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Green growth or degrowth? Assessing the normative justifications for environmental sustainability and economic growth through critical social theory

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ABSTRACT

Scientists agree that changes in the organization of human society and economy are needed to stop the degradation of the natural environment. The most commonly proposed solution, green growth, has been increasingly criticized, but the offered alternative of degrowth has remained a marginal undertaking in academia and in practice. This article further develops the argument for degrowth. The article conducts a comparative analysis of the normative foundations of green growth and degrowth using frameworks from critical social theory. The analysis shows that green growth and degrowth work toward different normative ideals that are justified in different ways. The analysis shows that degrowth has a stronger normative justification than green growth and therefore, should be preferred. The article contributes to the debate about green growth and degrowth by establishing normative grounds for focusing efforts for environmental sustainability on degrowth rather than green growth.

1. Introduction

Ample scientific research shows that human activity, particularly the consumption levels of the over-consuming classes in the affluent parts of the world, is degrading the natural environment on which we depend (e.g. IPCC, 2014; Steffen et al., 2015; WWF, 2016). Scientists agree that changes are needed to stop environmental degradation (Ripple et al., 2017).

The most widely accepted solution to stop the degradation of the natural environment is green growth. Green growth mainly relies on technological and market innovations to improve the efficiency of production and thus, decouple the use of natural resources and environmental impacts from continued economic growth (UNEP, 2011). However, research indicates that green growth is highly unlikely to succeed in stopping environmental degradation (e.g. Ward et al., 2016; Wiedmann et al., 2015). A growing body of research suggests degrowth as an alternative solution (Weiss and Cattaneo, 2017). Degrowth questions the viability of continued economic growth and argues that the sustainable use of natural resources requires more fundamental changes to the organization of society, including substantial reductions in production and consumption levels in developed countries (D'Alisa et al., 2015; Jackson, 2016).

Despite the arguments in favor of degrowth, green growth continues to be the dominant solution for environmental sustainability, while degrowth has remained a marginal undertaking. Degrowth is seldom considered in policy initiatives for environmental sustainability. Initiatives such as the Paris Agreement and the United Nations Sustainable Development Goals presuppose continued economic growth (Alexander, 2015; Hickel, 2017). Although in recent years degrowth has begun to attract academic interest, including the publication of special issues on the topic (e.g. Schneider et al., 2010; Sekulova et al., 2013), the impact remains marginal. Thus, making degrowth research part of the mainstream agenda requires further arguments.

Whereas much previous research has investigated the feasibility

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of the solutions for environmental sustainability proposed by green growth and degrowth, Des Jardins (2001) argued that environmental problems need to be understood as ethical issues. He argued that scientific analyses of environmental problems alone cannot determine how we should respond to environmental problems; a consideration and evaluation of the normative assumptions that, implicitly or explicitly, lie behind alternative courses of action are needed.

This article conducts a comparative analysis of the normative foundations of green growth and degrowth using frameworks from critical social theory. Critical social theory is a research approach that explicitly pursues the normative aim of social arrangements that would improve the possibilities for human flourishing in a global and inclusive manner (Cooke, 2006). Critical social theory explicitly recognizes that any effort to transform society, such as green growth or degrowth, rests on some normative ideal, and offers a framework for assessing the normative assumptions of proposed solutions. Thus, critical social theory allows for an analysis of green growth and degrowth that explicitly recognizes them as normative projects and assesses their normative foundations.

Though critical social theory has been argued to be well suited to analyze environmental sustainability (Myers and Klein, 2011) as well as degrowth (Fremaux, 2014), few previous studies have actually used critical social theory to analyze environmental sustainability. Exceptions include Fuchs (2017), who used critical social theory to analyze the broader concept of sustainable development, and Fremaux (2014), who discussed the insights of so-called Frankfurt School critical theorists into degrowth research.

This article analyzes the normative ideals of green growth and degrowth and the normative justifications for these ideals. Normative ideals rely on justifications that must be critically scrutinized (Cooke, 2006, 14–24), particularly in a situation where competing solutions, such as green growth and degrowth, are offered. This article utilizes Benhabib's (1986) framework of the explanatory-diagnostic and anticipatory-utopian dimensions of critical social theory, as well as Cooke's (2006) framework for normative justifications to assess the normative justifications for green growth and degrowth in terms of the overall aim of environmental sustainability. The article's main contribution to the literature consists of a critical social theory approach for a comparison of the normative justifications of green growth and degrowth. The analysis strengthens the argument for degrowth and thus, pushes the debate between green growth and degrowth forward.

Section 2 presents critical social theory and the theoretical frameworks that are used in this article to analyze green growth and degrowth. Section 3 discusses the current degradation of the natural environment, as well as the normative ideal of environmental preservation, shared by green growth and degrowth. Section 4 presents green growth and degrowth as alternative solutions for environmental sustainability. Section 5 performs a comparative analysis of the normative foundations of green growth and degrowth and their normative justifications. Finally, section 6 discusses the conclusions that can be drawn from the analysis, its limitations, as well as suggestions for future research.

