Support for sustainable welfare?

A study of public attitudes related to an eco-social agenda among Swedish residents

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LUND DISSERTATIONS IN SOCIAL WORK

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Abstract

This thesis explores Swedish residents' attitudes related to an eco-social agenda from a sustainable welfare perspective. It investigates public support for general policy goals related to an eco-social agenda as well as for specific eco-social policies. The thesis also analyses the significance of the individuals' socioeconomic characteristics, their values, and the context they are situated in relation to the attitudes they express. It also explores what kind of political activities they are involved in (if at all) to prevent climate change and promote societal change, and how various modes of political action are associated with the attitudes. This kind of study is crucial in times of imperative social-ecological transformations where the strive towards sustainable welfare and the realising of an eco-social agenda can be seen as key in a just and climate-neutral society. Public support and engagement in terms of both attitudes and political action are central components in societal transformations in democratic societies.

The thesis is a compilation thesis based on four research articles. It follows a quantitative research design by analysing data from an original cross-sectional survey study by the means of, for example, regression and multiple correspondence analyses. The survey study followed a stratified random sampling strategy targeting residents living in Stockholm, Gothenburg, Malmö, and Sweden at large.

The results show that quite a substantial share of Swedish residents express attitudes consistent with an eco-social agenda from a sustainable welfare perspective, even though comparatively large shares of the respondents also express sceptical attitudes. This suggests that the respondents tend to be rather divided in their attitudes, a finding that seemed to be enhanced when the individual-level and contextual-level factors that were associated with the attitudes were taken into account. The individual-level and contextual-level factors – which were categorised in the four analytical concepts of homo economicus, homo sociologicus, homo locus and homo politicus – are in various ways and degrees associated with the attitudes. One factor, i.e., political ideology, stand out in the sense that it is significantly and strongly associated with the attitudes both when measured in terms of support for general policy goals and for specific eco-social policies. The results thus point towards a political polarisation in attitudes related to an eco-social agenda. Consequently, the thesis shows that there are obstacles that need to be overcome in the strive towards sustainable welfare, for example in terms of bridging attitudinal gaps and changing the present political agenda.

This thesis contributes, in general, to research and literature that focus on the intersection between climate change and social policy, and in particular to the newly emergent research that explores the intersection between social welfare and environmental attitudes.

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To Henry

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[1] This is Karolina's description of the cover: The location is a beach but near a city. Some people are protesting, some have chosen to live outside the city in a trailer, and some enjoy the warm weather. The floating ice block, coming from the melting glaciers, provides a good cooling off spot for the sun worshipers who also enjoy diving from it. In the foreground some children have built their future imaginary city. The sandcastles can also be seen as an illustration of social injustices where wealthy people have an abundance of water and where less fortunate people only have access to a creek. The red sky symbolises dawn and dusk, and thus that a new phase is coming. Or do we jump on the rocket and go elsewhere before the new phase is coming?

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List of articles

Article I

Emilsson, K. (2022). Attitudes towards welfare *and* environmental policies and concerns: A matter of self-interest, personal capability, or beyond?. *Journal of European Social Policy*, E-pub ahead of print.

Article II

Emilsson, K. Divided cities, divided attitudes? Investigating public attitudes related to an eco-social agenda among urban residents living in more or less affluent city districts. To be submitted.

Article III

Khan, J., Emilsson, K., Fritz, M., Hildingsson, R., & Johansson, H., (2022). Ecological ceiling and social floor: public support for eco-social policies in Sweden. *Sustainability Science*, E-pub ahead of print.

Article IV

Emilsson, K., Hildingsson, R., & Fritz, M. The active, the sympathetic, and the reluctant: Political action and eco-social attitude patterns among Swedish residents. Submitted, under review.

1 Introduction

"Planet Earth is facing a climate emergency" thousands of researchers warn (Ripple et al., 2020). Recent reports by the International Panel on Climate Change (IPCC) paint a just as gloomy picture, where it is also clearly stated that it is beyond doubt that the ecological crisis we are facing is caused by human activity (IPCC 2021, 2022a; see also O'Neill et al., 2018; Steffen et al., 2011). In order to mitigate climate-related risks for natural and human systems, such as rising sea levels, extreme weather events, species lost and extinction, the global temperature increase needs to be kept below 1.5°C. However, if the global temperature continues to increase at the current rate, it is likely that the 1.5°C increase will occur somewhere between 2030 and 2050 (IPCC, 2018). Recently it was stressed that "without a strengthening of policies beyond those that are implemented by the end of 2020" it will lead to a median global warming of 3.2°C by 2100 (IPCC, 2022b, p. 21). Despite the severity, we are still in a position to make a change, and just as was stated in one of the recent IPCC reports: "The lockdowns implemented in many countries in response to the COVID-19 pandemic demonstrated that behavioural change at a massive scale and in a short time is possible" (Creutzig et al., 2022, p. 6). But the clock is ticking (IPCC, 2021, 2022a; Ripple et al. 2020, 2021).

From a social policy perspective, scholars have recognised the social implications of climate change[2], but also the potential roles of social policies in contributing to the mitigation of greenhouse gas emissions (e.g., Fitzpatrick, 2011a, 2014; Koch & Mont, 2016a; Gough, 2017; Hvinden & Shoyen, 2022). Thus, social policy research has a central role in imperative social-ecological

[2] Climate change is only one out nine so-called planetary boundaries, which are fundamental to Earth-system functioning (see Steffen et al., 2015, for detailed explanations, and see also Persson et al., 2022). The others are biosphere integrity, land-system change, freshwater use, biochemical flows, ocean acidification, atmospheric aerosol loading, stratospheric ozone depletion, and novel entities. For the sake of simplicity, however, this thesis most often refers to climate change even though it also recognises the importance of all planetary boundaries.

transformations[3] into a climate-neutral society. Given the deep interconnections between social and environmental concerns, it has been argued that there is a need for a convergence between the social welfare agenda and the environmental agenda into an eco-social agenda[4]. It is assumed that this kind of agenda could better handle the consequences, as well as the drivers, of climate change compared to the silo-organising of two separate welfare and environmental agendas (e.g., Fitzpatrick, 2011b; Shoyen et al., 2022; Närhi & Matthies, 2018). In relation to an eco-social agenda it is thus of central importance to recognise which countries and groups of individuals are most likely to be affected by the consequences of climate change, or that contribute the most to climate change. Whereas affluent countries and individuals with high material standards of living seem to be associated with higher greenhouse gas emissions, poorer societies and individuals tend to have lower greenhouse gas emissions while at the same time falling "short on most of the social thresholds" (Fanning et al., 2020, p. 2; see also O'Neill et al., 2018; Ripple et al., 2020, 2021; Wiedmann et al., 2020). In this way the poorer strata in societies risk being exposed to so-called 'double and triple injustices', e.g., the kinds of injustices that make poor households and individuals more likely to become victims of climate change because they are more exposed and vulnerable to its impacts, even though they have contributed the least to climate change, while at the same time they have the least resources to pay the costs of climate mitigation measures (Gough, 2017).

Because an eco-social policy agenda is not yet realised, it is still an open question what kinds of policy goals could form its constitutive elements and how to achieve them. An eco-social agenda can thus take many forms (e.g., see Shoyen et al., 2022 for a discussion about various approaches). One such form or arrangement could be in line with the notion of sustainable welfare, which derives from a questioning of the contemporary and expansionary economic model on which present welfare societies rest upon, and which in turn assumes continuously rising material living standards and infinite economic growth as a way to provide jobs

[3] A wide range of concepts are used to refer to change towards a climate-neutral society, e.g., social-ecological or socio-ecological transformations or transitions, each with different connotations. In this thesis the term 'social-ecological transformations' is used, where 'transformations' refer to large-scale changes in whole societies, and where 'social-ecological' emphasises that the two subsystems of the social and the ecological are equally important (Berkes 2017; Hölscher et al., 2018; Merkel et al., 2019a).

[4] The term 'eco-social' is used when I refer to an agenda and to specific policy measures, just as done by previous social policy researchers (e.g., Fitzpatrick, 2011b; Koch, 2018).

and generate tax revenues and in that way provide wealth distribution. This is the kind of indefinite economic growth model that is contributing to environmental depletion through increasing levels of greenhouse gas emissions (e.g., Creutzig et al., 2022; Haberl et al., 2020; Ripple et al., 2021). A central argument in the sustainable welfare approach, eloquently summarised by Shoyen and colleagues (2022), is "the requirement of equal distribution of welfare and resources across rich and poor countries and between the poor and the rich within affluent countries, as well as between current and future generations" (Shoyen et al., p. 11). A sustainable welfare approach thus emphasises the urgency for welfare systems to support the satisfaction of human needs and wellbeing while safeguarding the planet's life-support systems from an intergenerational and a global perspective (Koch and Mont, 2016b; Koch, 2018). In line with a number of social policy scholars who recognise the value of this approach (e.g., Büchs, 2021; Hirvilammi, 2020; Matthies & Närhi, 2017), this thesis also takes its point of departure from this approach. This means that in this thesis I understand an eco-social agenda from a sustainable welfare perspective as an agenda that focuses on specific concerns and policies related to social justice, equality, redistribution of wealth and income and of work and time, decarbonising measures and policies, distributist institutions, a questioning of the current economic growth paradigm, and so forth (e.g., Büchs, 2021; Koch and Mont, 2016a; Koch, 2018, 2022; Hirvilammi, 2020).

To what extent an eco-social agenda and sustainable welfare is politically feasible depends on the public's willingness and acceptance, among other things. The strive towards sustainable welfare and the realising of an eco-social agenda will thus be facilitated by the engagement of the public and the mobilising of public support (cf. Burstein, 2003; Rosenbloom et al., 2019; Schaffer et al., 2022; Winkelmann et al., 2022). But what do people think about issues that are central in an eco-social agenda from a sustainable welfare perspective? Are people engaged, or not, in various forms of political action to make a change? These are the kinds of questions that this thesis engages with.

A handful of studies have started to explore the nexus between social welfare attitudes and environmental attitudes as an attempt to investigate attitudes related to an eco-social agenda (Fritz & Koch, 2019; Jakobsson et al., 2018; Koch & Fritz, 2014; Otto & Gugushvili, 2020; Spies-Butcher & Stebbing, 2016; Yoon & Hong, 2018). This contrasts to decades of separation between the well-established research

on social welfare attitudes and environmental attitudes (for an overview of the respective research fields, see Section 2.3.1). A separation that follows an overall societal and disciplinary differentiation and specialisation, which have been "detrimental to society's capability to properly understand and address its relation to the – seemingly increasingly strained – natural environment" (Fischer-Kowalski, 2015, p. 254; see also Mancilla Garcia et al., 2020; Rau & Fahy, 2013). This is also evident from an attitude perspective as it has been suggested that the two welfare and environmental policy agendas compete for public support and thus crowd each other out (Jakobsson et al., 2018). This could even hamper a realising of an eco-social agenda, which is dependent on the public being supportive of both environmental and social welfare issues, and thus that individuals express attitudes *consistent* with an eco-social agenda. In recent times social policy scholars have started to explore if public support for environmental and social welfare issues complement or substitute for each other, and thus if there are potential conflicts or synergies between environmental and social welfare attitudes in different ways. This emerging research has been exploring attitudes towards more general policy goals and more specific policy measures (Fritz & Koch, 2019; Heggebø & Hvinden, 2022; Jakobsson et al., 2018; Koch & Fritz, 2014; Otto & Gugushvili, 2020; Spies-Butcher & Stebbing, 2016; Yoon & Hong, 2018; see also Hvinden & Shoyen, 2022). This thesis intends to do the same.

In contrast to previous studies that have explored the intersection between social welfare and environmental attitudes through rather conventional elements such as energy preferences and the role of the government in providing welfare services, this thesis adds to these conventional features a set of dimensions tied to a sustainable welfare approach, e.g., various eco-social policy proposals, social justice and ecological concerns. Accordingly, in this thesis attitudes related to an eco-social agenda refer to evaluations concerning the desirability and legitimacy of policies and concerns that respect both social and planetary boundaries, as discussed by scholars in the sustainable welfare or sustainable wellbeing literature (e.g., Büchs & Koch, 2017; Gough, 2017; Hirvilammi, 2020). Just as in previous research, which has started to explore what characterises individuals who express attitudes related to an eco-social agenda as well as in what context they are situated (Fritz & Koch, 2019; Otto & Gugushvili, 2020), this thesis also engages in the exploration of both individual and contextual-level predictors of these attitudes.

1.1 Aim and research questions

The aim of this thesis is to explore public attitudes related to an eco-social agenda from a sustainable welfare perspective, both in terms of level of support for general policy goals as well as for specific policy measures. The aim is also to explore what characterise the individuals who express these kinds of attitudes in terms of their socioeconomic characteristics, values, the context they are situated in, and what kind of political activities they are involved in (if at all). This is crucial in times of imperative social-ecological transformations where the strive towards sustainable welfare and the realising of an eco-social agenda can be seen as key components of a just and climate-neutral society. The realising of an eco-social agenda will most likely be facilitated by public acceptance, but also by the engagement of the public in terms of various modes of political action. The attitudes and the individual and contextual-level characteristics will be explored by analysing data from an original survey study among Swedish residents. The following three research questions will guide the study:

> To what extent do Swedish residents express attitudes consistent with an eco-social agenda?
>
> Which socioeconomic, value, and context-based factors are associated with attitudes related to an eco-social agenda? And how can the associations be understood from a theoretical point of view?
>
> How are various forms of political action to prevent climate change and promote societal change connected, if at all, to attitudes related to an eco-social agenda?

Due to a prior emphasis on a potential socioeconomic divide in the intersection between social welfare and environmental attitudes where socioeconomically vulnerable individuals are assumed to express welfare support and socioeconomic affluent individuals are assumed to express environmental support (Otto & Gugushvili, 2020; Gugushvili & Otto, 2021), Article 1 investigates this in-depth from an individual-level perspective. In Article 2, I explore the association between social context from a socioeconomic perspective and public attitudes. If context-related variation in attitudes is evident, this could have consequences for realising an eco-social agenda in the longer run. Potential contextual variation in attitudes along the urban/rural divide is also explored in two articles (Articles 1 &

3). A focus on regional and local differences could be seen against what van Oorschot and colleagues (2022) call a 'methodological nationalism' in previous research on welfare attitudes, which could conceal differences within nation states. Moreover, this thesis explores a set of individual-level factors of relevance for attitudes related to an eco-social agenda, i.e., basic human values (Article 2–3), future time orientation (Article 2), and political action (Article 4). This should be seen against the backdrop that attitudes, values, and political action are central and deeply intertwined features in a transformation perspective (e.g., Eikert, 2019; Opp, 2019; Östberg, 2021). By doing so, this thesis adds new and additional empirical insights regarding attitudes related to an eco-social agenda and what characterises the individuals that express these attitudes. This means that the thesis contributes, in general, to research and literature that focus on the intersection between climate change and social policy (e.g., Fitzpatrick, 2011b, 2014; Gough, 2017; Koch & Mont, 2016a), and in particular to the newly emergent research that explores the intersection between social welfare and environmental attitudes (Fritz & Koch, 2019; Jakobsson et al., 2018; Koch & Fritz, 2014; Otto & Gugushvili, 2020; Spies-Butcher & Stebbing, 2016; Yoon & Hong, 2018). This thesis thus contributes with conceptually overcoming, or at least initiates discussions regarding how to overcome, the separation between welfare and environmental agendas and attitudes. The thesis also contributes with knowledge regarding opportunities and constraints for a just transformation from a public legitimacy perspective. Lastly, it brings new insights to potential interlinkages between public attitudes and political action.

One might wonder, however, why should we even bother about the public in terms of public attitudes and political action? First, public attitudes tell us something about people's standpoints on specific issues, which in this thesis refers to central issues in an eco-social agenda and in relation to sustainable welfare such as social justice, redistribution of wealth and income, and decarbonising measures and policies. Also, attitude studies not only tell us something about people's standpoint on present policies and institutional arrangements, and they can also provide insights into future developments and what consequences might follow from taking one decision over another (cf. van Oorschot et al., 2022). In proceeding from the premise that policy follows the public, attitudes are thus central in the democratic process. For decades it has been theorised and shown empirically that the public has a significant impact on policy, not only through the electoral process as such, but also by informing decision makers about their

priorities. (e.g., Agnone, 2007; Beyer & Hänni, 2018; Burstein, 2003, 2006, 2010; Jacobs & Shapiro, 1994; Jones et al., 2009: Jones & Jenkins-Smith, 2009; Page & Shapiro, 1983; Schaffer et al. 2022; Tjernström & Tietenberg, 2008; Wlezien, 2017). The link between the public and policy varies however depending on policy domains, issue salience, and stages of the policy process, among other things. It has been shown, for example, that the agenda-setting phase, compared to the decision-making phase, is more receptive to public priorities (Jones et al. 2009), which means that this thesis should be of great value for policy and decision makers because an eco-social agenda is not yet realised. Public attitudes can thus either provide legitimacy for different policies and institutional arrangements, such as a new eco-social agenda, or challenge them. In this way public attitudes can be seen as both drivers and blockers of change (Hemerijck, 2013; Lindvall & Ruead, 2018; Rosenbloom et al., 2019; Svallfors, 2010, 2012a).

Second, engagement of the public in various forms of political action is also a central component from a social change and reform perspective in democratic societies (e.g., Caniglia et al., 2015; Creutzig et al., 2022; Opp, 2019; Piggot, 2018). Not least is this evident in a historical perspective, where, for instance, social movements of various kinds, such as the workers' and the women's movements' struggles for a more equal society, have had a role in the development and expansion of welfare states and in relation to democratic processes (Opp, 2019; Östberg, 2021). Given that both public attitudes and political action are central components from a social change perspective (cf. Creutzig et al., 2022, p. 5), this raises the question of whether there are any links between expressing certain attitudes and being engaged (or not) in various forms of political action, which thesis explores.

Without downplaying the value of conducting research on public attitudes and individual-level forms of political action, it must also be emphasised that there are, most obviously, other components or forces, other than the public, that are important from a policy change or societal transformation perspective, such as interest organisations, mass media, corporate interests, etc. (Burstein, 2010; Merkel et al., 2019b; Rasmussen et al., 2018). It has also been suggested that there might be inequalities in who matters the most, e.g., business groups and high-income residents, when it comes to influencing policy change (Elsässer et al., 2018; Gilens & Page, 2014; Persson 2021; Schakel, 2021; see Branham et al., 2017, however, for a questioning about the magnitude of this bias). Also it should

be noted that changes of the social system cannot only be explained by conscious acts of transformation. This means that the public, or any other forces, can initiate, and/or have an impact on, a transformation process, but they are always complemented by 'informal changes', i.e., "adaptations and modifications in informal institutions, in the cultural system, and in individual mentalities" (Merkel et al., 2019a, p. 6; see also Shove et al., 2012, regarding micro and macro perspectives in patterns of societal stability and change, and Koch & Buch-Hansen, 2016, regarding incremental change). Nevertheless, a focus on the public can be seen as "an analytical effort to bring society back into the investigation of political transformations" (Eikert, 2019, p. 158), and as an "antidotum to the search for excessive parsimony and the reduction of social actors" (Eikert, p. 159, italics in original), such as various elites and associations in power positions but also to one-sided institutional approaches. In line with this reasoning, a focus on public attitudes makes it "harder to confuse elite opinions and strategies with the views of the larger public" (Svallfors, 2010, p. 241). This thesis thus understands public attitudes as being important when it comes to institutional and structural developments or challenges (e.g., Rosenbloom et al., 2019; Svallfors, 2012a; see also Burstein, 2010 on a discussion of how possible determinants of policy, including the public among others, might be interrelated).

1.2 The case of Sweden

This study has been conducted in Sweden for at least three reasons. First, previous research has shown that Swedish residents to a large extent are concerned about both welfare and environmental issues. In general they tend to be supportive of the welfare state but also of specific social welfare and environmental policies (e.g., Franzen & Vogl, 2013; Fritz & Koch, 2019; Heggebø & Hvinden, 2022; Otto & Gugushvili, 2020; Sivonen & Kukkonen, 2021; Svallfors, 2015; van Oorschot et al., 2022). For instance, in the study by Fritz and Koch (2019) it was shown that mutual environmental and welfare support was associated with the Nordic countries with their social-democratic welfare regime arrangements. This makes it rather likely to discover and then to explore attitudes consistent with an eco-social agenda.

