self-transformation at the plane of [d] inner being does not happen suddenly, it is a process rather than a shift. An egoistic individual can become less egoistic, but entirely shedding this part of the self is if not impossible then certainly a highly demanding and long-term process. Moreover, the process of shedding is challenging in the presence of other constraining structures and circumstances presented in the 'less' column of Table 1. Similarly, on the plane of [c] social structure, degrowth transformation would evolve neither from scratch, nor from capitalism in general; they would evolve from currently existing varieties of capitalism and non-capitalist initiatives, movements, activities and spaces co-existing with capitalism (Gibson-Graham, 2006) and entail transformations of their institutional forms and other structures (Buch-Hansen, 2014; Koch and Buch-Hansen, 2021). Overall, the terminology of less and more allows for a nuanced consideration of degrowth transformations, one prompting those advocating degrowth to reflect upon and specify what needs to be reduced and what needs to expand on each of the planes.

Various mechanisms that can bring about degrowth are proposed in the literature, ranging from state intervention (Gills and Morgan, 2020) and planning (Alexander, 2012) over cultural transformation (Trainer, 2020) and spiritual pursuits/awakening (see e.g., Bhaskar, 2000, 2012) to bottom-up initiatives and movements (Burkhart et al., 2020) such as Transition Towns, voluntary simplicity, zero-waste or minimalism. Seen

from the vantage point of the present paper's conceptualisation, none of these mechanisms constitute the singular mechanism that could cause degrowth.[7] Indeed, involving deep transformations on the four planes of being, degrowth is an outcome that can only be caused by a multitude of mechanisms (including those just mentioned) working in concert. In discussing the (potential) coming into being of degrowth transformations, it is thus important to transcend causal reductionism.

In relation to the conceptualisation provided here, transcending reductionism also means that none of the planes should be singled out and given primacy to the exclusion of the other three. The reason this should be avoided is that it results in simplistic, one-dimensional arguments and perspectives. If only transactions with nature are considered, it can lead to proposals like that of Daly (1991) to introduce 'birth permits' to control the size of the population. If only the transformation of social structures is considered important, politics and policies can end up being seen as that which could single-handedly bring about degrowth. If social interactions are given primacy, convivial living and urban gardening may come to be seen as the solution to all problems. If only inner being is regarded as important, the importance of social structures is severely diminished or neglected. We certainly do not mean to suggest that modern degrowth scholarship typically considers only one plane. Yet such scholarship has in fact tended to prioritise certain planes over others. That is, it has paid much attention to the planes of material transactions with nature (questions related to the size of economies, matter and energy throughput) and social structure (transcending capitalism, questions of employment, inequalities etc.), while it has largely omitted serious consideration of inner being. This is problematic seen from the vantage point of the four planes of degrowth conceptualisation: far from 'merely' involving changes pertaining to consumption, production and distribution, the transformative journeys towards degrowth societies would involve deep changes on all planes.

In this context it is also important to keep in mind that the various planes are *interconnected* and to take seriously that desirable outcomes on one plane do not necessarily spark desirable outcomes on another. To exemplify, much degrowth research highlights improved human well-being as a key goal. Indeed, according to an often-cited definition, degrowth involves "an equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions at the local and global level" (Schneider et al., 2010, p. 511). This definition takes into consideration that planes are interconnected in that it paints a picture of changes on the plane of [a] transactions with nature resulting in changes (for the better) on the plane of [d] inner being. Yet the definition is also emblematic of a tendency in the literature to make degrowth sound like a wellness retreat whereby downscaling is a process of descent into a state of wellbeing, unfolding in idyllic, mostly localised, cooperative communities (e.g., Hickel, 2020; Trainer, 2020). In some respects, degrowth transformations hopefully would be pleasant, helpful, and meaningful to people, for example due to humans' natural concern for others (Bhaskar, 2012; Sayer, 2011). Yet for everyone accustomed to the Western norms of consumption and the mode of having (Fromm, 2013), adapting to a lifestyle with much less consumption is likely to be troublesome, difficult, cause grave anxieties, inner conflict and doubt. In other words, it is important to recognise that degrowth-compatible changes on the plane of [a] transactions with nature (or any other plane for that matter) does not necessarily lead to increased human wellbeing, at least not immediately (see also Koch et al., 2017).