2. Critical social theory

This section presents the frameworks in critical social theory that are used in this article to analyze green growth and degrowth. Critical social theory is an approach that intertwines social science and practical philosophy (Benhabib, 1986). What distinguishes critical social theory from other forms of social science and links it to philosophy is the explicit inclusion of a normative dimension. Critical social theory is a research approach that starts from an overall normative intention to pursue issues concerning a better world, and this normativity is preserved as a central tenet. However, critical social theory is not a purely philosophical field but employs and pursues an empirically grounded understanding of the present.

Benhabib (1986, pp. 225–227, see also Allen, 2015, pp. 513–515) has framed the critical social theory approach through a four-fold division grouped into two main sections: explanatory-diagnostic and anticipatory-utopian. The explanatory element means an empirically grounded interpretation or explanation of the phenomenon in question. The diagnostic element pinpoints, explicates and problematizes power effects, domination or obstacles based on some evaluative dividing line between good or bad, better or worse. This combination of interpretation and diagnosis is an essential starting point in critical social theory; that is, key is not only to observe the world as it is but also to assess and diagnose wrongs.

The anticipatory element focuses on two aspects of the present. First, what do the actual tendencies of the present indicate about the future: to where do we seem to be moving? Second, what different alternative scenarios are available to and are realistically possible for us, and what would it demand of us to pursue those alternatives? The utopian element, again, concerns the normative ideal in the name of which some course of action is pursued. It is essential that this normative outlook is not a purely philosophical utopia but that it can be anchored in the present reality and may be supported by social scientific research. In other words, the utopian or normative element must be connected to the explanatory, diagnostic, and anticipatory elements.

Critical social theory adopts a specific overarching normative framework as the main goal in research. This overarching goal has been expressed slightly differently by different authors as advancing the good of humanity, human flourishing or in general, a better world (e.g. Allen, 2015; Foucault, 1997, p. 319; Fraser, 2015; Horkheimer, 1972, p. 246). However, this aim mainly functions only as an initial guideline and final test; in actual, more delimited research approaches the normative ideal must be spelled out in more concrete terms, such as equality or sustainability. In a critical social theory approach, one needs constantly to move back and forth between the overarching and the more concrete ideals and ask whether and in what sense the more concrete ideal pursued actually can function as a stand-in for the good of humanity, human flourishing, or a better world.

This article applies critical social theory to the analysis of environmental sustainability. The normative ideal of environmental sustainability, to put it briefly, entails preserving the natural environment in a way that secures the survival of both the natural environment and human society in the future. As it stands today, critical social theory most commonly pursues normative ideals that relate to the good of society, such as an increase in freedom (Foucault, 1997, p. 319) or democracy (Brown, 2015; Fraser, 2015; Habermas, 1998). Therefore, concern for the natural environment differs from this traditional focus on society. Nevertheless, Myers and Klein (2011, p. 26) have identified environmental preservation as a possible normative ideal for such critical research. Widening the scope of critical social theory outside society and including the natural environment is possible, although a focus on environmental sustainability is compatible with critical social theory only if also the social or human aspects are recognized.

Essential in critical social theory is to not simply accept normative ideals but to assess their validity. Normative validity refers to the kind of reasons we provide to support a normative standpoint, and how strong these reasons are assessed to be. Cooke (2006, pp. 13–16) has presented a helpful systematization of different possible frameworks of normative validity, which distinguishes among four ways: conventionalist, authoritarian, radical

contextualist, and context-transcending pursuits of normative validity.

In a conventionalist position, normative validity is sought by reference to the internal standards of a certain culture; for example, equality could be considered a valid norm because we currently happen to live in a society that enhances equality. In an authoritarian position, normative validity is claimed by reference to some authority: a deity, leader, moral authority, or purely philosophical theory. For example, equality could be pursued because the goodness of equality has been established by some authority or context-independent theory. A radical contextualist position, again, appeals to the context of our own society or a wider cultural context but starts from an assessment that society does not fulfill its own self-declared normative intent. For example, equality is a norm in our type of society, but we may still criticize our society for not actually realizing equality in a satisfactory manner.

Finally, an appeal to context-transcending normative validity likewise starts from actual contexts. In contrast to radical contextualism, however, the reasons advanced in favor of a certain normative ideal must be able to transcend the particular context in question. This argumentative strategy appeals to our reasoning and should pursue a formulation of the ideal that is, in principle, intelligible to anyone and independent of context. For example, the normative ideal of equality can claim context-transcending normative validity if this ideal is dependent on and arises out of our own culture but can also be formulated in a manner that makes the ideal independent of our own culture, for example, by appealing to reasons and not context and by showing how the ideal can be understood from different cultural contexts. Thus, context-transcending validity depends on the possibility of posing the same ideal from different contexts.

