



# Imagining education beyond growth: A post-qualitative inquiry into the educational consequences of post-growth economic thought

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Received: 27 June 2023 / Revised: 14 January 2024 / Accepted: 1 February 2024  
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## Abstract

This paper explores the possible consequences for education of a transition to a post-growth society. Utilising a post-qualitative approach to inquiry, this study begins by analysing post-growth economic literature. It then connects this literature to existing educational scholarship to explore the consequences for education of a transition to a post-growth society. The analysis reveals key features and arrangements proposed in the literature for a post-growth society. It discusses the ways in which education can prepare young people for a future beyond economic growth and speculates as to how education can contribute towards the realisation of this type of society. The paper concludes that education can help prepare students for a post-growth future by focusing on the development of ecological literacy, embracing a place-based approach to education, helping students to comprehend the need for social and economic change, introducing them to a plurality of ideas about how the future might look, developing their capacity to think critically about their future, enhancing their sense of personal autonomy and capacity for self-determination, and supporting their capacity to form strong social relationships.

**Keywords** Education · Sustainability · Post-growth · Degrowth

## Introduction

The empirical evidence indicates that the current emphasis on technological and market-based solutions to the ecological crisis is likely insufficient to avoid ecological breakdown (Haberl et al., 2020; Wiedenhofer et al., 2020). If this is the case, then any meaningful response to the ecological crisis will likely require a transition to a post-growth society (White, 2022).

This paper conducts a post-qualitative inquiry into the educational consequences of this position. It serves as an introductory platform upon which further discussion about how education might help prepare young people to move beyond the objective of economic growth can take place.

It commences by discussing some of the key literature that has already begun to imagine and describe how a post-growth society might operate. It then speculates on the contribution that education might make towards the realisation of this type of society. In so doing, it constructs an

argument that the need to transition to a post-growth society has significant implications for the practice of education in the world today.

## The steady state

In the era of classical political economy, it was common to think that societies were in either a progressive, declining, or stationary state (Boulding, 1973). The stationary state was thought to be the default condition of any society, based on a belief that in both the progressive and declining state, the rate of progress or decline would eventually diminish until it returned to zero. The progressive state was typically thought to be a blissful period, and while the stationary state was considered to be dull and hard, it was the declining state that was thought to be the most melancholic and miserable.

Mill (1909) argued that the stationary state might be preferable to the progressive state given that higher levels of social wellbeing could be realised as a result of people having more time to focus on the art of living. Mill also thought that many affluent nations would soon return to a stationary state and that this period would consist of a stable population being sustained through a more equal

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distribution of economic goods. As a result, he argued that a focus on increasing production would soon cease to be an important objective for these nations and that what would be required instead was a willingness to distribute goods and services more equally.

Mill's ideas informed much of the founding literature within the field of ecological economics, including Georgescu-Roegen's (1971) magnum opus *The Entropy Law and the Economic Process*. Therein, Georgescu-Roegen argued that the economy was subject to the second law of thermodynamics, or the law of entropy. In so doing, he noted that as the stock of low entropy natural resources on the planet is gradually consumed and degraded, humanity would eventually experience a decline in the availability of materials and energy and that this would ultimately result in a need to transition to an economy that was aligned with the available flow of solar energy.

Daly (1974, 2014), a student of Georgescu-Roegen, drew upon both his mentor's argument and Mill's to develop the idea of a steady-state economy. Daly (1974) argued that because the global economy is a subsystem of Earth, it is physically impossible for the economy to grow beyond the frontiers of the Earth system. However, Daly also noted that long before reaching this physical limit, it would be necessary to stop the economy from growing, to prevent the economic subsystem from disrupting the functioning of the larger Earth system. Daly referred to this non-growing economy as a steady-state economy. In Daly's (2014) steady-state economy the consumption of energy and materials, the size of the population, and the release of pollutants and waste back into the Earth system would be kept at steady levels, within the planet's capacity for bioregeneration. Daly (2014) argued that because economic growth is incompatible with a steady-state economy, poverty would need to be alleviated through a more just distribution of the available economic products.

