Contents lists available at ScienceDirect

## Futures

journal homepage: www.elsevier.com/locate/futures

# Public acceptance of post-growth: Factors and implications for post-growth strategy

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#### ARTICLE INFO

Keywords: Post-growth Acceptance Values Socio-economic characteristics Equality European Values Study

### ABSTRACT

Growing evidence supports the need to re-evaluate the nature and function of our economies in favour of post-growth principles if we are to have a socially and environmentally viable future. This study contributes to the discussion on how to achieve such a future by addressing a remaining gap in the literature about the public acceptance of post-growth, since a viable transition requires public support to validate political actions. Taking a mixed-methods approach, we ask which values and socio-economic characteristics are associated with support for post-growth and why. On average among 34 European countries, 60.5 % of people are in favour of post-growth. Values such as environmentalism, collectivism and post-materialism were found to support post-growth visions of the future, but support for post-growth and these values is lower among disadvantaged people. We conclude that greater emphasis on redistribution and improving opportunities and livelihoods for disadvantaged people in a post-growth economy is key to making such a future more acceptable to them. However, this conflicts with policy preferences and values such as hierarchy, meritocracy, and individualism that tend to be more prominent among people who are well-off.

## 1. Introduction

Internationally, greenhouse gas emissions are rising and, in 2030, are expected to reach twice the recommended target that would be needed to align with a trajectory for 1.5 °C of warming (UN, 2020). The pursuit of economic growth, which drives high energy, high consumption lifestyles, has been attributed to rising emissions (Haberl et al., 2020). The political prioritisation of economic growth has also been associated with exploitative economic systems which drive increasing social inequality and associated social problems (Hickel, 2021). Gross Domestic Product (GDP), which is the most commonly used measure of economic growth, has been criticised as a poor indicator of economic, social and environmental performance as it does not reflect the environmental and social damage that economic growth can generate. Deprioritising GDP growth as a political goal and instead prioritising improvements in social wellbeing within planetary boundaries, measured by a much broader range of social and environmental indicators, is therefore now advocated by an increasing number of scholars and organisations (Raworth, 2017; Trebeck & Williams, 2019).

Despite these concerns about the prioritisation of economic growth, a growth-oriented and growth-dependent future continues to be promoted internationally. The environmental viability of such a future relies on the feasibility of decoupling emissions from economic growth through technological innovation. However, recent research shows that it is highly unlikely at the global level that emissions can be decoupled from economic growth to the extent required to avoid an environmental and subsequent socio-economic

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https://doi.org/10.1016/j.futures.2022.103020

Received 31 December 2020; Received in revised form 25 July 2022; Accepted 4 August 2022

Available online 10 August 2022







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catastrophe (Haberl et al., 2020; Hickel & Kallis, 2020). To decouple emissions from economic growth, absolute decoupling needs to be achieved where global emissions are falling while GDP is rising. However, absolute decoupling has only been achieved in a small number of countries in a period that included low growth rates due to the 2007/8 global financial crisis (Le Quéré et al., 2019). Furthermore, the rates of emission reduction that have occurred in these countries are not sufficient for meeting reduction targets compatible with limiting global warming to 1.5 °C. Globally, emissions have kept increasing until the COVID-19 pandemic, and they have rebounded since the pandemic to reach their highest ever level in 2021 (IEA, 2022). As well as climate change threats, social and economic tensions continue to negatively impact the wellbeing of society, exacerbated by the COVID-19 crisis. The benefits to political stability, prosperity and equality heralded by economic growth no longer hold as they once did (Cassiers et al., 2018). Therefore, profound social change will need to coincide with technological innovation to reduce the strain on natural resources and reduce inequalities. As a result, alternative, post-growth futures are gaining increasing attention and support.

Post-growth futures are united under the broad vision of an economy and society where the pursuit of economic growth is deprioritised in favour of social and environmental wellbeing. Wellbeing economics, doughnut economics, steady-state economics and degrowth are all forms of post-growth futures. These differ from one another primarily in their strategy for change. Degrowth is considered the most 'radical' of the alternatives (Khmara & Kronenberg, 2020) as it foregrounds the need to reconfigure the existing, capitalist, socio-economic structures and institutions of society (Parrique, 2019, p.476) and emphasises the need for developed economies to initiate a phase of shrinking material throughput to reach a sustainable steady-state. However, alongside a shift away from prioritising economic growth towards a greater focus on needs satisfaction and other social objectives while keeping material throughput within planetary boundaries (Raworth, 2017; Steffen et al., 2015), post-growth futures generally agree on a number of changes. These include: redistribution of wealth and incomes; cooperative and sharing economies, including community-building initiatives like repair shops; localising the economy; and stronger participatory democracy (Cassiers et al., 2018; Jackson, 2009; Jarvis, 2019; Kallis, 2018). While these changes are likely to require strong state intervention to provide financial and structural support, as argued by many post-growth scholars (Cosme et al., 2017), many post-growth practitioners envision action and decision-making to take place at a more localised level (Mocca, 2020). Some proposed changes, such as a localised economy or community building, are not too contrary to the present reality in European countries. Others, however, such as reducing the total material throughput of an economy, prioritising social wellbeing, redistribution and staying within planetary boundaries are in direct opposition to principles promoted in neoliberal, capitalist societies and will require national or international level intervention. Dominant values such as environmental mastery, market freedom, individualism and seeing inequality as necessary to drive ambition and innovation are embedded in current policies, institutions and the media (Kasser et al., 2007; Manfredo et al., 2016). Therefore, gaining support for a post-growth vision for society is a significant challenge as it will require a radical transformation in cultural values and social practices (Büchs & Koch, 2019). Knowing which factors influence support for and opposition to post-growth futures is a key step in tailoring an appropriate strategy for change. Values influence how policies are interpreted and understood (Manfredo et al., 2016), so they are an important lens through which to understand acceptance of different visions of the future.

The focus on acceptance is important since political action rests on public acceptance (Ejelov & Nilsson, 2020), particularly if it involves intervening in the lives of citizens to reduce unsustainable but popular behaviours (Hausknost et al., 2018). As Hammond (2020) notes, "what avenues of social change are seen as viable and worthwhile new directions for society affects which are embarked upon, whether collectively or individually" (p.174). Therefore, identifying the barriers to acceptance is important in order to address them and enable wider political action. In particular, understanding which strategies that support a shift towards post-growth are acceptable now, and to whom, and which present a greater challenge is a critical question for realising a post-growth future. Prior research, explored in Sections 2 and 3, into the acceptance of environmental policies has highlighted the influential role of socio-cultural values and socio-economic factors for support or opposition. However, post-growth differs from environmentalism in a few critical ways that warrants its own exploration: it emphasises social justice, redistribution, political participation and quality of life, alongside environmental protection (Krueger et al., 2018, p.579). Given this breadth, different socio-economic groups are likely to support different aspects of a post-growth transformation compared to traditional environmental policies. Recognising the interaction between values and socio-economic characteristics may also highlight tensions and trade-offs between groups which will have implications for policy and the strategy for change employed in countries in the global north.

To address these gaps, this paper considers the following two questions and reflects on the policy implications of the findings. (1) Which socio-cultural values currently align and conflict with a post-growth future? (2) Which socio-economic factors encourage and discourage support for post-growth? In doing so, this paper contributes to a more complete understanding of the viability of a transition and what needs to happen before wider acceptance of post-growth is achieved. The research analyses survey data from 34 European countries and qualitative interview data from the UK to reflect the disproportionate responsibility rich countries in the global north bear for a downward shift in consumption and emissions (Weidmann et al., 2020). While acknowledging the heterogeneity of values between European countries, policy approaches in relation to economic growth are similar due to the shared economic principles that guide these countries. As such, the focus on socio-cultural values reflects the fact that these are embedded in and inform policy.

## 2. Socio-cultural values

Socio-cultural values reflect ideas about the goals to strive for at both an individual and collective level and are "deeply embedded in society's material culture, collective behaviours, traditions, and institutions" (Manfredo et al., 2016, p.772). Values influence how we relate to one another and to the world and influence how policy implications are received and understood (Manfredo et al., 2016). Therefore, understanding values contributes to a better understanding of what policy interventions might be seen as desirable or

possible and why. The interaction between growth-oriented values and post-growth values is outlined below, followed by a review of the existing research.