Cooke (2006) argued that normative validity should draw on the context-transcending position. A valid normative ideal needs to be developed from the immanent perspective of the present (thus rejecting the authoritarian position), but the appeal must be more strongly grounded than just an internal trait of a particular culture (thus rejecting the conventionalist and radical contextualist positions). The context-transcending position, Cooke argued, is the only one that is viable from a critical social theory perspective.

3. Environmental degradation and the normative ideal of environmental preservation

Following critical social theory, an analysis of green growth and degrowth must start with an explanatory-diagnostic understanding of the problem of environmental degradation. From this follows recognition of the normative ideal of environmental preservation, which both green growth and degrowth claim to work toward. Degradation and preservation of the natural environment are discussed in the following using the framework in Fig. 1, which is widely recognized in ecological economics. This framework recognizes interdependencies between the natural environment, society, and the economy: the economic system is embedded in the societal system, which, in turn, is embedded in the environmental system (Daly, 1977).

3.1. Explanatory-diagnostic analysis: anthropogenic degradation of the natural environment

Extensive research in the natural sciences has analyzed the state of the natural environment, providing ample evidence of environmental degradation caused by human activity. One of the most

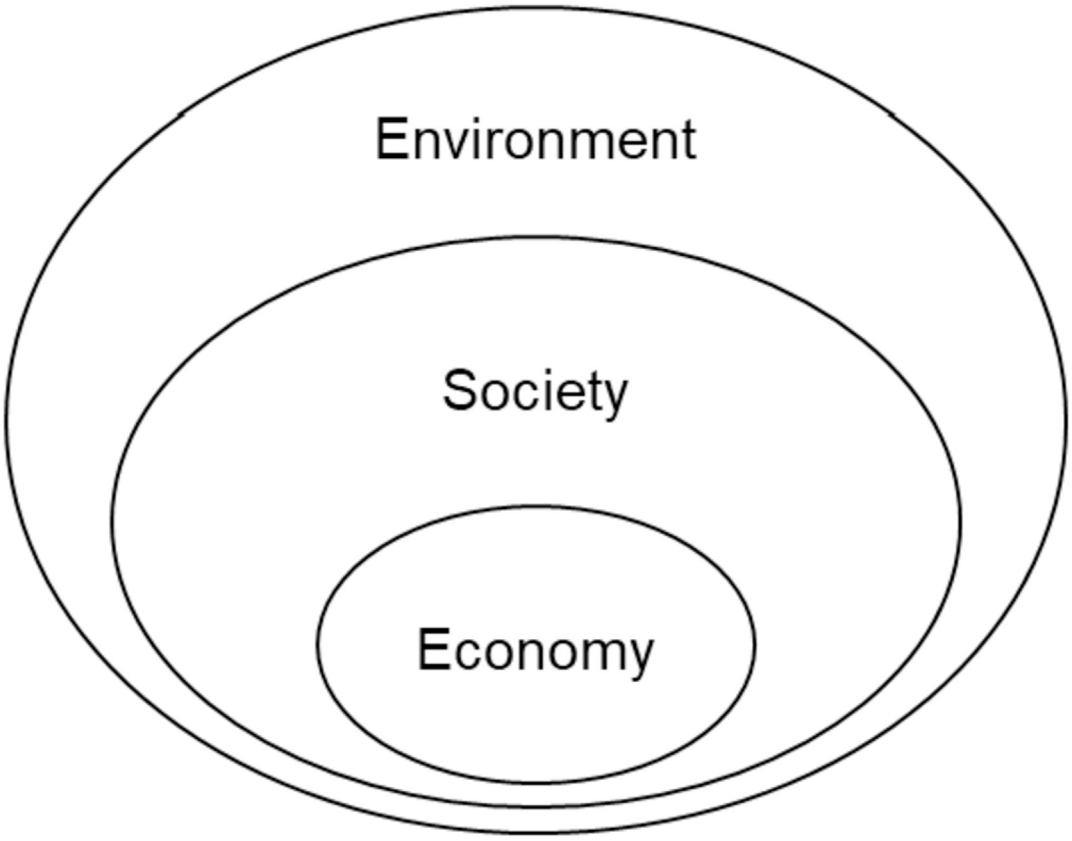

Fig. 1. The interdependencies among the natural environment, society, and the economy (following Daly, 1977).

influential models for analyzing environmental degradation was developed by Rockström and colleagues (Rockström et al., 2009; Steffen et al., 2015). The researchers identified nine planetary boundaries and quantified limits within which humanity can sustainably operate. Research has shown that the limits for a safe operating space have already been transgressed for four out of the nine planetary boundaries: climate change, biosphere integrity, biogeochemical flows, and land-system change (Steffen et al., 2015).