Building upon these ideas, Daly and Farley (2011) set out three basic economic goals to realise in a steady-state economy: an ecologically sustainable scale, a just distribution of income and wealth, and an efficient allocation of resources. Several policies for a steady-state economy were developed based on these goals (Daly & Farley, 2011). These include limiting resource consumption in line with biophysical constraints, caps on wealth, the introduction of basic and maximum incomes, monetary reform, a suite of significant tax reforms, and the uptake of alternatives to Gross Domestic Product (GDP) as a measure of social wellbeing, such as the Index of Sustainable Economic Welfare (ISEW) (Daly & Cobb, 1994).

## Degrowth

Since the turn of the century, a growing number of authors have taken an interest in similar ideas, often under the scholarly banner of degrowth. The idea of degrowth has diverse origins, multiple interpretations, and a plurality of definitions, making it a rather difficult concept to provide a single definition for (Martínez-Alier et al., 2010). Nevertheless, in the literature on ecological economics, a commonly deployed definition of degrowth is the “equitable downscaling of production and consumption that increases human wellbeing and enhances ecological conditions at the local and global level, in the short and long term” (Schneider et al., 2010, p. 512). A more succinct definition of degrowth can be found in the *Degrowth Declaration* issued following the first international conference on the topic, in which degrowth was defined as “a voluntary transition towards a just, participatory, and ecologically sustainable society” (Research & Degrowth, 2010, p. 524).

In more general terms, the idea that degrowth encapsulates is that to avoid ecological breakdown the size of the global economy could be reduced until it returns to a sustainable level within the biophysical limits of the planet. Degrowth advocates insist that this can be achieved through a planned and equitable reduction in the global consumption of material and energy. Further, they argue that not only is it possible to meet the basic material needs of all the people of Earth in a smaller economy but that it is possible to live a good life in such an economy (Rosa & Henning, 2018). This is an idea best encapsulated by the degrowth slogan “less is more” (Hickel, 2020, p. 165).

The origins of the degrowth movement are typically traced back to a 1972 debate in France on *The Limits to Growth* (D'Alisa et al., 2015; Meadows et al., 1972; Muraca, 2013). Key participants in the debate included then President of the European Commission, Sicco Mansholt, the philosopher Herbert Marcuse, and the political ecologist André Gorz (Kallis, 2018). During this debate, Gorz (1972, p. iv, as cited in D'Alisa et al., 2015, p. 1) queried “is the earth's balance, for which no-growth – or even degrowth – of material production is a necessary condition, compatible with the survival of the capitalist system?”.

In 1977, Gorz published a book on the topic as a follow-up to the debate. He drew upon the work of Georgescu-Roegen to argue not only that endless economic growth was physically impossible, but also that the ecological demand for a zero-growth economy was incompatible with the core tenets of capitalism (Gorz, 1980). However, Gorz not only directed his critiques towards defenders of capitalism but also critiqued the many socialists who also ignored the issue of economic growth. He accused them of

being too committed to middle-class values and lifestyles and, by extension, simply promoting “the continuation of capitalism by other means” (1980, p. 14). Gorz argued that we should adopt a position of ecological realism and accept that the natural world presents certain limits to human economic activity. This position implies that the people of affluent nations need to accept the requirement to consume less, endorse values like conviviality, frugality, and autonomy, and pursue greater wellbeing through degrowth.

Gorz’s book was followed by a French translation of Georgescu-Roegen’s work in 1979 (D’Alisa et al., 2015; Muraca, 2013). Despite Georgescu-Roegen not using the term “degrowth” in his work, the translation was published under the title *Demain la Décroissance (Tomorrow Degrowth)* (Kallis, 2018; Muraca, 2013). This helped to further popularise the idea of degrowth in the late 1970s and early 1980s, particularly amongst radical French ecologists (Kallis, 2018). However, the idea of degrowth did not spread much further until the concept of sustainable development rose to prominence throughout the late 1980s and early 1990s (Kallis, 2018; Muraca, 2013).