Socio-cultural values can be categorised into three axes: mastery versus harmony in terms of the relationship between humans and nature; hierarchy versus egalitarianism with regard to social organisation; and autonomy versus embeddedness in terms of the relationship between individuals and groups (Manfredo et al., 2016, p.774). Neoliberal, capitalist countries typically prioritise hierarchy and autonomy in social relationships and take a mastery approach to nature (Kasser et al., 2007; Manfredo et al., 2016). These priorities stand in opposition to the post-growth values of harmony, egalitarianism and embeddedness, so reference to values of mastery, hierarchy and autonomy is likely to have negative implications for the acceptance of a post-growth future. However, some evidence suggests that, on average, people in European countries are more likely to hold egalitarian and harmony values than people in the United States (Vignoles et al., 2018), which may have a positive impact on acceptance in Europe. These three axes alone do not encompass the scope required for a post-growth future though. Values of sufficiency, social justice, participative democracy and decentring both profit seeking and material consumption are also important. Table 1 displays the oppositional values between the status-quo of neoliberal capitalism and post-growth, that we compiled from a review of values mentioned in the post-growth literature (e.g. Berg & Hukkinen, 2011; Büchs & Koch, 2019; Cassiers et al., 2018; Eskelinen & Wilén, 2019; Graefe, 2018; Jackson, 2009; Longhurst et al., 2016; Parrique, 2019; Paulson, 2017; Raworth, 2017; Schneider, 2018).

Table 1 illustrates value archetypes which are a useful frame to demonstrate the scale of the socio-cultural shift required. In reality, however, companies, organisations, governments and individuals already operate in the space between the two. Where the public falls on these axes will vary across countries as cultural values reflect "adaptations to [a country's] unique ecological, historical, economic, political, and demographic experience" (Sortheix & Schwartz, 2017, p.191). Nonetheless, some similarities are expected across European countries given the neoliberal, capitalist orientation of politics and institutions that they share. Determining which post-growth values are seen as desirable and achievable and which conflict with existing values is a necessary addition to the understanding of how to deliver a post-growth future. Values like sufficiency, for example, might be dismissed by some people as "eco-fascism" seeking to limit freedoms and personal achievement or success (Paulson, 2017, p.440). In response, counter-narratives challenging this perception could be disseminated through a participative, deliberative process, which can be effective in increasing understanding and openness to changing views (Ghimire et al., 2021; Willis, 2020). Framing is also important, as Ahvenharju (2020) found that policies that aim to limit consumption, like quotas, were accepted by those who saw them as market mechanisms that enabled choice and freedom rather than as restrictions. So, understanding the justifications given for support could indicate which narratives and what information is needed to increase the acceptance of post-growth futures.

Understanding the interaction between values and whether a particular value can be linked to support for one or more aspects of a post-growth future is also important. Post-materialism, for example, has been found to correlate with support for post-growth (Gugushvili, 2021). Another study found environmental concern was high among individuals expressing degrowth-oriented views, which is to be expected given the opposition between the environment and economic growth in the survey statements. But those who disagreed with the benefits of or need for economic growth also supported redistribution by governments, had higher levels of social trust, and were more willing to make financial or material sacrifices for the environment (Ancic & Domazet, 2015, p.470). Higher levels of social trust increased willingness to make personal sacrifices (ibid., p.466). Some evidence suggests that this could be because collectivist values replace mainstream individualism within communities with high levels of trust as residents believe that each will "defend the shared interests for the 'common good'" (Jones & Clark, 2014, p.134). So, collectivism may be important for post-growth acceptance, particularly restrictive policies. Indeed, studies have found that those with strong egoistic values, which prioritise status, self-interest, authority and wealth accumulation, are less likely to support environmental policies (Ejelov & Nilsson, 2020, p.3; Harring et al., 2017). Environmentalism alone, then, may be insufficient for policy support and policies aimed at community- and trust-building may be an important avenue for encouraging new values.

## 3. Socio-economic factors

Understanding the relationship between socio-economic characteristics and support for post-growth futures and associated values adds nuance to the discussion of viable strategies for a transition. A recent study found that post-growth support is higher among people who are well situated and politically left leaning (Gugushvili, 2021), aligning with prior research on the role of socio-economic factors for the acceptance of environmental policies (Ejelov & Nilsson, 2020). However, the redistributive and social justice aspects of post-growth may conflict with the values held by higher earners who would otherwise support environmental action. For example, higher earners and people with high education tend to have higher emission footprints than their counterparts (Ivanova & Wood,

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Oppositional	archetypes	of socio-cultura	i values.

Relates to:	Neoliberal Capitalist Values	Post-Growth Values
Social relationship	Individualism	Collectivism
Human-nature relationship	Mastery	Harmony
Power	Hierarchical	Distributed and Participative
Economic goal	Growth	Sufficiency
Wellbeing	Materialism	Eudaemonic; Needs Satisfaction
Inequality	Meritocratic	Social Justice

2020), so they may oppose policies that limit their consumption (while they may support measures that merely improve energy efficiency as these allow the continuation of high energy use). Supporting this hypothesis, Carattini et al. (2017) find that redistributive carbon pricing policies, often cited in degrowth literature, are more popular among low-income than high-income households. People with lower educational attainment have also been found to be more supportive of social welfare policies while opposing climate policies (Fritz & Koch, 2019, p.11). In a separate study however, support for the statement that economic growth always harms the environment increased with educational attainment (Ancic & Domazet, 2015) and Gugushvili (2021) finds that high education is associated with support for post-growth. While these studies suggest that low-income and low-education individuals may, therefore, be more in favour of the redistributive aspects of post-growth or more responsive to social justice framings of environmental policies, it also indicates that education is important for improving people's understanding of the close relationship between environmental and social challenges.

Tying these socio-economic variations to value preferences is important because which values are given priority has the potential to exclude some needs over others. In particular, the emphasis on wellbeing in the post-growth field has different implications depending on socio-economic status, as the negative impact of reductions in material living standards is greater on low-income households than high-income households (O'Neill, 2018). This is a particularly important consideration in light of the COVID-19 and current cost of living crisis. With concerns about jobs, welfare, and economic stability at the forefront of people's minds, care must be taken to emphasise the potential for improved wellbeing from post-growth policies to counter fears of negative economic impacts. While eudaemonic wellbeing and basic needs satisfaction would be focused on during a transition towards post-growth, it should not be assumed that these priorities would be desirable to the majority. If they do not align with personal definitions of wellbeing then this is likely to negatively impact acceptance. Therefore, understanding these interactions is important from a social justice and fairness perspective too.

## 4. Method

## 4.1. Study design

A mixed methods design was used to determine which values and socio-economic factors influence the public acceptance of postgrowth. A convergence approach was taken (Fielding, 2012; Schoonenboom & Johnson, 2017, p.117): the quantitative and qualitative data were collected and analysed separately, then the results compared to see how each data set supported or contradicted the other. This approach is consistent with a critical realist research paradigm which assumes that qualitative and quantitative data analysis can complement each other, studying a phenomenon from different perspectives, here coupling contextual understanding from the interviews with examining relationships among variables from the representative survey (Schoonenboom & Johnson, 2017, p.111; Shannon-Baker, 2015). The quantitative analysis of 34 European countries from the 2017 European Values Study (EVS) allows an analysis of factors which are associated with support for a deprioritisation of economic growth for environmental protection at the international level, supporting the wider applicability of subsequent strategic implications. The qualitative, semi-structured interviews, on the other hand, provide an in-depth exploration of the justifications for supporting or rejecting the different dimensions of a post-growth future. Additionally, while the quantitative analysis considers the relationship between values and socio-economic characteristics on the one hand and support for post-growth on the other, the qualitative analysis provides a more detailed understanding of what values mean in practice for a post-growth future. The qualitative interviews were conducted in Great Britain (GB) during June 2020, therefore are more specific to the values and priorities of GB. As a result, the findings from the qualitative data are not generalisable across Europe but still point to relevant underlying barriers to increasing support for post-growth futures that are likely to be reflected in the other countries included in the EVS. Quantitative results for GB (which we include for comparison in the Supplementary Material) show considerable similarities between GB and averages across all countries.

## 4.2. Data, participants and sampling

## 4.2.1. Quantitative

Data from the most recent European Values Study (EVS, 2020) in 2017 was used to analyse the relationship between values and socio-economic characteristics on the one hand, and support for post-growth on the other. The EVS asks individuals in 34 European countries questions about family, work, religion, politics, environment, and societal values, and it also asks whether respondents would prioritise environmental protection over economic growth or not. The EVS 2017 sample size for all countries with non-missing values for the "post-growth variable" is 49,749 individuals, and participants were recruited through random sampling. The target population was any individual aged 18 or older with an address of residence in participating countries. The EVS 2017 was primarily administered face to face and data was collected during 2017 and 2018, depending on the country (EVS, GESIS, 2020).