Of the nine planetary boundaries, Steffen et al. (2015) identified climate change and biosphere integrity as core boundaries meriting the most concern. Data compiled by the Intergovernmental Panel on Climate Change showed that the global mean temperature rose by 0.85 °C between 1880 and 2012, which has caused a number of changes in the natural environment, including increased ocean acidification, rising sea levels, and diminishing ice sheets (IPCC, 2014). The Living Planet Index, which measures biodiversity loss, observed a 58% decline in the populations of vertebrate species between 1970 and 2012 (WWF, 2016). Researchers have warned that failure to take action would accelerate environmental degradation. The global mean surface temperature is projected to rise between 3.7 °C and 4.8 °C by the end of the century, which will likely lead to severe changes in the natural environment (IPCC, 2014).

This degradation of the natural environment has unequivocally been attributed to human activity (IPCC, 2014; Ripple et al., 2017; Steffen et al., 2015; WWF, 2016). The IPCC (2014) has identified anthropogenic greenhouse gas emissions as the main cause of climate change. Research on the ecological footprint of human activity has shown that humanity currently consumes 1.6 times the amount of natural resources and ecosystem services Earth can sustainably provide (WWF, 2016). The ecological footprint of Western, high-consuming societies is much larger; for example, the corresponding figure for the United States is just over five (Global Footprint Network, 2017). The scientific community agrees that changes need to be made to decrease the impact of humanity on the natural environment; a recent call for action, signed by more than 15000 members of the scientific community, urged to take action to stop the degradation of the natural environment (Ripple et al., 2017). The agreed-upon goal of limiting the increase in the global mean temperature to a maximum of 2 °C requires rapid action. Global greenhouse gas emissions must be reduced by 40–70% by 2050 compared to 2010 (IPCC, 2014).

Scientists have warned about the consequences of environmental degradation on society. Society depends on a number of ecosystem services for its survival and prosperity, including provisioning services such as food, fresh water, and raw materials, and regulating services pertaining to air quality and pollination, for example (WWF, 2016). Degrading the natural environment degrades the ecosystem services on which humanity depends for its survival, ultimately making Earth uninhabitable.

Degrading the natural environment also endangers the economic system that depends on natural resources for its existence (Fraser, 2015; Miller and Spoolman, 2009). Emphasizing the magnitude of the impact, the highly influential Stern Review (Stern, 2006) estimated the yearly cost for unmitigated climate change would total at least 5% of the global gross domestic product (GDP) and warned the yearly cost may be as high as 20% of the global GDP.

3.2. Normative ideal: preservation of the natural environment

The normative ideal of environmental preservation is concerned with the survival of the natural environment, encompassing issues such as climate change and biodiversity loss. It has been argued that the natural environment should be regarded as not only having instrumental value but as being valuable in itself (Des Jardins, 2001). Thus, the natural environment can be argued to have an intrinsic value, separate from the environment's benefits for society, that warrants its preservation.

More commonly, however, preservation of the natural environment is argued for on the level of society, the concern being the subsistence of human society. As the survival of society depends on the preservation of the natural environment (Daly, 1977; WWF, 2016), environmental preservation is a necessary precondition for human flourishing. In the most widely adopted definition of sustainable development, put forth in the Brundtland Report commissioned by the United Nations World Commission on Environment and Development, the stated goal is to "[meet] the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 41). This definition acknowledges the need to preserve the natural environment for future generations. Thus, environmental preservation is necessary to preserve the living conditions of current and future generations, ensuring the survival of society and enabling the well-being of its inhabitants.

Finally, a concern for the economic system can also motivate environmental preservation. Green growth, in particular, emphasizes the stability and prosperity of the economic system (Kenis and Lievens, 2015), which is dependent on preservation of the natural environment (Fraser, 2015; Miller and Spoolman, 2009).

4. Anticipatory-utopian visions for environmental sustainability

Although green growth and degrowth share a concern for the degradation of the natural environment, they differ in their proposed solutions to preserve the natural environment. The following presents the anticipatory-utopian visions proposed by green growth and degrowth, focusing on their suggested solutions for environmental sustainability.

4.1. Green growth

Currently, green growth is the dominant anticipatory-utopian vision for how to achieve environmental sustainability in academic and policy discourse (Kenis and Lievens, 2015). Green growth is the central component of the larger discourse and political project referred to as the "Green Economy," endorsed by the United Nations, among other organizations. Green growth has been suggested as a solution to environmental degradation mainly by eco-modernists (the new name for supporters of ecological modernization) and neoclassical environmental economists, who largely see the ongoing environmental degradation as a result of market failures and argue that the market would be steered toward environmental preservation if currently externalized costs of environmental degradation were internalized into prices (see e.g. Spash, 2013). The solutions provided by green growth rest on a belief in technological market fixes and posit that environmental sustainability can be achieved while the current economic and societal system is maintained. Proponents of green growth argue that economic growth and environmental preservation are compatible goals, a win-win situation of sorts. Thus, green growth aims to simultaneously preserve the natural environment and advance economic growth.