Further to this, it is crucial that *diversity* on each plane is taken seriously (cf. Nesterova, 2022a). We raise this point because it is not uncommon for those advocating degrowth to outline their visions of a different society in terms implicating that all human beings would

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[7] Seen from the vantage point of critical realism, multiple mechanisms are generally involved in causing outcomes in the world (see e.g., Bhaskar et al., 2018).

appreciate specific forms of interactions on plane [b]. For example, Liegey & Nelson (2020: 3) write that "degrowth theorists and activists see degrowth as establishing secure and safe lives, fulfilling everyone's needs in collaborative and collective ways, as celebratory and convivial".[8] More generally, there is a strong tendency for degrowth proponents to present the causes of the desired increased human well-being in the context of degrowth in rather narrow and reductionist ways. Wellbeing is for example understood to arise from living in eco-communities (Cattaneo, 2015) or other small, cooperative, close-knit communities (Trainer, 2020) as well as from engaging in community-based activities like music, drama, meditation or craft workshops (Jackson and Victor, 2013).

What such visions disregard is that, on the plane of [d] inner being, people are different. Some individuals may welcome active participation in decentralised decision-making, communal living, conviviality etc., many others would prefer not to engage with others in such ways and need more space for themselves, or they would prefer to engage with other beings (taken in a broad sense) or features of nature, such as mountains and forests. Wellbeing, in other words, can have different sources for different people (see also Brossmann and Islar, 2020). Further to this, it should be acknowledged that the principles of gentleness and care can be manifested differently, on a spectrum running from participation in decentralised decision-making to pursuing a solitary mode of being (e.g., Thoreau, 2016). Moreover, the practice of care is likely to manifest itself most authentically if it relates closely to/ stems from the personality of the individual engaged in these practices. Equating degrowth with only one mode of being while thinking in dichotomous terms (e.g., participation = good, solitude = bad) should thus be avoided. Further to this, to grasp unfolding degrowth transformations, nuanced, non-binary or non-dichotomous thinking is required. This involves thinking that transcends binaries such as 'sustainable'/'unsustainable' and 'degrowth'/'not degrowth' and more generally it involves avoiding seeing something as all bad or all good.[9] In the words of Bhaskar (2012: 307), "[t]he yes or no, black or white, master or slave, presupposes a simple opposition. But truly transformative practices generally need to go to the ground of such oppositions, which will involve intuitive, holistic and totalising modes of thought, which cannot be captured by a binary logic and which transcends the simple dualistic, dyadic oppositional thinking so characteristic of the world of duality.".

4. Eco-social policies and bottom-up initiatives

As noted above, top-down (state) policies and a wide range of bottom-up (civil society and business) initiatives are frequently highlighted as mechanisms of key importance to bring about degrowth. In this section, we consider these mechanisms in relation to our four planes of degrowth conceptualisation, illustrating its implications for the practice and theorising of how degrowth could come into being on the societal level.

Degrowth arguably constitutes a political project. Not in the sense that it provides a full-fledged political program with detailed policies with which all those embracing the concept agree, but in the sense that it constitutes a general vision of a different society which is accompanied by discussions of policies and initiatives that can materialise this vision (see also Alexander and Gleeson, 2022; Buch-Hansen and Carstensen, 2021). Indeed, in degrowth circles a wide variety of policies are being

proposed and discussed, including for examples targeted subsidies, introducing sustainable welfare benefits (Bohnenberger, 2020), banning advertising (Latouche, 2009), promoting work-sharing and reduced working time (Schor, 2015), placing caps on income and wealth (Buch-Hansen and Koch, 2019), taxing global greenhouse gas emissions (Morgan and Patomäki, 2021) and introducing limitations on flights while reducing the number of planes and airports (Hassler et al., 2019).[10]

Many of the discussed policies are *eco-social* policies, i.e., policies that simultaneously advance the goals of improving human transactions with nature and social equity (Gough, 2017). For example, train tickets and other forms of slow travel are unaffordable to many, just as organic foods are considerably more expensive than conventional food. As a result, many people fly and eat conventional food. Subsidising train tickets and organic food production can thus simultaneously serve the purpose of making more sustainable diets and forms of transportation affordable to all. Caps on income and wealth can both reduce economic inequality and hamper the ability of rich individuals to lead grossly environmentally unsustainable lifestyles (Pizzigati, 2018). These and other eco-social policies can thus serve to reduce the 'less items' and enhance the 'more items' on particularly planes [a] and [c] (Table 1) and create conditions for the 'more items' to become more possible, accessible and acceptable.

