1. Well-being and its distribution across age groups: an integral part of social sustainability in ageing welfare states

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The ageing of populations in European welfare states presents economic challenges for the maintenance of current levels of welfare provision in the future. To ensure the well-being of all age groups, alternative approaches to well-being policies and a more comprehensive measurement of well-being are required. We argue that an equal distribution of life satisfaction, especially across age groups and generations, is a key indicator of social sustainability. Furthermore, we demonstrate empirically that higher levels of social trust, gross domestic product (GDP) per capita, and social protection expenditure are associated with higher levels of life satisfaction across European countries and age groups. The associations are particularly strong for the older population.

INTRODUCTION

As population ageing challenges the economic sustainability of the welfare state, the question arises as to how well-being can be maintained and promoted under such conditions. While fiscal austerity is not necessarily the only solution to promote fiscal balance, ageing societies may struggle to provide benefits and services at current levels in the future. This calls into question the sustainability of reforms and highlights a potential tension between economic and social sustainability. However economic sustainability is pursued and achieved, social sustainability should not be undermined.

Our main purpose in this chapter is to discuss and clarify the role of life satisfaction and its age distribution for social sustainability. Life satisfaction is an indicator of well-being, and well-being and its distribution are often considered to be at the core of social sustainability (Komp-Leukkunen & Sarasma, 2024). We have four research questions: (1) What is the role of life satisfaction in social

sustainability? (2) How is the level of life satisfaction related to the equality of life satisfaction across age groups? (3) How does another key aspect of social sustainability, trust between people ('social trust'), relate to life satisfaction in different age groups? (4) How do macro-level characteristics, namely the welfare state and economic conditions, relate to life satisfaction in different age groups? To answer these questions, we review the literature on social sustainability and life satisfaction and provide novel empirical results using a Europe-wide cross-sectional survey of data from 2018.

We argue that a key indicator for assessing the impact of an ageing population on social sustainability is the distribution of life satisfaction across population groups, especially across age groups and generations. We argue that, compared to other indicators of social sustainability and well-being, life satisfaction better reflects the types of societies in which people tend to experience their lives as satisfying and good. Building on previous literature, we also propose a three-level conceptualisation of social sustainability, including the individual, community, and governance levels. We show that life satisfaction and its distribution are intertwined with many other aspects of social sustainability. We illustrate this by empirically examining the link between the individual and community levels by describing life satisfaction in different age groups across levels of social trust. Social trust is an important aspect of social sustainability at the community level because it is considered an important indicator of the ability of society as a whole to cooperate (OECD, 2001), and it may be challenged by the potential intergenerational conflict as the welfare state grapples with the consequences of an ageing population.

The welfare state is an important environment for life satisfaction and social sustainability more broadly in Europe. The distribution of life satisfaction across age groups is particularly important as changes in the welfare state due to fiscal pressures could affect age groups differently (see also Chapter 2 in this volume). Older people may be more sensitive to changes in welfare state provision, as illustrated by the lower life satisfaction of older people in the less developed welfare states of Eastern Europe. Therefore, trends in life satisfaction gaps between age groups need to be carefully monitored, and we need to better understand how the welfare state is associated with life satisfaction in different age groups. The social protection expenditure of the welfare state analysed here is not in itself part of social sustainability, strictly speaking, but it is instrumental to it and acts as a proxy for the public safety nets available to individuals. Another macro-level feature that is important for understanding social sustainability is the economic prosperity of the country. Indeed, the conventional solution to the fiscal challenge of ageing populations is to pursue higher economic growth. Looking at gross domestic product (GDP) per capita is particularly important in the context of ageing societies, where economic growth is expected to slow down. As with social protection expenditure, we

look at the relationship between GDP per capita and life satisfaction in different age groups.

While life satisfaction and its age distribution, the size of the welfare state, economic growth, and social trust are some of the central concerns in ageing welfare states, the existing literature does not sufficiently recognise the role of life satisfaction in social sustainability. Indeed, little is known about the relationships between trust, the size of the welfare state, and the age distribution of life satisfaction. The literature also lacks evidence on the relationship between GDP per capita and the age distribution of life satisfaction. Our chapter fills this gap by providing descriptive evidence on these associations.

We begin with a brief literature review to situate life satisfaction within the complex and multifaceted concept of social sustainability. The second section discusses life satisfaction and its relevance to social sustainability as a measure of well-being. The third section reviews relevant literature on the relationships between life satisfaction and other aspects of social sustainability. The fourth section presents the empirical results on the distribution of life satisfaction and its relations with social trust, social protection and GDP per capita in Europe. The final section concludes and discusses the implications of our findings.

SOCIAL SUSTAINABILITY AT THREE LEVELS: INDIVIDUALS, COMMUNITIES AND GOVERNANCE

Although often referred to in research and public policy, the concept of social sustainability has remained surprisingly ambiguous, with a wide variety of definitions and dimensions in different works. Well-being and the fair distribution of resources, the focus of this chapter, are emphasised in many studies or reports on social sustainability, but many other aspects are also often mentioned, as can be seen in Tables 1.1a, 1.1b and 1.1c. In reviewing various works, we have found that aspects proposed as part of social sustainability operate at roughly three different levels: (1) individuals (with a focus on well-being and equality between individuals today and across generations); (2) communities (with a focus on relations within and between different population groups); and (3) governance (with a focus on the quality and legitimacy of policies and public institutions).