The work of Serge Latouche (1996, 2009) was critical to this second phase of interest in degrowth. An important reason for this is that Latouche integrated the idea of degrowth with several other important ideas, including the post-colonial critique of development (Latouche, 1996; Sachs, 1992), the economics of Polanyi (2001), the philosophies of Castoriadis (1997) and Arendt (1998), and the political ecology of Gorz (1980) and Illich (1971, 1973). He combined these ideas to construct a strong critique of the sustainable development agenda. Arguing that it is little more than an oxymoronic term that simply covers up the core of the ecological dilemma rather than serving to meaningfully address it (Latouche, 2009).

Latouche (2009) argued that not only is continuous economic growth incompatible with the biophysical limits of our finite planet, but that many people in affluent nations refuse to accept this incompatibility. This is because it would require them to recognise that they already consume too much and that their mode of living is ecologically unsustainable. However, Latouche (2009) also points out that another reason people avoid acknowledging this incompatibility is that they often harbour a deep and largely justified anxiety about the risks of a sudden fall into poverty. Thinking about the ecological necessity of an economic decline forces these concerns to the forefront of their consciousness. As a result, rather than engaging with the difficult implications of the ecological crisis, they simply avoid the discomfort, and carry on living and enjoying their comfortable lifestyles, preferring not to entertain the idea that it is either excessive or unsustainable.

Latouche (1996, 2009) also helped bring attention to the injustice of the fact that people in countries from the Global South are both least responsible for, and most vulnerable to the consequences of ecological crises. Further, he began to advance the idea in European scholarship that degrowth in the Global North is a necessary step to address this dismal state of affairs, and that this process would help to create space for members of the Global South to construct their own trajectories for a world beyond growth (Latouche, 2009; D’Alisa et al., 2015; Gräbner-Radkowitz & Strunk, 2023).

By the early 2000s, such ideas had become popular amongst French green activists and the term degrowth increasingly came to be used as a slogan at various protests (Demaria et al., 2013). Reinvigorated by this usage, degrowth ideas were increasingly discussed at conferences and in magazines, and this helped to spread degrowth ideas to other southern European nations (Demaria et al., 2013). Importantly, rather than replacing its more academic origins, the degrowth movement incorporated both its academic and activist usages, resulting in a dual status as both a scientific concept and a slogan for a social movement (Petridis et al., 2015).

This duality is perhaps best exemplified by researcher-activist François Schneider; he received widespread media attention in France in 2004 for spreading degrowth ideas during a yearlong walking tour of the French countryside while accompanied by a donkey (Demaria et al., 2013). A few years later, Schneider also played a key role in the formation of the academic collective “Research & Degrowth” (Demaria et al., 2013). With support from the International Society for Ecological Economics, Research & Degrowth went on to organise the first international conference on degrowth in Paris, in 2008 (Demaria et al., 2013; Research & Degrowth, 2010; Schneider et al., 2010).

This conference played a critical role in bringing the concept of degrowth to English-speaking academia (Schneider et al., 2010). It also helped fuel a renewal of academic interest in the debate about *The Limits to Growth* (Meadows et al., 1972), and many other “radical” green ideas from the 1970s-80s. In the time since that conference, the volume of academic literature discussing the idea of degrowth steadily increased, with a growing number of special issues, books and academic conferences being dedicated to the topic (Hanaček et al., 2020; Weiss & Cattaneo, 2017). Reflecting its rising popularity, degrowth ideas are increasingly appearing in popular culture and even beginning to be discussed in reports issued by the Intergovernmental Panel on Climate Change (IPCC) (Cosme et al., 2017; Meissner, 2021; Sekulova et al., 2013).

## Post-growth

The term “post-growth” is sometimes also found in the literature on ecological economics (Paech, 2017, p. 477). However, it is often used quite imprecisely. For example, it is sometimes used simply as an alternative signifier for degrowth. While on other occasions it functions as more of an umbrella concept and is used to refer to a wider range of related, but distinct, literature that explores the idea of a non-growing economy, whether that be for social, ecological, or economic reasons. In this paper, the latter meaning is what the term post-growth refers to.