Moreover, Sweden is often described in terms of a social-democratic welfare regime with comparatively universal welfare arrangements (Esping-Andersen, 1990; Blomqvist & Palme, 2020), as well as a well-developed and institutionalised environmental governance regime with rather progressive environmental policies (Duit, 2016; Hildingsson & Khan, 2015). In the literature on social policy and climate change, it has been suggested that social democratic welfare states will be better in handling the intersection between social and environmental policies because these states have institutions and a political culture that "enable an interventionist state acting to promote the public good" (Gough & Meadowcroft, 2011, p. 498). This view has later been questioned, however, because Sweden together with other Western countries tends to score high on environmental indicators such as greenhouse gas emissions per capita and ecological footprints of production and consumption (e.g., O'Neill et al., 2018; see also discussion in Koch, 2022). Also, the standard narrative of Sweden with strong redistributive features in an attempt to fight inequalities has been greatly challenged, for example, by rising inequalities in wealth and housing (e.g., Christophers, 2019: Lundberg & Waldenström, 2018; see also Johansson, 2022, for a discussion about social policies in a Nordic context that challenges the idea of universal social welfare programmes). All of this, nevertheless, makes it interesting to study public attitudes in a Swedish context because Sweden can be understood as a front-runner, but where cracking facades might influence what people do and think.

The third reason for studying attitudes in a Swedish context ties into the intention of studying potential regional and local differences in attitudes. Thus, a focus on a single country – Sweden in this case – provides opportunities to study potential within-country differences in relation to both the urban/rural-divide or residency in city districts with varying affluence that shed light on socioeconomic inequalities from a contextual perspective (cf. IPCC, 2022a, chap. 8, and the highlighting of urban areas as particularly important in social-ecological transformations). Regarding potential differences in attitudes based on socioeconomic inequality, Sweden is a well-suited context because socioeconomic segregation is widespread and has increased in Europe and Sweden since the mid-1970s, and where Stockholm, for instance, places itself in the top of the most segregated capital cities in Europe (Delmos, 2021; Haandrikman et al., 2021; Musterd et al., 2017; Tunström & Wang, 2019). To be able to capture such aspects it is necessary to have access to sufficient data on urban residents, which this thesis has through its stratified sampling strategy targeting specifically urban,

but also non-urban, residents. This is discussed briefly in the next section and more thoroughly in the method chapter (Section 3.1.2).

1.3 Overview of methodology

This thesis is a compilation thesis based on four research articles. All four studies used data from an original cross-sectional survey study conducted through the research project "The New Urban Challenge? Models of Sustainable Welfare in Swedish Metropolitan Cities"[5]. The survey study followed a stratified random sampling strategy targeting residents living in Stockholm, Gothenburg, Malmö, and Sweden at large. With equally large sample sizes (n = 1,250) in all four samples, the stratified sampling strategy was disproportionate in relation to the population size. Thus, in order to be able to make statistical generalisations to the general Swedish public (Article 1, 3 and 4), and to residents living in Stockholm, Gothenburg, and Malmö (Article 2), design weights were used in the statistical analyses where needed. The survey questionnaire contained questions and statements about environmental and social welfare policies and concerns, personal values, engagement in various political activities, and individual background characteristics. This type of quantitative data makes it possible to statistically analyse attitudes related to an eco-social agenda. The statistical analyses were conducted through multinomial logistic regression modelling (Article 1 & 2), multiple linear regression modelling (Article 3), and multiple correspondence analysis (Article 4). See Chapter 3 for a thorough discussion of methodology.

1.4 Author's contribution in the four articles

Articles 1 and 2 were sole authored, which means that I was responsible for all parts, from developing the article ideas to conceptualisations, statistical modelling, analyses, and writing. Article 3 was co-authored with Jamil Khan (Department of Technology and Society, Lund University), Martin Fritz (Institute of Sociology, Friedrich-Schiller-University Jena), Max Koch (School of Social Work, Lund

[5] See webpage for more information: https://www.soch.lu.se/en/research/research-projects/the-new-urban-challenge

University), Roger Hildingsson (Department of Political Science, Lund University), and Håkan Johansson (School of Social Work, Lund University). Jamil Khan was the lead author. He developed the article idea and the overall design of the study with the initial support from me. I was involved in all parts (conceptualisations, analysis and writing), and was responsible for the statistical analyses together with Martin Fritz. Article 4, with me as the lead author, was co-authored with Roger Hildingsson, and Martin Fritz. I developed the initial article idea and the overall design of the study, with the support from Roger Hildingsson. I was involved in all parts (conceptualisations, analysis, writing and descriptive statistical analyses) except for the multiple correspondence analysis, which Martin Fritz was responsible for.

1.5 Disposition

The text proceeds as follows. In the next chapter, Chapter 2, the thesis's theoretical points of departure will be discussed. This chapter starts by outlining a so called social-ecological paradigm by which I intend to discuss what it entails to study the intersection between environmental and social welfare attitudes, and thus attitudes related to an eco-social agenda. The chapter then moves on to theorise the attitude object, i.e., an eco-social agenda and the notion of sustainable welfare, with the intention to lay the ground for *what* dimensions are central to study when it comes to attitudes related to an eco-social agenda from a sustainable welfare perspective and *why*. Then in Chapter 3 on methods, the *how* will be discussed in terms of variable operationalisation, together with an outlining of the data collection process, statistical techniques for analysing the data, and lastly some methodological reflections. Chapter 4 summarises the results from the four studies, and lastly in Chapter 5 I discuss the results. In this last chapter I respond to the overall aim of the thesis and the three research questions. It ends with a discussion about potential pathways towards an eco-social agenda.

2 Theoretical frame

The theoretical frame consists of five parts. The first part (Section 2.1) takes its point of departure from a social-ecological paradigm. The goal is to provide greater clarity regarding what it entails to study the intersection between environmental and social welfare attitudes, and thus attitudes related to an eco-social agenda given their basis in two separated research fields. These discussions then lead to the second part (Section 2.2), which is a theorising about the attitude object, i.e., the eco-social agenda and the notion of sustainable welfare. It starts with defining attitudes, and then it moves on to a reflection about what an 'agenda' refers to before discussing the 'eco-social' part. Here the intention is to outline what dimensions are central in the study of public attitudes related to an eco-social agenda from a sustainable welfare perspective. In the third part (Section 2.3), previous research and literature on environmental and social welfare attitudes is discussed, both when these have been studied separately and in combination. In the fourth part (Section 2.4), four analytical concepts – *homo economicus*, *homo sociologicus*, *homo locus*, and *homo politicus* – are proposed and discussed in an attempt to understand what factors might predict the attitudes but also how to analyse them. Lastly, in the fifth part (Section 2.5) a conceptual model is outlined, which builds on and summarises the previous discussions in this chapter. This model is an attempt to organise and structure the study of attitudes in this thesis.

2.1 A social-ecological paradigm

In sustainability research, the necessity of reflecting about underlying ontological and epistemological assumptions has been stressed (e.g., Mancilla Garcia et al., 2020; Rau & Fahy, 2013). This is because different viewpoints have distinct understandings of "*how society is viewed* and *how members of society are expected to*

interact with each other and with their biophysical environment" (Rau & Fahy, 2013, p. 8, italics in original). Often we use concepts to reflect and think about society in terms of 'nature', 'culture', 'social', etc., without interconnections between them (Mancilla Garcia et al., 2020). If we understand concepts as tools "to make sense of reality in general and of the problems we face in particular", this might have implications for "the kinds of problems we can pose as well as defining the space for possible solutions to those problems" (Mancilla Garcia et al., p. 221). Thus, the prevailing separation between the 'social' and 'nature' does not contribute with potential solutions, but instead it might result in adverse consequences for achieving sustainability. Or as Fischer-Kowalski (2015) puts it, "decades of disciplinary differentiation and specialization" has been "detrimental to society's capability to properly understand and address its relation to the – seemingly increasingly strained – natural environment" (p. 254).

These kinds of reasonings are of importance also in relation to research that explores the intersection between environmental and social welfare attitudes. How we understand society – i.e., in relation to 'nature', 'social', 'eco-social', etc. –thus has implications for the study of attitudes related to an eco-social agenda, given their bases in the two separated research fields. Hence, "what exists gives an indication of the appropriate ways to study it" (Mancilla Garcia et al., 2020, p. 224). It should be noted however, that the disclosure of the so-called social-ecological paradigm – which lies close to the notion of ontology and thus how we understand the constitution of the world – can also constrain our thinking in how to (best) study attitudes related to an eco-social agenda, which I will come back to below.

2.1.1 A sub-system approach

The study of attitudes related to an eco-social agenda can be placed in a social-ecological paradigm that takes both social and environmental dimensions into account in various ways. Inspiration to the theorising of this paradigm comes from different sources. For example, Glaser (2006) discusses various 'mind maps' that structure how society interacts with nature and the other way around. These mind maps lie close to an ontological understanding about how the world is constituted in that they are to be understood as "pre-analytical visions of the world and its major problems" and as "high generality conceptual models", which is in contrast to more analytical models (Glaser, 2006, p. 122). For instance, some mind maps

consider the interaction as totally integrated as in the 'web of life' following the Norwegian philosopher Arne Neass's deep ecology. Others consider the interaction in terms of a parallel sphere or three-pillar approach, which builds on the premise that ecological, social, and economic objectives should be balanced, just as in the case of the well-established and cited concept of sustainable development as first outlined in the Brundtland report in the late 1980s (WCED, 1987). Yet another mind map, the so-called 'societal metabolism mind map' (Glaser, 2006, p. 126), as developed by the Institute for Interdisciplinary Studies in Vienna with Fischer-Kowalski in the forefront (e.g., Fischer-Kowalski, 1998a, 1998b), considers society and nature as two systems that are deeply intertwined through complex interaction processes. In turn these interaction processes result in material and energy flows that have degrading effects on nature, and which have increased from hunter-gather societies to industrial societies, and seem to be continuing to increase in post-industrial societies. The social-ecological paradigm in this thesis lies very close to the societal metabolism mind map due its recognition of the existence of the two systems of society and nature, which are deeply intertwined. But also because of its strong focus on recognising human activities as having a degrading effect on nature, which is very much in line with current environmental research (e.g., Ripple et al., 2021; Steffen et al., 2011).

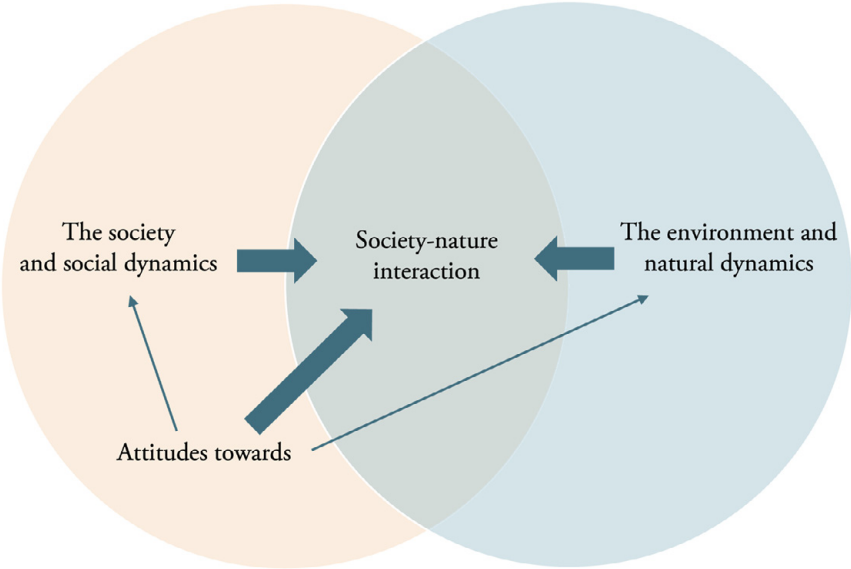
The understanding of a social-ecological paradigm in this thesis follows even more closely the discussions by Fischer-Kowalski (2015) about the intersection between society and nature in terms of a social ecology, which refers to "a highly dynamic interdisciplinary research area with roots in both the social and natural sciences" (Fischer-Kowalski, p. 254). Fischer-Kowalski stresses that the common denominator of this research field should be seen as a shared paradigm, rather than a shared label, because a plethora of approaches exist, ranging from human ecology and ecological economics to socioecological systems analysis. The core postulates in this shared paradigm are that "*human social and natural systems interact, coevolve over time, and substantially influence each other, with causality pointing in both directions*" (Fischer-Kowalski, p. 254, my emphasis). From this paradigm theoretical and epistemological concepts and research methodologies are needed in order to "capture social and natural structures and processes in an integrated fashion" (Fischer-Kowalski, p. 254).

The translation of this social-ecological approach, which builds on the interaction between two systems, to the study of attitudes in this thesis means integrating the

two established and previously separated research fields of environmental attitudes and social welfare attitudes. I refer to this approach as 'a sub-system approach', which distinguishes between a human social subsystem (i.e., the social welfare agenda and attitudes) and an ecological subsystem (i.e., the environmental agenda and attitudes) and when they interact a third 'society-nature' subsystem emerges (i.e., an eco-social agenda and attitudes). The former two subsystems can give rise, however, to far more interactions than just the one emergent 'society-nature' subsystem just as theorised by Donges and colleagues (2021). It might also give rise to conflicts between the two subsystems. This has implications for how we can understand the subsystem approach in relation to attitudes in this study.

Donges and colleagues (2021) in their taxonomic metric of the World-Earth systems model distinguish between nine various forms of interactions, including self-interactions processes, where values are one out of many other components binding the subsystems together. For instance, the social and the ecological subsystems interact in terms of "nature-related values" and the interaction between the social and the society-nature subsystem could "encompass the influence of cultural values, norms and lifestyles on economic demand and consumption" (Donges et al., 2021, p. 1124). Even though Donges and colleagues refer to values, it can also be assumed that the study of attitudes – because values often predict attitudes (see Section 2.2.1) – can be directed either towards the social sphere (e.g., attitudes towards the welfare state or redistributive policies), which could be understood as a self-interaction process, or the ecological sphere (e.g., attitudes towards environmental concerns or policies) which entails an interaction process between society and the environment. And lastly, attitudes can also be directed towards the society-nature subsystem (e.g., attitudes towards an eco-social agenda and/or towards specific eco-social policies). These three interaction processes in relation to attitudes are captured in Figure 1.

Figure 1. A social-ecological subsystem approach for the study of attitudes



The figure thus shows that attitudes as expressed by humans are part of the social subsystem and that these attitudes can be directed towards each other and to one of the subsystems. The block arrows indicates that the focus of this thesis lies in studying social welfare and environmental attitudes in an integrated way, but that this integrated way can take many forms.

While a handful of studies on environmental and social welfare attitudes have started to engage in this integrated research (see Section 2.2.1) and tend to build on this subsystem approach, I think it is important to be reflective about this integration and not just accept that "these two streams of literature represent a natural starting point for exploring potential interactions between environmental and welfare attitudes" (Jakobsson et al., 2018, p. 316). There are of course great benefits to drawing on two well-established research fields in terms of methods and theories (and thus also in terms of validity and reliability), and research participants most likely recognise themselves if they are to answer a survey question with respect to the social welfare or the environmental agendas rather than to an eco-social agenda, which is not yet realised. However, by proceeding from a social-ecological subsystem approach there is perhaps a risk of contributing to a continued separation between the different subsystems, and thus also between

the social welfare and the environmental agendas. And perhaps this subsystem approach also restricts our thinking so that we are not able to pose the kind of questions that would be important to pose in times of imperative social-ecological transformations. Even though I do not have any direct answers to these types of questions at the moment, I think it is important to have them in mind and to continue being reflective about them.

2.2 Theorising the attitude object

This section starts with an attempt to define attitudes, and then it moves on to discuss the attitude object in this thesis, i.e., the eco-social agenda and sustainable welfare. A reflection will be made concerning what an 'agenda' refers to. The disentangling of the 'eco-social' part will shed light on central dimensions or issues tied to it, which in turn people can have an opinion about. The section ends with a discussion about what is meant by attitudes related to, and consistent with, an eco-social agenda.

2.2.1 Defining attitudes

In the literature there exists a wide array of definitions of attitudes. For example, attitudes can be described as a "latent construct mentally attached to a concrete or abstract object" (Gifford & Sussman, 2012, p. 65). This concrete or abstract object, which can be a person, place, idea, and so forth, is often referred to as an *attitude object*. According to Breckler (1984), attitudes consist of three components, i.e., a cognitive component that is about thoughts and perceptions of a specific object, a behavioural component that is about behavioural intentions, and an affect component that is about emotional responses or gut reactions to a specific object. All of the three components vary on a common evaluative continuum. This means that attitudes involve some kind of evaluation of a specific object, such as liking or disliking and supporting or not supporting (Breckler, 1984; Oskamp & Schultz, 2005; Tourangeau & Galešić, 2008). Closely related to, but still different from, attitudes are values. It is important to make this distinction because values are often used to predict attitudes, at least in the environmental attitude literature (e.g., Harring et al., 2017), but also in the welfare attitude literature to some extent (e.g., Kulin, 2011). According to

Schwartz (1992), values can be described as abstract motivational goals that guide behaviours and evaluations of specific events. Values do, however, transcend specific situations, which makes them relatively stable over time. Hence, values refer to general and abstract evaluations, while attitudes refer to evaluations of specific objects (see Kulin, 2011, for a discussion about differences). In this thesis, these objects refer to various policies and concerns related to an eco-social agenda (see Section 2.2.2 below), which individuals can express certain attitudes about.

2.2.2 Defining an eco-social agenda by drawing on the notion of sustainable welfare

In defining what an eco-social agenda is this thesis takes its point of departure in the previous discussions of the social-ecological paradigm (see Section 2.1) and in the literature on the intersection between social policy and climate change, where scholars previously have mentioned an eco-social agenda, but only rather vaguely (e.g., Fitzpatrick, 2011b). However, before disentangling the 'eco-social' part of it, let us reflect on what an 'agenda' refers to.

In this thesis, an 'agenda' lies very close to the notion of a 'policy domain' – or any other closely related concept such as 'policy area', 'issue domain', 'sector', etc. – which in turn has been defined as "a component of the political system that is organized around substantive issues" (Burstein, 1991, p. 328). Examples of policy domains can be social welfare, environmental protection, education, health, and so forth, which in turn can be categorised into smaller subdomains. Burstein (1991) discusses three ways to define a policy domain. First, a policy domain can be thought of as being 'substantive' or 'functional'. This means that it is centred around issues that share "inherent substantive characteristics" that have implications for how "they are framed and dealt with" (p. 328). It also involves a certain logic and coherence of these characteristics. Second, a policy domain can also be understood in relation to its organisational basis, where less attention is paid to the substantive qualities and more attention is given to the social construction of the domain by those active in politics. Yet another way to comprehend a policy domain is through its cultural basis, where domains are seen as "cultural constructs around which organisations and individuals orient their actions" (Burstein, p. 328). Because an eco-social policy domain or agenda is still not realised, and because no specific organisations or individuals can be tied to it, this thesis proceeds from a substantive approach and focuses on issues in terms of

concerns and policies that can be seen as inherent substantive characteristics of such an agenda. These characteristics are referred to as general policy goals and specific policy measures. The notion of policy domain will not be used, however, because there is a risk of focusing too narrowly on policies. Instead, the use of an 'agenda' should signify that it has a broader scope, focusing on various kinds of issues in terms of both policies and concerns. It also comes with stronger connotations to the problem recognition and the agenda-setting phase in a policy process perspective, once again indicating that it is not (yet) in place (cf. Jones et al., 2009, who demonstrate that the agenda-setting stage is more responsive to public opinion compared to the decision-making stage).

Following the substantive approach, the next step is to recognise what these inherent substantive characteristics are or, rather, could be in terms of policies and concerns. Without an eco-social agenda in place (cf. Burstein, 1991, and his discussion about issue creation), I will draw on the theoretical concept of sustainable welfare to give meaning to what these policies and concerns can be (Büchs, 2021; Büchs & Koch, 2017; Koch and Mont, 2016a). It is thus important to understand that this is just one way, out of many, to define an eco-social agenda. Here one could imagine that yet another way to define an eco-social agenda could be by drawing on an ecological modernisation approach, for example, where green growth policies among other dimensions would be central (e.g., see discussions in Shoyen et al., 2022). By drawing on the notion of sustainable welfare, however, central dimensions of an eco-social agenda are, for instance, a focus on social justice, equality, redistribution of wealth and income and of work and time, decarbonising measures and policies, distributist institutions, and a questioning of the current economic growth paradigm. This will be discussed more thoroughly below.