Further to the above observation regarding the interrelatedness of the planes of social being, it is crucial that the design and implementation of eco-social policies takes into consideration effects on all four planes. Hence, for each policy aiming at improvement of humans' transactions with nature it should be considered how it affects social relationships, social structures and the inner being of the humans it concerns directly and indirectly as well as humans' transactions with nature in other places (consider e.g., outsourcing manufacturing, dirty industries or exporting wastes to other countries to improve material transactions with nature in one country). For example, policies to downscale or end fossil fuel energy production could substantially improve humans' transactions with nature. Yet such policies may simultaneously have negative consequences relating to employment and the mental health of the humans employed in fossil fuel industries. The anxieties and concerns of such individuals (e.g., in relation to future employment, pensions, meaning and identity) tend to be ignored by degrowth academics.

Some eco-social policies may have both positive and negative effects on the same plane. Take for example caps on income and wealth. As noted, this policy instrument can serve to reduce economic inequality (plane [c]), while limiting the ability of wealthy individuals to live in highly environmentally unsustainable ways (plane [a]). Yet if it is used to redistribute wealth to those currently less well off, the instrument may stimulate economic growth (Buch-Hansen and Koch, 2019) based on environmentally harmful production and consumption (also on plane [a]). This hints at the need to not only consider the effects of any individual eco-social policy on the four planes but also to consider the combined effects of different constellations of policies. Doing so is necessary also because individual policies would never suffice to bring about degrowth transformations on planes [a] and [c]. Indeed, whereas each of the policy instruments mentioned above would be compatible with capitalism, a policy-mix consisting solely or primarily of the sort of policies discussed by degrowth advocates could not be reconciled with a

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[8] Conviviality can be understood to involve humans enjoying one another's company while acting in solidarity (Liegey and Nelson, 2020: 2).

[9] This does not apply to obviously violent events, attitudes, practices (directed towards humans, non-humans and nature). While Bhaskar (2012) argues that even violent phenomena (such as wars) are ultimately sustained by love and solidarity (such as between soldiers), we would maintain that some events, attitudes, and practices indeed cannot be part of degrowth.

[10] While most advocates of degrowth seem to take the position that democratically adopted top-down policies are an important precondition for degrowth transformations to materialise, others view the state as incapable of playing such a role (Koch, 2022). Some are for example critical of the state owing to their own political/philosophical convictions, shaped for instance by anarchist perspectives (such as anarcho-primitivism). Some anarchists find it better to side with Marxist than with pro-capitalist views, and thus accept top-down policies and government involvement as a necessary evil.

growing economic system.

Further to the point regarding the need to take *diversity* on the planes seriously, neither eco-social policies nor policy-mixes would be the same everywhere. One reason for this is that they would be adopted via democratic processes, making it highly unlikely that identical policies and mixes would come into being everywhere. Moreover, if policies are to have the desired effects it is crucial that they, both in their design and implementation, are attentive to the uniqueness of industries, situations and individuals in the places they cover. For instance, proposals to introduce shorter workdays or shorter work weeks may ignore the characteristics of some transactions with nature in certain industries: while degrowth scholars advocate small-scale organic farming instead of large-scale monoculture, organic farming largely depends on the rhythms of nature and working with nature rather than to a particular schedule. Policies would also differ across *scales*, some being local in scope, others national or transnational. Caps on income and wealth is an example of a policy requiring extensive international coordination if it is to function properly.