Green growth proposes decoupling as the main solution to stop environmental degradation while maintaining economic growth. Decoupling refers to the use of natural resources being decoupled from economic growth, meaning that technological innovation is suggested to be able to separate the growth of the economy (GDP

growth) from the growth in the use of natural resources and environmental impact, that is, material throughput (Fletcher and Rammelt, 2017; Kallis, 2017a, 2017b; UNEP, 2011). Thus, proponents argue that economic growth can continue, while the use of natural resources is stabilized at a sustainable level. Whereas much attention has previously been given to so-called relative decoupling, which refers to less environmental impact for every unit of GDP (UNEP, 2011), stopping the degradation of the natural environment requires absolute decoupling; that is, the use of natural resources must decrease, while the GDP continues to increase (Fletcher and Rammelt, 2017; Jackson, 2016; Wiedmann et al., 2015).

To achieve decoupling, green growth mainly relies on developing more advanced technologies that improve the resource efficiency of production, allowing production and consumption to increase while the use of natural resources decreases. Green growth does not require substantial changes in consumption patterns and levels (Bina, 2013) but mainly relies on technological innovations, such as electric cars or improved production processes that, for instance, use less water to reduce the use of natural resources. Green growth assumes that the growth in population and the growth in consumption per capita can continue as before as the improvements in productivity will keep total resource use from growing (Jackson, 2016).

4.2. Degrowth

Degrowth, simultaneously a social movement (Demaria et al., 2013) and an academic field, refers to a set of diverse streams of (economic) growth critique in Europe that has gained in popularity since the early 2000s, though the theoretical roots can be found in the 1970s in the social critique by Illich, Gorz, and Castoriadis, as well as the thermodynamic critique by Georgescu-Roegen (see e.g. D'Alisa et al., 2015). Whereas degrowth (or décroissance in French) is the term used in Europe, similar alternatives to growth and development have been worked out under different names in other parts of the world, for example, buen vivir or Sumak Kawsay in Andean America, through Ubuntu-philosophy in southern Africa, and Radical Ecological Democracy in India (D'Alisa et al., 2015).

Degrowth argues that the pursuit of economic growth at a compound rate is not environmentally sustainable (Kallis, 2017a) and suggests that the primacy of growth as a policy goal is hindering the implementation of environmental policies (Joutsenvirta et al., 2016). Degrowth criticizes economic growth as a policy goal (Victor, 2010) and searches for alternative pathways for organizing social and economic life (D'Alisa et al., 2015; Demaria et al., 2013; Latouche, 2010). Thus, degrowth suggests the need for a more radical transformation of society than green growth (Muraca, 2013).

Degrowth can be defined as the "socially sustainable process of downscaling society's metabolism and throughput, i.e. a degrowth of material production and consumption" (Kallis, 2011, p. 875), with the overall goals of preserving the environment and increasing human well-being and social equity (Schneider et al., 2010). Degrowth recognizes that environmental preservation requires a reduction in natural resource use, which is argued to require a decrease in production and consumption levels. Thus, a decline in the GDP is not a goal in itself but a likely consequence of the need to downscale the material throughput of society (Kallis, 2011).

Although the growth critique in the degrowth literature is well developed, research on the changes needed to achieve a transformation into a degrowth society is ongoing (Kallis, 2011). Cosme et al. (2017) reviewed the changes suggested in the degrowth literature for transitioning to a degrowth society and found three overarching goals: reduce the environmental impact of human activities, redistribute income and wealth, and transition to a convivial and participatory society. Environmental sustainability is the focus of the first goal. Cosme et al. found that the most commonly suggested ways to achieve environmental sustainability in previous degrowth research have been reducing material consumption, reducing energy consumption, increasing local production and consumption, and changing consumption patterns. Thus, degrowth argues for the need in developed countries to radically change consumption patterns, and in particular, reduce consumption levels (Jackson, 2016; Lorek and Fuchs, 2013; Lorek and Spangenberg, 2014). In contrast to the efficiency approach of green growth, this sufficiency approach focuses on changes in consumption, such as reducing the use of private cars or consuming fewer household goods, to achieve environmental sustainability.

4.3. Feasibility of green growth and degrowth

Debate about the feasibility of green growth (e.g. UNEP, 2011) and degrowth (e.g. Kallis, 2017b; Schwartzman, 2012) is ongoing. The following discusses studies that have evaluated the potential of the solutions proposed by green growth and degrowth to achieve environmental sustainability.

Green growth, and in particular, decoupling, has been criticized for being unsuccessful in stopping environmental degradation (Fletcher and Rammelt, 2017; Jackson, 2016; Kallis, 2017a; Wiedmann et al., 2015). Jackson (2016) analyzed historical data on greenhouse gas emissions, material footprints, and resource extraction. He concluded that there is no evidence an absolute decoupling of economic growth from the use of natural resources is taking place. Calculating the material footprint of nations, Wiedmann et al. (2015) showed that no decoupling, absolute or relative, has been achieved in the last two decades in developed countries; any previous indications of decoupling were shown to be due to calculations that failed to incorporate the full environmental impact of increased offshore production.