## 4.2.2. Qualitative

A short survey was created and disseminated which served to recruit participants from GB willing to take part in semi-structured interviews. GB was chosen for the qualitative component due to the resources available for this study. Survey questions covered socioeconomic characteristics, political affiliation, knowledge of relevant concepts, socio-environmental concerns, and trust in government. The survey targeted individuals in GB aged 18 and over, and it was distributed to civic organisations, religious institutions, and trade unions by email and contacts were asked to share it with other potentially interested participants. Non-random sampling was justified in this instance because the qualitative interviews did not require a random sample. Purposive sampling was then applied to select participants for the semi-structured interviews from among the survey respondents. The aim was to focus on respondents with no or only moderate prior knowledge of post-growth to understand barriers to acceptance in more depth, so interview participants were sampled from survey respondents who had given low to medium scores in response to familiarity with economic growth, post-growth, degrowth, wellbeing economics, and doughnut economics (Supplementary Table 7). At the same time, we wanted to include respondents with different socio-economic characteristics and political attitudes to include multiple perspectives within the spectrum of potentially post-growth sceptical views (Beitin, 2014, p.251). To achieve this, the purposive sampling strategy included criteria of age, income, education, and declared political affiliation from left to right and participants were selected so that the sample included respondents from different age, income, etc. groups. The desired number was approximately 15 interviews (O'Reilly & Parker, 2012). Selected respondents were contacted by email with further information about the interview and asked to provide their informed consent.

In total, there were 82 completed survey questionnaires. Of these, 33 provided contact details for an interview. 28 were invited to participate and 17 interviews were conducted in total. The final selection included individuals aged 18–57, with annual incomes from  $< \pm 15,000$  to  $> \pm 90,000$ , and with no prior knowledge to moderate knowledge of post-growth concepts (Supplementary Table 7). Reflecting the sample who completed the questionnaire, all interviewees were centre-left leaning having selected between 1 and 5 on a 9-point scale where 1 was left and 9 was right. The interviews were conducted online or by phone during June 2020. They lasted between 45 and 60 min and were recorded with consent. Two pilot interviews were conducted in preparation and questions were adjusted accordingly. Key principles of a post-growth future were described – change in the purpose of the economy, increase in participatory democracy, localising the economy, community-building, redistributing wealth, and reducing total levels of production and consumption – and participants were asked whether these were a) desirable and b) achievable. Three commonly proposed policies in the literature were also discussed to illustrate potential strategies for achieving a post-growth future: a salary ratio to address redistribution, an emissions allowance (or personal carbon trading) to address environmental protection, and a reduction in work hours to address wellbeing. The principles and policies were described before discussing them to ensure everyone received the same information. The question swere framed to determine which values influence the acceptance of a post-growth future in practice as well as the desirability of post-growth in theory.

#### 4.3. Data analysis

## 4.3.1. Quantitative

To examine support for post-growth, we focused on the question "Here are two statements people sometimes make when discussing the environment and economic growth. Which of them comes closer to your own point of view? 'Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs' OR 'Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent". This is our "post-growth variable" as we take the first of the statements that prioritises environmental protection over growth as an implicit expression of support for post-growth, coded 1. The opposite statement is coded 0. However, it needs to be noted that the prioritisation of environmental protection over economic growth is only one component of post-growth. The quantitative part of the study therefore focuses on this component (while the qualitative analysis also includes other components such as redistribution and equality). We examine the relationship between support for these statements and values as well as socio-economic factors in bi-variate analysis with chi squared tests and bi-variate logistic regressions, as well as multivariate logistic regression. Calibration and population weights provided by the EVS are applied throughout.

We include the following variables for values, policies and socio-economic characteristics in the analysis: Environmentalism is represented by the statement "environmental threats are exaggerated" (from 1 =agree strongly to 5 = disagree strongly). Altruism/ self-transcendence is represented by the variable on post-materialist values (1 =materialist, 2 =mixed, 3 =post-materialist), and support for the statement that the respondent is concerned with humankind (from 1 =not at all to 5 = very much). Individualism is represented by the question that asks respondents to place themselves on a scale from 1 to 10 depending on whether they believe individuals (1) should "take more responsibility for providing for themselves" or the state (10) should "take more responsibility to ensure that everyone is provided for". Meritocracy is represented by the question whether "recognising people on merit" is important to the respondent (0 =not/at all important, 1 =very/quite important). We also include the question whether people think that, on a scale from 1 to 10, there should be more incentives to support individual efforts (1) or incomes should be made more equal (10), as well as the right (1) – left (10) political scale. Income is measured in deciles (1 =lowest to 10 =highest), education with a dummy variable (1 =higher education (university degree and above), or 0 =no higher education. Employment status is a dummy variable with 1 = in employment or self-employed, and 0 =other. We also control for age, household size and the presence of children (1 = present, 0 =no child/ren).

## 4.3.2. Qualitative

The interviews were transcribed using the "intelligent verbatim" approach. Thematic analysis was applied to analyse the interviews. NVivo was utilised for coding. The first round of coding was based on a deductive approach to organise responses by the six principles of post-growth mentioned in Section 4.2. The second round of coding was then used to code statements in accordance with underlying socio-cultural values that were expressed, such as hierarchy, mastery, egalitarianism, collectivism, individualism, sufficiency, and wellbeing. This meant it was possible to analyse which values were expressed in response to the different components of a post-growth vision for society and the economy.

#### 5. Results

## 5.1. Quantitative survey analysis

Across all 34 countries, a majority of 60.5 % of the population are in favour of post-growth and in 28 out of the 34 countries, more than 50 % of the population support post-growth (see Supplementary Table 1 and Supplementary Fig. 1 for a breakdown by country). Supplementary Table 1 also provides a descriptive overview of socio-economic characteristics, values and political attitudes in the whole sample. Bivariate analysis is conducted first to examine unconditional relationships between socio-economic characteristics and values on the one hand, and post-growth support on the other. Bivariate analysis shows that support for post-growth is associated with high income, high education, being employed or self-employed, as well as with post-materialist, pro-environmental and altruistic values, and left-leaning political attitudes. While more than half (56.0 %) of the people in the lowest third of the income distribution favour a prioritisation of environmental protection over growth, this is considerably lower than support for post-growth in the highest income group (71.1 %) (Table 2). Support for post-growth is highest in the age group of 30–49 year olds and lowest in the youngest age group (15–29 years). Post-growth support is also significantly higher among people with higher education qualification (71.2 %) compared to those without (57.6 %), and among people who are employed or self-employed (63.1 %) compared to those who are not (57.4 %). All bi-variate logistic regressions for socio-economic characteristics are significant at the 0.1 % level.

Support for post-growth is also associated with a specific set of values. It is stronger among people who hold pro-environmental, post-materialist, and altruistic (concern for humankind) values. When it comes to policies, support for post-growth is stronger among people who lean towards the left of the political spectrum but results for most other dimensions are not significant.

Multivariate analysis (Table 3), which examines the role of factors conditional on other factors, generally confirms the findings from bi-variate analysis. Results from the logistic regression show that support for post-growth is associated with high income and high education, as well as with post-materialist, pro-environmental and altruistic values and left-leaning political attitudes. We present three nested models of logistic regression with support for post-growth as the dependent variable. Nested models show how significance and size of coefficients change when additional variables are added. The first model only includes socio-economic characteristics, the second adds values except for pro-environmentalism, and the third includes all variables. Support for post-growth significantly increases with income and high education in all models. Model 1 shows, for instance, that moving up one income decile increases the odds of supporting post-growth by 4 % (exp(0.04)), while having high education increases the odds of supporting postgrowth by 63 % (exp(0.49)) compared to not having high education. Support for post-growth rises with age but falls again with high age in all three models. In contrast to the bi-variate analysis, employment status is no longer significant in any of the regression models as other socio-economic characteristics are now controlled for. Post-materialist and altruistic values and left-leaning political views significantly increase the likelihood of support for post-growth conditional on socio-economic factors. Those in favour of greater income equality are less likely to support post-growth compared to those who think there should be greater incentives for the individual once all socio-economic and attitudinal factors are controlled for. All variables that are significant in the restricted models 1 and 2 remain significant in the full model 3, but coefficients become smaller as one would expect when additional variables are added. Model fit statistics confirm that model fit increases when additional variables are added. The full model 3 has the highest Pseudo R2 with 0.14 and significantly higher BIC statistics compared to models 2 and 1.<sup>1</sup>

This analysis suggests that increasing support for post-growth would require an emphasis on protecting disadvantaged groups – those on lower incomes, with low education and those who are not in employment, e.g. through greater income and wealth redistribution and the public or collective provision of goods and services.