For degrowth as a political project to come to shape transformations on the various planes, a comprehensive coalition of social forces would be needed to promote degrowth at the plane of [b] social interactions. This coalition could employ various methods such as organising bottom-up initiatives, networks and teamwork and manifest on different scales. The thousands of degrowth-compatible micro-level civil society and business initiatives that are mushrooming these years may, together with various social movements (Burkhart et al., 2020), come to provide the basis for a mobilisation of such a coalition. Such initiatives, e.g., eco-communities, may indeed facilitate the practice and culture of solidarity, care and respect for others (see 'more' in Table 1), as well as improve material transactions with nature. Yet at the same time it should be kept in mind that people are different, meaning that community living in for example an eco-community can be an unpleasant experience if it does not resonate with one's inner being (plane [d]). In this context it is worth keeping in mind that solitary living does not necessarily inflict more harm on nature than does communal living, as can for instance be seen with the tiny house movement and individuals practising voluntary simplicity. Moreover, some bottom-up initiatives can become isolationist and even exclude wider participation, thus not maximising their potential to make change on the plane of [c] social structure, or they can even alienate others from the cause. Again, this underscores the need to recognise that no mode of living or initiative is all good or all bad.

As a political project, degrowth is different from traditional political projects in that it cuts across/transcends traditional classes. Inevitably, those advocating degrowth are rooted in classes (on plane [c]) – most of them probably in the middle classes – yet degrowth is not a project aspiring to promote the interests of this or other classes – or for that matter only the interests of human beings. In other words, those promoting degrowth do it not because they themselves stand to gain more from its realisation than would others, but because they believe that it is necessary if the needs of human and other beings are to be met now and in the future. The absence of support for degrowth from powerful social forces, for example, business associations, governments, labour unions or international organisations, has been identified as "the weakest spot in the degrowth project" (Barca et al., 2019: 6). In Barca's analysis, attracting support from "ecologically minded" members of the global middle class who are willing to consume and work less does not suffice if the degrowth project is to shape overall societal developments. In her words, the project will "remain politically weak unless it manages to enter into dialogue with a broadly defined global working class – including both wage labor and the myriad forms of work that support it – and its organizations" (Barca, 2019: 214).

While this analysis is undoubtedly true, it is also necessary to transcend the class-based perspective of (historical materialist) critical political economy if we are to imagine a coalition that could enable

degrowth as a political project to shape societal developments. And certainly, it is necessary to transcend such a perspective if degrowth is thought of not merely as a political project in the abovementioned sense but also more broadly as transformation processes unfolding on all four planes of being. No single type of actor, acting on the basis of one particular identity (such as class), is powerful enough to make it happen. In a different context, feminist diverse economies scholars Gibson-Graham and Dombroski (2020) place hope in the movements and activism that young people, women and indigenous peoples engage in globally. They for instance note that "[b]ecause women are everywhere and therefore always somewhere, change can be enacted in all those many somewheres" (2020: 20). In a similar vein, degrowth transformations can only materialise through the combined actions of people (irrespective of their gender and race) positioned everywhere, including on various scales (local, national, transnational) and in the *sites* of civil society, businesses and state apparatuses. Naturally, these sites should be seen as interrelated and there is no clear boundary between them. For instance, a member of the civil society can be a businessperson, whereas the state is a structure which imposes constraining (as well as empowering) structures onto both civil society and business. Moreover, participation in transformations on plane [b] may have implications for the inner being of the members of civil society. Indeed, as Archer (2010: 274) notes, "actors themselves change in the very process of actively pursuing changes in the social order".

In each of the sites (civil society, state, business), transformations would entail processes of reducing and if possible absenting the 'less items' and nurturing growth of the 'more items' (Table 1) on the four planes of social being. In terms of business, for instance, transformations mean improving material transactions with nature (plane [a]) via focusing on production for needs in a place-sensitive manner, enhancing social relations (plane [b]) via creating closer and more genuine ties with consumers, activists, (sustainability-minded) local governments and communities, participation in the transformation in the structures of production and establishing formal and informal networks with other businesses (plane [c]). Transformations on plane [d] necessitate nurturing by the businesspersons the attitude of gentleness and the practice of care towards humans, non-humans and nature. Business practices, as practices more generally, always unfold in particular contexts (Hägerstrand, 2012). Degrowth practices would for example unfold under the constellations of political, economic, cultural, educational, and other social structures existing in different places. This context would significantly impact transformation processes as a result of which they would differ from one place to the next. Practices would also unfold differently depending on the constellation of the natural structures with which human societies transact. By natural structures we mean topographies, climates, landscapes, ecosystems, bioregions, and their change. Moreover, the process of unfolding is emerging, non-linear, most likely characterised by setbacks.