Scholars advocating sustainable welfare or sustainable wellbeing have a strong emphasis on (social) justice and equality (see also Creutzig et al., 2022). Gough states, for instance, that "the environmental crisis renews and reinvigorates the older case for egalitarianism" (Gough, 2017, p. 61). The centrality of this equity-based logic can be seen against a number of issues. First and foremost, it pertains to living in a world with limited resources, which requires some sort of equal resource distribution to ensure human wellbeing (Hajer et al., 2015). At present, the unequal resource distribution occurs at a global scale, particularly between the global south and the global north, as well within countries between more and less

affluent residents (e.g., Creutzig et al., 2022; Fanning et al., 2020; Ripple et al., 2020, 2021). In a recent report it was shown that in 2019 the richest 10% of the global population emitted around 50% of all global emissions, the top 1% emitted 17% of the total, whereas half of the global population considered as poor emitted 12% of all global emissions (Chancel, 2022). Thus, it has been stressed that "resources currently being used to finance the affluent (and environmentally unsustainable) lifestyles of some groups" need to be redistributed "to meet the currently unsatisfied human needs of others" (Buch-Hansen et al., 2016, p. 150). Along these lines it has been argued that socioeconomic inequality "drives up emissions" through increases in status competition, which spurs consumption (Creutzig et al., 2022; Gough, 2017) and moreover that "inequality hinders collective action" with respect to safeguarding the planetary boundaries because higher inequality leads to strengthening the power of the rich who then can "make decisions, set agendas and inculcate selfish values" detrimental to the environment (Gough 2017, p. 81, see however pp. 80–82 for discussions about scholars claiming that inequality has no impact on emissions or that inequality can even reduce emissions). Since a more equitable distribution of income and wealth is a precondition for sustainable welfare and wellbeing, a focus on redistributive aspects has been highlighted as central (e.g., Büchs & Koch, 2017; Gough, 2017; Hirvilammi, 2020).

In the sustainable welfare literature, specific policies have been discussed with respect to redistribution of wealth and income and of work and time (Gough and Meadowcroft, 2011; Gough, 2017). In terms of more classical redistributive policies that "assume the simplistic form of redistributing growing tax takes (as in the post-war period)" (Koch, 2022, p. 450), it has been suggested that redistributive policies would need to target "the power resources of affluent and influential groups" (Koch, p. 450). More specifically it can be about maximum income caps on income and/or wealth (e.g., Buch-Hansen & Koch, 2019), basic income or basic services (Andersson, 2009; van Parijs & Vanderborght, 2017), and working time reduction (Gough, 2017, specifically see chap 8 for an argumentation of working time reduction before basic income but also regarding other kinds of 'eco-social' policy proposals). For instance, whereas a maximum income policy entails putting a cap on incomes and wealth while also contributing to a more equal distribution of wealth, a working time reduction policy aims to redistribute the use of time from paid labour to non-paid activities. In one sense these kinds of policies can be seen as social welfare policies with their redistributive

focus, but when viewing them from an environmental perspective they could also be seen as eco-social policies and especially so when it comes to their potential impact on production and consumption patterns (Gough, 2017). While prior studies regarding attitudes towards some specific policy proposals are prevalent, such as basic income (e.g., Lee, 2018; Roosma and van Oorschot, 2019), others, such as maximum income attitudes, are very scarce.

Other measures and policies have also been discussed more specifically in relation to consumption-based emissions, such as consumptions taxes or sustainable consumptions patterns (see Büchs & Koch, 2017, p. 117, for a discussion). Di Giulio and Fuchs propose, for instance, that "consumption corridors" should be implemented, which define minimal and maximal standards of consumption with the aim of consuming only that "quality and quantity of natural and social resources that allows for others to also have sufficient access to them" (Di Giulio & Fuchs, 2014, p. 186f.). This lies very close to the discussions about sufficiency or 'enoughness' to be explicit (Jungell-Michelsson & Heikkurinen, 2022). Just as pointed out by Jungell-Michelsson and Heikkurinen (2022), "the making of sustainable economies calls for sufficiency in production and consumption" (p. 1), which in turn requires action from microeconomic levels in terms of individuals' behaviour and a paradigm shift in business logics to the macroeconomic level in society and in public governance. In addition, and perhaps most obviously, there is also a need for energy and carbon-saving measures but also environmental protection in the strive towards sustainable welfare. More specifically it can be about "renewable energy, resource efficiency, low-carbon infrastructures, and the protection of habitats and biodiversity" (Büchs & Koch, 2017, p. 114) through different kinds of environmental policies, including climate mitigation and adaption policies (e.g., Gough, 2017, chap 1). Büchs and Koch (2017) review, for instance, different ecological tax strategies as a way to reduce carbon emissions. But even though environmental policies can safeguard the transgressing of planetary boundaries, it must be ensured that the safeguarding takes the social dimensions into account. Introducing decarbonisation policies through taxation could have a regressive impact in distributional terms and affect lower-income households more heavily via higher energy bills, and in extreme cases leading to "a choice between heating and eating" (Gough, 2017, p. 138). These kinds of policies would then have to be accompanied by policies with progressive distributional effects (Büchs & Koch, 2017, p. 115).

To steer the wide range of policies, some kind of 'distributist institutions' (Koch & Buch-Hansen, 2016) would be needed. Some would argue that the role of the state and public institutions is not without its challenges because of the public sector being so deeply embedded in the capitalist growth paradigm, and thus being unable to implement effective policies (Brand et al., 2021). However, the state can also be seen as "a field of societal contest" (Brand et al., p. 272), where welfare states, particularly social democratic welfare regimes, have regulated the market economy through decommodification in spheres such as the labour market, education, and so forth (Brand et al., 2021; Hirvilammi, 2020). The role of the state is thus not deemed entirely inadequate, and Koch (2020) even argues that "existing state apparatuses can play a constructive part in an ecological and societal transformation" (Koch, p. 129). Along the same line, Hirvilammi (2020) states that "a welfare state embedded in a regenerative and distributive economy can, as a consequence, ensure sustainable wellbeing for all while limiting environmental impacts to a sustainable level" (p. 10).

Lastly, a salient dimension in the sustainable welfare literature has been the one on economic growth, e.g., ecological modernisation, versus other kinds of economies not building primarily on growth, e.g., de-growth, steady-state economy, and so forth (Shoyen et al., 2022; Büchs, 2021; Büchs & Koch, 2017, chap 5; Gough, 2017, chap 3; Hirvilammi, 2020). Researchers distinguish between moderate and radical economic policies (Gough & Meadowcroft, 2011; Fischer-Kowalski et al., 2012; Khan & Clark, 2016). Moderate economic policies advocate pro-growth strategies and put their faith in, for example, investments in green technology and regulative strategies. These policy options are found under the name of 'green growth' and 'green economy' as promoted by the Organisation for Economic Co-operation and Development (OECD) and the United Nations Environment Programme (UNEP) (Khan & Clark, 2016, p. 77f.). These kinds of policies are often advocated for in the ecological modernisation approach, but also to some extent in the so called 'balanced approaches' where the current Agenda 2030 and the Sustainable Development Goals are to be found (Shoyen et al., 2022). Radical economic policies, instead are critical towards economic growth. No-growth strategies, such as steady-state economy and degrowth – which "question the priority of GDP growth over environmental goals" (Haberl et al., 2020, p. 34) and which emphasise the importance of stabilising biophysical stocks and keeping energy flows within ecological limits (O'Neill, 2015) – stress the need for seriously questioning today's production and consumption patterns,

with a focus on reducing the latter. Scholars argue that degrowth and steady-state economy have better potentials for ensuring individual wellbeing within planetary boundaries compared to today's capitalist structures (e.g., Büchs & Koch, 2017; Koch & Buch-Hansen, 2016). This way of reasoning could be seen against the backdrop that there is no evidence, so far, that moderate policy options, which a lot of western welfare societies have been adopting, are resulting in the necessary absolute decoupling (Haberl et al., 2020)[6]. Instead, the radical policy options would force us to think differently about wellbeing and to adopt alternative concepts in which "a fulfilling and prosperous life does not depend on high income and consumption or other external markers of success but on meaning and purpose in life, the opportunity to become the kind of person one aspires to be, on supportive relationships, etc." (Büchs & Koch, 2017, p. 72).

In sum, an eco-social agenda from a sustainable welfare perspective contains specific policies and concerns related to social justice, equality, redistribution of wealth and income and of work and time, decarbonising measures and policies, distributist institutions, and a questioning of the current economic growth paradigm. From here I would like to define what is meant by attitudes related to, but also consistent with, an eco-social agenda. In proceeding from the assumption that public attitudes can justify or challenge social arrangements, and thus that attitudes can be seen as expressions of public legitimacy, it is assumed that individuals have some kind of comprehension of the society they are attracted to or that they oppose (cf. Staerklé, 2009). This means that people have an understanding of issues related to social equality, low-carbon energy measures, and so forth. Individuals can thus express preferences, attitudes, and opinions towards a wide range of social and environmental issues that are destined to have an impact on societal and political goals, such as reducing economic inequalities or mitigating greenhouse gas emissions. Whereas attitudes related to an eco-social

[6] The literature distinguishes between relative and absolute decoupling. Relative decoupling occurs when the resource use or emissions are increasing, but to a lesser extent than does GDP. Absolute decoupling instead takes place when there are absolute reductions in emissions and resource use while at the same time the economy continuous to expand. In order to attain the sustainable development goals or to limit the global temperature increase to 1.5–2 °C, according to the Paris climate accord, there is a need to decouple economic growth from the environment in absolute terms (Haberl et al., 2020, p. 1f.). Whereas relative decoupling between GDP and resource use has been achieved in some instances, absolute decoupling is much rarer. This means that even though public and private institutions are advocating green growth, it seems to be more of a pipe dream than a reality. Thus, the contentious expansion of the economy continues to put pressure on the environment (Haberl et al., 2020).

agenda can vary on a common evaluative continuum ranging from support to no support, attitudes consistent with an eco-social agenda mean that individuals express support for general policy goals and for specific policy measures of such an agenda. Accordingly, attitudes consistent with an eco-social agenda refer to evaluations concerning the desirability and legitimacy of issues in terms of policies and concerns that respect both the social and the planetary boundaries, as discussed by scholars in the sustainable welfare or sustainable wellbeing literature (e.g., Büchs & Koch, 2017; Gough, 2017; Hirvilammi, 2020).

2.3 Literature and previous research

2.3.1 Previous research on environmental and welfare attitudes

There is a rich and well-established literature on social welfare and environmental attitudes. Starting with the research and literature on social welfare attitudes, it often pertains to support towards equality and redistribution of resources, which often go under the label of general welfare state support. Here we also find attitudes towards the public sector, state intervention, and public policies aimed at addressing social risks such as unemployment and retirement (e.g., Kumlin, 2007; Shwom et al., 2015; Svallfors, 2012a). Van Oorschot and colleagues (2022) have summarised the study of welfare attitudes in Europe over the past 20 years and conclude the following, among other things. In general, residents in European countries express strong support for a generous welfare state, and especially so regarding the state's role in providing services and social benefits. There are, however, differences among Europeans when it comes to the performance or outcomes of the welfare states. Whereas residents in Eastern and Southern European countries are rather critical, residents in Northern and Western European countries are more positive. Also, Europeans in general, although Scandinavians to a lesser extent, tend to express attitudes of perceived welfare benefit abuse. Even though welfare attitudes tend to change in the shorter run, the overall trend from a longer time perspective is that there is a "high degree of stability in welfare attitudes". For instance, economic downturns and changes in individuals' life situations might have a temporal impact on the attitudes, but they "tend to return to the 'normal' situation of attitude stability in the longer run"

(van Oorschot et al., 2022, p. 210; see also Kumlin, 2007). Among the recent trends in welfare attitude research is the interest in exploring support for new policy proposals, such as a universal basic income (e.g., Lee, 2018; Roosma & van Oorschot, 2019).

Whereas research on welfare attitudes has been widespread in a European context during the last decades, that is not the case when it comes to environmental attitudes. Still, though, there has been a Western dominance in this research but with a rather one-sided focus on the US (e.g., Bumann, 2021; Fairbrother, 2022). In a broad sense, environmental attitudes have been defined as a "*concern* for the environment or caring about environmental issues (sometimes referred to as *pro-environmental attitudes*)" (Gifford & Sussman, 2012, p. 65f., italics in original). Different approaches have been deployed to measure and capture environmental attitudes, where some focus on environmental concerns or awareness (e.g., Cruz, 2017; Hu et al., 2017) and others focus on environmental policy support (e.g., Bumann, 2021; Kachi et al., 2015; Linde, 2018; Rhodes et al., 2017). In a recent literature review of environmental attitudes, it has been stated that environmental concern, and particularly public concern about climate change, is high worldwide, even though there still are sceptics about climate change in many countries. When it comes to attitudes towards environmental or climate policies, in general people tend to be supportive of them if there are no references to costs. Thus, cost considerations, or rather cost perceptions rather than actual costs, explain why people are not supportive of environmental or climate policies. Among the most researched policies are carbon taxes, which seem to attract less support among the general public compared to other climate policies. Much of this scepticism, according to Fairbrother, seems to be "driven by political distrust" (Fairbrother, 2022., p. 6; see also Fairbrother et al., 2019).

Concerning what factors predict environmental and welfare attitudes, both individual-level and contextual-level factors have been used extensively in previous research. In research on environmental attitudes, two of the most salient individual-level factors are political ideology and basic human values (Smith & Hempel, 2022) or other types of values such as environmental, post-material, and/or democratic values (Bumann, 2021; Lewis et al., 2019; Shwom et al., 2015). For instance, individuals with left-leaning and egalitarian orientations are more likely to support climate policies compared to individuals with right-wing and conservative orientations (e.g., Bumann, 2021). In terms of welfare attitudes,

some of the most salient individual-level factors pertain to economic self-interest, i.e., the economic gains a person makes or is expected to make from welfare programs, and to individuals' ideological stance regarding distributive justice (Calzada et al., 2014). Also in this literature it has been found that individuals with left-leaning and egalitarian orientations are more likely to support welfare policies. Another often-used factor in studies of welfare attitudes is social class (Kumlin, 2007; Svallfors, 2012a). When it comes to contextual-level factors in the welfare attitude literature, these often relates to features of a country's institutional setting, and even more so in relation to the structures of welfare states or 'regimes' as discussed by Esping-Andersen (1990; Svallfors, 2012a), but also in terms of international variation along European East-West divides (van Oorschot et al., 2022). In the environmental attitude literature, contextual-level factors pertain to, for example, macroeconomic characteristics and greenhouse gas emissions (e.g., Franzen & Vogel, 2013; Marquart-Pyatt, 2012; Pohjolainen et al., 2021).

To date, and as discussed previously, there has been rather little interaction between the two research fields. There are, however, a handful of studies that have explored the interaction, and these will be discussed in the next section.

2.3.2 Previous research on attitudes related to an eco-social agenda

During the last decade a few studies have aimed to bridge the gap between the separated research fields, arguing that a merging is necessary if we are to understand potential support for an eco-social agenda. These studies have proceeded from the presumption that the social welfare and the environmental policy agendas compete for support and thus crowd each other out (e.g., Jakobsson et al., 2018; Spies-Butcher & Stebbing, 2016; Yoon & Hong, 2018). Even though it can be assumed that the agendas compete for support among the electorate in general, it is an empirical question if they actually compete for the same votes. That is, there might be different groups of individuals that support one agenda but not the other, or both, or none at all. For instance, because individuals' material and socioeconomic positions in society might have an impact on attitudes towards public policies and concerns, "it is possible that public support for social and climate change policies may not go hand in hand" (Jakobsson et al., 2018, p. 315). Previous literature and research on social welfare and environmental attitudes show, for example, that individuals with lower

socioeconomic status are assumed to respond to social risks due to their own self-interest, and thus to express support for redistributive welfare policies and concerns (e.g., Calzada et al., 2014; Jæger, 2006; Svallfors, 2015). Individuals with higher socioeconomic status respond to environmental risks due to personal capabilities, such as high educational attainment, which then makes them supportive of environmental policies and concerns (e.g., Fairbrother et al., 2019; Rhodes et al., 2017; Zahran et al., 2006). However, whereas there might be a socioeconomic divide between the social welfare agenda and the environmental agenda, which then could contribute to a crowding out situation, there also seem to be apparent similarities and synergies, for instance, when it comes to value-based factors. For example, the left-right divide is apparent in both the social welfare and the environmental attitude research, with those placing themselves to the left or preferring left-wing political parties expressing support for the welfare state and for redistributive policies (e.g., Lipsmeyer & Nordstrom, 2003; Noureddine & Gravelle, 2021), as well as support for environmental policies (e.g., Drews & van der Bergh, 2016; Harring & Jagers, 2013). The same pattern has been found in terms of basic human values (e.g., Bouman et al., 2018; Kulin & Svallfors, 2013). This means that there are also factors with the potential of ameliorating the bridging of the gap between the two research fields when it comes to public support.

In two studies it has been shown that the two policy agendas seem to compete for support and thus crowd each other out (Jakobsson et al., 2018; Yoon & Hong, 2018). In studying the effect of individuals' perceptions of either welfare responsibility (Yoon & Hong, 2018) or income redistribution (Jakobsson et al., 2018) on willingness to pay for environmental protection, it was shown that the welfare and environmental attitudes were substitutes, but only marginally. Whereas the study by Jakobsson, Muttarak, and Schoyen used data from the International Social Survey Programme covering the years 1993, 2000, and 2010, in 14 countries worldwide, the study by Yoon and Hong used data from a Korean representative sample drawn in 2014. Jakobsson and colleagues stated that "attitudes towards welfare and environmental policies, if anything, are substitute (*crowding out*), but the relationship is rather small and only statistically significant in some specifications" (Jakobsson et al., 2018, p. 325). Thus, individuals seemed to be more willing to pay to protect the environment but less supportive of income redistribution. The researchers suggested that this had to do with the different scale and time horizon of the two policy fields, where welfare policy is understood to be a domestic issue with

direct consequences whereas environmental policy tends to be associated with global issues for future generations. However, and in addition to the negative relationship between higher welfare perception and environmental taxpaying willingness, Yoon and Hong (2018) also found a positive association between higher welfare perception and environmental concern. Yet another study found a positive association between environmental attitudes in terms of support for climate change prioritisation and welfare attitudes in terms of support for higher social spending over tax cuts (Spies & Butcher, 2016). The researchers concluded "that there may indeed be a strong overlap in preferences between those identifying global warming and the environment as important and those favouring greater social spending", which in turn "suggests different political opportunities" (Spies & Butcher, p. 753). It should be noted, however, that the study was focused on attitudes among a core constituency of individuals committed to climate action in an Australian context, with the argument that this group within civil society most likely contribute to policy change. This latter study also investigated the association between income redistribution and climate change prioritisation, but no significant results were found. Furthermore, in a recent cross-national study, based on data from the 2016 European Social Survey, a positive association was found between expressing climate change concern, measured in terms of feeling a personal responsibility for reducing climate change, and egalitarian attitudes, measured in terms of understanding a fair society as synonymous to small differences in people's standard of living. That was particularly the case in Northern and Central European countries. Somewhat mixed results appeared regarding the association between climate change concern and welfare scepticism, measured in terms of understanding social benefits and services as placing too great a strain on the economy (Heggebø & Hvinden, 2022).

Lastly, two other cross-national studies, also based on data from the 2016 European Social Survey, found the existence of both substitution and complementation regarding support for a social welfare agenda and an environmental agenda (Fritz & Koch, 2019; Otto & Gugushvili, 2020). In comparison to the previous studies, these two studies did not test the association between environmental attitudes and welfare attitudes in a unidirectional way. In one of these two studies a multinomial variable was created that contained both environmental and welfare policy items. Through this procedure four different attitude patterns were distinguished, indicating that whereas some individuals expressed mutual social welfare *and* environmental support, others expressed support only for social welfare concerns or for environmental concerns, or less or no support. In the next step the researchers

explored the association between, on the one hand, various individual-level and contextual-level factors, and, on the other hand, the different attitudinal patterns (Otto & Gugushvili, 2020). Otto and Gugushvili (2020) concluded that the results of their study pointed towards an emerging eco-social divide, where, for instance, at the individual-level political ideology seemed to be the most important driver of the divide. In the study by Fritz and Koch (2019) the relationship between climate and welfare policies was explored by the means of multiple correspondence analysis. It revealed three main patterns of the relationship, i.e., synergetic or mutual support for both sets of policies, support for one set of policies but not for the other, and rejection of both sets of policies. The results in terms of what characterise individuals that express attitudes related to an eco-social agenda is of particular relevance for this thesis and will be discussed more in Sections 2.4.1–2.4.4.