Furthermore, Jackson (2016) calculated the required future reductions in resource use per unit of economic activity for a number of different scenarios, showing that absolute decoupling in a growth economy would require improvements in efficiency take place at unprecedented rates. Even the most conservative estimates indicated a required rate of at least ten times what has historically been achieved. Jackson concluded that improvements in efficiency are highly unlikely to reach rates high enough to achieve absolute decoupling in the future. It has been argued that efficiency improvements alone are unlikely to reduce the use of natural resources to the extent necessary and at the required time scale (IPCC, 2014) to stop environmental degradation.

As degrowth is a not yet realized proposal for societal transformation that lacks policy support, its ability to achieve environmental preservation has not been evaluated as thoroughly as for green growth. However, though not conclusive, many studies have pointed to the potential of degrowth and its suggested approach of sufficiency to stop environmental degradation by calculating the environmental impact of reducing consumption levels in developed countries. Wynes and Nicholas (2017) calculated the potential of a number of lifestyle changes to reduce greenhouse gas emissions. They showed that substantial reductions in emissions require radical changes in consumption patterns and levels, including living car-free, avoiding airplane travel, and shifting from meat consumption to plant-based diets. Similarly, Lettenmeier et al. (2014) calculated the changes in consumption levels that are needed to reduce the material footprint of households to a sustainable level. Their calculations suggest that major reductions in consumption levels are needed to sufficiently reduce the

environmental impact of the average household in all major consumption categories, including nutrition, housing, mobility, household goods, and leisure activities.

Furthermore, Laakso and Lettenmeier (2016) conducted an experimental study that measured the actual reductions in material footprints that a number of households were able to achieve by drastically changing their consumption patterns. Laakso and Lettenmeier showed that by adopting substantial changes in consumption patterns, such as shifting toward plant-based diets and reducing car use, the participating households were able to reduce their material footprint by a quarter or more in only a month. The results of these studies suggest that degrowth's proposed solution of reducing consumption levels has the potential to substantially reduce the use of natural resources.

Thus, previous research seems to indicate that degrowth shows more potential than green growth to stop environmental degradation. Despite this, green growth continues to dominate as a solution to environmental degradation both in practice and in academia, while degrowth mostly remains a marginalized viewpoint. Therefore, it appears that scientific facts alone have been unable to present a conclusive argument in favor of either green growth or degrowth. Des Jardins (2001) discussed the shortcomings of scientific research in responding to environmental problems. He argued that environmental sustainability is fundamentally an ethical issue that concerns questions of how we should organize society; how we should respond to environmental problems cannot be determined by scientific research alone but must be complemented by ethical analyses. What is needed, Des Jardins argued, is recognition and analysis of the, sometimes hidden, normative assumptions and justifications for alternative environmental policies. This is the focus of the analysis in the next section.

5. Assessing the normative foundations of green growth and degrowth

To advance the ongoing debate about green growth and degrowth, this section uses frameworks from critical social theory to analyze the normative foundations of green growth and degrowth. The normative ideals of green growth and degrowth are established, followed by an analysis of the normative validity of these ideals. The focus of the analysis is assessing green growth and degrowth in relation to the normative ideal of environmental preservation. The analysis is summarized in Table 1.

5.1. Normative ideals in green growth and degrowth

Green growth and degrowth both claim their goal to be environmental preservation. However, the idea of green growth is founded on a goal of preserving the capitalist, economic system, particularly its inherent growth paradigm. The concepts used in discourse reveal a great deal about the underlying goals of green growth. Over the decades, "(ecological) sustainability" morphed first into "sustainable development," then into "sustainable growth," and last, at the Rio +20 conference in 2012, into simply "sustaining growth" (see e.g. Gómez-Baggethun and Naredo, 2015; Monbiot, 2012). The core goal of green growth is even occasionally explicitly stated as finding new sources for pursuing and achieving economic growth within new and soon-to-be established "green markets" (Kenis and Lievens, 2015).

Boltanski and Chiapello (2005) have shown how criticism of the capitalist system can be incorporated into and transform the economic system, thus preserving the system. Following Boltanski and Chiapello, environmental degradation can be seen as a crisis of the current system, a crisis that, in turn, has led to criticism. Green growth is an effort to incorporate this criticism into the system. Through this, the economic system is transformed and preserved. At the same time, the criticism of environmental degradation is made obsolete, and the capitalist, economic system is given final priority. This suggests that green growth centers on the goal of continued economic growth, with which environmental preservation needs to comply.