In Tables 1.1a–c we present examples of the proposed aspects of social sustainability using these three levels to group them. The table is mainly based on previous reviews by Colantonio (2011), Boström (2012) and Partridge (2014), and some selected references to give a sense of the aspects of social sustainability and the diversity of the concept. The list is not exhaustive and not all the aspects shown are relevant for our purposes within the context of this book. Nevertheless, the tables help us to locate life satisfaction within the complex and multifaceted concept of social sustainability.

The level of individuals focuses on various aspects of well-being and its distribution. Here the focus is typically on whether basic human needs are

Table 1.1a Some aspects of social sustainability proposed in the previous literature: individual level

Aspect of social sustainability proposed	Studies
Satisfaction of basic needs such as food, health, housing and income	Boström, 2012; Colantonio, 2011
Satisfaction of extended needs such as recreation, self-fulfilment, opportunity for learning and self-development	Boström, 2012; Littig & Griessler, 2005
Quality of life, happiness, and well-being such as SWB and meaning in life	Boström, 2012; Pieper, Karvonen & Vaarama, 2019; Liu, Dijst, Geertman & Cui, 2017
Intra- and intergenerational equity; skills and opportunities for meeting one's needs; education	Komp-Leukkunen & Sarasma, 2024; Littig & Griessler, 2005
Access to social infrastructure, mobility, local services, facilities, attractive public realm and green areas	Boström, 2012
Employment as source of income, integration and identity; quality and decommodification of work	Littig & Griessler, 2005; Osti, 2012
Socially and ecologically sustainable consumption and employment	Eizenberg & Jabareen, 2017; Littig & Griessler, 2005

Table 1.1b Some aspects of social sustainability proposed in the previous literature: community level

Aspect of social sustainability proposed	Studies
Civil society, social interaction, trust in others, social capital	Boström, 2012; Colantonio, 2011; Pieper et al., 2019
Social integration, inclusion and sense of inclusion; equal opportunities to participate in economic, social, cultural and political life	Colantonio, 2011; Boström, 2012; Pieper et al., 2019; Partridge, 2014
Social cohesion	Boström, 2012; Delhey & Dragolov, 2016
Sense of community, place attachment, belonging, and identity and pride	Boström, 2012; Colantonio, 2011
Social homogeneity	Colantonio, 2011
Cultural diversity and traditions	Boström, 2012; Colantonio, 2011

Table 1.1c Some aspects of social sustainability proposed in the previous literature: governance level

Aspect of social sustainability proposed	Studies
Democratic and participatory governance, transparency; participatory and accountable design, decision-making, monitoring, governance and management of policies	Boström, 2012; Partridge, 2014; Colantonio, 2011
Trust in public institutions	Pieper et al., 2019
Empowerment for partaking in decision-making (e.g., awareness, education, networking, economic compensation)	Boström, 2012; Partridge, 2014; Pieper et al., 2019
Redistribution of resources and transformation of economic structures for fair distribution of resources, and environmental goods and bads inter- and intragenerationally and along gender, race, class and ethnicity dimensions among others	Eizenberg & Jabareen, 2017; Boström, 2012
Safety nets and social security	Colantonio, 2011
Facilitation for local small and medium-sized enterprises	Boström, 2012

Note: Boström (2012), Colantonio (2011), Partridge (2014) and Komp-Leukkunen & Sarasma (2024) are literature reviews.

met and how equally resources are distributed both today and across generations (Vallance, Perkins & Dixon, 2011; Komp-Leukkunen & Sarasma, 2024). In addition, material living standards, subjective well-being (e.g., Colantonio, 2011) and having a meaning in life (Pieper et al., 2019) have been proposed as indicators of social sustainability. Importantly, the focus is not only on whether a minimum or a certain level is achieved, but also on how equally well-being, living standards or resources are distributed within the society and across generations. Both the desirable level and the degree of equality remain controversial (e.g., Delhey, 2014).

The level of community highlights the role of the quantity and quality of relationships within and between communities. Social capital, social and political trust, integration, lack of exclusion and social cohesion have often been proposed as key indicators of social sustainability at this level (e.g., Bramley & Power, 2009). However, they could also include other aspects such as place attachment and community pride (Dempsey, Bramley, Power & Brown, 2011). Social capital can be defined as "social networks, together with shared norms, values and understandings that facilitate cooperation within and among groups" (OECD, 2001, p. 41). Cooperation and the ability to collaborate are central to any notion of the goodness of a community. This requires both 'bridging' and 'bonding' social capital; i.e., ties between members of different communities

and ties within communities (Putnam, 2001). Previous research has found that social capital and trust appear to contribute to community resilience (Aldrich, 2012; Helliwell, Aknin, Shiplett, Huan & Wang, 2018). Indeed, social capital can be seen as a resource left for future generations and an important enabler of the other pillars of sustainability.