In sum, all of these studies have contributed to the emerging research that explores the intersection between social welfare and environmental attitudes. However, the research is rather scarce and sometimes conflicting, and a methodological nationalism is highly prevalent. This indicates that more research is needed in terms of support for policy goals and policies related to an eco-social agenda, what characterise the individuals who express these kinds of attitudes from an individual-level perceptive but also from a contextual-level perspective other than the national one.

2.4 Analytical concepts

In studying and analysing what individual-level and contextual-level factors predict public attitudes related to an eco-social agenda, this thesis takes its points of departure from the two well-established research fields of environmental and social welfare attitudes, as discussed above. Environmental and welfare attitudes tend to share some similarities, yet they differ on some central grounds when it comes to what factors are associated with the attitudes (e.g., Calzada et al., 2014; Franzen and Meyer, 2010; Gugushvili and Otto, 2021). Based on a review of existing research, I propose four analytical concepts or categories: *homo economicus*, *homo sociologicus*, *homo locus*, and *homo politicus*. Whereas the label of *homo economicus* pertains to individuals' material and socioeconomic positions, *homo sociologicus* relates to individuals' internalised values and social norms,

understood in a rather broad way. *Homo locus* instead takes a contextual or geographic level into account. Lastly, *homo politicus* refers to different modes of political action.

2.4.1 Homo economicus – material and socioeconomic conditions

The notion of homo economicus has been referred to extensively in the social welfare attitude literature, and also to some extent in the literature on environmental attitudes (but also environmental behaviours). The two strands of literature often discuss the notion of homo economicus with respect to self-interest, individualism, and utilitarianism. Homo economicus is thus understood to be fundamentally driven by self-interest, personal gain, and a strive to maximise one's own satisfaction and economic advantage (e.g., Archer, 2000; Boudon, 2006; Faber et al., 2002; Hamlin, 2002, chap. 3; Hirsch et al., 1990; Kangas, 1997; Ng & Tseng, 2008). As Kangas (1997) put it: "In the most extreme version, all human activity is reduced to a search for personal advantage. Buying a car, making voting decisions, having children – everything is explained through economics" (p. 477). This thesis, however, has a somewhat broader take on the label of homo economicus, but still with a main focus on material or socioeconomic conditions. In line with the discussions above, homo economicus can relate to self-interest, but it does not necessarily have to. Material and socioeconomic conditions can also provide opportunities and personal capabilities to act, but then for a common good beyond the self, e.g., in terms of environmental action to counteracting climate change. This means that there are two different logics at play in this understanding of homo economicus, i.e., the self-interest logic and the personal capability logic.

In the welfare attitude literature, the self-interest perspective has been dominant in assuming that individuals who are dependent, or in a position of being at risk of becoming dependent, on welfare services and/or are receiving income transfers from public welfare institutions are more likely to support public welfare policies compared to individuals who are not dependent on or who are not facing the risk of becoming dependent on welfare services and transfers (e.g., Calzada et al., 2014). Thus, "people prefer and support policies that provide them with personal benefits now or in the future" (Lipsmeyer & Nordstrom, 2003, p. 341). The general assumptions are that greater support for welfare policies can be found among individuals 1) who belong to the so-called 'transfer class', e.g., old-age

pensioners, the unemployed, and students, 2) who have low levels of educational attainment, and/or 3) who are low-income earners with fewer resources and greater exposure to social risks. This means that "people in the same social stratum have been assumed to have certain common, group-specific interests that are evidenced in what they expect of social policies" (Kangas, 1997, p. 476). When it comes to education, however, it has also been assumed to be positively associated with support for welfare policies, and more specifically with government interventions to achieve equality. In this way, education is thought of as increasing socialisation in democratic values, which in turn leads to support for the welfare state (cf. Gelissen, 2000; Hasenfeld & Lafferty, 1998). This assumption lies close to an understanding of homo economicus in terms of personal capabilities for a common good. This also points to the sometimes very thin line between homo economicus and homo sociologicus.

Also, in the environmental literature the notion of homo economicus has been discussed in relation to individualism and self-interest (e.g., Nyborg, 2000; Faber et al., 2002). Here homo economicus is understood in terms of consumers who maximise their own personal wellbeing at the expense of environmental sustainability. In the environmental attitude literature, however, material conditions have sometimes been referred to as personal capabilities, but not under the notion of homo economicus. These personal capabilities can be understood as individuals' knowledge and skills to engage in environmental action (Rhodes et al., 2017; Stern, 2000; Zahran et al., 2006). In turn, these capabilities are linked to socioeconomic factors such as educational attainment and income and are assumed to "positively affect environmental outcomes" (Zahran et al., 2006, p. 775). For instance, economic security and having more disposable income may make individuals more inclined to support environmental policies that place fiscal responsibility on them. Education and literacy make people aware of the severity and causes of climate change, and/or improve individuals' analytical skills to better understand complex issues such as climate change (Dietz et al., 2007, Harring & Sohlberg, 2017). Thus, being employed, well-educated, and/or having higher income results in more resources or capabilities (e.g., time, money, energy, analytical skills) to deal with environmental risks, which would make individuals more supportive of environmental policies.

Previous research on social welfare attitudes and environmental attitudes both confirms and dismisses the assumptions of self-interest and personal capabilities

(e.g., Breznau, 2010; Dallinger, 2010; Fairbrother et al., 2019; Franzen & Meyer, 2010; Harring & Jagers, 2013; Jæger, 2006; Linos & West, 2003; O'Connor et al., 2002; Rhodes et al., 2017; Shwom et al., 2010; Sivonen & Koivula, 2020; Zahran et al., 2006). In the literature on welfare attitudes it has even been stressed that the "strict political-economy approach", which assumes that self-interest drives the formation of welfare attitudes, has a rather limited influence on human orientations. Nonetheless, a specific socioeconomic perspective is important in the study of attitudes related to an eco-social agenda because previous literature and empirical research have pointed towards a socioeconomic divide between the welfare agenda and the environmental agenda (Gugushvili & Otto, 2021; Otto & Gugushvili, 2020). But that is not to say that other types of factors are less important. In the welfare attitude literature, for instance, a "political-sociological approach" has been proposed, "where welfare attitudes are seen as reflecting not only self-interest but also broader considerations about social justice, social rights, and reciprocity" (Svallfors, 2012b, p. 231, see also Kangas, 1997, and Albrekt Larsen, 2016, among others).[7] Also in the environmental literature, the notion of homo economicus has been contrasted to ideas about the social environment where ideological and ethical orientations are shaped, which in turn have an impact on actions (Faber et al., 2002). This leads to the following discussion about homo sociologicus.

2.4.2 Homo sociologicus – personal and political values

The notion of homo sociologicus has mainly been used in the literature on social welfare attitudes (e.g., Albrekt Larsen, 2016; Kangas, 1997). Here it has been discussed in terms of internalised values, beliefs, and norms of reciprocity, as

[7] Sometimes this approach has been discussed in relation to a so-called 'moral economy' that is formed through interactions between institutions and individuals in a society and which capture the "mutual rights and obligations of the governing and the governed" (Svallfors, 2006, p. 1). Welfare capitalist societies are assumed to be guided by a moral economy in which normative orientations of, for example, justice and responsibility are central. Public policies as well as social relations are assumed to be influenced by this kind of moral economy, which in turn influences attitudes and preferences. It has been argued that the notion of a moral economy "is useful for complementing a purely self-interest perspective on preferences and attitudes, in that people's notions of social relations are guided by normative ideas of reciprocity, obligation, and responsibility, which cannot be reduced to merely a question about who is benefitting in different processes of distribution" (Svallfors, 2007, p. 11).

"normative bases of action" (Kangas, 1997, p. 477), and as orientations that underpin welfare attitudes.

Values and norms are typically formed in youth (Albrekt Larsen, 2016) but also within specific social contexts such as different welfare regimes (Svallfors, 2012a, 2012b; cf. the notion of homo locus in Section 2.4.3). In the environmental literature, there are also discussions about norms and justice, and especially so in terms of a desire for the common good and what is best for the society (Faber et al., 2002; cf. Kangas, 1997 who discusses homo sociologicus in relation to a common good with respect to welfare attitudes). The environmental literature does not refer to the notion of homo sociologicus, however, but rather to the notion of homo politicus where normativity and the role of citizens, and especially so virtuous citizens, are stressed as central components in a sustainable society (Faber et al., 2002; Nyborg, 2000; plus see Section 2.3.4 which is about political activities under the notion of homo politicus).

This thesis follows the welfare attitude literature and understands homo sociologicus in terms of individuals' internalised values and beliefs that have an impact on attitudes. Just as was discussed in Section 2.2.1, there is a distinction between values and attitudes; whereas attitudes, briefly, refer to some kind of evaluation of an object or situation at a certain point in time, values are relatively stable over time and can be seen as general goals in life (Breckler, 1984; Schwartz, 1992). For instance, it has been argued that basic human values are formed through socialisation processes and can be seen as motivational goals that serve as guiding principles in a person's life.

In research on welfare and environmental attitudes, though to a greater extent in the latter, basic human values have been included as explanatory factors (e.g., Harring et al., 2017; Kulin, 2011; Kulin & Svallfors, 2013). Building on Schwartz's (1992) identification of ten different basic human values that are sorted under four higher-order value types, both strands of research often include the two higher-order value types of 'self-transcendence' and 'self-enhancement'.[8] Self-transcendence refers to biospheric and altruistic values, among others, where the former reflect a concern for the environment in itself, without a clear link to human beings, and the latter reflect a concern for equality, social justice, and the caring of others. Self-enhancement refers to egoistic and hedonic values, among others, which, for

[8] The two other higher-order value types are openness to change and conservatism (Schwartz, 1992).

instance, involve achievement, power, and the enhancement of personal success and status (Bouman et al., 2018; Kulin & Svallfors, 2013; Schwartz et al., 1992). Research has shown that higher biospheric as well as altruistic values tend to be positively associated with pro-environmental beliefs and behaviours (e.g., Bouman et al., 2018; Smith & Hempel, 2022). This can be explained in terms of individuals expressing a great concern for the environment but also for other human beings. Thus, the caring of the planet generates "positive outcomes for human beings (e.g., health benefits)", but it can also be seen as "a requirement to preserve our planet for future generations" (Bouman et al., 2018, p. 2). It should be noted, however, that research on environmental policy attitudes display a somewhat mixed picture. For instance, it has been shown that the effect of altruism varies with different types of policies (Harring et al., 2017), and that self-transcendence values have less effect on support for increased fossil fuel taxes compared to the effect on climate change concerns (Smith & Hempel, 2022). When it comes to social welfare attitudes it has been shown that higher altruistic values are positively related to support for redistributive policies, which can be seen as a result of these values being "theoretically related to some of the common goals of all welfare states – equality, social justice, and the general welfare of citizens" (Kulin & Svallfors, 2013, p. 157). The opposite applies for individuals who express egoistic and hedonic values. Because of their focus on personal success and power, which is often connected to costs and benefits of resources, they tend to be more negative towards redistributive policies. Individuals scoring high on egoistic and hedonic values also tend to express less pro-environmental beliefs, for instance, due to it being too costly to buy organic products (Bouman et al., 2018, p. 3).

Another type of factor included in the analytical concept of homo sociologicus is political ideology. In the environmental attitude literature, political ideology together with basic human values are "found to be among the most important predictors of climate change concern" (Smith & Hempel, 2022, p. 2; see also Harring et al., 2017). Indicators of political ideology can be self-placement on the left-right scale or political party preferences, and it has been argued that an individual's ideological positioning reflects values and beliefs about societal goals and how to achieve them. Whereas left-leaning individuals tend to advocate, for example, social justice, economic equality, and tolerance of diverse groups, right-leaning individuals tend to advocate, for instance, the market economy, authority, and security (e.g., Jost et al., 2003; Caprara et al., 2006; see also discussions in Hu et al. 2017; Noureddine & Gravelle, 2021; Smith & Mayer, 2019), In both

the welfare and the environmental attitude research, the left-right divide is apparent, with those placing themselves to the left or preferring left-wing political parties express support for the welfare state and for redistributive policies (e.g., Lipsmeyer & Nordstrom, 2003; Noureddine & Gravelle, 2021) as well as support for environmental policies (e.g., Carlsson et. Al., 2021; Drews & van der Bergh, 2016; Harring & Jagers, 2013). In line with these findings, in the research on eco-social attitude patterns it has been shown that voters of moderate left and green parties tend to express mutual support for welfare and climate policies (Fritz & Koch, 2019). From a welfare attitude perspective, it has been shown that left-right cleavages are actually larger in wealthier and more unequal countries (Noureddine & Gravelle, 2020). In research on environmental attitudes, it has also been shown that the association between political ideology and environmental support is stronger when economic growth is understood as being related to the levels of support but also when the environment is perceived as an ideological issue (Harring & Sohlberg, 2017). Moreover, political polarisation along the left-right scale in relation to environmental attitudes seems to be more pronounced in Western Europe compared to Eastern Europe (Fisher et al., 2022; Lewis et al., 2019; McCright et al., 2016), similarly to the effect of nationalist ideology (Kulin et al., 2021). In a Swedish context it has been suggested that there are signs of increasing political polarization regarding environmental issues and attitudes during the last decade (Carlsson et al., 2021; Martinsson & Weissenbilder, 2019). Potential implications of considering debates about climate change as a political one rather than a scientific one could be, on the positive side, that climate issues get on the agenda and thus make people aware of them. However, on the negative side, a disconnect might arise where a scientific understanding of the crisis and how to deal with it gets mixed up with more power- and conflictual-laden understandings with bases in different political parties and ideological rhetoric. In turn this could hinder 'social consensus' on climate change and thus also individuals' willingness to support mitigation policies and to engage in mitigation behaviour (e.g., Guber, 2013; Hoffman, 2011; Hoogendoorn et al., 2020).

Lastly, yet another value-based factor, at least in the study of environmental attitudes, is future time orientation (Hu et al., 2017). In the literature on sustainable welfare, as well as in the more general sustainability literature, the time dimension is highly central in that climate change entails both present and future eco-social risks for present as well as for future generations (e.g., Koch & Mont, 2016a). From a social psychology perspective, future time orientation refers to

"the extent to which individuals consider the potential distant outcomes of their current behaviours and the extent to which they are influenced by these potential outcomes" (Strathman et al., 1994, p. 743). In the environmental attitude literature, it has been theorised that when individuals have high or strong future time orientation, they are more prone to care about the wellbeing of future generations and not just the current one. They are also willing to sacrifice immediate benefits such as pleasure and convenience, which could be understood as important when it comes to dealing with climate change (Hu et al., 2017). To date, future time orientation and basic human values have not been included in research that studies attitudes related to an eco-social agenda

2.4.3 Homo locus – place as context

The notion of homo locus in this thesis pertains to place as context. In previous research and literature on public attitudes, it has been argued that *place* seems to matter when it comes to understanding variations in attitudes (e.g., Gallego et al., 2016; Huijsmans et al., 2021; McGrane et al., 2017; Reese & Zalewski, 2018). Place is, however, an elusive and even a contested concept with different understandings, and sometimes with fundamental philosophical issues tied to it (Staeheli, 2008). Drawing on one of Staeheli's conceptualisations of place, this article understands 'place as context', as in contrast to, for example, 'place as physical location or site'. This latter 'place as physical location or site' can be conceptualised as "material, grounded, and bounded" and thus as something one can physically observe or walk on for example. Instead, 'place as context' can be understood as the "areal context of events, objects and actions" (Entrikin, 1999, as cited in Staeheli, 2008, p. 161). This means that the place itself has certain characteristics tied to it, which reflect various cultural, social, economic, and political relationships. These characteristics are place-distinctive and thus not mere aggregations of individual-level characteristics of the people who live there. It is argued, instead, that individual-level characteristics "only take meaning in local contexts – in places" (Staeheli, p. 161). Then, through one's situatedness in certain contexts, individuals' attitudes may be influenced.

Contextual differences have been widely explored in research on political behaviour, particularly voting behaviour and political party preferences (e.g., Eriksson, 2007; Gimpel et al., 2020), but also in research on attitudes (e.g., Huijsmans et al., 2021; McGrane et al., 2017; Reese & Zalewski, 2018). In research that has found that

attitudes vary in relation to context, this is sometimes referred to as 'spatially-bounded human agency' (Weckroth & Ala-Mantila, 2022). Contextual variation can relate to different levels in society, from the local level with the exploration of within-city differences to the international level with cross-national analyses. It can also capture different contextual features of various institutional arrangements, macroeconomic conditions, and so forth.

In research on social welfare attitude, for instance, it has been and is still very common with cross-national studies that refer to institutional welfare arrangements, where the notion of welfare state regimes is central (e.g., Svallfors, 2012a, 2012b). Van Oorschot and colleagues (2022) even refer to what they call a 'methodological nationalism' in previous research on welfare attitudes, which could conceal differences within nation states. A cross-national study approach is also evident in the environmental attitude research, for example through the study of macroeconomic differences (e.g., Franzen & Vogel, 2013; Pohjolainen et al., 2021). In this vein, context is related to levels and structures of inequality and stratification, which has to do with economic conditions on a structural level (cf. Svallfors, 2012a, p. 11). The results from studies investigating the association between national affluence and environmental concern are rather mixed, however (Arikan & Günay, 2021; Fairbrother, 2013; Franzen & Vogel, 2013; Kvaløy et al., 2012; Mildenberger & Leiserowitz, 2017). In a few studies focusing more specifically on attitudes towards environmental or climate policies, national affluence was positively associated with environmental policy support (e.g., Anderson et al., 2017; Mayer & Smith, 2017; Pohjolainen et al., 2021). In contrast, in welfare attitude studies it has been shown that individuals in countries with prosperous economies tend to be less supportive of redistribution (e.g., Dallinger, 2010; Jæger, 2013; Noureddine & Gravelle, 2021). From a local level, contextual-level analyses have been widely explored from an urban/rural perspective in research on environmental attitude. But once again the results are rather mixed (see Gifford & Nilsson, 2014, for a review), even though some studies have found that urban residents tend to express less climate scepticism, stronger environmental beliefs and concerns, and more positive attitudes towards climate change policies (Arndt et al., 2022; Berenguer et al., 2005; Weckroth & Ala-Mantila, 2022). Research on welfare attitudes from a local perspective is rather scarce. In two studies, however, that investigated socioeconomic within-city differences it was shown that individuals living in less affluent neighbourhoods were more supportive of redistributive welfare policies (Bailey et al., 2013; Kearns et al., 2014).

In research on contextual-level differences where it is assumed that place as context determines human agency, various mechanisms might be at play. This is referred to as contextual effects, and it can be the results of, for example, interpersonal or social interaction processes where direct or indirect contact with individuals who live close by can be a source of information, which in turn might have an impact on attitude formation (e.g., Books & Prysby, 1991; Cutler, 2007; Eriksson, 2007; Huckfeldt & Sprague, 1995). These kinds of effects were for instance investigated by welfare attitudes researchers, where they showed that residency had an impact on individuals' attitudes towards redistributive welfare policies (Bailey et al., 2013; Johansson Sevä 2009; Kearns et al., 2014). Contextual effects can also be the result of individuals' self-sorting into residential areas, which can be based on socioeconomic resources and lifestyle preferences for example (Huijsmans et al., 2021). It should be noted, however, that in this thesis no contextual effects are investigated but rather the association between context-based factors and attitudes (cf. Eriksson, 2007). It is nevertheless important to be aware of these effects and mechanisms when conducting context analyses, for instance, when it comes to what conclusions can be drawn from the results.

2.4.4 Homo politicus – modes of political action

Lastly, the analytical concept of homo politicus captures various modes of political action. This is a rather uncommon perspective in the study of social welfare and environmental attitudes, but nevertheless is important and interesting with respect to imperative socio-ecological transformations (cf. Creutzig et al., 2022, p. 5; see also Caniglia et al., 2015; Opp, 2019; Piggot, 2018), but also in relation to an historical transformation perspective where the role of collective action has been central (e.g., Opp, 2019; Östberg, 2021).