Thus, green growth elevates economic growth to a normative ideal alongside environmental preservation. In our current society, economic growth has become a normative goal in itself (e.g. Victor, 2010). Green growth is built on the assumption that economic growth and environmental preservation are compatible normative ideals. However, as discussed in section 4.3, previous research on decoupling indicates that environmental preservation is unlikely to be successful while continued economic growth is pursued. Thus, environmental preservation and economic growth appear to be incompatible normative ideals. As green growth continues to pursue environmental preservation only in ways that do not endanger economic growth, economic growth ends up being prioritized. Thus, green growth in practice has a primary normative ideal of economic growth, with environmental preservation subjugated under this ideal.

In contrast to green growth, degrowth identifies environmental preservation, along with human well-being and social equity, as the primary normative ideal to which the structuring of the economy needs to adhere (Rosa and Henning, 2018). Thus, economic growth or stagnation is not given the status of a normative ideal. In contrast to green growth, degrowth gives precedence to the normative ideal of environmental preservation, with a decline in the GDP following as a probable consequence of working to achieve this normative ideal (Kallis, 2011).

Degrowth strives to find solutions that consider both the natural environment and human society and argues that the normative ideals of environmental preservation, human well-being, and social equity are compatible. "Socially sustainable degrowth" was the term degrowth proponents initially used, at least from 2008 and onward, to distinguish between forms of desirable degrowth that enhance environmental sustainability, human well-being, and social equity from that of unsustainable "degrowth" of recessions and depressions with disastrous social consequences. Degrowth proponents are aware that "under capitalism, economies tend to either grow or collapse" (D'Alisa et al., 2015, p. 5), which is why the objective of their social and economic policy proposals is to make degrowth not only environmentally but also socially sustainable.

Degrowth proponents differ in their emphasis on environmental and social issues. Most argue for the need to find solutions

Table 1
Main differences between green growth and degrowth in relation to environmental sustainability.

	Green growth	Degrowth
Explanatory-diagnostic analysis	Degradation of the natural environment	Degradation of the natural environment Improbability of absolute decoupling
Anticipatory-utopian vision	Decoupling, technological innovations, efficiency	Decreasing production and consumption, sufficiency
Primary normative ideal	Economic growth	Preservation of the natural environment
Normative validity	Conventionalist/authoritarian	Context-transcending

that can achieve both environmental preservation and social sustainability and share an unwillingness to prioritize one over the other. Much of the degrowth research aims to find ways to organize society that fulfill this dual goal (see e.g. Büchs and Koch, 2017; Kallis, 2017a). Assessing whether this is in practice possible to achieve is difficult, because degrowth is a vision for societal reorganization that has yet to be realized and is not yet fully developed. It has been suggested that environmental preservation and social sustainability can be compatible if well-being is redefined, moving away from a focus on economic prosperity (Jackson, 2016; Kallis, 2017a). Kallis et al. (2018) reviewed a number of studies that point to the possibility of societies to live well without economic growth. Extensive research on the link between materialism and well-being consistently shows a negative correlation between the two (Kasser, 2016), indicating that well-being is not dependent on high levels of material consumption. On the contrary, research on voluntary simplicity indicates that consumers who choose to live less materialistic lifestyles experience increased happiness (Alexander and Ussher, 2012).

Although these studies indicate that environmental preservation and social sustainability may be compatible normative ideals, further research is needed to analyze under which conditions this is possible. Situations of incompatibility and possible conflicts are a normative discussion too rarely undertaken by degrowth proponents. The following analysis assumes that degrowth does not abandon its central goal of reducing material production and consumption (Kallis, 2011), keeping environmental preservation as a priority. If working to reduce consumption levels, as discussed in section 4.3, degrowth shows potential to stop environmental degradation. Whether degrowth in practice is able to retain the normative ideal of environmental preservation as a priority while simultaneously working toward social sustainability must be continuously evaluated as degrowth projects develop.

5.2. Assessing normative validity

In the previous section, green growth was shown in practice to prioritize the normative ideal of economic growth over the normative ideal of environmental preservation, while degrowth prioritizes environmental preservation. This section assesses the normative justifications of these two normative ideals to determine which holds stronger normative validity. The analysis utilizes Cooke's (2006) framework of normative justifications, following her recommendation of context-transcending normative validity as discussed in section 2.

Following Cooke (2006), one can assess the normative validity of the normative ideal of environmental preservation. In line with Cooke's recommendation, the normative ideal of environmental preservation draws its validity from the context-transcending position. Context-transcending normative validity requires that the normative ideal is implicit in the context of a particular society but also transcends that specific society to be universally valid. In previous decades, environmental preservation has become an increasingly explicitly articulated objective globally, recognized in international policy agreements such as the Rio Summit, the Kyoto Protocol, and most recently, the Paris Agreement, as well as by corporations, nongovernmental organizations, and consumers. Even if environmental preservation is not clearly articulated or reflected in a society's practices, one can argue that humans' self-preservation would recognize environmental preservation as an implicit normative ideal. Furthermore, as preservation of the natural environment is necessary for the survival of all human societies, one can argue that this normative ideal is easily intelligible in any cultural context and thus, transcends any specific context to be universally valid.