The level of governance refers to institutions, policies and decision-making. In order to promote social sustainability, it is important to understand how well the different institutions function for this purpose and how they are able to serve citizens (e.g., Pieper et al., 2019). Central to achieving social sustainability is participatory democratic governance combined with the empowerment of those with less of a voice in the society (Boström, 2012). It could also be argued that social sustainability must be a shared vision, which requires broad citizen participation and a flourishing public debate. This, on the other hand, should be understood as a long-term project in which social policies and institutions also promote the political agency of individuals, not only their material well-being (see Bonvin & Laruffa, 2021). This also refers to stronger stakeholder engagement by the government among others and supports the idea that people themselves can decide what kind of future they want (Partridge, 2014). In the European context, a central institution for promoting and distributing well-being, resources and social participation is the welfare state. Previous research has shown that social policies are strongly associated with various well-being outcomes, such as poverty and health (see also Chapter 3 in this volume).

The conceptualisation illustrates that social sustainability cannot be reduced to well-being and life satisfaction, although they are important aspects of social sustainability. Social sustainability is also about a well-functioning society that is able to foster solidarity and cooperation. This may require additional efforts and values operating at the levels of community and governance such as social cohesion and justice (cf., Pieper et al. 2019). This three-level conceptualisation of social sustainability helps to conceptually locate life satisfaction and its distribution in the complex and ambiguous idea of social sustainability. It therefore provides conceptual clarity to our overall question about the role of life satisfaction in social sustainability.

LIFE SATISFACTION: A KEY INDICATOR FOR SOCIAL SUSTAINABILITY

What is Well-being?

Understanding which institutions, conditions and societal structures support well-being, and for whom, is an important and policy-relevant endeavour. From the perspective of social sustainability, we believe that the distribution

of well-being is especially salient because of concerns about equity, justice and social cohesion. It is also likely that well-being is strongly linked to other dimensions of social sustainability, as will be argued in this chapter. However, the literature neglects the importance of *subjective* well-being (SWB), specifically with regard to social sustainability. In order to fill this gap, we next discuss the role of SWB for social sustainability in more detail.

The most general definition for well-being is leading a good life all things considered (Haybron, 2014). It appears that the conception underlying contemporary accounts of well-being emphasises people as active and autonomous agents who seek growth and meaning in life and who, with the satisfaction of needs, become more engaged with the world (e.g., Csikszentmihalyi, 1990; Martela & Ryan, 2023). In addition, the sources of well-being and ideals about well-being may change with age, and across different cultures and stages of economic development (Vilar, Liu & Gouveia, 2020; Ilmakunnas, Uotinen & Vaalavuo, 2024).

The diverse and changing nature of well-being (cf., McMahon, 2018) challenges the objective well-being accounts that try to list items important for well-being regardless of people's own agreement. These include, in particular, indicators of material well-being such as income and wealth, and many frameworks of needs. The plethora of different indicators also makes it difficult to construct their relative importance for policy-making and prioritisation (Lucas, 2018). More promising from this perspective is a subset of objective well-being accounts: resource and capability approaches. Rather than prescribing what should be achieved, they focus on whether people have the resources, opportunities and capabilities to live a life that they themselves value (Sen, 1999). However, while such a focus on opportunities is appealing, measuring opportunities has proved almost impossible (Kainulainen, 2011).

A partial solution to these problems is to measure people's own assessment of their well-being: subjective well-being. SWB is typically measured with indicators of life satisfaction and emotional well-being (Diener, Suh, Lucas & Smith, 1999). Life satisfaction refers to an evaluation of how well one's life as a whole is going, based on one's personal standards (e.g., Robinson & Klein, 2018). Emotional well-being refers to the experience of positive emotions and the absence of negative emotions, with positive and negative affect typically examined as two separate aspects of emotional well-being (e.g., Lucas, Diener & Suh, 1996). The advantage of SWB measures is that they do not rely on a pre-defined set of criteria but allow people to use their own criteria for the assessment of the goodness of their lives. Indeed, life satisfaction has been shown to be encompassing in the sense that it is associated with a variety of other factors such as genes, socioeconomic status and various life events (e.g., Dolan, Peasgood & White, 2008). This makes life satisfaction a promising

benchmark for social sustainability as well because it reflects societal characteristics and what it actually feels like to live a life in a given society.

The fact that life satisfaction also reflects people's standards of comparison, which may differ between individuals, has at times been seen as a drawback of the measure. People may intentionally adapt to adverse circumstances to feel happy despite hardship (e.g., Halleröd, 2006). Furthermore, some may compare their living standards with, for example, the top income earners and others with their own past income. While these are relevant concerns, it ought to be noted that people's evaluations of their lives matter in themselves and to the people, regardless of the criteria used, as the political implications of life satisfaction discussed in the next section show. From this viewpoint, it can be seen as a merit that life satisfaction contains the subjective standard of comparison, for that is exactly what it tries to measure.