In the environmental literature, however, and just as mentioned above in Section 2.3.2, the notion of homo politicus has been normatively used to refer to the 'good' citizen who is "'concerned with the public interest' and 'with the good of the community'" (Faber et al., 2002, p. 328f.). Actions of this virtuous citizen involve consumption decisions, among other things (Faber et al., p. 326). This can be seen in the light of the newly emerging debates about life-style politics in the political action literature, and above all in terms of environmentally motivated political action (de Moor and Verhaegen, 2020). Yet another strand of literature, from a political science perspective, has theorised about the notion of homo

politicus with respect to individuals in their political roles, such as voters (Brennan, 2008). This lies close to the understanding of homo politicus in this thesis, which incorporates various modes of political action (but not voting, however). Drawing on the conceptualisations and taxonomies developed by van Deth (2014), Theocharis and van Deth (2018), Theocharis et al. (2019), de Moor and Verhaegen (2020), four modes of political action can be distinguished. The first category captures activities taking place *in* the political sphere, i.e., institutional political action such as donating money to a political organisation or group or being member of a political organisation. The second category refers to political action targeted *at* the political sphere, i.e., non-institutional political action such as protesting or writing a letter to an editor. The third category contains non-political but politically motivated activities, like lifestyle politics and political consumerism. Lastly, the fourth category refers digital network participation through posting in social media. In this way, political action can be understood along the seminal definition by Verba and Nie (1972), i.e., "activities by private citizens that are more or less directly aimed at influencing the selection of governmental personnel and/or the actions they take" (Verba & Nie, p 2; see also van Deth, 2014)

The various types of political action in the four categories can be seen as an expression of the changing nature of political participation in liberal democracies during the last decades. At the end of the 20th century scholars were deeply concerned about the decline in political participation in the US. It was shown, however, that traditional forms of electoral participation in terms of voting had been accompanied by other, more active or direct, forms of political action, such as contacting political figures, donating money, signing petitions, buying products for political or ethical reasons, protesting, and so forth (Dalton, 2008; Dalton et al., 2010; Straughn & Andriot, 2011). This made scholars conclude that political or democratic action had even been expanded and enriched (Dalton, 2008), a development further strengthened by new forms of digital network participation (see e.g., Theocharis et al., 2019). This has been described as a shift from duty-based to engaged forms of citizenship (Dalton, 2008).[9]

[9] It should be noted, however, that even though the variety of political activities has expanded, lately it has been reported that there are persistent declines in democracy on a global level, and particularly so in Asia-Pacific, Eastern Europe, Central Asia, and in parts of Latin America and the Caribbean (Boese et al., 2022).

The expansion of the various forms of political activities has raised questions regarding the nature of the 'political' in political action (e.g., Marsh & Akram, 2015; Kyroglou & Henn, 2022), which I very briefly will reflect upon. It has, for instance, been argued that various types of political action cannot be understood as political if they do not attempt to change policy, such as voluntary work at shelters, or different types of online activities that has been dismissed as 'clicktivism' or 'slacktivism'. Marsh and Akram (2015) argue, however, that instead of applying a dualistic view of "…'non-political' actions in the broader social arena and actions in the specifically political arena" (Marsh and Akram, p. 525), it is more valuable to think in terms of a continuum between the two. Thus, one and the same activity that originally was not attempting to change policy might well "develop into action within the political arena" (Marsh and Akram, p. 525). Similarly, the shift from duty-based to engaged citizenship has been interpreted as expressions of individuals' personal projects and identities, rather than attempting to support or oppose political authorities (e.g., Bang, 2009). Here it is important to make a distinction between personalisation and individualism. Marsh & Akram (2015) argue that while personalisation and the personal project might be "geared towards collective action and shared ideals, such as preserving the environment or creating community", individualism "makes the well-being of the individual the ultimate goal" (Marsh & Akram, p. 526). Thus, even though an activity is performed as a personal project it still has the potential to turn into political action. Lastly, various forms of lifestyle and consumerist politics have also been analysed from a neoliberal perspective, which stresses a shift from agency of citizens to that of consumers. Neoliberalism seems to be both driving and shaping political consumerist behaviour, either as a "push effect" from traditional forms of political participation such as voting, or as a "pull effect" in that the 'political' is searched for within the market. Various mechanisms seem to lie behind the political consumerist behaviour, such as disbelief in political authorities or as confidence in the market (Kyroglou & Henn, 2022).

When it comes to the study of interlinkages between political action and attitudes, which this thesis explores, interlinkages between values and political action have been explored to some extent from a social movement perspective (e.g., Grasso and Giugni, 2018; Welzel & Deutsch, 2012). Instead, in research on environmental action from various perspectives, the study of interlinkages between values, but also attitudes and environmental activism, is an established feature (e.g., Jagers et al., 2014; Kollmuss & Agyeman, 2002). Previous research

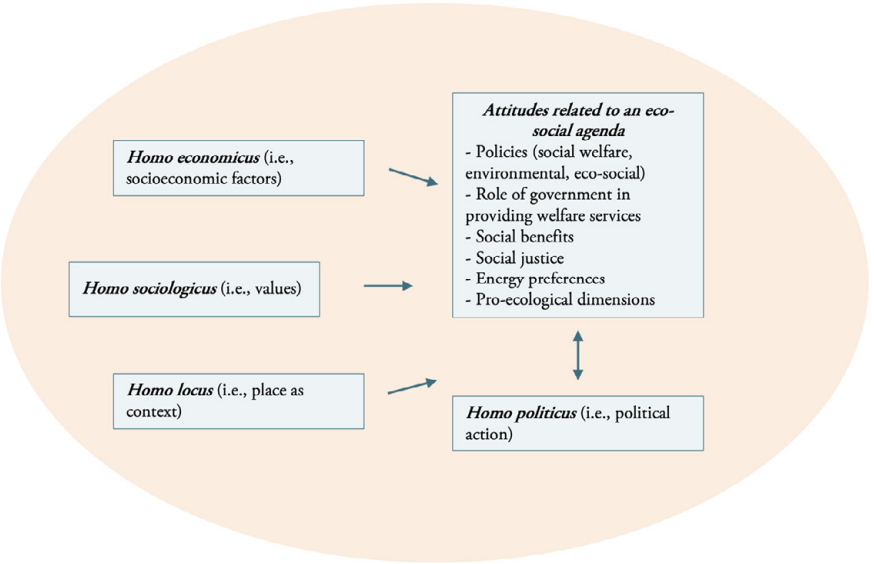
has shown, for example, that values related to post-materialism are linked to protest participation, membership in environmental groups, and other types of environmental action (Dalton et al., 2010; Taniguchi & Marshall, 2018; Welzel & Deutsch, 2012).

It should be noted that the relationship between orientations and concerns on the one hand and political action on the other is not always to be understood as unidirectional and causal where the former has an impact on the latter (e.g., Quintelier & van Deth, 2014). In a recent study it was even shown that attitudes and political action may be correlated with each other because they are both driven by personality traits formed in the early life phases, and thus not because they are causally related (Weinschenk et al., 2021). In yet another study on lifestyle politics it was shown that political concerns and political action seemed to reinforce each other regarding "the politicization of everyday life choices, including ethically, morally or politically inspired decisions about, for example, consumption, transportation or modes of living" (de Moor & Verhaegen, 2020). Against this backdrop the analytical concept of homo politicus distinguishes itself from the three previous concepts, which have a given time order in terms of what comes first in the analyses (cf. independent variables). Political action, categorised under the analytical concept of homo politicus, is thus rather to be seen as an outcome or dependent variable, just as is public attitudes. This has implications for the chosen method in analysing the association between them, which will be discussed in Chapter 3.

2.4.5 A conceptual model in the study of attitudes related to an eco-social agenda

Based on the previous discussions, this last part outlines a conceptual model in the study of public attitudes related to an eco-social agenda. The conceptual model should be seen as an attempt to organise and structure the study of attitudes in this thesis. The model is summarised in Figure 2.

Figure 2. A conceptual model in the study of attitudes related to an eco-social agenda



As discussed previously (Section 2.2), attitudes related to an eco-social agenda from a sustainable welfare perspective refer to evaluations concerning the desirability and legitimacy of issues in terms of policies and concerns that respect both social and planetary boundaries. These specific policies and concerns are related to social justice, equality, redistribution of wealth and income and of work and time, decarbonising measures and policies, and distributist institutions, among other things (e.g., Büchs & Koch, 2017; Gough, 2017; Hirvilammi, 2020). In theorising on the attitudes, four analytical concepts were proposed: *homo economicus*, *homo sociologicus*, *homo locus*, and *homo politicus*. In three out of four studies (Article 1, 2 & 3) I analysed if and in what way various factors related to some or all of these analytical concepts predict the attitudes, as indicated by the vertical arrows in the figure. In one study (Article 4), interlinkages between attitudes and political action were explored following a relational approach, but without determining the effect of one variable on the other, as indicated by the horizontal arrow in the figure. Regarding the various analytical concepts, it could also be assumed that there is some kind of hierarchy between the factors, particularly in relation to the factors categorised under homo locus because it has been suggested that individual-level characteristics "only take meaning in local contexts – in places" (Staeheli, 2008, p. 161). But because this thesis analyses the

main effects of independent variables on a dependent variable in three of the studies, and interlinkages through a relational approach relationships in one study, I treat the analytical concepts in a non-hierarchical way in this conceptual model.

As discussed above, these analytical concepts have been applied to a various extent in previous research on social welfare and environmental attitudes in order to understand public support for various policies and concerns. For instance, in the literature on welfare attitudes the discussions have mainly focused around competing motives for support of social policy in terms of self-interest through homo economicus and social norms through homo sociologicus (e.g., Kangas, 1997; Svallfors, 2007, 2012a). In contrast to previous literature, however, which tends to focus on tensions between the analytical concepts, this thesis sheds lights on potential tensions within them as well. To give one example, the analytical concept of homo economicus in this thesis refers to material and socioeconomic conditions that give rise to support based either on self-interest or on personal capabilities. Thus, acting upon material conditions might lead to support out of personal benefits, but it might also lead to support because of personal capabilities. In terms of homo sociologicus, acting upon personal values and norms might also lead to support with respect to the common good, but it might also lead to support with respect to egoism. This broader conceptualisation opens up for variation within the categories, and not just between them.

Lastly, it should be noted, however, that by outlining this conceptual model the aim is *not* to develop an all-encompassing model about attitudes related to an eco-social agenda. There are, for instance, many mechanisms that are not being explored in this thesis but that could be associated with attitudes, e.g., other socioeconomic or sociodemographic characteristics, values and context-based factors but also various psychological or social-psychological factors, the influence of issue framing, and so forth (Mullinix, 2011). Also, there is no attempt to make any overall conclusions about which set of factors that best seem to explain the attitudes, and thus if homo economics or homo sociologicus best predicts the attitudes (cf. Kangas, 1997). However, that is not to say that the results might reveal tensions between factors, and thus both within and between the four analytical concepts, just as discussed above.

3 Method

The thesis follows a quantitative research strategy through a cross-sectional survey study with a focus on questions regarding environmental and social welfare policies and concerns, personal values, engagement in various political activities, and individual background characteristics. In public attitude research, survey studies and quantitative methods are used frequently (e.g., Svallfors, 2012a; van der Meer, 2009). The centrality of large-scale surveys and quantitative micro data of political attitudes has also been highlighted in the sustainability research literature (Rau & Fahy, 2013) as well as in the social transformation literature (Pickel & Pickel, 2019). If the intention is to capture patterns of support and legitimacy among the general public, like in this thesis, then large-N survey studies provide good opportunities to do so (e.g., Matti, 2009).

This method chapter first describes the survey study (Section 3.1), including the design of the survey questionnaire, sampling strategies, the data collection process, and survey responses and nonresponses. Then it moves on to describe measurements and operationalisation strategies of the variables that were analysed in the four articles (Section 3.2), and the analytical techniques that were applied in the same articles (Section 3.3). Lastly, the chapter ends with some methodological reflections (Section 3.4).

3.1 Survey study

The data come from an original survey study conducted through the research project "The New Urban Challenge? Models of Sustainable Welfare in Swedish Metropolitan Cities"[10]. The aim of the survey study was first and foremost to

[10] See webpage for more information: https://www.soch.lu.se/en/research/research-projects/the-new-urban-challenge

capture attitudes towards various environmental and social welfare policies and concerns among urban respondents in Stockholm, Gothenburg, and Malmö. However, a national sample group, excluding residents in the three cities, was also included in the study. While professor Max Koch, School of Social Work, Lund University, and I were responsible for designing the survey, a survey company, Enkätfabriken AB, handled the distribution of the surveys, the data collection, and the data compilation processes.

3.1.1 Survey design – questions and response options

The survey questionnaire contained questions and statements about environmental and social welfare policies and concerns, personal values, engagement in various political activities, and individual background characteristics. In designing the survey, inspiration came from previous research on welfare and environmental attitudes, both when studied in combination (Fritz & Koch, 2019; Jakobsen et al., 2018; Otto & Gugushvili, 2020) and separately (e.g., Blekesaune & Quadagno, 2003; Dallinger, 2010; Harring et al., 2017; Linde, 2018; Svallfors, 2012). The large majority of the questions came from previous research and/or previous well-known survey studies, such as the European Social Survey, the Swedish SOM Institute, etc. A few of the questions (survey questions 4 and 18) had been validated through specific testing in previous research (Bouman et al., 2018; Dunlap et al., 2000). Some other questions were designed with inspiration from previous studies and research, which means that they were not totally identical to previous survey questions, for instance, the welfare policy questions concerning basic income, maximum income, etc. (question 2). Yet another set of questions we designed ourselves, and therefore these questions had no equivalents in previous survey questionnaires (e.g., questions 9–11). Designing one's own research questions comes with the disadvantage that the questions have not been tested nor validated in previous research. Instead, using well-established research questions increases the reliability of the study (Barmark & Djurfeldt, 2015, p. 53). Nevertheless, designing new survey questions allows for exploring new phenomena. For a more thorough description and discussion about the survey questions and items that were used in this thesis, see Section 4.2. In total the survey consisted of 37 questions, some of which consisted of larger item batteries (see Appendix 1 for the survey questionnaire, in Swedish, and see Appendix 2 for references to the survey questions).

In order to increase the reliability of the survey, a pilot study was conducted in May 2019 (cf. Barmark & Djurfeldt, 2015, p. 54; Fjelkegård, 2016, p. 303). The aim of the pilot study was to get an indication of whether any questions were difficult to understand, if some questions were being experienced as particularly sensitive, and if we would gain enough variability in the answers (see Appendix 3 for extended information about the pilot study and how the results from it were used to revise the main study).

Regarding the response options, most of them were fixed response options and mostly on a Likert scale ranging from agree to disagree with various statements (cf. Persson, 2016a, p. 377). Some of them contained a neutral middle option ('neither agree nor disagree'), e.g., question 2, whereas others did not, e.g., question 1 (see Appendix 1). In general, the response options containing the middle option came from previous research and/or survey questionnaires. This gave us the possibility to compare our results and/or data with previous studies (e.g., question 3 and 7, which came from the European Social Survey). In these cases, the survey question's wording and the response options in our questionnaire were identical to previous survey studies. In other cases, when it was not important to be able to compare our data with previous findings from other studies, the decision was made to skip the neutral middle option (e.g., question 1 and 9–13). This forced the respondents to take a stance towards a specific question or statement, which can generate more variability in the responses, while still having the possibility to opt out of answering with the response option 'I don't know'. The 'I don't want to answer' option was only included when the survey question/statement was replicated from previous survey questionnaires as discussed above, or in more sensitive questions/statements (e.g., questions 31–35 about organisational membership, political ideology, and religion).

One risk that comes with response options that capture agreement or disagreement is the so-called "acquiescence bias", i.e., the tendency to agree rather than disagree. In order to get around this it has been proposed to use reversed items, i.e., turning a positively framed statement into a negative one (Paulhus, 1991). This practice has been questioned, however, (Suárez-Álvarez et al., 2018), and thus there seems to be no easy way out of this dilemma (but see Bolt et al., 2014, for a discussion about 'anchoring vignettes' as a solution). In the survey questionnaire, most of the statements as well as the response options of most were framed in the same direction, which also made the survey questionnaire more

consistent and systematised. With the intention to make the respondents attentive, however, some survey questions, (e.g., questions 4 and 8) contained a mixture of positively and negatively framed statements. Lastly, there were also some open-ended questions in where the respondents had to answer the question in writing, e.g., the questions regarding parents' birth country (question 26) and profession (question 30).

Finally, because the survey questionnaire contained some sensitive questions, for instance, regarding trade union membership and religious affiliation, it had to go through an ethical review. Hence, in order to make sure that the study was conducted in accordance with the guidelines for ethical research process, it was reviewed by the Swedish Ethical Review Authority and approved in October 2019 (ref. number 2019-04192).

3.1.2 Population and sample

The survey study followed a stratified random sampling strategy. Random sampling strategies increase the likelihood of obtaining a sample that is representative of the population at large (Mujis, 2011, p. 33). The stratification was made in order to target residents living in Stockholm, Gothenburg, Malmö, and Sweden at large. Thus, from the population four samples were drawn, including one sample for each city and one national sample (excluding the three cities). The inclusion of the national sample opened up possibilities to make comparisons between residents living in and outside the three largest cities, but also for being able to draw conclusions about the Swedish population at large. In each strata a randomised sample was drawn of 1,250 residents in the age cohort 18–84 years old, making it a total sample size of 5,000 individuals.[11] The selection of respondents was made on 27 December 2019 through the Swedish public

[11] The sample size was based, first and foremost, on financial considerations with the intention to send the survey questionnaire to as many respondents as possible. The sample sizes in survey studies of public attitudes often exceed the required minimum thresholds to be able to conduct statistical analyses. For instance, in assuming that multiple regression analysis would be conducted with five predictor variables, with a medium effect size, i.e., Cohen's f2 of 0.15 in this case, a recommended power of 0.90, and a significance level of 0.05, the minimum total sample size needed would be 116 individuals (Faul et al., 2009). In calculating that around 30 % would respond to the survey, it means that 386 individuals would have to be invited (see Hibberts et al., 2012). With respect to this example, the number of individuals actually invited, i.e., 5,000 individuals – or 1,250 individuals per strata – was thus way beyond the minimum number of individuals recommended by the power analysis.

register SPAR[12] by the survey company[13]. With equally large sizes (n = 1,250) of the four samples, the stratified sample was disproportionate in relation to the population size. A disproportionate stratification strategy is recommended, for instance, when small groups in the population are surveyed, and it is important to make sure that each group contains sufficient observations (Hibberts et al., 2012, p. 62). This can also be seen against the backdrop that it is more difficult to get respondents to answer in larger cities due to larger portions of socioeconomic vulnerable people who tend to answer to a lower extent (Feskens et al., 2007; Goyder et al., 2002). A disproportionate stratified sampling strategy thus increases the possibility to draw conclusions based on comparisons between and within samples, which was desirable in this thesis. If a stratified sampling strategy would not have been applied, but instead a simple sampling strategy for the whole of Sweden, then the likelihood of getting enough urban respondents most likely would have been rather low considering the already rather low number of survey responses (see below). This would have affected the ability to draw conclusions based on comparisons between and within the cities.

One disadvantage with disproportionate stratification is that it complicates the statistical analyses if the goal is to make statistical generalisations from the samples to, for instance, a general population, as in this thesis. However, in order to allow for statistical generalisations, and thus adjust for the disproportionate allocations, sample weighting is an option because it can make every sample group representative in relation to its population size (Hibberts et al., 2012, p. 62). Thus, in order to be able to make statistical generalisations to the general Swedish population and to residents living in the three cities, design weights were constructed and used in the statistical analyses where needed in the four studies, which is discussed further in Section 3.3. For example, in generalising from the samples to the general Swedish population this means that the sample group of Malmö, for instance, would be down-weighted because Malmö residents account

[12] SPAR is an abbreviation of 'Statens personadressregister' ('the Swedish state personal address register') and contains information about all persons who are registered as residents in Sweden. SPAR is specifically regulated by the Act of (1998:527) statens personadressregister, the Regulation (1998:1234) of statens personadressregister and the Swedish Tax Agency Regulation on handing out data from SPAR (SKVFS, 2011:06). For more information see SPAR (n.d).

[13] The file containing information about the survey respondents was delivered to the survey company, which anonymised the respondents by assigning them a unique code instead of personal information.

for 21% of the answers in the survey study while they make up only 3% of the population in Sweden.

3.1.3 Data collection process

The data collection process started in the beginning of January 2020 and went on until the middle of April 2020. See Table 1 for a summary of key dates in the data collection process.