In Table 4, we present results from multiple regression analysis on the role of socio-economic factors for the support for different types of values and political position. Results show that people with high incomes and high education tend to be more right-leaning, support individual over state responsibility, and are less supportive of greater income equality. For instance, moving up one income decile shifts political views 0.4 points towards the "right" on a 10 point scale, having high education shifts political views 3.4 points to the "right" on a 10 point scale. This indicates that well-situated people, who are otherwise more in favour of post-growth, may show greater opposition against redistributive policies and more collective economic models that would be required to gain greater support for post-growth futures among disadvantaged constituencies. This situation presents a challenge for strategies to increase support for post-growth because the steps that would be required to generate a broader post-growth movement are likely to be opposed by well-situated and hence more powerful people in society.

## 5.2. Qualitative interview analysis

The qualitative findings highlight the areas of alignment and conflict between the values expressed and the different dimensions of post-growth. Overall, the interviewees all agreed that a change in priorities which recentred social and environmental wellbeing over economic growth was necessary and desirable, either because of rising inequality or because of climate change concerns. Given that the sample had low prior knowledge of post-growth, this is a positive finding indicating that there is likely scope for support for postgrowth among those not yet engaged in the topic. However, many expressed that they felt post-growth aims were not achievable or realistic in practice. Participants argued that growth was required to meet basic needs, that people would not trust governments to

<sup>&</sup>lt;sup>1</sup> The difference in the BIC statistic between model 3 and 2 is 2230.7; the difference between model 2 and 1 is 937.4, and the difference between models 3 and 1 is 3168.1 which provides very strong support for the fuller model respectively.

#### Table 2

Bi-variate relationships between support for post-growth, socio-economic characteristics and values (per cent and logistic regression).

Variable	Categories	Growth priority Row %	Environment priority Row %	Log odds	p-value
Socio-economic characteristics					
Income	Low (1–3 decile)	44.05	55.95	0.06	0.000
	Middle (4–7 decile)	37.88	62.12		
	High (8–10 decile)	34.47	65.53		
Age	15–29 years	41.75	58.25	$0.00^{a}$	0.001
	30-49 years	37.56	62.44		
	50 and more years	39.88	60.12		
Education	No higher education	42.43	57.57	0.58	0.000
	Higher education	28.82	71.18		
Employment status	Other	42.56	57.44	0.22	0.000
	Employed/self-employed	36.86	63.14		
Values and policies					
Environmental threats exaggerated	0 agree/neutral	56.33	43.67	1.33	0.000
	1 disagree	23.92	76.08		
Post-materialism	Materialist	47.28	52.72	0.35	0.000
	Mixed	40.77	59.23		
	Post-materialist	25.91	74.09		
Are you concerned with humankind	1 = not at all	54.11	45.89	0.29	0.000
-	5 = very much	27.19	72.81		
Important: recognising people on merit	Not/at all important	41.25	58.75	0.11	0.208
	Very/quite important	39.33	60.67		
Individual vs. state responsibility for providing	1 = individual	41.8	58.2	-0.01	0.096
	10 = state	47.16	52.84		
Incentives vs. greater income equality	1 = incentives for individual	41.39	58.61	-0.01	0.075
с т.,	10 = more equal	42.02	57.98		
Important: eliminating income inequalities	Not/at all important	40.82	59.18	0.08	0.165
	Very/quite important	39.01	60.99		
Left-right political scale	1 = right	49.57	50.43	0.10	0.000
- ·	10 = left	33.62	66.38		

Data: EVS 2017. Logistic regressions include dummies for 34 countries, sample size 49,749 individuals (excluding missings).

<sup>a</sup> The logistic regression for age uses the continuous age variable, not the categorical variable.

deliver such change, and that there are powerful elites whose interests run counter to the social good, presenting a barrier to postgrowth:

"If you have economic growth then you have the ability to invest that growth into improving access to certain basic needs so they're quite linked together" (P9).

"The power of big corporations and money at the end of the day is still far too much at a societal level but also at a government level that it would be difficult to argue the case for lower economic growth" (P3).

The barriers to acceptance and the reasons given for supporting a post-growth future will now be explored in more depth. The first section considers the interaction between environmental post-growth dimensions and values. The second section focuses on the value responses to the social justice aspect of post-growth, and the third section addresses the wellbeing considerations of a post-growth future.

#### 5.2.1. Environmentalism: consumption and behaviour change

Environmental concerns were the strongest driver of support for political action and social change among all participants. However, despite a high level of awareness about environmental damage, the kinds of interventions that were supported did not reflect the scale of change needed: swapping out certain consumer goods for sustainable alternatives and buying locally were strongly supported but the idea of downscaling overall production and consumption, which is a key element of a post-growth future, was seen by most as an unnecessary and undesirable impingement on freedom and progress:

"If the only way to be sustainable is to massively reduce what people buy then I suppose there's no choice but I'd prefer to see improvements in the way we make things in such a way that you don't have to change consumer habits, you can just change the products they're buying so that they're more sustainable" (P6).

"You very quickly get to the point where yes, ok that's better for the environment, and it would be, but it removes the human experience" (P12).

Individualism was the key value expressed in opposition to proposals to downscale consumption and reduce polluting behaviours. Those with individualist attitudes preferred policies which maintained freedom of choice and relied on market logic, such as carbon

## L. Paulson and M. Büchs

#### Table 3

Logistic regressions (log odds) for prioritising environmental protection over growth (coded 1) vs. prioritising growth over environmental protection (coded 0).

	(1) Socio-economic characteristics	(2) Socio-economic characteristics & values	(3) Socio-economic characteristics & values, including environmentalism
Household income (deciles, 1 = lowest, 10 = highest)	0.04***	0.04**	0.03*
	(0.01)	(0.01)	(0.01)
Education: $1 = HE$ degree, $0 = no$ higher education	0.49***	0.39***	0.29***
	(0.05)	(0.06)	(0.06)
Age (18–82)	0.03**	0.03**	0.03**
	(0.01)	(0.01)	(0.01)
Age squared/100	-0.03***	-0.04***	-0.03**
	(0.01)	(0.01)	(0.01)
Employment status: $1 = \text{self/employed}, 0 = \text{other}$	-0.02	0.00	-0.01
	(0.07)	(0.07)	(0.08)
Household size	-0.00	-0.00	0.02
	(0.03)	(0.03)	(0.03)
1 = child in household $0 =$ no children in household	-0.09	-0.06	-0.11
	(0.07)	(0.07)	(0.08)
Post-materialist index $= 2$ , Mixed (base: materialist)		0.10	0.10
, , , , , , , , , , , , , , , , , , , ,		(0.07)	(0.08)
Post-materialist index = 3, Postmaterialist (base: materialist)		0.59***	0.47***
		(0.08)	(0.09)
Concern with humankind (1 = not at all, 5 = very much)		0.25***	0.20***
		(0.03)	(0.03)
Important: recognising people on merits (dummy)		0.12	0.14
importante recognionity people on morte (duminy)		(0.10)	(0.10)
Right (1) – left political (10) scale		0.09***	0.06***
augint (1) – icit ponitcai (10) scale		(0.01)	(0.01)
Individual (1) vs. state (10) responsibility for providing		-0.01	-0.02
ro		(0.01)	(0.01)
Incentives for individuals vs. equalise incomes (1 = incentives, 10 = more equality)		-0.02	-0.03*
······································		(0.01)	(0.01)
Environmental threats are exaggerated $(1 = agree strongly, 5 = disagree strongly$		()	0.58***
			(0.03)
Constant	-0.22	-1.85***	-3.39***
	(0.25)	(0.31)	(0.31)
Pseudo R2	0.05	0.08	0.14
Observations	32,975	32,975	32,975

Data: EVS 2017, Robust standard errors in parentheses. The coefficients represent log odds. The model includes dummies for 34 countries, see Supplementary Material Table 4 for details. \*\*\* p < 0.001, \*\* p < 0.01, \* p < 0.05.

labelling of products and a carbon allowance. Even among those who recognised the negative impact of our habits, individualism trumped environmental values. For example, while P3 agreed with restricting business activity to limit environmental damage because "at the end of the day, the environment is long-term far more important than short-term profits for companies and individuals", they also said:

"There should be a place for people who want to live a life that potentially, I guess, is more damaging to the environment to be able to offset that whilst still being able to do the things that they want to do" (P3).

Comments like this reflect westernised assumptions that self-interested behavioural freedom is natural and do not acknowledge the negative impact that high-consumption lifestyles, seen as 'progress', have on the global south. However, those who expressed strong collectivist attitudes in response to questions about the need to restrict behaviour, acknowledging these globalised impacts, were more likely to support stronger interventions or accept individual sacrifice for societal gain, such as P8 who works in the Fair-Trade community:

"Actually, if you feel connected to those other families, if you think that they are you, when you think about 'we'; it's not just six people, it's sixty, or six thousand... that's what we need to help people understand that we are literally all in this together" (P8).