All in all, high levels of life satisfaction across all age groups indicate that society is meeting the changing needs and values of people at different stages of their lives. In short, life satisfaction as an indicator of overall well-being is unique compared to other objective and subjective indicators of well-being (Veenhoven, 2000), and life satisfaction better captures the kind of societies in which people are satisfied. For these reasons, we argue that life satisfaction is a key aspect of social sustainability to study.

Links Between Life Satisfaction and Other Aspects of Social Sustainability

While the importance of the subjective experience of well-being for social sustainability appears to be increasingly acknowledged (e.g., Colantonio, 2011; Pieper et al., 2019), it merits more recognition as an indicator of social sustainability. In addition to being an important indicator of well-being, life satisfaction is also important for political legitimacy. Dissatisfaction with life can cause varied forms of protest and political upheaval (Arampatzi, Burger, Ianchovichina, Röhricht & Veenhoven, 2018; Witte, Burger & Ianchovichina, 2020). At the other end of the spectrum, satisfied people tend to support the political system and incumbent politicians (Esaiasson, Dahlberg & Kokkonen, 2020) and actively participate in conventional forms of political decision-making (Flavin & Keane, 2012), which is good for the functioning of democracy.

It has been argued that, in the political upheavals of the Arab Spring in 2011, for example, it was not the usual objective measures of well-being that forecast these revolutions and drastic political changes, but a decline in life satisfaction (Arampatzi et al., 2018). Such upheavals can be considered a sign of failures in social sustainability. Furthermore, there is evidence that life satisfaction does indeed have a causal effect on support for the political system

(Esaiasson et al., 2020). Interestingly, as shown by Esaiasson et al. (2020), the causes of changes in life satisfaction that affect political support need not be solely related to changes in the political system. For example, the end of a close relationship reduced life satisfaction but also led to lower political support, mediated by this reduction in life satisfaction. This suggests that life satisfaction plays a unique role in political behaviour (see also Ward, 2015, on life satisfaction and election outcomes). Consequently, life satisfaction also appears to be important for the level of governance of social sustainability, regardless of its sources. Furthermore, the literature indicates that emotional well-being, which is a component of life satisfaction (Tov, 2018), causes people to engage in prosocial behaviour, which is benevolent, skilful and socially engaged behaviour (Moore, Diener & Tan, 2018). This is likely to support social sustainability, especially at the community level.

The research literature also illustrates other connections between life satisfaction and other aspects of social sustainability. These demonstrate how life satisfaction is intertwined with the other aspects and levels of social sustainability. For instance, in areas where life satisfaction is high, inequalities in life satisfaction (Helliwell, Shiplett & Barrington-Leigh, 2019; Martela, Greve, Rothstein & Saari, 2020) and income (Delhey, 2014) are typically low, while trust in others is high (Bjørnskov, 2003; Helliwell et al., 2018; Helliwell & Wang, 2011); social cohesion (Delhey & Dragolov, 2016) and social integration in the sense of identification with the community (Herrero, Fuente & Gracia, 2011) and equality of rights between genders are high (Audette, Lam, O'Connor & Radcliff, 2019); and the ability to receive social support is high (Helliwell & Wang, 2013; Oishi & Diener, 2014). However, studies investigating the relationship between welfare services and life satisfaction have yielded contradictory evidence, with no discernible correlation (Veenhoven, 2000), and a positive correlation identified (e.g., Flavin, Pacek & Radcliff, 2011) after controlling for GDP.

Life Satisfaction and GDP Per Capita

From the perspective of life satisfaction, economic conditions appear to be an important factor in determining social sustainability. However, this is not the only aspect of social sustainability that is influenced by economic conditions. It can be observed that countries with a higher level of wealth tend to perform better in several areas related to social sustainability. Furthermore, they are more likely to provide a comprehensive welfare state that supports higher levels of well-being.

Research indicates that a country's affluence is associated with life satisfaction and its more equal distribution (e.g., Delhey, 2014). Initial research indicated no correlation between life satisfaction and GDP per capita across

countries (Easterlin, 1974). However, subsequent studies employing a broader range of countries, years and datasets have identified a clear positive association between these variables throughout the GDP per capita distribution (Stevenson & Wolfers, 2008). It is likely that "the same public policies that raise levels of happiness alleviate respective inequalities as well" (Delhey & Kohler, 2011, p. 744). These public policies pertain to socioeconomic and political modernisation. Greater affluence and higher levels of education may lead to a greater preference for post-materialist happiness, as many needs are fulfilled and norms are laxer, enabling people to lead more varied kinds of lives. Concurrently, income disparities may be less detrimental, minorities are empowered, and there may be more equitable access to resources beyond income (Delhey & Kohler, 2011).