However, the term post-growth is sometimes also used more specifically, such as when it is used to refer to a new sub-field of ecological macroeconomics that explores how economies might operate without growth (Paech, 2017). This emerging field is important because it explores, from a macroeconomic perspective, how a post-growth society might not only “manage without growth” (Victor, 2008, p.2), but possibly even prosper (T. Jackson, 2009, 2017). To distinguish between these different usages of the term post-growth, I will use the term *post-growth macroeconomics* when referring to this specific field of scholarship. I provide an overview of this field in the following paragraphs.

A key argument that is put forward in resistance to the idea of moving to a post-growth economy is that economic growth is critical to the creation and maintenance of jobs. This argument is typically made on the basis that the long-term systemic economic trend is towards higher productivity (Jackson & Victor, 2011). This means that, over time, less labour is typically required to produce the same amount of goods and services, as a consequence of phenomena like the adoption of new technologies or increases in the volume of human capital (Jackson & Victor, 2011). This dynamic meant that in the early decades of the 20th-century productivity gains not only resulted in an increase in wages and consumption but also a reduction in the number of hours people worked each week (Nørgård, 2013). It is also what caused John Maynard Keynes to famously predict in 1930 that within one hundred years our economies would become so productive that they would easily meet the material needs of all people. Keynes (2008) also predicted that what work was still to be done would need to be fairly shared between everyone, resulting in a fifteen-hour work week becoming the norm and more leisure time being available to everyone.

However, although this level of productivity has long since been surpassed, Keynes’s predictions have not yet come to pass (Hickel, 2019). The reason for this is that instead of translating productivity gains into shorter working hours and more leisure time, the desire for more profits

has meant that the political and economic focus since the Great Depression has been on keeping working hours constant, and productivity gains have instead been used to produce more goods and services (Hickel, 2019; Kallis, 2018; Nørgård, 2013). To support the need for a bigger consumer market for these additional goods and services, there was a similar political and economic focus on the promotion of consumerism (Nørgård, 2013). This was achieved by such mechanisms as the expansion of the marketing and advertising industries, the commercialisation of leisure time, the facilitation of cheap and easy access to credit, and by industrial design choices like planned obsolescence (Nørgård, 2013). The result of this dynamic was entry into a cycle of ever-increasing production and consumption (Nørgård, 2013).

Arguably, this cycle has successfully managed the systemic trend towards unemployment (T. Jackson, 2009). As post-growth macroeconomist Victor (2008, p. 13) notes:

The shortage of employment has become more important than the shortage of products. Whereas in the past we needed to have more people at work because we needed the goods and services they produce, now we have to keep increasing production simply to keep people employed.

The relevance of this issue is that if it is ecologically necessary to move beyond the cycle of ever-increasing production and consumption, then economic growth is no longer a viable strategy to address unemployment. Consequently, one of the key topics that post-growth macroeconomics engages with is the issue of unemployment in a post-growth economy.

I consider this a critical topic to address, given that in many places throughout the world, jobs are the main way in which people earn an income, and that income allows them to access food, clothing, shelter, healthcare, amongst a variety of other critical goods and services. Indeed, one of the key reasons as to why education is so highly valued in the contemporary social imaginary is because it is thought to be the surest path to a good job with a favourable income. The literature on post-growth macroeconomics helps us to understand the issue of unemployment in the context of a transition to a post-growth economy.

A notable entry on this topic is the work of Victor (2008). In the months before the Global Financial Crisis (GFC), Victor (2008, p. 2) queried whether or not it was possible for a country like Canada to “manage without growth?”. By constructing and analysing multiple economic models, he demonstrated that not only could the Canadian economy manage without growth, but that catastrophic rates of unemployment could be avoided in a post-growth economy by reducing the average number of hours worked by each person, and by sharing the available work more equally across the



workforce (Victor, 2008). In addition, Victor (2008) found that this could be done while halving the rate of poverty, significantly reducing the debt-to-GDP ratio, and reducing the amount of greenhouse gas (GHG) emissions in the process.