"If somebody has too much it absolutely is the case that somebody else has to have too little... I'd be much more happy with rationing without putting too fine a point on it to say everyone's allowed one flight a year... once you've hit that, that's it, it doesn't matter who you are" (P8).

#### Table 4

OLS regression of socio-economic determinants for values.

	(1) Concern for humankind (1 = not at all, 5 = very much)	<ul> <li>(2)</li> <li>Important to recognise people on merits (1 = not at all, 4 = very much)</li> </ul>	(3) Political view: right (1) left (10)	(4) Individual (1) vs. state (10) responsibility for providing	(5) Incentives for individual effort (1) vs. equalise incomes (10)	(6) State should make people's incomes more equal 1 = not at all 10 = yes	(7) Environmental threats are exaggerated (1 = agree strongly, 5 = disagree strongly)
Household income (deciles, 1 = lowest, 10 = highest)	0.02***	0.01***	-0.04***	-0.11***	-0.09***	-0.12***	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)
Education: $1 =$ HE degree, 0 = no higher education	0.21***	0.01	0.34***	-0.07*	-0.13***	-0.37***	0.28***
	(0.01)	(0.01)	(0.03)	(0.03)	(0.03)	(0.04)	(0.01)
Employment status: 1 = self/ employed, 0 = other	-0.01	-0.06***	0.05	-0.09**	-0.15***	-0.08*	0.04**
	(0.01)	(0.01)	(0.03)	(0.03)	(0.03)	(0.03)	(0.01)
Age 30–49	-0.11***	0.05***	-0.20***	0.03	0.27***	-0.09*	-0.01
	(0.01)	(0.01)	(0.03)	(0.04)	(0.04)	(0.04)	(0.02)
Age 50 +	-0.06***	0.08***	-0.33***	-0.02	0.06	-0.19***	-0.10***
1 = child in household 0 = no children in household	(0.01) -0.02	(0.01) -0.03***	(0.03) -0.07**	(0.03) 0.13***	(0.04) -0.18***	(0.04) 0.15***	(0.01) 0.02
	(0.01)	(0.01)	(0.02)	(0.03)	(0.03)	(0.03)	(0.01)
Constant	3.35***	3.33***	6.35***	5.38***	6.01***	5.84***	3.46***
	(0.02)	(0.02)	(0.06)	(0.06)	(0.07)	(0.07)	(0.03)
Observations	45,955	45,775	38,834	46,066	45,959	41,949	44,781
R-squared	0.16	0.03	0.05	0.05	0.07	0.13	0.08

Data: EVS 2017. The base category for age is 18–29. The model controls for 34 country dummies. See Supplementary Table 6 for the full model that includes country dummies, and Supplementary Table 5 for results for Great Britain. Standard errors in parentheses. \*\*\* p < 0.001, \*\* p < 0.01, \* p < 0.01, \* p < 0.05.

Promoting collectivist values may, therefore, increase acceptance of post-growth policies targeting consumption and behaviour change. It is also significant that strong environmental values did not necessarily predispose individuals to supporting other aspects of post-growth, such as redistribution or sufficiency:

"If people start to think they're being restricted purely for political ideologies rather than because of saving the planet, then I think people start to go 'woah no, that's not what I would kind of agree with'" (P12).

For some participants, environmental challenges and environmental protection were divorced from inequality and overconsumption, despite these factors being associated with higher emissions. Encouraging environmentalism alone, therefore, is unlikely to be sufficient for a post-growth transition unless it is connected to other factors like inequality and collectivism.

## 5.2.2. Social justice: redistribution and meritocracy

The majority of interviewees saw redistributive policies, like salary ratios, wealth taxes, and income caps as unappealing as they challenged the meritocratic values which underlie narratives of hard work and progress:

"I'm not sure I would want to put limits on how much people can earn. I think if individuals are successful enough and motivated enough and driven enough to make lots of money then that's their right to, under a democratic and capitalist system... but I do think you should tax those people more heavily" (P3).

"I think politically putting a 'the government says you're not allowed to earn more than x each year' it just wouldn't be popular, it wouldn't really be feasible. It'd be the government kind of stifling people's dreams" (P6).

"I sort of agree with it but again you run the risk of actually suppressing people wanting to do anything, that they can just you know get to a certain level and everyone's comfortable at that level, you don't drive innovation and improvement" (P17).

While this highlights a key challenge for the acceptance of a post-growth future, two potential avenues for increasing support for redistributive strategies emerged. The first would be to focus on tackling inequality stemming from corruption or exploitation. Despite the resistance to policies challenging hierarchy and inequality, all interviewees made a distinction between 'reasonable' and 'unreasonable' inequality:

"Some people genuinely do kill themselves in work to kind of get to where they are. In my opinion, I'd say they've earned it. Whereas some people are just accumulating it without really doing much because they rely on other people to do the work that probably don't get paid even a 100th of what they do" (P11).

"Raise the tax limits and then cap highly, and chase down the companies. Chase down the people off-shore, chase down the people that put everything in their other half's name, chase down the big offenders - leave the roofer who pays cash in hand alone" (P10).

"There's this big fallacy that you know we lose billions of pounds every year in benefit fraud and actually it's a lot less than that and it's a drop in the ocean as to what they lose from tax avoidance" (P17).

As a result, action against corporate and personal tax evasion, greater transparency of income and tax paid, and higher taxes for the 'super-rich' were popular suggestions. Dishonest wealth was considered a more serious problem for inequality than income disparities, indicating opportunities for preliminary action.

The second avenue for increasing acceptance of social justice proposals would be to advance policies which work with the meritocratic narrative of equality of opportunity. Even among those expressing strong capitalist and hierarchical values, interventions to improve access, social mobility and equality of opportunity for the most disadvantaged were strongly supported. P5, having opposed redistributive measures like salary ratios or wealth caps because "*I don't think it's fair to put parameters on what people can achieve just because intellectually or from an equality angle it might seem to make sense*", went on to support the idea of universal basic services as an alternative:

"I think the issue is more around social mobility and actually the chances of people being that top person. There is that kind of collective social responsibility to make sure that, as you say, everyone has access to those basic services and those basic needs" (P5).

Extending and strengthening the idea of rights-based equality to encompass a wider range of services and needs could, therefore, be framed to align with current values and stress the ways in which a more equal society is required to generate true equality of opportunity. Highlighting the benefits a more equal society brings to everyone, not just those who are disadvantaged, could also reduce individualistic justification for low support.

## 5.2.3. Wellbeing: eudaemonic or materialistic

When asked about support for reducing consumption or promoting sufficiency in a post-growth future, primary objections focused on the naturalness of materialism and the right to engage in high-consumption:

"It will be very sad if we ever get to a stage where we can only have what's necessary though. We've basically spent the last 10,000 years of human advancement moving away from that to having stuff that is luxury goods" (P6).



Fig. 1. Word cloud of most common words used in the interviews to self-define 'living well'.

"I think there's like a certain amount of like human desire to like want the latest shiniest thing so it's kind of hard to stop that aspect of human nature in a way" (P2).

However, P14 who supported more post-materialist values, believed societies could achieve a reduction in consumption as material goods were already losing their status:

"I think it absolutely is realistic. I think it's already happening seeing younger people now. Even my generation I think compared to my parents I do feel there's less... I think as material goods have become cheaper, they've almost become less valuable" (P14).

Despite the emphasis respondents placed on preserving individualism, westernised notions of progress and material accumulation, when asked to self-define wellbeing no one referred to these. Everyone expressed sufficiency-oriented definitions with many only referring to money in terms of having enough to not worry about bills. Of primary importance was work-life balance, low stress, good health, fulfilment, and socialising with family and friends. Fig. 1 illustrates common terms used to express 'living well'.

Similarly, having more time and a better balance between work and leisure were mentioned as the main positives of COVID-19 lockdowns, though this was not seen as a realistic, long-term change. Therefore, there appears to be a conflict between the recognised value of eudaemonic wellbeing and needs satisfaction at an individual level and the perceived importance of materialistic wellbeing at a socio-cultural level. This contradiction presents a critical barrier to wider post-growth support. Exposure to alternative ways of living may be a way of overcoming this, as many interviewees pointed to new initiatives that had happened as a result of COVID-19 to illustrate what they believed could be possible: increased local engagement through support of small businesses, community gardens and shared spaces were widely supported elements of a post-growth future.