Related, it has been proposed that GDP per capita is the primary determinant of well-being, with other institutions such as the welfare state potentially exerting a net zero effect on life satisfaction (e.g., Veenhoven, 2000). However, research indicates that economic conditions alone do not drive high life satisfaction; rather, other aspects of social sustainability contribute to life satisfaction (Helliwell & Wang, 2013). These aspects include, for example, social trust, the existence of social safety nets (having someone to count on), healthy life expectancy, the absence of corruption, the freedom to make life choices, and the prevalence of generosity (Helliwell & Wang, 2013). More recent research also argues that the welfare state increases life satisfaction beyond GDP (Flavin et al., 2011). Indeed, the existing literature appears to be largely in agreement that GDP per capita does not alone drive social sustainability or well-being (cf. Stiglitz, Sen & Fitoussi, 2009). However, less is known about the relationship between GDP per capita and the age distribution of life satisfaction.

EMPIRICAL EXAMINATION OF THE ROLE OF LIFE SATISFACTION IN SOCIAL SUSTAINABILITY

Data and Methods

The chapter next turns to our empirical analysis, in which we describe the average level of life satisfaction across countries and age groups, and the relationship between life satisfaction in different age groups and (1) trust, (2) social protection spending, and (3) GDP per capita.

We use data from the 2018 European Union Statistics on Income and Living Conditions (EU-SILC) survey[1]. The original data had a sample size of 443,280 individuals aged 18 and over with relevant survey weights. Of these, 69,880 were dropped through case-wise deletion due to missing responses to relevant variables used in our analysis. This left 373,400 observations in our analysis

Table 1.2 Descriptions of the used individual and country-level variables (unweighted)

Variable description	Source	*n*	Mean	SD
Life satisfaction "these days" (0–10, 0 = "not at all satisfied", 10 = "completely satisfied)"	EU-SILC 2018	373400	7.1	2.0
Social trust (trust in strangers, 0–10, 0 = "Do not trust at all", 10 = "Trust completely")	EU-SILC 2018	373400	5.5	2.5
Social protection (total national social protection benefit expenditures as % of GDP in 2018, 0–100%)	Eurostat (SPR_EXP_GDP)	30	22.2	5.3
GDP per capita (in 2018, purchasing power corrected), log transformed	Eurostat (NAMA_10_PC)	30	31403	13673

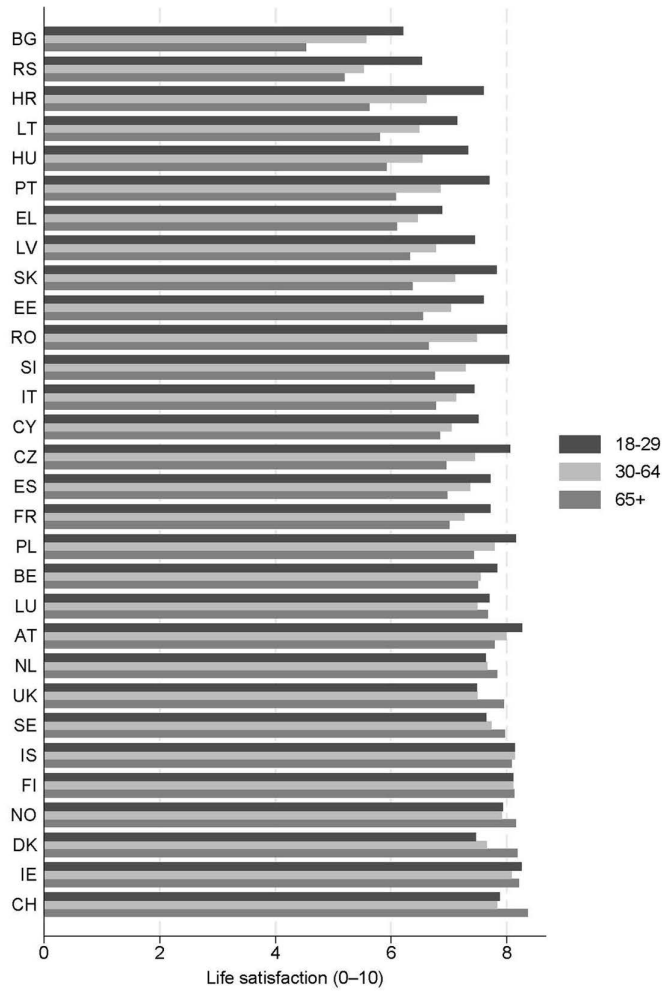
sample. Table 1.2 lists the SWB variables used from EU-SILC and the social variables obtained from Eurostat.

Social protection is measured as total national expenditure on social protection benefits as a percentage of GDP in 2018. While it does not fully capture the quality of services provided, the social rights of individuals or who benefits from the distributive effects of services and benefits, it is suitable for our purposes here to provide new insights into the relationship between the age distribution of life satisfaction and the welfare state.