Table 1. Key dates in the data collection process

Date	Activity
7 January 2020	Postcard notification
20 January 2020	Postal survey letter
9 February 2020	SMS reminder
12 February 2020	Postcard reminder
20 February 2020	SMS reminder
6 March 2020	Postal survey letter – reminder
23 March 2020	SMS reminder
14 April 2020	Closing of the survey study

With the goal of increasing the response rate, and thus to potentially increase the external validity of the study, a number of notifications and reminders were sent out during the 14 weeks of data collection. The data collection started with a postcard notification, with the aim of informing the respondents that they had been selected to take part in the study and that the actual questionnaire would be sent out shortly. Some weeks later, the postal survey letters were sent out. These letters also contained information about the possibility to fill in the survey online (cf. Persson, 2016b, who discusses the use of mixed modes as a way to increase survey responses). Until the closing of the survey study, a number of reminders through mailings and SMS text messages [14] were sent out (see Appendix 4 for detailed descriptions of all letters and reminders, in Swedish).

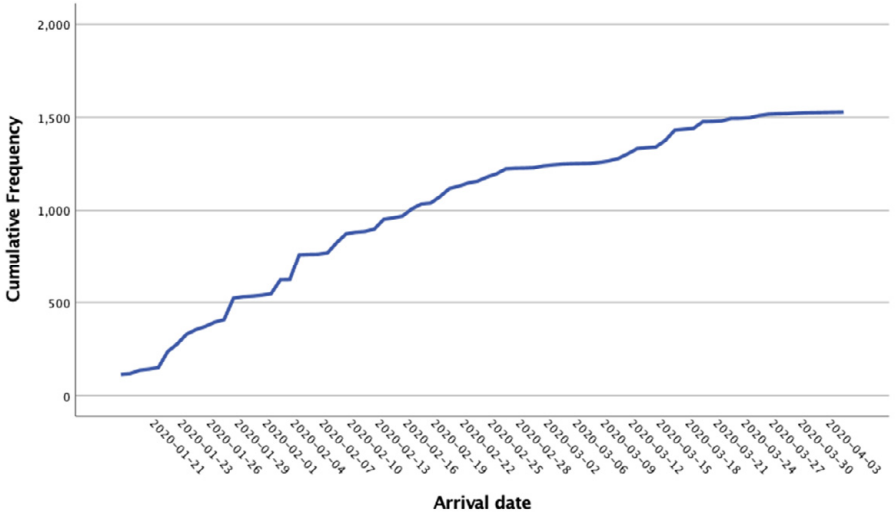
[14] The survey company managed to assign telephone numbers to around 40 % of the respondents, which means that around 60 % did not get any SMS reminders.

Regarding the postal survey letter, it consisted of a 2-page cover letter with information about the survey and information about taking part in the study, data protection, and so forth, and a 12-page questionnaire containing 37 questions or item batteries in total.[15] The questions in the online survey were identical to the ones in the paper questionnaire. All questions in the online survey were optional, which means that the respondents could choose what questions to answer, just as in the case of the paper survey.

If the respondents chose to fill in the paper questionnaire, it was sent back to the survey company who was responsible for scanning the surveys. Also, the online questionnaires were administered by the survey company. Slightly more postal survey responses, 54%, were sent in compared to online surveys, 46%. The last survey response was sent in by 11 April 2020, and the survey study was closed down on 14 April 2020. Most of the respondents chose to respond to the survey during the initial phase of the data collection process, and as can be seen in Figure 3, around half of the responses were sent in during the first three weeks of the 14-week long data collection process.

[15] The survey letter also contained a pre-addressed and stamped envelope for the respondents to send in the questionnaire. Even though the postal survey letters were distributed by the survey company, we made sure that the respondents would understand who was responsible for the survey by having the logo of Lund University printed on the envelop and by having contact information to Max Koch and me in the cover letter. There was also contact information to the survey company if the respondents needed technical support with filling in the survey, which mostly regarded the online survey. In addition, the address to the survey company was printed on the envelop in order to secure those letters being returned would be registered as non-responses. In the postal survey letter, there was also a web address together with a unique code to get access to the online survey and a unique QR code, which took the respondents directly to the survey.

Figure 3. Cumulative inflow of survey responses (number of respondents = 1529, response rate = 31%)



After the closing down of the survey study, the survey company compiled all the responses into an SPSS data file, which was delivered to Max Koch and me on 16 April 2020. By then all the survey responses had been de-identified.

3.1.4 Survey responses and nonresponses

A total of 1,529 respondents participated in the survey study, which gives an overall response rate of 31%. The response rates differed, however, across the different samples, with the highest numbers of respondents in the sample group that captured Sweden at large (excl. Stockholm, Gothenburg, and Malmö) and the lowest numbers of respondents in Malmö. In Table 2 below the response rates for the different sample groups are presented. The table also contains information about complete and partial responses.

Table 2. Response rates, and complete and partial responses in the various sample groups

Sample group	Sample size (N)	Complete responses (N)	Partial responses (N)	Complete response rate (%)
Stockholm	1 250	365	31	32%
Gothenburg	1 250	342	40	31%
Malmö	1 250	307	35	27%
Sweden (excl. Stockholm, Gothenburg, & Malmö)	1 250	380	29	33%
Total	5 000	1 394	135	31%

Given that response rates normally vary between 20% and 70%, with a mean around 40% in the 2010s, which seems to be declining every year (Stedman et al., 2019), the response rate of this survey study is not exceptional in any way even though it places itself in the lower bound. The lower the response rate, however, the higher the risk of nonresponse bias and non-representativity of the target population, with implications for interpreting the results (Peytchev, 2013; Stedman et al., 2019). For a description of how this was dealt with in the four studies, see Section 3.3.

In terms of nonresponse, a distinction is made between unit nonresponse and item nonresponse. Unit nonresponse occurs when individuals who were included in the sample do not respond at all or when the responses do not provide enough information, e.g., when blank questionnaires are sent in. Item nonresponse or missing data occur when individuals respond to some but not all survey questions (Cohen, 2008). In what follows, first a reflection will be made in relation to unit nonresponse, and then the discussion continues regarding item nonresponse in the survey study because both types of nonresponse can yield bias in survey estimates.

Unit nonresponse

When it comes to unit nonresponse, we only got information regarding 72 out of the total 3,471 non-responses: 38 could not be delivered for unknown reasons, 20 were refusals, 5 individuals suffered from physical and/or mental illness, and 1 respondent was deceased. Another 8 respondents had sent in an empty questionnaire. Table 3 below summarises the known causes.

Table 3. Known causes of the non-responses

Cause	Numbers
Survey letters coming in return	38
Refusals	20
Blank questionnaire being sent in	8
Physical and/or mental illness	5
Deceased	1
Total	72

This means that we did not get any information at all concerning the other 3,399 unit nonresponses. Through a post hoc nonresponse analysis based on public register data from Statistics Sweden (n.d.), it was possible, however, to compare some sociodemographic characteristics of the survey data in terms of age, gender, education, income, and birth country with the register data. Table 4 presents data regarding the Swedish population in the age span 18–84 years. For the survey data both unweighted and weighted data, with respect to the design sample weight, are presented. The unweighted data refer to the original stratified and disproportionate sample, whereas the weighted data refer to data that were adjusted using the sample weight in order to make generalisations from the sample to the general Swedish population (see Section 3.1.2).

Table 4. Comparison of socio-demographic characteristics survey data and register data

	Survey data, 2020 Total sample (weighted data in parenthesis)	Register data, 2020
Age	n=1529	
18-29	14% (11%)	19%
30-49	32% (30%)	34%
50-64	26% (27%)	24%
65-84	27% (32%)	23%
Gender	n=1524	
Women	50.5% (47.5%)	49.5%
Men	49.5% (52.5%)	50.5%
Personal income/month	n=1249	
Median in SEK*	30,000 (30,000)	25,508
Mean in SEK	32,801 (31,905)	27,552
Education	n=1350	
Primary/lower secondary education	9% (13%)	16%
Higher secondary education	23% (25%)	44%
Post-secondary education	68% (63%)	40%
Birth country	n=1366	
Born in Sweden	85% (90%)	77%
Not born in Sweden	15% (10%)	23%

Note: Register data came from Statistics Sweden (n.d.) and refer to the Swedish population in the age category 18-84 years in 2020. *SEK 10 equals about EUR 1.

The comparison between the survey data and the register data shows that among the respondents there is a slight overrepresentation of older individuals, individuals with higher education and income, and individuals who were born in Sweden (cf. the 'middle class bias' in survey studies Goyder et al., 2002; see also Johansson-Tormod & Klevmarken, 2022). The overrepresentation of older individuals and individuals born in Sweden is somewhat more pronounced in the weighted data compared to the unweighted data. However, in the unweighted data the overrepresentation of individuals with higher education and incomes is somewhat more distinct.[16]

From Table 4 and the comparisons between the survey data and the public register data it is evident that the sample deviates from the population in some aspects. It

[16] Another comparison was made with data from the SOM Institute survey regarding self-placement on the left-right scale (University of Gothenburg, SOM Institute, 2019). The comparison indicated that there seems to be a slight leftist bias in our sample. The respondents in our survey study also seem to be more polarised compared to the SOM Institute survey sample.

is thus likely that the unit nonresponse decreases the external validity of the study to some extent, and therefore the ability to make generalisations from the sample to the population. One way to account for the unit nonresponse bias can be by reducing sample errors through post-stratification weighting (European Social Survey, 2017; Groves, 2006; Smith, 1991). Both single and combined post-stratification weights were constructed for age, gender, education, income, and born/not born in Sweden. But in the end they were not used for various reasons. For example, the combined post-stratification weight for education, income, and born/not born in Sweden resulted in negative values, which made it useless (see also Section 3.3). Another way to account for the unit nonresponse bias is to be as transparent as possible regarding the response rate and nonresponse bias when it comes to presenting the results. Also, it should be noted that even though non-response bias may exist in a dataset, bias in associations between variables tends to be relatively small (e.g., Dey, 1997). See Section 3.3 for a discussion about how I dealt with unit nonresponse in the four studies.

3.1.4.1 Item nonresponse

Item nonresponse refers to missing data on particular items or questions. Just as in the case of unit nonresponse, item nonresponse can bias the analyses depending on the randomness or non-randomness of the missing data (de Leeuw and Hox, 2008). Among the specific survey questions the item nonresponse rate ranged from 1.3% to mostly around 10-11% at the end of the survey[17] (see Appendix 5 for descriptive statistics of each item that were included in the analyses in the four studies). Because the response rate was higher in the beginning of the survey and lower in the end, this could be an indication of survey attrition bias and thus that

[17] Two exceptions were 'personal income' and 'organisational membership' with an item nonresponse rate of 18% and 15-17%, respectively. The rather high item nonresponse rate of personal income was probably due to the open-ended character of the survey question because the proceeding survey question about household income with fixed response options had an item nonresponse rate of 9.6%. Regarding the personal income variable, some unrealistic outliers were also deleted, e.g., where respondents working part-time had marked that they earned 800,000 SEK per month but then in the proceeding response question of household economy marked a monthly income of 60,000-74,999 SEK per month. In order to deal with the item nonresponse rate of personal income, mean replacement was performed (see Section 3.3.1). Regarding organisational membership, which appeared in the very end of the survey questionnaire, the rather high item nonresponse rate could be due to response fatigue in combination with how the survey question was framed – perhaps the respondents thought they should only respond to those items that were relevant for themselves. To deal with this, multiple imputation was performed in the statistical analysis (see Section 3.3.3).

the dropout could be related to respondent characteristics such as age, gender, income, and education (Groves, 2006; Salkind, 2007), which in turn could make the survey study less representative for the population. Statistical tests showed, however, that in this survey study there were no differences between respondents giving complete answers and respondents giving partial responses in terms of age, gender, income, education, occupation status, birth county, or living in urban/rural areas.[18] This suggests that the item nonresponse seemed to be randomly distributed, and thus that the values were randomly missing.

Finally, due to item nonresponse the sample sizes in the preceding statistical analyses will vary because it depends on what variables are included and how many responded to the particular items. The intention, however, was to use as many observations as possible in each analysis. See Section 3.3 for how I dealt with item nonresponse in the statistical analyses in the four articles.

3.2 Measurements and operationalisation of variables

Below two operationalisation strategies regarding attitudes related to an eco-social agenda will be discussed. In the next section, the measurement strategies of the individual-level and contextual-level factors that were included in the four studies will be outlined.

3.2.1 Operationalisation of attitudes related to an eco-social agenda

In this thesis two different procedures were applied to operationalise and measure attitudes related to an eco-social agenda. One operationalisation strategy measured support for general policy goals related to an eco-social agenda, in relation to capturing latent constructs of eco-social attitude patterns. The other operationalisation strategy measured support for five eco-social policies through single-item variables.

[18] There seems to be a tendency, however, of respondents not born in Sweden to give partial answers to a higher extent compared to respondents born in Sweden (the significance level of the birth country variable varied from 0.082 to 0.168, depending on how the education variable was coded). See Lodder (2014) and Salkind (2007) for discussions about how to test for randomness in missing data.

Composite nominal scale variable measuring support for general policy goals related to an eco-social agenda

In measuring and analysing attitudes related to an eco-social agenda, this thesis follows previous research and thus intends to capture latent constructs of eco-social attitude patterns. In turn, these latent constructs represent support for general policy goals related to an eco-social agenda. This operationalisation strategy builds on the premise that the environmental and welfare agendas either substitute for or complement each other in terms of public support (Fritz & Koch, 2019; Otto & Gugushvili, 2020; see also discussion in Section 2.3.2).[19] Four groups can be distinguished depending on if the support towards the environmental and welfare agendas complement each other and thus create a synergetic pattern, or if the support substitutes for each other and thus creates conflicts between the two policy agendas. Synergies arise if the respondents expressed mutual support in terms of relatively high welfare *and* environmental support. Instead, substitution arises if the respondents expressed support towards one policy agenda but not the other. And lastly, the respondents could also express relatively low or no support for both policy agendas. This creates four attitude groups or patterns, which are shown in Table 5.

Table 5. Eco-social attitude patterns

	High environmental support	Low environmental support
High welfare support	*Mutual support*	*Welfare support*
Low welfare support	*Environmental support*	*Little/no support*

In measuring attitudes related to an eco-social agenda by capturing latent constructs of eco-social attitude patterns, a composite nominal-scale variable was

[19] The actual operationalisation of the nominal scale variable, both theoretically and technically, was done together with Martin Fritz, Institute of Sociology, Friedrich-Schiller-University Jena, Germany.

created that yielded four attitude patterns. The nominal-scale variable was operationalised through 35 items. In the literature on survey design, it has been argued that to measure a latent or abstract concept, such as eco-social attitude patterns in this thesis, one needs a set of measurable indicators through concrete questions and statements in the survey questionnaire. These measurable indicators then function as representatives of the abstract concept (Fjelkegård, 2016). Thus, the relatively large number of items captures various aspects of social welfare and environmental issues, and are to be understood as representing the social welfare and the environmental agendas, respectively. In combination, and analysed by means of principal component analysis (PCA) as will be discussed below, they are assumed to capture a latent construct of eco-social attitude patterns. This rather broad and abstract operationalisation strategy finds its inspiration from the study by Fritz and Koch (2019), which also analysed welfare and environmental attitudes through a large set of items and identified their latent structures as eco-social attitude patterns through PCA (see also Otto & Gugushvili, 2020, who conducted confirmatory factor analysis on a smaller set of items). In both the social welfare and environmental attitude research fields this is, however, a rather unconventional way of operationalising attitudes. This broad operationalisation strategy tries to take into account the complexity of an eco-social agenda where many features related to social welfare and environmental concerns are at play. The many items thus capture different and important aspects in relation to sustainable welfare (see discussion in sections 2.1–2.2).

The 35 items were grouped into seven item batteries. As can be seen in Table 6, four batteries including 17 items represent the social welfare agenda, whereas three batteries including 18 items represent the environmental agenda.

Table 6. Overview of social welfare and environmental items

Agendas	Item battery	Number of items
Social welfare	Policy instrument	4
	Role of government	3
	Social benefits	6
	Social justice	4
Environmental	Policy instruments	10
	Energy preferences	3
	New ecological paradigm	5

The four social welfare batteries can be traced back to reasonings about the importance of state and public sector intervention and of redistribution of economic resources from a sustainable welfare perspective (e.g., Büchs & Koch, 2017; Hirvilammi 2020; see also discussion in Section 2.3). The first item battery is about policy instruments, and more specifically the kinds of policies that have been suggested by sustainable welfare scholars, that is, basic income, working time reduction, maximum income cap, and a wealth tax (cf. European Social Survey, 2016; University of Gothenburg, SOM Institute, 2017). The second item battery is about the role of the government in relation to the elderly, the unemployed, and working parents (European Social Survey, 2016). The third item battery captures one of the core issues of welfare societies, i.e., the handling of social risks such as illness and unemployment through social benefits and service (European Social Survey, 2016). Lastly, the fourth item battery is about social justice (European Social Survey, 2016). When it comes to the three environmental item batteries, these capture various measures to prevent climate change and environmental depletion. The first item is explicitly about different environmental policies (European Social Survey, 2016; Linde, 2018). The second item battery captures the respondents' energy preferences and to what extent there is a willingness to use energy generated from more climate-friendly sources, such as wind power and solar energy (European Social Survey, 2016). Lastly, the third item battery is about general environmental concerns through the so-called New Ecological Paradigm (Dunlap et al., 2000; Rhodes et al., 2017). The exact wording of the survey questions/statements and the response options are presented in Table 7. For descriptive statistics of each item, see Appendix 5 (Tables 1-7).

Table 7. Survey questions/statements and response options for 35 social welfare and environmental items

Item battery	Survey question/statement	Response options
Welfare policy instruments	*What do you think of the following welfare policy proposals?* [Reintroduce a wealth tax, which means that assets (e.g., bank accounts, property, shares, etc.) would be taxed above a certain threshold; Introduce a cap on income from employment, where gross wages of over, for example, 1,500,000 SEK (equals about 150,000 EUR) would be taxed at 100%; Introduce a so-called basic income for all citizens, regardless if one is working or not, and without requirement to work in return; Introduce a working time reduction with two hours per day, which means that the total working day would be six hours instead of eight]	Very good: Fairly good; Neither good nor bad; Quite bad; Very bad; Do not know
Role of government	*People have different views on what the responsibilities of governments should or should not be. Indicate on a score of 0-10 how much responsibility you think governments should have when it comes to*: [Ensuring a reasonable standard of living for the old; Ensuring a reasonable standard of living for the unemployed; Ensuring sufficient child care services for working parents]	Should not be governments' responsibility at all = 0; 1; 2; [...]; 8; 9; Should be entirely governments' responsibility = 10
Social benefits	*To what extent do you agree or disagree that social benefits and services (e.g., health care, pensions, and social security) in Sweden…* [place too great a strain on the economy; prevent widespread poverty; lead to a more equal society; cost businesses too much in taxes and charges; make people lazy; make people less willing to care for one another]	Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Do not know; Do not want to answer
Social justice	*To what extent do you agree or disagree with each of the following statements?* [For a society to be fair, differences in people's standard of living should be small; Large differences in people's incomes are acceptable to properly reward differences in talents and efforts; The government should take measures to reduce differences in income levels; Government should redistribute income from the better off to those who are less well-off]	Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Do not know; Do not want to answer
Environmental policy instruments	*What do you think of the following environmental policy proposals to reduce climate change?* [Increase taxes on fossil fuels; Using public money to subsidise renewable energy; A law banning the sale of the least energy efficient household appliances; A tax-financed expansion of public transportation; A limitation of car traffic in densely populated areas; A tax increase on household electricity; A subsidy on green electricity; A tax on meat; A state sponsored information campaign to reduce meat consumption; Increased taxes on environmentally harmful activities and goods and lower taxes on environmentally friendly activities and goods]	Very good: Fairly good; Neither good nor bad; Quite bad; Very bad; Do not know; Do not want to answer
Energy preferences	*How much of the electricity used in Sweden should be generated from each energy source?* [Solar power; Wind power; Biomass energy generated from materials like wood, plants, and animal excrement]	A very large amount; A large amount; A medium amount; A small amount; None at all; Do not know; Do not want to answer
New Ecological Paradigm (NEP)	*To what extent do you agree or disagree with each of the following statements?* [The so-called "ecological crisis" facing humankind has been greatly exaggerated; If things continue on their present course, we will soon experience a major ecological catastrophe; Nature is sensitive and its balance can be easily disturbed; The earth is like a spaceship with limited room and resources; Humans are severely abusing the environment]	Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree

In a first step, by the means of PCA the large set of 35 observable items[20] was transformed into a smaller set of factors (cf. Bro and Smilde, 2014; Hair et al., 2019, chap. 3). Two PCAs were conducted, and one PCA was conducted on the 17 welfare items and the other on the 18 environmental items. The two PCAs yielded one latent factor or variable each that represented the social welfare agenda and the environmental agenda, respectively. When combined, these two latent factors can be understood as representing unobservable latent constructs of eco-social attitude patterns (cf. Fritz and Koch, 2019, plus see Otto and Gugushvili, 2020, for similar operationalisation strategies). The Kaiser-Meyer-Olkin test of sample adequacy was around 0.9 for both the welfare items (0.895) and the environmental items (0.915) compared with a minimum recommended value of around 0.6 (and a maximum value of 1.0).[21] The communalities were mostly around 0.5–0.7, indicating that around 50–70% of the variance of each single item was explained by the factors. The first factors in the two PCAs, generated with varimax rotation and an Eigenvalue greater than 1, were used in the subsequent analyses. Varimax rotation was applied because it maximises high and low factor loadings – thus, it also tends to separate the factors from each other – which was desirable because we wanted to have factors with the highest factor loadings possible (Hair et al., 2019, p. 150). In the scree plots it was shown that the first factor in each of the two PCAs explained around 36–37% of the variance in the welfare and environmental attitudes. The factor loadings showed that the items that loaded most strongly on the latent welfare variable were the four policies of basic income, a wealth tax, working time reduction, and maximum income plus the questions about economic redistribution, and the items that loaded most strongly on the latent environmental variable were the specific policy

[20] Reverse coding of the following items was carried out: 'Welfare policy instruments' (all items), 'Social benefits' (items 2 & 3), 'Social justice' (items 1, 3 & 4), 'Environmental policy instruments' (all items), 'Energy preferences' (all items), 'NEP' (items 2-5). Higher values indicated "pro-environment" and "pro-welfare" positions.