While actions by actors positioned everywhere (i.e., civil society, businesses and state apparatuses) are needed for degrowth transformations, such transformations are more likely to be initiated by some actors than others. Specifically, it is difficult to imagine governments coming out in support of degrowth and adopting eco-social policies in the current ideological climate. Alexander and Gleeson (2022) are correct to note that doing so would be political suicide. For degrowth transformations to be initiated on planes [a], [b] and [c], then, a massive civil society mobilisation, combined with a surge in degrowth-compatible business (Nesterova, 2020, 2021), would be required. If such a mobilisation of growth-critical and socio-ecological social forces were to gain a decisive momentum it could make it attractive, or at least feasible, for political parties and states to pursue degrowth policies. The outcome could be "a combination of bottom-up mobilisations and action and top-down regulation, resulting in a new mix of property forms including communal, state, and individual property and a new division

of labour between market, state, and 'commons'" (Koch, 2020: 127). Indeed, given the depth of change that degrowth transformations entail, and the speed with which they would need to happen, it is just as improbable that they can materialise solely through bottom-up, grass-roots initiatives, as it is improbable that they can emerge solely via top-down policies. And just as degrowth cannot be realised without policies implemented by state apparatuses at the local, national and trans-national scales, so it cannot come about without the involvement of businesses and large groups of citizens.

5. Self-transformation

Degrowth on a major scale can only happen if it is welcomed genuinely and accepted internally by humans (on the level of their inner being) and manifested in their everyday practices - practices which have implications for all the other planes of social being. For example, it is difficult to imagine how electoral majorities and a comprehensive coalition of social forces would come to support, or just consent to, the type of eco-social policies discussed in degrowth circles in the absence of individual self-transformation. Because degrowth is not a programme that should be imposed onto individuals, individual self-transformation is a necessary element of consent to degrowth as well as of a sustained practice thereof.[11] Nonetheless, it is fair to say that of the four planes of social being, the plane [d] of inner being is the one that has received the least attention in the field of degrowth. This neglect of peoples' inner life, a neglect that characterises sustainability science more generally (Ives et al., 2020), has also been observed by Brossmann and Islar: "degrowth literature needs to recognize and discuss practices related to the self more prominently" (2020: 926).

The importance of individual self-transformation has, however, received more attention elsewhere, including in deep ecology (Naess, 1989) and the philosophy of metaReality (Bhaskar, 2002, 2012). Both of these strands of thinking put forward the argument that an individual (but still necessarily related) human being is a site of change and that for transformations to be manifested in the world, it is necessary to transcend one's narrow ego and the focus on the self to include (or to identify with) existence at large. The existence includes other humans, non-humans and nature. This results in fellow-feeling and a deeply felt compassion for others. Self-transformation could entail stepping from the mode of having towards the mode of being (Fromm, 2013). The mode of having is focused on possessions and accumulation of different kinds (material possessions, status, instrumental networks). The mode of being revolves around our humanity and being who, as Roy Bhaskar claims, we really are: beings capable of loving, caring, presence, fellow-feeling, kindness, altruism, empathy (Bhaskar, 2012). Importantly, it is not a question of a person entirely embodying one or the other mode but of how much of each mode the person embodies and what they strive for (Fromm, 2013).[12] For degrowth transformations on the other planes to happen, many more people would have to increasingly live in the mode of being. This could for example pave the way for consent to, and even advocacy and welcoming towards, what most people would currently perceive of as (too) restrictive eco-social policies such as income caps and limitations on flights.

How can inner (self) transformations come about? While arguably there is no single mechanism or a practice which can result in a transformed self, there are multiple mechanisms that can contribute to the coming about of self-transformation, often in combination.[13] Again, it is important to recognise that every human being is a unique individual. For some, self-transformation journeys can be triggered by engaging in solitary practices such as reading, meditation, mindfulness, unaccompanied yoga, shinrin-yoku (forest bathing) and others.[14] For others, self-transformation can arise from more communal and social practices, such as engaging in (intentional) communal living (Trainer, 2012), environmental education (Price and Lotz-Sisitka, 2016) or interactions with others. It is important to highlight that self-transformations or engaging in solitary transformative practices does not exclude engaging in, for instance, in political action. In other words, there is no inherent conflict between self-transformation and social change (Bhaskar, 2012). Moreover, engaging in self-transformative practices is not limited to a certain group of people or a domain of social reality, i.e., it is important that everyone participates in self-transformative practices, including politicians and educators.