RESULTS

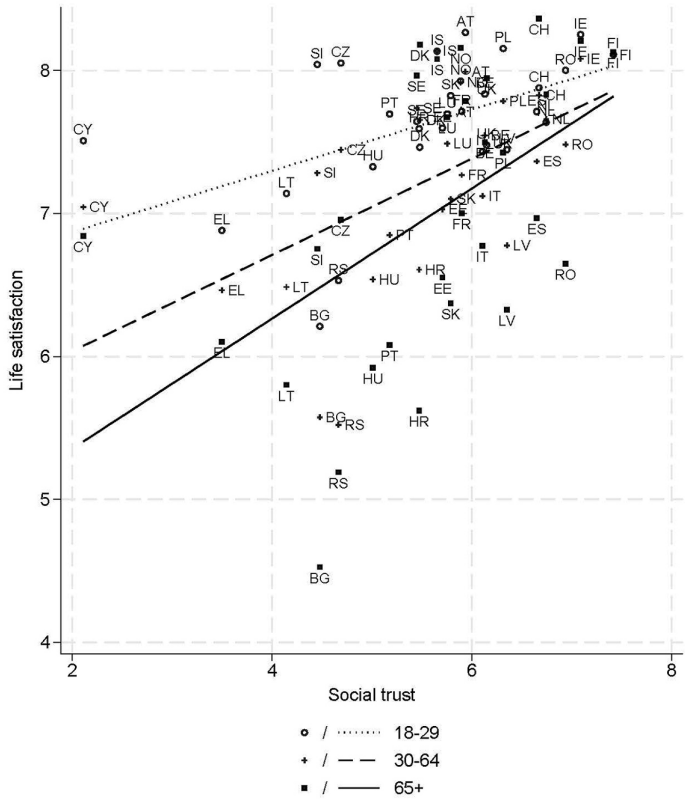
Figure 1.1 shows average life satisfaction by country and age group. Countries are ordered by the average life satisfaction of the oldest age group, those aged 65 and over. The figure shows less variation between countries for the youngest age group, 18–29, and most for the oldest age group. Although there is variation, it seems that, where one age group is satisfied, all the others tend to be too. The Nordic countries, Ireland and Switzerland have both the highest levels of satisfaction and small differences between age groups. The opposite is true for Eastern European countries, with Central and Southern European countries in between. In almost all countries, young people are the most satisfied with their lives.

We move on to analyse the relationship between life satisfaction and social trust, social protection provided by the welfare state and GDP per capita. Figure 1.2 shows the relationship between average life satisfaction by age



Note: Countries are ordered by the life satisfaction of the oldest age group (65 and over).
Source: EU SILC 2018; own calculations.

Figure 1.1 Average life satisfaction by country and age group



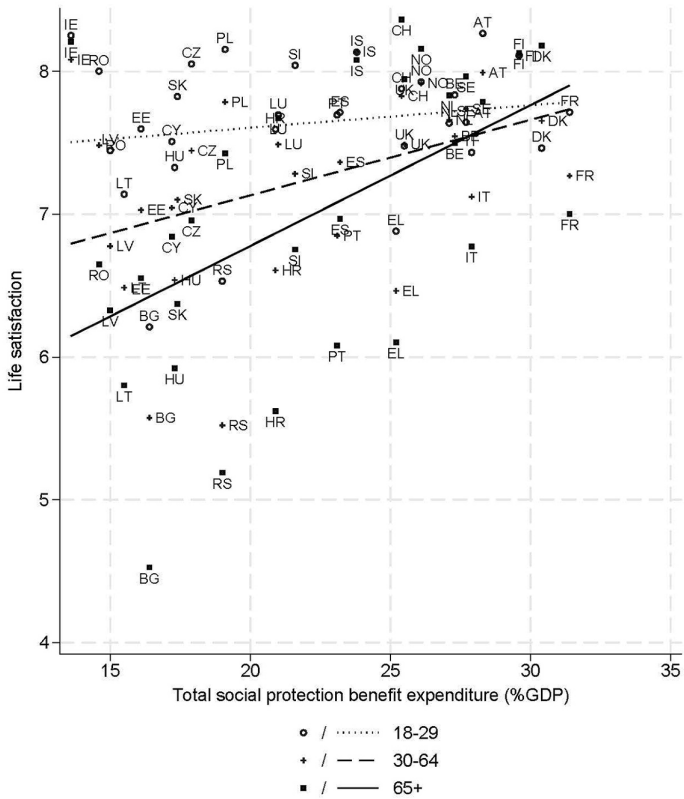
Source: EU SILC 2018; own calculations.

Figure 1.2 Scatterplot of the average life satisfaction by age group and social trust in the country

group and social trust across countries. For all age groups, life satisfaction is higher in countries with higher social trust. Interestingly, the differences in life satisfaction between age groups tend to be smaller in countries with higher levels of social trust. Finland is an example of a socially sustainable country, with virtually no difference in life satisfaction between age groups, a high level of life satisfaction and the highest level of social trust among the European countries examined. The less socially sustainable countries are more heterogeneous in this case, as exemplified by Cyprus, Greece and Bulgaria, with different