[21] As an extra check of the internal consistency of the combined items, an additional reliability analysis was performed. It showed that the Cronbach's alpha for the environmental items was 0.906, and for the welfare items it was 0.886. These values indicate very high internal consistency. But here a note of caution should be made because the Cronbach's alpha value increases as a result of an increasing number of items in the scale. Thus, more stringent requirements should be placed for scales with large number of items in relation to the generally agreed-upon lower limit for Cronbach's alpha of 0.7 (Hair et al., 2019, p. 161). Still though, a Cronbach's alpha value around 0.9 must be considered highly reliable.

instruments but also some items regarding ecological concerns and energy preferences.[22]

In a second step, the two factor scores, which can be described as values of a respondent's relative position or standing on a latent factor, were dichotomised. Factor scores are standardised to have a mean of 0 and a standard deviation of 1 (Hair et al., 2019, p. 123), and thus the cut-off point was set to 0. Hence, factor scores <0 were coded as 'below average support', while factor scores >0 were coded as 'above average support'. From the dichotomised factor scores, four attitude patterns were created: 'mutual support' (above average welfare and environmental support), 'welfare support' (above average welfare support, below average environmental support), 'environmental support' (above average environmental support, below average welfare support), and 'less/non-support' (below average welfare and environmental support). This way of dichotomising the factors can be understood as a relative approach where the cut-off point constitutes the distributional mean, which is in contrast to a theoretically neutral mid-point. Because the factor scores might consist of items with skewed distribution, this could entail that individuals in their overall response pattern could have expressed support for various welfare or environmental items but still they were below the average (considering that other respondents in general expressed even higher support) and vice versa. This relative approach can be seen against the backdrop that if individuals in a society express strong support in general for the environment, for example, then even a slight agreement is less than fairly strong support.

[22] See Appendix 6 for detailed information about communalities, eigenvalues for each factor, scree plots, factor loadings, and histograms of the factor scores' distribution.

Robustness tests were performed in order to ensure that the cut-off point was valid.[23] Given the results from these robustness tests it seems as though the relational mean-based approach, as in the case of the factors scores (see above), provided the best solution for the creation of the composite multinomial scale variable based on the 35 items in this study. Also it should be noted that composite measures, such as in the case of PCA, reduce measurement errors in the sense that if some items induce deviant answering behaviour, factor scores even this out compared to simple means that will be biased (cf. Hair et al., 2019, p. 160).

Single-item variables measuring support for five eco-social policies

The second operationalisation strategy of attitudes related to an eco-social agenda was more manifest in measuring support for five eco-social policies through five separate variables (used in Article 3) compared to the previous more abstract

[23] Four different robustness tests were performed. All of them were based on an additive index construction (excl. missing cases). In the first three robustness tests, the 17 welfare items and the 18 environmental items were used to generate one additive welfare index and one additive environmental index, respectively. In the first robustness tests, the cut-off point was based on the mean value of the two indexes. It yielded very similar results as the dichotomisation based on factor scores, in terms of ranking, but the sizes of the attitude pattern groups were more unequal. In the two following robustness tests the cut-off point was set in relation to a theory-based approach, which followed the response categories in the survey questionnaire. Because of the response category of 'neither agree nor disagree', two different ways of determining the cut-off points were tried out: one where the neutral middle category was included with the 'agree/strongly agree' categories, and one where it was included with the 'disagree/strongly disagree' categories. These robustness tests yielded rather different results in relation to each other, but also in relation to the dichotomisation based on factor scores, both when it came to ranking but also the sizes of the attitude patterns. It seemed as though the classification of the response category 'neither agree nor disagree' category played a very central role in this case. Given the ambiguous results of this theory-based approach, a relational mean-based approach, as in the case of the factors scores, seemed to provide the best solution for the creation of the composite multinomial scale variable based on the 35 items in this study. Lastly, one robustness test was also performed that only included three welfare items (Role of the government) and three environmental items (Environmental policy instruments, first three items in Table 7). These were the same items that Otto & Gugushvili (2020) used, and the results of this test resembled their findings in terms of ranking except for the mutual and the environmental support patterns. In addition, I conducted correlation analyses between the composite nominal scale variable based on factor scores and each of the variables that were created for the three robustness tests. The correlation coefficients ranged from 0.565 to 0.729 (p-value <0.001), indicating that the various variables measured similar concepts (cf. Hair et al., 2019, p. 162). I also ran a number of regression models on the three dependent variables (that were created for the robustness tests) in relation to a range of the independent variables in the thesis. The preliminary results from these analyses pointed in the same direction as the results from the analyses using the composite nominal scale variable based on factor scores from the PCA.

operationalisation strategy. The five eco-social policies – i.e., a maximum income, a wealth tax, a basic income, a working time reduction, and a meat tax – capture in different ways environmental and social dimensions, at least from a theoretical point of view (e.g., Gough, 2017). For instance, even though a basic income policy might be perceived as a welfare policy, at first glance it has environmental dimensions tied to it, and vice versa for a meat tax. [24]

The respondents were asked what they think of the following four welfare policy proposals on a five-point Likert-scale, ranging from 'very good' to 'very bad': Introduce a cap on income from employment, where gross wages of over, for example, 1,500,000 SEK (equals about 150,000 EUR) would be taxed at 100%; Reintroduce a wealth tax, which means that assets (e.g., bank accounts, property, shares, etc.) would be taxed above a certain threshold; Introduce a so-called basic income for all citizens, regardless if one is working or not, and without requirement to work in return; and Introduce a working time reduction with two hours per day, which means that the total working day would be six hours instead of eight (question 5). In addition, they were asked to answer what they think of a tax on meat as an environmental policy proposal to combat climate change. Also, this question was on a five-point Likert-scale, ranging from 'very good' to 'very bad' (question 2; cf. European Social Survey, 2016; University of Gothenburg,

[24] The observant reader might note that these five policy items were also used in the former operationalising strategy, and that the four first items – the maximum income, wealth tax, basic income, and working time reduction policies – were categorised as welfare policies and the last item – the meat tax policy – was categorised as an environmental policy. Here instead the same policy items are categorised as eco-social policies. This, perhaps at first glance contradictory way of operationalising the same items, should be seen against the fact that the former operationalising strategy attempts to explore attitudes related to an eco-social agenda by drawing on the separate welfare and environmental agendas respectively. Instead, this latter operationalising strategy attempts to explore attitudes related to an eco-social agenda in a more manifest way through specific policies that can be understood as having both social and environmental dimensions tied to them. For example, a basic income policy guarantees a minimum income for all citizens (Mulvale, 2019) while it also reduces dependency on paid labour, which contributes to less affluent and material lifestyles, and a meat tax policy shifts high emission practices to low emission practices while also contributing to health benefits (Godfray et al., 2018). Below, under 'Methodological reflections' (Section 3.4) I discuss the operationalisation strategy of the five eco-social policies further.

SOM Institute, 2017).[25] See Appendix 5 (Tables 1 & 5), for descriptive statistics for each policy item.

The five policy variables are single-item measures in that support for the five eco-social policies was analysed separately (cf. Jæger, 2006). In comparison to the composite nominal scale variable that measures attitudes related to an eco-social agenda through latent constructs of eco-social attitude patterns, these five single-item measures were treated as manifest variables. They refer, however, to rather complex policy proposals. Some of these have never, to my knowledge, been subject to investigation in this context previously. The survey questions were constructed with inspiration from established survey questionnaires, e.g., the European Social Survey, and the SOM Institute survey. This means that the policy items either resembled already established ones in terms of style and/or that the items were condensed in relation to previous ones. For instance, regarding the basic income policy proposal the decision was made to condense the original survey item in the European Social Survey (2016) questionnaire due to space limit in our survey questionnaire because it was rather long and contained a lot of details. This comes with the risk of decreased reliability, partly because the survey question has never been tested and partly because it is less precise. Thus, the findings in relation to these kinds of policy proposals would need to be validated in future research.

[25] The formulations of the survey question should be understood in a Swedish context. For instance, it could be argued that it would be more relevant to ask about a maximum wealth cap rather than a maximum income cap because more affluent households rely on other income sources such as financial returns (cf. Lundberg & Waldenström, 2018). In a Swedish context, however, income taxes are very widespread, and an income cap could be seen as an extension of the more common income taxes. This in turn could make it easier to understand the survey question compared to a question about a maximum wealth cap. Also, regarding the proposal of reintroducing a wealth tax and taxing assets above 'a certain threshold', it refers to a tax that was in place in Sweden previously and has also been on the agenda in Swedish public discourse from time to time.

3.2.2 Individual-level and contextual-level factors

The independent variables relate to either individual or contextual-level factors. Most of them have been used extensively in previous research on social welfare and environmental attitudes (see Sections 2.3 and 2.4). Whereas the individual-level variables capture socioeconomic and sociodemographic characteristics, political ideology, personal values, and so on, the contextual-level variables capture the urban/rural divide and city district clusters. In relation to the theoretical framework and the analytical concepts, socioeconomic factors such as personal income and employment represent the notion of homo economicus. Variables measuring, for instance, basic human values, future time orientation, and party identification represent the notion of homo sociologicus. Homo locus refers to the two contextual level factors, namely the urban/rural divide and city district clusters. Lastly, various modes of political action pertain to the notion of homo politicus. See Table 8 for an overview of all the individual and the contextual-level variables. For descriptive data of each variable, see Appendix 5 (Tables 8–20).

Some variables deserve some special attention because they were created from other items in the survey questionnaire. These are the occupational status variable measured through the International Socio-Economic Index (ISEI) scale, the urban/rural variable, and the city district cluster variable.

The ISEI scale was based on the International Standard Classification of Occupations, ISCO-08 (Ganzeboom et al., 1992; Ganzeboom & Treiman, 2019), which means that the open-ended survey question regarding profession (question 30) was first coded into the ISCO-08 (International Standard Classification of Occupations) classification. The survey company did the initial coding into the Swedish equivalent SSYK-2012 ('Standard för svensk yrkesklassificering'), which I then converted into ISCO-08. The ISEI scale ranges from 0 to 100, where a higher number indicates an occupation with higher status (e.g., journalists, financial analysts, medical doctors) and a lower number indicates a lower status (e.g., childcare workers, shop sales assistants, stock clerks).

Table 8. Individual- and contextual-level variables

Variables	Used in article/s	Survey question	Sources
Homo economicus			
Education	1, 2, 3 & 4	27	de Moor et al. (2020), Wahlström et al. (2019)
Employment status	1 & 3	28	de Moor et al. (2020), Wahlström et al. (2019)
Occupational status (ISEI-scores)	1 & 2	-	Ganzeboom et al., 1992, Ganzeboom & Treiman, 2019 (see discussion below table)
Personal income	1, 2, 3 & 4	23	Inspiration from University of Gothenburg, SOM Institute (2017)
Homo sociologicus			
Basic human values (biospheric, altruistic and egoistic)	2 & 3	18	Bouman et al. (2018)
Climate change knowledge	3	1	Shi et al. (2016). See also Hu et al. (2017); Rhodes et al. (2017); Zahran et al. (2006)
Future time orientation	2	12	Dietz et al. (2007); Hu et al. (2017)
Institutional trust	3	14	de Moor et al. (2020), Wahlström et al. (2019)
New ecological paradigm (NEP)	3	4	Dunlap et al. 2000. See also Dietz et al. (2007), Rhodes et al. (2017)
Political party identification	2 & 4	33	University of Gothenburg, SOM Institute (2017)
Self-placement on the left-right scale	3 & 4	32	University of Gothenburg, SOM Institute (2017)
Social justice and redistribution	3	8	European Social Survey (2016), de Moor et al. (2020), Wahlström et al. (2019)
Homo locus			
City district clusters	2	-	Own construction (see discussion below table)
Urban/rural divide	1 & 3	-	Own construction (see disucssion below table)
Homo politicus			
Modes of political action	3 & 4	17	Inspiration from de Moor et al. (2020), Wahlström et al. (2019).
Membership in organisations	4	31	Inspiration from de Moor et al. (2020), Wahlström et al. (2019), see also University of Gothenburg, SOM Institute (2017)
Controls			
Age (year born)	1, 2, 3 & 4	21	University of Gothenburg, SOM Institute (2017)
Gender*	1, 2, 3 & 4	20	de Moor et al. (2020), Wahlström et al. (2019)
Households with children under 18 years old	3	22	Inspiration from University of Gothenburg, SOM Institute (2017)

* In the survey we asked 'How do you identify yourself?', with the following response categories: 'Woman', 'Man', and 'Other'. Only five individuals responded 'other', and given these very few individuals they were coded as missing in the subsequent analyses. In total there were 8.8% missing cases, but with information from the survey company it was possible to fill in the missing values with their legal gender status.

The urban/rural variable was based on the European classification 'Degree of urbanisation (DEGURBA)', which is a measure of population density (Eurostat, 2018; see also Gimpel et al., 2020, and Huijsmans et al., 2021). The variable was created by first assigning each respondent a Swedish municipality code from the postal codes (Statistics Sweden, 2020). Then, from the municipality codes, the degree of urbanisation was coded. Through this classification, three different types of areas were distinguished: cities (densely populated areas), towns and suburbs (intermediate density areas), and rural areas (thinly populated areas). It should be noted that the category of 'cities' contained residents living in various Swedish cities (e.g., Linköping, Uppsala, Umeå, etc.), and not only Stockholm, Gothenburg, and Malmö.

The city district cluster variable was based first and foremost on the city district classification in Stockholm, Gothenburg, and Malmö. In total there were 34 city districts – 14 in Stockholm, 10 in Gothenburg, and 10 in Malmö (following the municipalities' current or past classifications). Through postal codes, 1,117 out of the total 1,120 urban respondents were coded into the 34 city districts. Three respondents could not be classified due to the difficulty in assigning them a correct postal code. Then, through hierarchical cluster analysis, the city districts were clustered into three clusters ranging from low to high affluence. To capture a city district's affluence, the following five socioeconomic risk factors (cf. Johansson Sevä, 2009), originating from public register data, were first standardised and then used in the cluster analysis: 'Share of population with post-secondary education 2019', 'Share of labour force participation 2018', 'Ill health rate (average number of paid days from the social insurance system during one year) 2019', 'Total earned income for persons (median) 2018', and 'Share of population with social assistance 2018 (Malmö & Gothenburg) and 2019 (Stockholm)'. The clusters were produced through a three-cluster solution with Ward's method, together with the squared Euclidean distance measure, because it generates clusters to minimise the within-cluster variance (Hair et al., 2019, Chapter 4)[26]. This clustering algorithm thus increases the likelihood that the observations in the same cluster are as similar as possible to each other. In the literature there exists a wide range of operationalisation strategies with respect to spatial affluence (e.g., Bailey et al., 2013; Buck et al., 2021; Haandrikman et al., 2021; Kearns et al., 2014;

[26] For information about which and how many city districts, and the number of survey respondents per each city district cluster, see Appendix 3 in Article 2.

Kotval-K & Vojnovic, 2015; McGrane et al., 2017; Musterd et al., 2017), and thus the operationalisation strategy in this thesis is just one out of many.

3.3 Analytical techniques

In studying attitudes related to an eco-social agenda and what characterise the individuals who express certain attitudes, the analytical techniques were focused on investigating associations or patterns between sets of variables. In three of the articles, regression modelling was conducted, and in the fourth article the relationships between variables were explored through multiple correspondence analysis (MCA). Table 9 summarises the aim, analytical strategies, and variables included in the four articles.

Table 9. Summary of aim, analytical strategies and dependent/active variables included in the four articles

	Aim	Analytical strategy	Dependent/active variables included
Article 1	To investigate the relationship between socio-economic factors and latent constructs of eco-social attitude patterns	1. Factor analysis 2. Multinomial logistic regression	Composite nominal scale variable measuring support for general policy goals related to an eco-social agenda (dependent)
Article 2	To explore the relationship between place as context and latent constructs of eco-social attitude patterns, while controlling for a set of individual level factors.	1. Factor analysis 2. Index construction 3. Multinomial logistic regression	Composite nominal scale variable measuring support for general policy goals related to an eco-social agenda (dependent)
Article 3	To investigate to what extent individuals express support for eco-social policies, and what socioeconomic, knowledge- and value-based factors predict the support	1. Index construction 2. Multiple linear regression	Single-item variables measuring support for five eco-social policies (dependent)
Article 4	To explore the relationship between latent constructs of eco-social attitude patterns and various modes of political action	1. Factor analysis 2. Multiple correspondence analysis (MCA)	Composite nominal scale variable measuring support for general policy goals related to an eco-social agenda (dependent)

3.3.1 Multinomial logistic regression modelling

In articles 1 and 2 multinomial logistic regression analyses were conducted due to the dependent nominal-scale variable with four categories (see description in Section 3.2.1) (cf. Hosmer et al., 2013, chap 8., see also Otto and Gugushvili, 2020 who have been using multinomial logistic regression to explore welfare and environmental attitudes in combination).

Multinomial logistic regression is often described as an extension of binary logistic regression, and as with any other regression model used in statistics the goal of the analysis is to find the best fitting and most parsimonious model to describe the relationship between a dependent variable and a set of independent variables (Hosmer et al., 2013, chap 8). Logistic regression predicts the *probability* or *likelihood* of an event occurring with respect to a set of independent variables. In Articles 1 and 2 the 'event occurring' refers to the likelihood of expressing support for welfare *and* environmental policies and concerns compared to expressing support for welfare or environmental policies and concerns in isolation, as well as little or no support. With its basis in linear modelling, multinomial logistic regression modelling also follows the assumption that changes in the independent variables might lead to changes in the dependent variable (Hair et al., 2019, p. 26f.). In logistic regression this change in the dependent variable can be described using the odds ratio (OR). The OR is thus a measure of association because it estimates the change in odds of an event occurring (e.g., expressing mutual welfare and environmental support relative to expressing little or no support) with respect to changes in the independent variables (Hosmer et al., 2013, p. 52).

In article 1 the whole sample (n = 1,529) was subject to analysis. In total, without missing cases (n = 191), the sample consisted of 1,338 cases. Article 2 instead focused on the three sample groups of Stockholm, Gothenburg, and Malmö (n = 1,120). Without missing cases (n = 231), the sample consisted of 889 cases. In both articles the SPSS complex sampling package was used because the aim was to make generalisations from the sample to the general Swedish population in Article 1 and to residents living in Stockholm, Gothenburg, and Malmö in Article 2. This complex sampling package incorporates the sampling weights and enables assessment of the overall model significance as well as tests of subsets of coefficients using the F-adjusted Wald tests in the logistic regression analyses, which can be seen as an alternative to the log-likelihood ratio tests when dealing

with complex sampling strategies.[27] It has been shown that the F-adjusted Wald tests yield better adherence to the stated alpha level, and thus are more conservative in producing larger significance levels (Hosmer et al., 2013, p. 235f.). A significant Wald test means that the coefficients significantly predict the outcome variable.