## 6. Discussion

This study's mixed-methods approach provides a layered picture of the interaction between values, socio-economic characteristics, and the acceptance of a post-growth future. The quantitative results found that post-growth support is stronger among those who hold pro-environmental, post-materialist, and altruistic values. However, the qualitative findings showed that these three values do not necessarily overlap – pro-environmentalism did not necessarily engender post-materialism or collectivism – so there may be conflicts of interest that need addressing through policy synergies. While environmentalism is an important factor for post-growth support as demonstrated in the significantly improved model fit when environmental attitudes are added (Table 3), it is only one, and possibly not a sufficient, dimension for support. The negative effect of individualism and meritocratic narratives about progress on post-growth acceptance was highlighted in the qualitative findings. However, the quantitative results did find that support for prioritising the environment over economic growth was higher among those who also agreed with individualist statements in the survey, which indicates that post-growth acceptance could be possible with the right framing. Finally, the survey results indicated a potential challenge: well-situated people (high income, high education) were less likely to support greater income equality and collectivist values which would be needed to adopt policies that could make post-growth futures more palatable to disadvantaged people in society.

The findings demonstrate the importance of socio-economic differences and cultural values for the perceived viability and desirability of a post-growth future. Policies and post-growth campaigns should take these factors into consideration if such a future is to become a reality. Knowing the areas of alignment and conflict between the current, growth-dependent vision of the future and a post-growth vision for the future will help post-growth proponents better address concerns, debunk misconceptions, and build on areas of existing support. Areas of value alignment and value conflict are detailed in Table 5. We will now turn to the strategic implications of our findings.

## 6.1. Implications for post-growth strategy

The findings suggest that a shift in discourse towards emphasising the wellbeing and equality benefits of a post-growth future should be undertaken to increase support, particularly among disadvantaged groups, and that better-situated people need to be engaged to increase their support for greater equality and collective modes of provisioning. Environmental reasons for supporting the post-growth principle of deprioritising economic growth were well established: the majority of survey respondents were prepared to accept some loss of jobs and slower growth in favour of environmental protection. However, 39.5 % still chose to prioritise economic growth over the environment. Respondents from this group were significantly more likely to be from lower income backgrounds with lower educational attainment and more right-wing political views. A wellbeing and equality approach could increase support for post-

## Table 5

Values which support or	present barriers to	the acceptance of a	post-growth future.

Enabling Values		Limiting Values	
Environmentalism Collectivism	Increased with income, education, and left-wing values	Individualism Hierarchy	Increased with income and education
Post-materialism Meritocracy	Enabling when meaning equality of opportunity	Meritocracy	Limiting when used for narratives of hard-work and deservedness

growth among these groups as they were also more in favour of equalising incomes, less individualistic, and supported greater state intervention. Previous research has shown that low-income individuals or those at high labour market risk are more likely to support policies like a basic income guarantee (Vlandas, 2019), while social and economic co-benefit messaging can be effective for engaging environmentally disengaged groups (Bain et al., 2012). From a social justice approach, which is a key aspect of post-growth, it is also in the interest of a successful transition to recognise and include marginalised voices. The emphasis on wellbeing and improving quality of life through redistributive and social support measures, like universal basic services, universal basic income or an income guarantee (Büchs, 2021), serves the double benefit of later enabling those individuals to take part in environmental action too. Reductions in inequality can also benefit other aspects of a post-growth future, such as stronger environmental protection and social cohesion (Raworth, 2017, p.172), whereas inequality increases the importance of social status and competition, and hence the status-driven consumption of material goods (Weidmann et al., 2020). Inequality also has a negative impact on collectivism; and our survey results showed that higher incomes were significantly correlated with higher scores for individualism values. Therefore, reducing inequality may in turn promote two important aspects of a post-growth future – reduced consumption and increased collectivism – as a result of reduced status competition.

With this shift in emphasis, however, it seems likely that there will be a trade-off between support from opposing groups. The quantitative finding that higher earners are more likely to reject greater equality despite supporting post-growth implies that they may be opposed to redistributive and social justice policies aiming to improve wellbeing, which lower income individuals may be more likely to endorse. This aligns with the finding from the qualitative analysis that pro-environmentalism does not necessarily correlate with acceptance of social justice arguments. However, this trade-off need not be absolute. Better communicating the link between high inequality and negative economic impacts or higher consumption could be a way of convincing high-income individuals with pro-environmental values that greater equality is in their interest (Buch-Hansen & Koch, 2019). This can be discussed through a merit-ocratic lens by focusing on equality of opportunity, which was considered more acceptable to interview participants than caps or income ratios or other stronger redistributive measures. Universal basic services, for example, could be a viable alternative to be considered. This policy may be more likely to appeal to disadvantaged groups if presented as improving wellbeing (Coote & Percy, 2020). In doing so, hierarchy and meritocracy are not directly challenged but a focus on the provision of universal basic services encourages a more collective outlook and serves to reduce inequality.

The areas of value-alignment and value-conflict outlined in Table 5 also point to the possibility of using the existing support for certain interventions to set the stage for stronger policies later on. For example, addressing the need for reduced material throughput in a post-growth future, there was a high level of appeal for market-based policies like carbon pricing, taxes and carbon labelling of goods. This support rested on the low threat of market-based policies to dominant values as they preserve market-values and freedom of choice while representing environmental concerns. While market-based environmental instruments alone would not be radical enough to reduce environmental impacts to safe levels, they offer a stepping-stone to core policies like personal carbon allowances and quotas (Parrique, 2019). These policies could be framed as allowing people to control their impact and retain the freedom to make sustainable or unsustainable choices as they wish, albeit with a strong incentive to choose the former, as stated by interviewees in favour of a carbon allowance. Ahvenharju (2020) found a similar response to consumption quotas: "those who found quotas interesting did not see them as strong top-down measures of control but as enablers for consumers" (p.146). Therefore, even though quotas and allowances can be perceived as highly interventionist and restrictive policies, support for them from a neoliberal values perspective is possible. Alternatively, if there was the political will to implement these policies, they could generate new social norms, shifting attitudes towards acceptance of sufficiency (Thorman et al., 2020, p.19). This could be important as sufficiency thinking was less supported by interviewees given its association with restriction and stifling dreams of progress, despite everyone expressing eudaemonic definitions of wellbeing in the interviews. Many authors (e.g. Kallis, 2018) propose restrictions on advertising as an initial way to address this contradiction by limiting materialistic cues, particularly for positional goods which encourages resource-intensive norms (Weidmann et al., 2020). Appealing to the 'conservative' principle of avoiding waste could also be used to increase support for sufficiency, as this framing appeals to individuals on both sides of the political spectrum (Whitmarsh & Corner, 2017). We support Spangenberg (2014) in suggesting that a narrative of "better but less" is needed for affluent groups and "enough and better" is required for more disadvantaged people (p.62). While there may be concerns about the negative impacts such interventions could have on wellbeing, the fact that the self-definitions of living well did not include strong materialistic values indicates that this concern may be overstated and shaped by dominant narratives about needs and success.

Addressing the need for greater equality in a post-growth future, there was support for certain policies to reduce inequality. High levels of agreement (81 %) about the need to reduce large income inequalities in the EVS, coupled with the agreement in the interviews that tax avoiders and the 'super-rich' should be fined and taxed, points to the viability of implementing certain initial policies on those grounds. Transparency of tax payments, as a number of interviewees suggested, or transparency of income through mandatory declarations could pave the way for more redistributive policies later as the data would be available to justify action. However, since there is strong support in the population for hierarchy values, especially among well-situated people, politicians are likely to face resistance against national level redistribution. The qualitative findings still point to the importance of localised and community action for increasing collectivist values, which in turn could strengthen egalitarian values as previous research shows that inequality decreases social cohesion and sense of community (Cosme et al., 2017, p.322). Therefore, local governments would benefit from investing in community initiatives and supporting post-growth projects at the local level in order to expose the public to collectivist values and the wellbeing benefits of such projects. This also points to the value of bottom-up change, contrary to concerns by Mocca (2020) that niche innovations will stay at the localised level without having significant impacts on attitudinal change. National and international level action that aims to achieve greater equality would need to complement local action to create level playing fields and address regional inequalities. Broad public support for redistributive government action during the COVID-19 pandemic in many countries, and recent

international initiatives to introduce a minimum corporate tax indicate that there is scope for more redistributive action at national and international levels. Tying climate policies like a carbon tax to wellbeing or economic co-benefits, by allocating revenue to pay for COVID-19 expenditure for example, could further increase support (Drews et al., 2022). Deliberative engagement with citizens on such issues to create a social mandate for change is also needed to increase trust, receptiveness, and support (Howarth et al., 2020), which is critical for delivering a transition to a post-growth future.