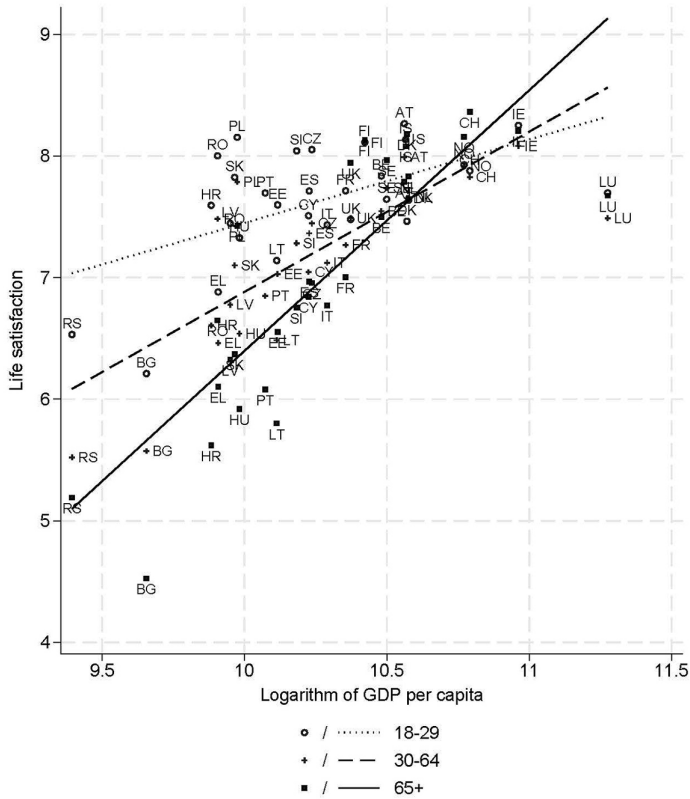
combinations of relatively low levels of life satisfaction, large differences in life satisfaction between age groups and the lowest levels of trust in Europe.

The same pattern holds when we examine how social protection relates to life satisfaction across age groups (Figure 1.3) and how log GDP per capita relates to life satisfaction across age groups (Figure 1.4). Younger people tend to have higher levels of life satisfaction, but the difference between age groups is typically smaller in countries with high levels of social protection and GDP.



Source: EU SILC 2018; own calculations. Social protection benefit expenditure from Eurostat.

Figure 1.3 *Scatterplot of average life satisfaction by age group and social protection benefit expenditure as a percentage of GDP across countries*



Source: EU SILC 2018; own calculations. GDP per capita from Eurostat.

Figure 1.4 Scatterplot of average life satisfaction by age group and the logarithm of GDP per capita across countries

The positive association between life satisfaction and social protection is especially strong for the oldest age group. This may reflect the role of social protection, especially for the elderly, who rely on pensions for their economic security. France has the highest level of spending on social protection, with good levels of life satisfaction and small differences between age groups. As shown, there is a lot of variation among countries with lower levels of social protection expenditure, with some countries doing well in terms of the

distribution of life satisfaction, such as Ireland, and others doing relatively badly, such as Bulgaria.

Figure 1.4 shows that Luxembourg, Ireland and Switzerland have the highest levels of GDP per capita, with correspondingly high levels of life satisfaction and low levels of inequality in life satisfaction across age groups. Again, there appears to be considerable variation in how countries perform in terms of life satisfaction across age groups in countries with lower levels of GDP per capita. Below €18,000 per capita (corresponding to 9.8 on the log axis), the two remaining countries, Bulgaria and Serbia, have relatively low levels of life satisfaction. Poland in particular appears to have high levels of life satisfaction compared to, for example, Hungary and Portugal, which have similar levels of GDP per capita. However, the general pattern of age and life satisfaction is similar to the previous cases.

CONCLUSIONS

In this chapter we discussed the role of life satisfaction for social sustainability in ageing welfare states. We reviewed the literature to locate life satisfaction, or well-being more broadly, in the definitions of social sustainability and to illustrate the links between life satisfaction and other dimensions of social sustainability. Many of the existing studies suggest well-being as one of the key dimensions of social sustainability (e.g., Pieper et al., 2019; Boström, 2012). Moreover, it is often the distribution of well-being and not only its level that is highlighted (e.g., Colantonio, 2011; Komp-Leukkunen & Sarasma, 2024). Based on this review, we argued that life satisfaction is a promising key indicator for monitoring social sustainability. Moreover, we provided empirical evidence on the distribution of life satisfaction by age group in Europe and how life satisfaction in different age groups is associated with (1) trust, (2) social protection spending, and (3) GDP per capita. We argued that such an analysis, focusing on differences between age groups and links to other dimensions of social sustainability, is particularly relevant in the context of ageing populations and the economic pressures that places on the welfare state. From the perspective of social sustainability, it is crucial to understand how well-being can be maintained and promoted across age groups in possibly less favourable economic conditions.

We started by proposing a three-level conceptualisation of social sustainability, which is helpful in mapping proposed aspects of social sustainability. These levels are (1) individuals (e.g., life satisfaction and well-being), (2) communities (e.g., trust and social cohesion), and (3) governance (e.g., political legitimacy and public safety nets). In our empirical analysis, we have shown how indicators reflecting these levels are related across European countries.