6. In conclusion: Reconceptualising degrowth

With this contribution, which continues and deepens the dialogue between critical realism and degrowth that we initiated elsewhere (Buch-Hansen and Nesterova, 2021; Nesterova, 2021), we have sought to conceptualise degrowth in a comprehensive and non-reductionist manner. This conceptualisation entails that degrowth is understood to involve deep transformations on each of the four interrelated planes of social being identified by Bhaskar (1986, 1993): [a] material transactions with nature, [b] social interactions between persons, [c] social structure, and [d] peoples' inner being. On each plane, these transformations consist in reducing, and ultimately absenting, some currently existing items while expanding others. On plane [a], degrowth involves *less* matter and energy throughput and *more* clean energy forms and behaviour premised on regard for planetary boundaries, biodiversity and non-human beings. On plane [b], degrowth entails social interactions based *less* on, for example, individualism, intolerance, and myths and *more* on empathy, tolerance of diversity and concern for others. On plane [c], degrowth implies transforming social structures so that economies and societies come to have *less* competition and in-equalities, fewer hierarchies, and a decreasingly prominent growth imperative; and *more* collaborative relations and flat hierarchies combined with a more equal distribution of resources. Finally, on plane [d], degrowth would require most people to self-transform, becoming *less* egoistic, possessive, and materialistic and *more* reflexive, gentle, mindful and capable of seeing themselves as part of the broader existence.

Three aspects of the conceptualisation we have developed in this paper are worth highlighting. Firstly, in thinking about the planes, it is important to recognise *diversity* on each of them. One aspect of this is that degrowth living can assume many forms. For example, they can range from living in convivial communities to pursuing a solitary mode of being. Another aspect is that degrowth transformations can only materialise through the combined actions of people positioned in different sites (civil society, businesses and state apparatuses) and on various scales (local, national, transnational). Secondly, the *interrelatedness* of the planes is crucial to take into consideration when theorising and practising degrowth. For example, when designing (mixes of)

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[11] Here it can be noted that, in Bhaskar's analysis, experiments like Soviet communism and many attempts at social democracy failed or fell short because they focused on changing society only on one plane, namely that of social structure, whereas people remained unchanged (Bhaskar and Scott, 2015: 36).

[12] Parallels can be drawn between Fromm's mode of having vs mode of being and Bhaskar's metaReality. As regards the latter, Bhaskar (2012, p. 170) writes that "as long as you own or have something, whether it be your car, your partner or your (sense of) poverty, you cannot be whole, undivided, one."

[13] Diverse constellations of (cultural, economic etc.) structures, within which an individual is embedded, exist which may in various ways constrain (or empower) inner transformations. The individual's existing outlook will also affect the type of self-transformation that he or she is likely to undergo. Recent work links self-transformation to Bourdieu's sociology, suggesting how different habitus types are susceptible to transformation (Buch-Hansen et al., n.d).

[14] While indeed the practices we refer to here may be performed by an individual alone, they often (if not always) imply co-presence. For instance, forest bathing means interacting with the forest (thus engaging also in a transaction with nature).

specific eco-social policies, it is vital to keep in mind that they will have effects on all four planes, and that positive effects on one plane do not necessarily translate into positive effects on all. Thirdly, we propose gentleness and care as the underlying principles that can guide transformations across the various planes. Further to this, we conceptualise *degrowth* as deep transformations occurring on all four interrelated planes of social being, on different scales and in all sites, guided by gentleness and care, towards a society co-existing harmoniously within itself and with nature.

Understood in these terms, far from being an outcome that can be caused by a singular mechanism, degrowth can only be caused by a variety of mechanisms working in concert. Such mechanisms range from democratically adopted top-down eco-social policies to bottom-up civil society and business initiatives. For such mechanisms to be activated on a sufficient scale, deep change at the level of the individual is necessary. That is, both a sustained practice of degrowth and consent to top-down policies require people in large numbers to come to think that degrowth is desirable.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

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