Drawing upon Victor's work, T. Jackson published a report to the British Government in March 2009 titled *Prosperity without growth?* T. Jackson (2009) questioned whether economic growth was still a legitimate pathway to realising prosperity in affluent nations given the challenges presented by the ecological crisis, rising economic inequality, and the GFC. He concluded that this was not the case, in either financial, social or ecological terms (T. Jackson, 2009). Consequently, he explored the question that if economic growth was no longer a viable pathway to prosperity, then “is it possible to achieve prosperity without growth?” (T. Jackson, 2009, p. 6). He argued that although the satisfaction of basic material needs is fundamental to any sense of prosperity, it is also true that prosperity:

transcends material concerns. It resides in the quality of our lives and in the health and happiness of our families. It is present in the strength of our relationships and our trust in the community. It is evidenced by our satisfaction at work and our sense of shared meaning and purpose. It hangs on our potential to participate fully in the life of society. Prosperity consists in our ability to flourish as human beings – within the ecological limits of a finite planet. (T. Jackson, 2009, p. 102)

Building upon this position, T. Jackson (2009) argued that if we accept this richer understanding of prosperity, then it is certainly possible to achieve prosperity without growth. It is towards this richer form of prosperity that T. Jackson (2017) argues a post-growth economy could be orientated around. He subsequently proposed 12 steps, each accompanied by specific policy proposals, to guide the transition towards such an economy, including, but not limited to, investing in jobs, assets, and infrastructures, sharing the work and improving work-life balance, tackling systemic inequality, strengthening human and social capital, reversing the culture of consumerism, and imposing clearly defined resource and emissions caps (T. Jackson, 2009).

## A post qualitative inquiry

This paper undertakes a post-qualitative inquiry into the educational implications of these post-growth ideas. According to Elizabeth St. Pierre (2011), a post-qualitative inquiry is not a specific methodology. Indeed, it “is not a methodology at all”, because it offers “no pre-existing research designs, methods, processes, procedures, or practices” that tell you exactly how to conduct a research project step-by-step

(St. Pierre, 2020b, p. 1). Instead a post-qualitative inquiry is perhaps best thought of as a form of “thinking without method” that is relieved of the conventional dependency on a procedural method (A.Y. Jackson, 2017). This approach is increasingly recognised as crucial in addressing the complex and interconnected issues of our time, including the ecological crisis (Gough & Gough, 2022; Mazzei, 2020).

One of the primary reasons for this is that conventional methodologies and conceptual frameworks routinely discourage research that challenges the lucrative and established understanding as to what constitutes acceptable and high-quality research practice. This incentivises research that repeats conventional research methodologies and conceptual frameworks to explore a narrow range of similar research questions, such as how this or that educational practice can be made more efficient or effective (St. Pierre, 2011, 2020a).

These features are a consequence of what Kuhn (1996) calls the dogma of normal science. A dogma that limits our shared potential to understand any phenomena we wish to explore (St. Pierre, 2011, 2020a). The ecological crisis, for instance, necessitates an interdisciplinary approach that incorporates insights from various fields such as ecology, geochemistry, engineering, economics, as well as political, psychological, and educational fields. To transcend the various dogmas that operate within these research disciplines and move beyond reproducing the status quo, it is important to practice research that has the potential to elaborate new possibilities (St. Pierre, 2020b).

A post-qualitative approach offers a way to do this by creating an enabling research framework that encourages open-ended experimentation and exploration. However, it is important to emphasise that a post-qualitative inquiry is not a method that can be strictly applied. There is no tidy method to be unproblematically followed as a script for producing new knowledge (Lather, 2013). Simply put, “there is no recipe, no process” in a post-qualitative inquiry (St. Pierre, 2017, p.604). Rather, a post-qualitative inquiry must be created differently each time (St. Pierre, 2019b).

In this instance, I conducted a post-qualitative inquiry into this research topic by reading, and writing, and thinking about the literature that has already begun to imagine and describe how a post-growth society might operate (White & Wolfe, 2022). Gradually, as I read, and wrote, and thought about the research topic, the literature and concepts overtook me and slowly began to stimulate my thinking (St. Pierre, 2016). All of this reading, thinking, and writing about the scholarly literature led me to read, write, and think about something else, and I simply kept reading, writing, and thinking about the next thing that made sense to me (Gutorm et al., 2015; St. Pierre, 2019a).