In general, life satisfaction can be considered a particularly important indicator of social sustainability because it reflects the kind of societies in which people experience their lives as satisfactory and good. Importantly, life satisfaction and its equal distribution tend to be closely related to the other levels of social sustainability, as we have discussed on the basis of previous research and also illustrated empirically. However, the causal direction between life satisfaction and the other levels of social sustainability is difficult to establish, and it is therefore safer to assume that life satisfaction is likely to be both a consequence and a cause of the other levels of social sustainability.

Based on our empirical analysis, we first showed the large differences between countries in the level of life satisfaction in different age groups. Notably, it seems that countries differ especially when it comes to the life satisfaction of older adults – a finding that could be relevant as populations age and a larger share of the population requires welfare state services and benefits. This simple description of the survey data also demonstrated that countries with higher levels of life satisfaction also had smaller differences between age groups. This was especially the case in the Nordic countries, Ireland and Switzerland.

Second, our analyses show that life satisfaction and its equality across age groups tend to be higher in countries with high levels of social trust and a larger welfare state (as measured by social protection spending). While younger people tend to have higher life satisfaction on average, the life satisfaction of the older population approaches that of the younger population in European societies with higher social trust and social protection spending. Where social protection is high, older people may even have higher life satisfaction than younger people. The same pattern emerges when looking at GDP per capita. The complex interrelationships between these variables highlight the need for more in-depth research in the future to understand which institutions and welfare state features can promote high levels of life satisfaction and low disparities between age groups.

The results appear to diverge from the well-known U-curve relationship between life satisfaction and age (Kolosnitsyna, Khorkina & Dorzhiev, 2017). However, previous research has also identified a downward-sloping pattern in the relationship between life satisfaction and age in Eastern Europe (Steptoe, Deaton & Stone, 2015). In accordance with this, our findings indicate that the relationship between life satisfaction and age is contingent upon the country group under investigation. A U-curve relationship between life satisfaction and age can be observed among countries with high life satisfaction, social protection expenditure and GDP per capita. However, this is not true among all countries. Our results contribute to this literature by demonstrating that the relationship between life satisfaction and age is contingent upon societal institutions and characteristics.

The results, in conjunction with the complex causality between the different levels of social sustainability, suggest virtuous cycles of reinforced sustainability. It appears that social sustainability at the community and governance levels (as measured by social trust and social protection) is particularly associated with life satisfaction of the older population. It may be that the younger population can cope relatively well in many kinds of circumstances, while older people benefit from societal characteristics such as extensive welfare services and social transfers. Any reductions in welfare spending or significant alterations to the welfare state will have a greater impact on those who are most reliant on it. The condition of the vulnerable in a society appears to be an important indicator of social sustainability more widely. Therefore, in the context of economic pressures to reduce welfare spending, monitoring the life satisfaction of the most vulnerable groups is a necessity, in addition to analysis by age groups. Our analysis did not include children, but this would be an important avenue for future research to better understand the links between societal characteristics and life satisfaction across the different life stages. Previous research has highlighted the importance of childhood conditions for well-being in old age.

The analyses also demonstrated how countries experience various combinations of aspects of social sustainability. These differences indicate that societies may approach social sustainability through a variety of different configurations. For instance, Ireland exhibited a high level of life satisfaction and minimal discrepancies in life satisfaction between age groups, accompanied by a relatively low level of social protection expenditures. However, it also demonstrated a high level of trust and a high GDP per capita. Further analysis is required to ascertain the role of the welfare state in promoting well-being and to identify the most effective form of social spending in supporting well-being across all age groups.

Despite the close link between economic productivity and social sustainability, our results demonstrate that countries can achieve markedly different levels and distributions of life satisfaction with the same level of GDP per capita. For instance, Poland illustrates how a country may exhibit high life satisfaction despite low GDP per capita. This indicates the potential for enhancing well-being without solely focusing on economic growth. As populations age, it may be necessary for countries to promote well-being with less reliance on economic productivity. This is further emphasised by the environmental crisis and the imperative of ecological sustainability. Nevertheless, Bulgaria and Serbia demonstrate that some economic performance may be necessary for social sustainability to flourish.

To conclude, we want to highlight the importance of measuring various aspects of economic and social characteristics and institutions, not just life satisfaction, social trust, social protection expenditure or GDP per capita as is done in the limited space here. In the future, it would be important to

identify the solid institutions that would be able to promote the well-being of all and social sustainability notwithstanding the turbulence and crises hitting the welfare state. Given the interconnectivity between different dimensions of social sustainability, economic prosperity and the welfare state, multivariate regression analyses would be valuable in identifying the most important relationships with life satisfaction in different age groups. Additionally, these analyses could help identify the most important institutions for supporting social sustainability. Furthermore, considering the current environmental crisis, it would be important to examine how well various countries are able to provide well-being for their citizens with a smaller ecological footprint. This typically requires lower economic productivity (York, Rosa & Dietz, 2008). To gain an understanding of the dynamic relations between economic, ecological, and social sustainability, it is necessary to assess all three simultaneously. When longer time frames are examined, the three elements blend into each other (Boyer, Peterson, Arora & Caldwell, 2016), in contrast to the cross-sectional analysis presented here.

NOTE

1. EU-SILC cross-sectional UDB 2018 – version 2021-09.

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