Some limitations of this study need to be considered. First, as the qualitative data collection took place during 2020, the COVID-19 pandemic is likely to have influenced perspectives about what is valuable and what priorities the government should focus on. The second limitation is that qualitative data was only collected in GB. While there are many similarities in the quantitative analysis between GB and the whole sample (see Supplementary Material for details), the qualitative results can only be generalised with confidence to countries with similar economic and institutional contexts. Future research would benefit from expanding qualitative interviews to other European countries. Third, selection bias is likely in respondents who completed the recruitment questionnaire, so those who were interviewed may have been more open to or interested in change. Though respondents were sampled from a range of societal organisations, all of the interviewees were also centre-left leaning. The use of purposive sampling when inviting questionnaire respondents to interview aimed to minimise an over-representation of any given socio-economic group though, and focused on those who had little prior knowledge of post-growth to be able to examine possible barriers to acceptance in more depth. However, findings and responses from more right-leaning individuals may have been different, given the negative association between right-leaning views and post-growth support found in the quantitative analysis of this study.

Building on the work of Nilsson et al. (2016) and Whitmarsh and Corner (2017), future research should consider which counter-narratives and justifications for policies are most effective among which groups. In particular, if a voluntary transition is to occur, future research is needed to determine which arguments for post-growth are convincing for individuals from disadvantaged backgrounds and for those who hold more right-leaning political views, and how better-situated people can be convinced of the need for greater equality and collective economic models. The use of more deliberative and participative research methods could facilitate this.

## 7. Conclusion

To bring a post-growth future closer to becoming reality, this research highlights the need to understand how current values, and the narratives derived from those values, support or oppose post-growth futures and associated policies, and how perceptions of values and policies vary across socio-economic groups. While the quantitative findings point to the importance of pro-environmental, post-materialist and altruistic values for post-growth support, the qualitative findings show that these three values do not necessarily overlap. The interviews also highlighted that environmental concern alone is not sufficient for post-growth acceptance, particularly where social justice is not seen as tied to environmental issues. A key tension found in the quantitative results was that well-situated people (high income, high education) were less likely to support greater income equality and hold collectivist values which would be needed to adopt policies that make post-growth futures more palatable to disadvantaged people in society. Individualism and meritocratic narratives, tied to a westernised view of progress, also negatively affected post-growth acceptance. Therefore, as expected, interventions will need tailored justifications to respond to different groups and increase support, with a particular emphasis on redistribution and the equality-focused aspects of post-growth strategies for disadvantaged people, and on the wellbeing benefits to both disadvantaged and well-situated people of a more equal and participatory society. Certain aspects of a post-growth future are already acceptable and desirable, though, and stepping-stone policies which build on existing support and areas of value-alignment offer a strong avenue for change.

## Funding

This work was supported by UK Research and Innovation through the Centre for Research into Energy Demand Solutions (grant reference number EP/R035288/1).

## **Declarations of interest**

The authors do not have any conflicts of interest to declare.

## Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.futures.2022.103020.

#### References

Ahvenharju, S. (2020). Potential for a radical policy-shift? The acceptability of strong sustainable consumption governance among elites. *Environmental Politics*, 29(1), 207–217. https://doi.org/10.1080/09644016.2019.1688532

- Ancic, B., & Domazet, M. (2015). Potential for degrowth: Attitudes and behaviours across 18 European countries. *Teorija in Praksa, 3*, 456–475. (https://www.fdv.uni-lj.si/docs/default-source/tip/3-15\_ancic-domazet.pdf?sfvrsn=2).
- Bain, P. G., Hornsey, M. J., Bongiorno, R., & Jeffries, C. (2012). Promoting pro-environmental action in climate change deniers. Nature Climate Change, 2, 600–603. https://doi.org/10.1038/nclimate1532
- Beitin, B. K. (2014). Interview and sampling: How many and whom. In J. F. Gubrium, J. A. Holstein, A. Marvasti, & K. D. McKinney (Eds.), The SAGE handbook of interview research: The complexity of the craft (pp. 243–254). SAGE Publications, Inc.
- Berg, A., & Hukkinen, J. I. (2011). The paradox of growth critique: Narrative analysis of the Finnish sustainable consumption and production debate. *Ecological Economics*, 72, 151–160. https://doi.org/10.1016//j.ecolecon.2011.09.024
- Buch-Hansen, H., & Koch, M. (2019). Degrowth through income and wealth caps. Ecological Economics, 146, 157-163. https://doi.org/10.1016/j.
- Büchs, M. (2021). Sustainable welfare: How do universal basic income and universal basic services compare. *Ecological Economics*, 189(2021), 107–152. https://doi.org/10.1016/j.ecolecon.2021.107152
- Büchs, M., & Koch, M. (2019). Challenges for the degrowth transition: The debate about wellbeing. Futures, 105, 155–165. https://doi.org/10.1016/j.
- Carattini, S., Baranzini, A., Thalmann, P., Varone, F., & Vohringer, F. (2017). Green taxes in a post-Paris world: Are millions of nays inevitable? *Environmental Resource Economics*, 68, 97–128. https://doi.org/10.1007/s10640-017-0133-8
- Cassiers, I., Maréchal, K., & Méda, D. (2018). Post-growth economics and society: Exploring the paths of a social and ecological transition. Routledge.
- Coote, A., & Percy, A. (2020). The case for universal basic services. Polity Press.
- Cosme, I., Santos, R., & O'Neill, D. W. (2017). Assessing the degrowth discourse: A review and analysis of academic degrowth policy proposals. *Journal of Cleaner Production*, 149, 321–334. https://doi.org/10.1016.j.jclepro.2017.02.016.
- Drews, S., Savin, I., van den Bergh, J. C. J. M., & Villamayor-Tomás, S. (2022). Climate concern and policy acceptance before and after COVID-19. Ecological Economics, 199, 1–16. https://doi.org/10.1016/j.ecolecon.2022.107507
- Ejelov, E., & Nilsson, A. (2020). Individual factors influencing acceptability for environmental policies: A review and research agenda. Sustainability, 12, Article 2404. https://doi.org/10.3390/su12062404
- , 2020European Values Study (EVS). (2020). European values study 2017: Integrated dataset (EVS 2017). GESIS Data Archive, Cologne. ZA7500 Data file Version 3.0.0 [Dataset]. (https://doi.org/10.4232/1.13511).
- Eskelinen, T., & Wilén, K. (2019). Rethinking economic ontologies: From scarcity and market subjects to strong sustainability. In K. J. Bonnedahl, & P. Heikkurinen (Eds.), Strongly sustainable societies: Organising human activities on a hot and full earth (pp. 40–57). Routledge.
- European Values Study, GESIS. (2020). EVS 2017 Method Report. GESIS Data Archive, Cologne, v3. ZA7500 and ZA7502.
- Fielding, N. G. (2012). Triangulation and mixed methods designs: Data integration with new research technologies. Journal of Mixed Methods Research, 6(2), 124–136. https://doi.org/10.1177/1558689812437101
- Fritz, M., & Koch, M. (2019). Public support for sustainable welfare compared: Links between attitudes towards climate and welfare policies. Sustainability, 11, Article 4146. https://doi.org/10.3390/su11154146
- Ghimire, R., Anbar, N., & Chhetri, N. B. (2021). The impact of public deliberation on climate change opinions among U.S. citizens. Frontier in Political Science. https://doi.org/10.3389/fpos.2021.606829
- Graefe, S. (2018). Subjective limits to growth and the limits to a lifestyle oriented critique of growth. In H. Rosa, & C. Henning (Eds.), *The good life beyond growth: New perspectives.* [Online] (pp. 201–211). Oxon: Routledge. [Accessed 17 August 2020]. Available from (https://ebookcentral.proquest.com/lib/leeds/reader.action? docID=4947446).
- Gugushvili, D. (2021). Public attitudes towards economic growth versus environmental sustainability dilemma: Evidence from Europe. International Journal of Comparative Sociology, 62(3), 224–240. https://doi.org/10.1177/00207152211034224
- Haberl, H., Wiedenhofer, D., Virág, D., Kalt, G., Plank, B., Brockway, P., Fishman, T., Hausknost, D., Krausmann, F., Leon-Gruchalski, B., Mayer, A., Pichler, M., Schaffartzik, A., Sousa, T., Streeck, J., & Creutzig, F. (2020). A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part II: Synthesizing the insights. *Environmental Research Letters*, 15(6), 1–42. https://doi.org/10.1088/1748-9326/ab842a
- Hammond, M. (2020). Sustainability as a cultural transformation: The role of deliberative democracy. Environmental Politics, 29(1), 173–192. https://doi.org/ 10.1080/09644016.2019.1684731
- Harring, N., Jagers, S. C., & Matti, S. (2017). Public support for pro-environmental policy measures: Examining the impact of personal values and ideology. Sustainability, 9(679), 1–14. https://doi.org/10.3390/su9050679
- Hausknost, D., Haas, W., Hielscher, S., Schafer, M., Leitner, M., Kunze, I., & Mandl, S. (2018). Investigating patterns of local climate governance: How low-carbon municipalities and intentional communities intervene in social practices. Environmental Policy and Governance, 28, 371–382. https://doi.org/10.1002/eet.1804 Hickel, J. (2021). Less is more: How degrowth will save the world. William Heinemann.
- Hickel, J., & Kallis, G. (2020). Is green growth possible? New Political Economy, 25(4), 469-486. https://doi.org/10.1080/13563467.2019.1598964
- Howarth, C., Bryant, P., Corner, A., Fankhauser, S., Gouldson, A., Whitmarsh, L., & Willis, R. (2020). Building a social mandate for climate action: Lessons from COVID-19. Environmental and Resource Economics, 76, 1107–1115. https://doi.org/10.1007/s10640-020-00446-9
- IEA (2022). Global CO<sub>2</sub> emissions rebounded to their highest level in history in 2021, Press Release, International Energy Agency, https://www.iea.org/news/globalco2-emissions-rebounded-to-their-highest-level-in-history-in-2021, last accessed 19 August 2022.
- Ivanova, D., & Wood, R. (2020). The unequal distribution of household carbon footprints in Europe and its link to sustainability. *Global Sustainability*, *3*(e18), 1–12. Jackson, T. (2009). *Prosperity without growth: Economics for a finite planet*. Earthscan.
- Jarvis, H. (2019). Sharing, togetherness and intentional degrowth. Progress in Human Geography, 43(2), 256–275. https://doi.org/10.1177/0309132517746519 Jones, N., & Clark, J. R. A. (2014). Social capital and the public acceptability of climate change adaptation policies: A case study of Romney Marsh, UK. Climatic Change, 123, 133–145. https://doi.org/10.1007/s10584-013-1049-0
- Kallis, G. (2018). Degrowth. Agenda Publishing Ltd.
- Kasser, T., Cohn, S., Kanner, A. D., & Ryan, R. M. (2007). Some costs of American corporate capitalism: A psychological exploration of value and goal conflicts. Psychological Inquiry, 18(1), 1–22. https://doi.org/10/1080/10478400701386579.
- Khmara, Y., & Kronenberg, J. (2020). Degrowth in the context of sustainability transitions: In search of a common ground. Journal of Cleaner Production, 267, 1–13. https://doi.org/10.1016/j.jclepro.2020.122072
- Krueger, R., Schulz, C., & Gibbs, D. C. (2018). Institutionalizing alternative economic spaces? An interpretivist perspective on diverse economies. Progress in Human Geography, 42(4), 569–589. https://doi.org/10.1177/0309132517694530
- Le Quéré, C., Korsbakken, J. I., Wilson, C., Tosun, J., Andrew, R., Andres, R. J., Canadell, Josep G., Jordan, Andrew, Peters, Glen P., & van Vuuren, Detlef P. (2019). Drivers of declining CO<sub>2</sub> emissions in 18 developed economies. *Nature Climate Change*, *9*(3), 213–217. https://doi.org/10.1038/s41558-019-0419-7
- Longhurst, N., Avelino, F., Wittmayer, J., Weaver, P., Dumitru, A., Hielscher, S., Cipolla, C., Afonso, R., Kunze, I., & Elle, M. (2016). Experimenting with alternative economies: Four emergent counter-narratives of urban economic development. *Current Opinion in Environmental Sustainability*, 22, 69–74. https://doi.org/ 10.1016/j.cosust.2017.04.006
- Manfredo, M. J., Bruskotter, J. T., Teel, T. L., Fulton, D., Schwartz, S. H., Arlinghaus, R., Oishi, S., Uskul, A. K., Redford, K., Kitayama, S., & Sullivan, L. (2016). Why social values cannot be changed for the sake of conservation. *Conservation Biology*, 31(4), 772–780. https://doi.org/10.1111/cobi.12855
- Mocca, E. (2020). The local dimension in the degrowth literature. A critical discussion. Journal of Political Ideologies, 25(1), 78–93. https://doi.org/10.1080/ 13569317.2019.1696926
- Nilsson, A., Hansla, A., Heiling, J. M., Bergstad, C. J., & Martinsson, J. (2016). Public acceptability towards environmental policy measures: Value-matching appeals. Environmental Science and Policy, 61, 176–184. https://doi.org/10.1016/j.envsci.2016.04.013