This process allowed me to identify several contributions that a post-growth approach to educational policy and

practice could be orientated towards. In the following section of this paper I present the results of this experimental cycle of reading, writing, and thinking about how a post-growth vision of a sustainable future might impact the design of educational policy and practice today.

It is by conducting research in this way, from a place outside of methodology, that this study is able to create new lenses of thought, and synthesise different and distinct forms of disciplinary knowledge (A. Y. Jackson, 2017). It is for these reasons that a post-qualitative inquiry into my research questions is not only justified but absolutely necessary to meaningfully and ethically engage with the research topic.

## A pedagogy for degrowth

In the section that follows, I explore the role that education may have to play in the transition to a world beyond growth. To commence, it should be noted that it is widely hypothesised in the degrowth literature that the realisation of a post-growth society depends upon a radical change in our social imaginaries (Castoriadis, 1997; Latouche, 2018; Stoddard et al., 2021). For example, Latouche (2009, 2015, 2018) argues that the social imaginaries of affluent nations are colonised by the ideology of growth and that a type of decolonisation is required to address this issue. Similarly, Castoriadis (1996, p.96, as cited in Latouche, 2018) suggests that it will be necessary to realise:

a society where economic values are no longer central (or unique), where economy is relegated to its place as a simple means to human life rather than an ultimate end, where we refuse the race to constantly increased consumption. This is not only necessary to avoid the final destruction of the terrestrial environment, but also and most importantly to escape the psychic and moral misery of contemporary humans.

In other words, the realisation of a post-growth society is thought to depend upon the realisation of cultural change. The result of this would be new life objectives, other than the expansion of production and consumption, being embraced as meaningful and valuable pursuits (Latouche, 2018; Stoddard et al., 2021). Education will surely be critical to realising this objective (White & Wolfe, 2022).

In the paragraphs that follow, I elaborate the contributions that education might make to this goal by connecting the key tenets of post-growth economic thought, which I outlined above, to a number of well-established fields within educational scholarship, such as Environmental Education (Palmer, 1998), Education for Sustainable Development (Kopnina, 2012), Education for Sustainability (Gough, 2006), and Climate Change Education (Selby & Kagawa,

2010). The purpose of this synthesis is to integrate post-growth economic thought with the volumes of research within educational scholarship that already engages with similar concerns.

The first contribution that I argue education can make to help prepare young people for a post-growth future is to focus on developing their ecological literacy (Capra, 1996; Orr, 1992; Stone & Barlow, 2005). The young people of a post-growth society will require a sound intellectual understanding of the dynamics driving the ecological crisis. As a result, higher levels of ecological literacy would help them to understand how every living organism in an ecosystem is interconnected with many others, and that the wellbeing of the whole ecological community is dependent upon the behaviour and relationships between its members (Capra, 1996; Naess, 1989). This more academic understanding of ecology could be supported by a similar focus on immersing students in natural environments and encouraging a love of nature, or biophilia, through positive experiences in authentic outdoor environments (Cho & Lee, 2017; Kaufmann et al., 2019; Orr, 1992). For example, students could be given the chance to observe and document the different flora and fauna that live along local waterways; be introduced to the importance of soil, sunlight, and water by learning to care for plants in the school garden; or taught about the history of the land by studying the practices of its traditional custodians and indigenous people. Such encounters make it more likely for students to develop an ecological consciousness that will help them to grow into responsible citizens that see nature as something of value, for reasons beyond its economic value, and in turn as something worthy of protection (Håkansson & Östman, 2018; Stone & Barlow, 2005; Uhl, 2004).

However, a post-growth approach to education should not simply be about adding new topics and activities to the school curriculum. Rather it should also be about equipping students with the knowledge and skills to connect with, understand, live well in, sustain, and regenerate, the places in which they live (Jickling & Sterling, 2017).