The normative ideal of economic growth, in contrast, does not hold context-transcending normative validity but draws on a combination of a conventionalist and an authoritarian position to give the ideal normative validity. Economic growth is a normative ideal specific to our current society that does not transcend the specific context of this society. Although the belief in economic growth is widespread in our current society, this belief cannot be said to be a universally intelligible ideal but instead is a social convention characteristic of particularly capitalist societies of the last 80 or so years (Victor, 2010). Thus, the normative ideal of economic growth can be understood as drawing normative validity from a conventionalist position (Cooke, 2006, p. 14).

Furthermore, economic growth as a normative ideal is founded on the authority of economists and conventional economic theory, thus drawing validity from an authoritarian position, in which normative ideals are accepted as given by an expert (Cooke, 2006, p. 15). Conventional economic theory views economic growth as essential for the well-being of society (Jackson, 2016). Although there is much debate about whether economic growth increases well-being (Jackson, 2016), with research suggesting a lack of correlation between the two (Easterlin, 2015), the pursuit of economic growth is rarely questioned but is accepted as an unquestionable goal.

As discussed in section 2, Cooke (2006) argued against both the conventionalist and authoritarian normative positions and asserted that normative validity should draw on the context-transcending position. In line with Cooke's (2006) recommendation, the normative ideal of environmental preservation has context-transcending normative validity, which economic growth as a normative ideal does not. Thus, one can conclude that the normative ideal of environmental preservation has stronger normative validity than the normative ideal of economic growth and therefore, should be given priority.

However, this is not the case in green growth. Green growth is problematic as it tries to reconcile the normative ideals of environmental preservation and economic growth and ends up prioritizing economic growth. Assuming that degrowth is able to keep the normative ideal of environmental preservation a priority alongside its social goals, degrowth's primary goal of environmental preservation has stronger normative validity than green growth's primary goal of economic growth. As a normative vision for the future, degrowth thus has a stronger normative justification than green growth. Therefore, it is suggested that degrowth rather than green growth should provide the basis for future efforts to preserve the natural environment.

6. Discussion

The analysis in this article recognized green growth and degrowth as normative projects and used frameworks from critical social theory to analyze the normative foundations of green growth and degrowth. The analysis showed that green growth and degrowth work toward different normative ideals that are justified in different ways. Although both green growth and degrowth state environmental preservation as a normative ideal, green growth was shown in practice to prioritize the normative ideal of economic growth, while degrowth prioritizes environmental preservation. The analysis assessed the normative validity of the normative ideals behind green growth and degrowth and showed that environmental preservation has stronger normative validity than economic growth. Thus, the analysis showed that degrowth has a stronger normative justification than green growth and should be preferred.

By explicitly assessing the normative validity of the normative ideals behind green growth and degrowth, this article extends previous arguments for degrowth (e.g. D'Alisa et al., 2015; Jackson,

2016; Kallis, 2011; Muraca, 2013). By adding the normative dimension to the analysis, the article shows that as a normative vision for the future, green growth lacks a strong normative foundation to justify its dominant position as a solution to environmental sustainability. The analysis strengthens the argument for degrowth as it was shown to be a normatively more strongly justified vision for the future. Thus, the analysis contributes to the debate about green growth and degrowth by establishing normative grounds for focusing efforts for environmental sustainability on degrowth rather than green growth.

The analysis in this article assessed green growth and degrowth as solutions to environmental degradation. Thus, the focus was the environmental dimension of sustainability. Future research is needed to complement the analysis in this article with a consideration of the social dimension of sustainability. Degrowth explicitly states both environmental and social sustainability, specifically human well-being and social equity (Schneider et al., 2010), as goals. Future research is needed to analyze these normative ideals pertaining to social sustainability advanced by degrowth and their normative validity. In particular, the compatibility of these normative ideals with the normative ideal of environmental preservation needs further consideration (Büchs and Koch, 2017).

As degrowth is a vision for the future that is still under development and open, a number of uncertainties surround it. The analysis in this article assumed that degrowth does not compromise on its goal of reducing production and consumption levels to realize environmental preservation. However, more research is needed on how this can be achieved, particularly in conjunction with degrowth's social goals. The potential to realize degrowth's normative ideals must be continuously evaluated, and degrowth proponents must be willing to change course if their proposed solutions seem to be insufficient to reach their goals.

Despite this uncertainty, this article suggests that degrowth shows more potential than green growth as a solution to environmental degradation. Thus, efforts for environmental sustainability in practice and in academia should focus on degrowth rather than green growth, and the dominant paradigm of green growth should be questioned and degrowth initiatives given attention. This requires transformations at every level of society, from international environmental policy and economic organization to civil society and individuals' consumption habits (Jackson, 2016). The aim of this article has been to encourage future efforts for degrowth by strengthening the argument for degrowth.

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Declarations of interest

None.

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