O'Neill, J. (2018). How not to argue against growth: Happiness, austerity and inequality. In C. Henning, & H. Rosa (Eds.), *The good life beyond growth* (pp. 141–152). Routledge.

O'Reilly, M., & Parker, N. (2012). Unsatisfactory Saturation': A critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research*, 13(2), 190–197. https://doi.org/10.1177/1468794112446106

Parrique, T. (2019). The political economy of degrowth [Doctoral Dissertation, Université Clermont Auvergne; Stockholm University]. (https://tel.archives-ouvertes.fr/ tel-02499463).

Paulson, S. (2017). Degrowth: Culture, power and change. Journal of Political Ecology, 24(1), 425-448. https://doi.org/10.2458/v24i1.20882

Raworth, K. (2017). Doughnut economics: Seven ways to think like a 21st-century economist. Random House Business Books.

Schneider, F. (2018). Housing for degrowth narratives. In A. Nelson, & F. Schneider (Eds.), Housing for degrowth: Principles, models, challenges and opportunities (pp. 14–30). Oxon: Taylor and Francis Group.

Schoonenboom, J., & Johnson, R. B. (2017). How to construct a mixed methods research design. Kolner Zeitschrift fur Soziologie and Sozialpsychologie, 69, 107–131. https://doi.org/10.1007/s11577-017-0454-1

- Shannon-Baker, P. (2015). Making Paradigms Meaningful in Mixed Methods Research. Journal of Mixed Methods Research, 10(4), 319–334. https://doi.org/10.1177/1558689812437101
- Sortheix, F. M., & Schwartz, S. H. (2017). Values that underlie and undermine well-being: Variability across countries. European Journal of Personality, 31, 187–201. https://doi.org/10.1002/per.2096

Spangenberg, J. (2014). Institutional change for strong sustainable consumption: Sustainable consumption and the degrowth economy. Sustainability: Science, Practice and Policy, 10(1), 62–77. https://doi.org/10.1080/15487733.2014.11908125

- Steffen, W., Richardson, K., Rockstrom, J., Cornell, S. E., Fetzer, I., Bennet, E. M., Biggs, R., Carpenter, S. R., de Vries, Wim, de Wit, Cynthia A., Folke, Carl, Gerten, Dieter, Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B., & Sörlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 247(6223), 1–10. https://doi.org/10.1126/science.1259855
- Thorman, D., Whitmarsh, L., & Demski, C. (2020). Policy Acceptance of Low-Consumption Governance Approaches: The Effect of Social Norms and Hyposcrisy. Sustainability, 12(3), 1–25. https://doi.org/10.3390/su12031247

Trebeck, K., & Williams, J. (2019). The economics of arrival: Ideas for a grown-up economy. Policy Press.

- United Nations (UN). (2020). Emissions gap report 2020: Executive summary. United Nations Environment Programme. (https://wedocs.unep.org/bitstream/handle/20. 500.11822/34438/EGR20ESE.pdf?sequence=25).
- Vignoles, V. L., Smith, P. B., Becker, M., & Easterbrook, M. J. (2018). In search of a Pan-European culture: European values, beliefs, and models of selfhood in global perspective. Journal of Cross-Cultural Psychology, 49(6), 868–887. https://doi.org/10.1177/0022022117738751
- Vlandas, T. (2019). The politics of the basic income guarantee: Analysing individual support in europe. Basic Income Studies., Article 20180021. https://doi.org/ 10.1515/bis-2018-0021
- Weidmann, T., Lenzen, M., Keyßer, L. T., & Steinberger, J. K. (2020). Scientists' warning on affluence. Nature Communications, 11(3107), 1–10. https://doi.org/ 10.1038/s41467-020-16941-y

Whitmarsh, L., & Corner, A. (2017). Tools for a new climate conversation: A mixed methods study of language for public engagement across the political spectrum. *Global Environmental Change*, 42, 122–135. https://doi.org/10.1016/j.gloenvcha.2016.12.008

Willis, R. (2020). Too hot to handle? The democratic challenge of climate change. Bristol University Press.