Accordingly, the second feature of post-growth education would be embracing land and place-based education (Bowers, 2002; Gruenewald & Smith, 2008; Tuck et al., 2014). Sobel (2004, p. 7) defines place-based education as:

The process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum. Emphasizing hands-on, real world learning experiences, this approach to education increases academic achievement, helps students develop stronger ties to their community, enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contrib-

uting citizens. Community vitality and environmental quality are improved through the active engagement of local citizens, community organizations, and environmental resources in the life of the school.

Smith (2002) notes that place-based education takes place in a variety of ways because it adapts to the characteristics of the communities in which it occurs, and this makes generic curriculum models for place-based education inappropriate. However, some common elements can still be found across different place-based approaches (Smith, 2002):

- Local settings are typically used as a base for the curriculum and lead the exploration of more distant and abstract forms of knowledge.
- There is an emphasis on learning experiences in which students become knowledge creators rather than simply knowledge consumers.
- Student concerns and questions play an important role in determining what is studied.
- Teachers act as experienced guides and facilitators of community resources rather than sources of stored knowledge.
- The separation between the school and the community is reduced and crossed repeatedly.

Somerville and Green (2015) explain how some schools already practice variations of place-based education by integrating into the curriculum the history of local industries, the condition of local ecosystems, and the relationship between indigenous people and the land. Examples of a local approach to place-based education could involve students studying the impact of European settlement on Indigenous people and their land, or learning about climate change by exploring the CO<sub>2</sub> emission levels of local industries. This approach to education is significantly different to the generic and decontextualised approach that is often encouraged by many education systems in world today. Instead, global economic priorities are used to determine the knowledge and skills that everyone, everywhere, should learn about today (Gruenewald, 2003). Consequently, the call for place-based education is ambitious because it aims for nothing less than a return to a plurality of locally-constructed visions of education, in which the significance of economic priorities in those visions would be democratically determined by the local community (Gruenewald, 2003).

The third contribution that I argue education can make to support young people in the transition to a post-growth society is to support them to understand the need for social and economic change. This could be achieved by supporting the dissemination of accurate information about how the global economic system operates, the fundamental limitations of this system, and the benefits and harms that result from the

way it currently operates. This is a particularly important contribution because without high levels of public understanding as to why a transition to a post-growth society is needed, it is difficult to imagine how such a transition might obtain the necessary level of democratic support.

In practice, this could involve students investigating how our global economic system, and the affluent lifestyles it supports, are unsustainable and exploring the different factors that need to be engaged with if we are to make them more sustainable (Getzin, 2019; Prádanos, 2015). It could involve the collection, analysis, and discussion of data on school energy consumption, research projects on the size of global reserves of rare metals, or activities involving the conceptual or practical redesign of familiar products to make them more sustainable and consistent with the principles of circularity (Kirchherr & Piscicelli, 2019; Kopnina, 2019). The ResourceSmart Schools program provides several concrete examples of how this could be achieved in some local schools (Rickinson et al., 2015). These initiatives would help students become more aware of, and understand the need for, a transition to a post-growth society.

The fourth contribution that education could make is to enhance the capacity of students to explore, imagine, and enact alternative, plausible, and desirable futures about a world without economic growth (Stoddard et al., 2021). One thing that can be done in this regard is to support students to understand, explore, and imagine different visions of the future. This would help address the poverty of our contemporary social imaginaries (Castoriadis, 1997; Latouche, 2018; Stoddard et al., 2021). In practice, it might involve philosophical inquiries into questions such as “What is enough?”, “What is too much?” and “What is a good life?”. It could also consist of reading about a range of thoughts on these topics, including the “growth is good” narrative that dominates affluent nations today, the “more is less” narrative of the voluntary simplicity movement, and engaging with Indigenous knowledges about living well on the local land (Gudynas, 2015; Jones, 2021; Prádanos, 2015).

This area could also involve investigations into the differences between commonly proposed climate policies, like carbon capture and storage, or the replacement of internal combustion engines with electrical vehicles, with commonly proposed post-growth policies, such as reducing energy consumption and the promotion of alternative modes of transport like walking, cycling, and catching public transport (Kaufmann et al., 2019). These investigations could be further enhanced by offering students experiences of places and encounters with people that practise different modes of living.

A fifth contribution that education can make to this transition is to support students to think critically about what might happen in the future. This might include enhancing their capacity to recognise that ideas like sustainable

development, green growth, and post-growth are ultimately just different narratives that people tell each other about what might happen in the future. Education can help people to understand that because the future is indeterminate it is necessary to constantly rethink these narratives, to reflect upon what is happening in the world, and how their lived experiences do, or do not, align with different stories that they have been told about the future.

In practice, this might involve students critically analysing different historical and contemporary narratives and exploring the extent to which they reflect their own experiences. They might also engage in discussions about whether or not different literature normalises and promotes unsustainable behaviours, such as luxury consumerism, a culture of disposability, wasteful energy use, or excessive accumulation (Jones, 2021; Prádanos, 2015).

A sixth contribution that education could make is to elevate the role of students' voices in school decision-making (Prádanos, 2015). This would involve students having a greater say in the nature of, and time spent on, different aspects of their education (Pearce & Wood, 2016). The rationale behind this idea is that what is critical to students' wellbeing is their self-discovery of what is relevant and meaningful to themselves (Perkins, 2014; Quaglia & Corso, 2014). Accordingly, incorporating students' voices would assist them to discover, engage, explore, discuss, and experiment with topics, experiences, and problems that they deem to be of value and to find and articulate their own life aspirations (Prádanos, 2015). For example, by giving students' voices a greater role in decisions about the curriculum and instructional methods, they can come to understand the meaning and value behind ideals like autonomy, self-determination, and democratic participation (Cook-Sather, 2020; Pearce & Wood, 2016). A greater emphasis on students' voices has also been shown to alleviate the growing behavioural and stress-related issues in contemporary schooling by making education more engaging, motivating, and crucially more meaningful to students (Quaglia & Corso, 2014).

The seventh contribution is to place a greater emphasis on the fostering of strong relationships (Jones, 2021; Kaufmann et al., 2019). This might involve greater engagement with the literature on the ethic of care (Noddings, 1992, 2002). This approach is committed to enhancing students' motivations and capacities to care for both other people and the environment (Fien, 1997, 2003; Martin, 2007; Quigley & Lyons, 2017). It would not only support the general wellbeing of students but also enhance the quality of their interpersonal relationships, improve school culture, and contribute towards a stronger sense of school community (Owens & Ennis, 2005).

In practice, this might involve a greater priority on cooperative learning experiences and less of an emphasis on competitive learning experiences (Sahlberg, 2006). It might

consist of more opportunities for social interaction at school, a greater emphasis on play-based learning, and a willingness to engage in shared projects with local volunteer and community groups, such as the local historical society, fire brigade, or community garden group. It could also involve a stronger emphasis on moral and character education, with an emphasis on developing positive character traits like honesty, patience, gratitude, and humility (Noddings, 1992, 2002; Nucci et al., 2014).

## Conclusion

In this paper, I explored different ideas about how economies might operate in a world beyond growth. I discussed ideas about steady state, degrowth, and post-growth macroeconomics. This literature informed the elaboration of seven key contributions that I argued education could make to help prepare young people for a post-growth society.

I concluded that a post-growth approach to education could help prepare students for a post-growth future by focusing on the development of their ecological literacy, embracing a place-based approach to education, helping students to comprehend the need for social and economic change, introducing them to a plurality of ideas about how the future might look, developing their capacity to think critically about their future, enhancing their sense of personal autonomy and capacity for self-determination, and supporting their capacity to form strong social relationships.

I argue that by focusing on these seven contributions, a post-growth approach to education can make a meaningful contribution towards a transformation of the social imaginary, the realisation of a sustainable future, and a world that is beyond growth.

**Funding** Open Access funding enabled and organized by CAUL and its Member Institutions

**Data Availability** Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

## Declarations

**Competing interests** The author has no competing interests to declare that are relevant to the content of this article.

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