Due to the focus on clustered data in Article 2, where the respondents were coded into 34 city districts, *multilevel* multinomial logistic regression modelling was considered and tested at first. But due to the following three reasons a single-level model was performed. First, there were rather low sample sizes on both level 2 (i.e., 34 city districts) and on level 1 with as few as 5-8 respondents in some city districts. Hox et al. (2018, p. 215f.) discuss the importance of sufficient sample sizes at all levels in a multilevel model, and state that "to be on the safe side, researchers should strive for a sample of at least 30 groups with at least 30 individuals per group", i.e., the 30/30 rule (other rules of thumb are the 50/20 rule or the 100/10 rule). The sample size was thus way below these recommendations. Second, in the null model only two out of three variance components were statistically significant, and the intraclass correlation (ICC) ranging from 0.04–0.06 (p-values = 0.06–0.04) indicated that the proportion of the total variance explained by the grouping structure in the population was very low (cf. Hox et al., p. 12ff.).[28] Third, when including all the variables in the multilevel model it did not converge, which could be the result of the small sample sizes (Hox et al., p. 29).

[27] When it comes to sample weighting, I performed some extra tests just to make sure that the missing data did not have an impact on the results, because it has been argued that the problem with missing data is exacerbated in complex sample surveys (Hosmer et al., 2013, p. 235). This is because every subject is assigned a unique statistical weight based on the number of individuals in the population that the respondent represents. But if the subject has a missing value on one of the variables, and is thus eliminated from the analysis (see listwise deletion below), then "the sum of the statistical weights of the subjects remaining will not equal the size of the population for which inference is to be made" (Hosmer et al., p. 235). By creating a dataset that only contained respondents with complete cases and comparing it to the dataset containing respondents with complete as well as missing cases, I could see that the results were almost identical.

[28] The ICC can vary from 0 to 1, where 0 indicates that there is perfect independence of the residuals, and hence that the observations do not depend on clustering, e.g., city districts, and where an ICC of 1 indicates perfect dependence. As stated by Sommet and Morselli (2017, p. 212): "when the ICC is not different from zero or negligible, one could consider running traditional one-level regression analysis".

To deal with missing values, or item nonresponse as referred to above, listwise deletion was applied in both Articles 1 and 2. This restricts the analysis to only include complete cases on the variables of interest, with the consequence of losing information, which in turn can yield less efficient estimates and loss of power (de Leeuw and Hox, 2008). In Article 1 the total share of missing values, including the 'I don't know' and 'I don't want to answer' options that were coded as missing, was 12%, and in Article 2 it was 21%. Due to the rather high share of missing values in Article 2, multiple imputation – i.e., the replacement of missing values by imputed values (see Section 3.3.2 below) – was also considered. In the end it was not used, however, due to a trade-off situation that arose between either using the recommended F-adjusted Wald test in assessing the overall model significance as well as the coefficients through the SPSS Complex Sample package (see above) or having complete data through multiple imputation, which is not compatible with the complex package. Previous research has shown, however, that correlations are very similar when listwise deletion is applied compared to multiple imputation (Pauwels & Svensson, 2008). Mean replacement was done for two separate variables, i.e., personal income and occupational status measured through ISEI scores, and used in Articles 1 and 2. In order to reduce variance underestimation, which is often a problem in mean replacement (e.g., Hair et al., 2019; Lodder, 2014), the means from five different subsamples were used, i.e., city districts with lower affluence, middle low affluence, middle high affluence, high affluence, and lastly Sweden at large (excl. individuals living in the three cities).

Regarding unit nonresponse, which might have an impact on the external validity in terms of nonresponse bias (see Section 3.1.4), post-stratification weighting was considered in order to reduce the sampling errors in relation to socio-demographic characteristics of age, gender, education, income, and born/not born in Sweden. In the end, neither the single nor the combined weights were applied because they were not compatible with the SPSS Complex Sample package and because the latter one resulted in negative values. In both Articles 1 and 2, I was as explicit as possible about the response rate and non-response bias and also discussed this in relation to the results when necessary.

Model fit tests and model diagnostics were performed in Articles 1 and 2 by checking for multicollinearity, influential cases, linearity between the continuous independent variables and the dependent variable, homoscedasticity, and the number of coefficients in relation to the sample size. The tests and diagnostics in

article 1 followed the guidelines outlined by Norusis (2008) and were later complemented by tests and diagnostics in separate binary logistic models as suggested by Hosmer et al. (2013, p. 282). The separate binary logistic model fit tests and diagnostics were also applied in Article 2. No severe violations were found in Article 1. In Article 2, except for non-linearity in the initially included continuous altruistic basic human value variable, which was then excluded, no severe violations were found (details can be received upon request). Also, the continuous age variable showed some signs of non-linearity in one of the three models, but because it was used only as a control variable I decided to keep it but not to report the results from it.

While logistic regression analysis, especially binary logistic regression but also multinomial regression analysis, is used extensively in social science research, it does not come without critique (e.g., Aneshensel, 2013, chap 12; Mood, 2010). However, being aware of its pitfalls, I have avoided making comparisons between groups in terms of coefficient sizes, and single comprehensive approaches have been used that included all the variables at the same time (Aneshensel, 2013, chap 12). Another difficulty with logistic regression analysis, and particularly in terms of multinomial logistical regression, is to be found in its interpretability with respect to reference categories of both the outcome and the categorical explanatory variables. It demands quite a lot from the reader to follow along. When it comes to the reference category of the dependent variable, I decided to alter between the environmental support group, the welfare support group, and the no or less support group. By doing this my aim was to put the mutual support group in the forefront of the analyses. This means that three multinomial logistic regression analyses were conducted, but in the results section only results for mutual support were presented in relation to the other three groups. Some might think of this procedure as superfluous because the results would be the same but only reversed if I just conducted one model with the mutual support group as the reference category. But because the mutual support group was of specific interest in this thesis, I decided to analyse the results *from* the mutual support group and *not with reference to* it.

3.3.2 Multiple linear regression modelling

In Article 3 multiple linear regression analysis was conducted. Multiple linear regression is by far one of the most widely used statistical technique, and it is used to analyse a relationship between a single dependent variable, which is metric, and

several independent variables (Hair et al. 2019, chap 5). Thus, with its ability to explain a metric dependent variable – or, in this case, the five eco-social policy variables that were treated as metric, as is customary for Likert scale variables – with different kinds of predictor variables, it was a natural choice to use multiple regression analysis. As mentioned above, linear regression modelling follows the assumption that changes in the independent variable might lead to changes in the dependent variable (Hair et al., 2019, p. 26).

In Article 3 the whole sample (n = 1,529) was subject to the five regression analyses, one for each of the five eco-social policies as dependent variables. In total, through multiple imputation, the sample consisted of 1,524 cases. The reason for using multiple imputation in this study was that the total share of missing values was very high, i.e., around 50%, in all five models. Thus, a majority of the variables in the models had missing cases – ranging from 31 missing cases in the New Ecological Paradigm (NEP) variable to 313 missing cases in the political ideology variable because the 'I don't know' and the 'I don't want to answer' categories were treated as missing data. Multiple imputation was then used to deal with the missing values.[29] IBM SPSS version 27 was used to impute the missing data. All of the variables that were used in the subsequent regression analyses were included in the Imputation procedure (cf. Hair et al., 2019, p. 70). Twenty imputed datasets were created. Overall, the results from the imputed data did not deviate too much from the original data, and when it did (e.g., if a previously significant association turned out to be non-significant) it could be understood as the result of multiple imputation correcting biases that exist in complete cases analyses (Sterne et al., 2009).

The statistical analyses were performed in the standard SPSS software, which allowed for multiple imputation. In order to adjust for the disproportionate stratified sampling design (i.e., the stratified sample with equally large sample sizes) and to allow for statistical generalisations from the sample to the Swedish

[29] Multiple imputation is a process of generating several plausible and complete datasets, with the imputed data differing in each dataset. Missing values are replaced by imputed values, which in turn are calculated from the observations' values in relation to other variables in the predictive equation. In contrast to single-level imputation techniques, such as mean replacement, which carry with them a level of uncertainty regarding what values to impute, multiple imputation thus calculates several different options or imputations. In a next step, statistical modelling (e.g., linear or logistic regression) is applied to each of the datasets. In a last step the results from these several datasets are combined into a final set of pooled results (Hair et al., 2019, chap 2; Sterne et al., 2009).

population at large, a design sample weight was used in the statistical analyses. Once again, the transparency principle was applied regarding the response rate and non-response bias.

Lastly, model diagnostics were performed for each of the five regression models by checking for influential cases, normality, linearity, homoscedasticity, and multicollinearity (Hair et al. 2019: chap 5). No severe violations were found (details can be received upon request).

3.3.3 Multiple correspondence analysis

In Article 4, in order to explore the relationships between various modes of political action and the nominal scale variable measuring eco-social patterns correspondence analysis, MCA was conducted. MCA is an explorative dimension reduction technique that analyses contingency tables of categorical data. It is used to analyse and visualise associations between two or more categorical variables (Greenacre, 2007), such as the nominal scale attitude variable and the political action variables. The method was also considered appropriate because the relationship between attitudes and political action is *not* always to be understood as unidirectional with a given time order of variables (e.g., Quintelier & van Deth, 2014; de Moor & Verhaegen, 2020). This can be contrasted to regression analysis that intends to predict the effects of one variable on another. Instead, MCA computes latent relationships between a set of variables without any ordering among them, and it is thus used to get a general understanding of how categorical variables are related, in this case how the eco-social attitudinal patterns (nominal scale variable) were related to various modes of political action.

Just as Fritz and Koch (2019) so eloquently have described it, MCA was originally introduced by the sociologist Pierre Bourdieu in cooperation with the statistician J.-P. Benzécri with the aim of exploring relationships between social class and lifestyle attributes. This resulted in a graphical illustration of Bourdieu's notion of a social space or social fields. The method has been used in previous research on welfare regimes with respect to welfare regime theory (Ferragina et al., 2013) and environmental performance (Fritz & Koch, 2014; Koch & Fritz, 2014) and on sustainable welfare attitudes (Fritz & Koch, 2019). MCA has close links to PCA, but while PCA is usually applied to matrices of quantitative variables, MCA is conducted on categorical data. Accordingly, MCA is based on frequencies of cells

in cross-tabulations (i.e., the Burt table), and it visualises correlations graphically in a two-dimensional Euclidean space (Greenacre, 2007).

In Article 4 the whole sample (n = 1,529) was subject to analysis. The MCA was conducted through the FactoMineR (Lê et al., 2008) package in R. Moreover, the missMDA package (Josse & Husson, 2016) was used to impute missing values by performing principal components methods on the incomplete data and under the missing at random assumption. Because the primary data of interest were the eco-social attitude pattern and the political action variables, they were included as active variables in the analysis. Then a set of supplementary or passive variables were included, such as sociodemographic and political orientation variables, as well as three modes of political action (violent and nonviolent protest and joining workers strikes) that could be seen as outliers because respondents very seldom took part in them. These passive variables did not have any impact on the principal axes but were instead positioned on the existing map of the active variables (Greenacre, 2007, chap. 12).

3.4 Methodological reflections

While there are obviously a lot of reflections, from small to big, that could be made in relation to the methodology in this thesis, I will focus primarily on two matters. These are external validity in relation to generalising the results to a larger population and internal construct validity in relation to the multinomial scale variable and the single-item variables that capture attitudes related to an eco-social agenda.

First, external validity, i.e., the ability to generalise the results to a larger population and to apply the conclusions outside the context of the specific study, needs to be considered – first, in relation to the unit nonresponses, and second in relation to the disproportionate sampling design. In order to be able to generalise the results to a larger population, the sample must be representative of that specific population. As was seen in the post hoc nonresponse analyses (Table 4), there was a slight overrepresentation of older individuals, individuals with higher education and incomes, and individuals who were born in Sweden. Most unfortunately, this is a rather common problem in survey studies. Goyder and colleagues (2002) refer to it as the "middle class bias". It is rather obvious that this has an impact on the

ability to generalise the results to a larger population because there is an over-weighting of certain individuals in society. As has already been touched upon, there is no easy way to deal with this, although one way to go about it is to use post-stratification weights to adjust for the biased sample (Groves, 2006). It is also of great importance to be as transparent as possible, which I have strived to be in this thesis. Moreover, regarding external validity, the generalisations that were made to the Swedish population at large were based on weighted data. This means that the responses from the respondents in the Sweden at large sample were given a larger weight and that the responses from the respondents in the other samples were down-weighted. Thus, the responses from 380 respondents were given a rather large weight compared to the rest of the sample. In hindsight it would have been better to either increase the 'n' in the Sweden at large sample or to devote greater attention to the urban sample. It should be mentioned, however, that the initially expected differences between the three cities did not emerge. Instead there seemed to be larger differences along the urban/rural divide and within the three cities. Also I would have spent more time researching how to increase not only the response rates as such, but above all the response rates among individuals who tend to respond less often. Because we outsourced the data collection process to the survey company we relied on their expertise. One of their suggestions was, for instance, to send a few more reminders to the Malmö sample because they had previous experiences of lower response rates in this city. More time could have been devoted to contacting researchers or professionals who have managed to obtain rather high survey responses. For example, in one so-called safety survey that was conducted in Malmö by the local police authority in 2020, they reached an overall response rate of 53.3% (The Swedish Police, 2020).

Second, of central methodological importance to this thesis was the operationalisation and measurement of the attitude object, i.e., attitudes related to an eco-social agenda. When it comes to measuring support for general policy goals in relation to capturing latent constructs of eco-social attitude patterns, attention should be paid to internal construct validity and thus "the extent to which a scale or set of measures accurately represents the concept of interest" (Hair et al., 2019, p. 162). The operationalisation strategy built, among other things, on the premise that support for the environmental agenda but not for the welfare agenda, or vice versa, leads to a crowding out effect, as discussed in Section 2.3.2. One highly legitimate objection to this premise is if we really can be sure that support for the one agenda but not for the other is a sign of crowding out, or if

being supportive of both the environmental and the welfare agendas can be seen as expressing attitudes consistent with an eco-social agenda. Thus, to what extent, if at all, did individuals think in terms of a trade-off between the two agendas? And, could it not be possible to express mutual support without being supportive of an eco-social agenda? These are questions for future research to explore further. Here it could also be explored whether the respondents are supportive or not supportive of the two policy agendas for different reasons, or if they would rank them differently if questioned. Future research could also try to develop a somewhat more robust operationalisation strategy. This could be done, for example, by more directly measure the intersection between the environmental agenda and the welfare agenda. Here, for instance, the trade-off items in the survey questionnaire (question 16) could be considered, which were also used in a study about climate protesters' attitudes (Emilsson et al., 2020), even though they would need to be developed or complemented because not everybody thinks that there is a trade-off between the two agendas. Yet another method to be considered is the vignette experiment, in which the respondents' attitudes would be measured via their responses to hypothetical scenarios varying with respect to a range of dimensions associated with the eco-social agenda. Even though vignette studies are getting increased attention in quantitative social science research and come with a lot of advantages, e.g., increased internal and external validity, compared to traditional social survey research (Wallander, 2009), they are relatively rare in, for example, research on welfare attitudes (but see Kootstra, 2016). A mixed methods approach could also be an alternative where interviews could be conducted with respondents expressing different types of attitudes related to an eco-social agenda, where the focus would be on trying to understand what their thoughts are about the policy agendas complementing or substituting for each other.

Yet another reflection about the operationalisation strategy that measured support for general policy goals related to an eco-social agenda that deserves attention is with respect to the items included in the variable. For example, being pro-welfare means in this study to express support for the rather unconventional policy proposals of basic income, a maximum income cap, and so on. But it also means that one expresses support for more conventional welfare issues, at least from a social democratic welfare regime perspective, such as the government should be responsible for core welfare services. This should be seen against the backdrop that while the notion of sustainable welfare incorporates discussions about more

unconventional ideas, it also sticks with conventional ideas about the welfare state (see Section 2.2). With this said, the operationalisation strategy of attitudes related to an eco-social agenda is not fixed and it could have been completely different if, for instance, more of an ecological modernisation approach had been in the foreground.

One short note about the internal construct validity of the eco-social policy items should also be made. The survey questions were phrased with respect to 'welfare' and 'environmental' policies and not 'eco-social' policies. After careful discussions about whether respondents would be confused if they had to take a stance towards the, for many, unfamiliar concept of eco-social policies, the decision was made to ask specifically about welfare and environmental policies. Phrasing the policy items in this way, however, comes with the risk of the respondents not acknowledging the eco-social potential of the policies. One alternative to the current survey question could have been to just ask them to evaluate various policy proposals, without mentioning either welfare or environment. Again this is something for future research to explore further.

Lastly, the reasonings about pros and cons regarding the operationalisation strategies of attitudes related to an eco-social agenda tie into ongoing discussions regarding how to best measure social welfare attitudes and environmental attitudes in the respective research fields, where a plethora of strategies are applied ranging from single-item measures to composite measures (e.g., Jæger, 2006; Kyselá et al., 2019). On top of that, sometimes support is measured towards specific policies and sometimes in more general terms with respect to broader welfare and environmental concerns. This pertains to what Svallfors calls a particular "dependent variable problem", which makes it difficult to compare results between different analyses (Svallfors, 2012a, p. 9). This was actually one of the reasons for why three out of the four studies in this thesis made use of the same dependent nominal-scale variable. In this way, the thesis becomes more coherent, but this also, of course, comes with the disadvantage of having less nuanced results.

4 Summary of results in the four articles

4.1 Article I

Attitudes towards welfare *and* environmental policies and concerns: A matter of self-interest, personal capability, or beyond?

Kajsa Emilsson; Published in the *Journal of European Social Policy*

This article investigated public attitudes related to an eco-social agenda through a socioeconomic lens. It took its point of departure from previous research and literature that had pointed towards a socioeconomic divide between social welfare and environmental agendas in terms of public support. The article proceeded from the assumption that individuals with lower socioeconomic status respond to social risks due to their own self-interest, and thus that they tend to express support for welfare issues, whereas individuals with higher socioeconomic status respond to environmental risks due to personal capabilities, such as high educational attainment, which then makes them supportive of environmental issues. From this assumption I wanted to investigate which socioeconomic factors, if any at all, were associated with public attitudes related to an eco-social agenda from a sustainable welfare perspective. With the intention to make statistical generalisations to the general Swedish public, the whole sample (n = 1,529) was subject to analysis, and a design weight was used in the statistical analysis to account for the disproportionate sampling design.

The attitudes were measured by investigating support for general policy goals of the eco-social agenda. A composite nominal-scale variable was created that yielded four attitude patterns, namely the mutual support pattern, the environmental support pattern, the welfare support pattern, and the little/no support pattern. The results showed that in the Swedish population around 27% expressed above

average support for both environmental and welfare issues, i.e., mutual support. Instead, a somewhat larger share expressed relatively low or no support for both sets of policy agendas (34%). A smaller share expressed welfare support while being sceptical towards the environmental policy agenda (21%), and yet an even smaller share expressed environmental support but less welfare support (17%).

Using multinomial logistic regression analysis, I then investigated if, and if so, which socioeconomic factors increased the likelihood of expressing a mutual support pattern compared to expressing any of the other three attitude patterns. The results from the regression analysis showed that the socioeconomic factors of income, education, and occupational status were significantly associated with attitudes related to an eco-social agenda from a sustainable welfare perspective after controlling for gender, age, and urban/rural residency.

The article showed that in general individuals expressing a welfare support pattern seemed to be located in the lower socioeconomic strata with lower incomes, educational attainment, and occupational status, whereas individuals expressing environmental support seemed to be located in the higher socioeconomic strata with higher incomes, educational attainment, and occupational status. These findings seemed to be in line with the theoretical assumption of a socioeconomic divide between the welfare and the environmental agendas. Moreover, the results indicated that both low and high socioeconomic status factors increased the likelihood of expressing a mutual support pattern, depending on which attitude pattern it was contrasted with. These factors were low to middle-range income levels, high educational attainment, and low to high-status occupations. The same pattern, with both low and high socioeconomic status characteristics, was found in relation to individuals expressing little or no support. This made me come to the conclusion that individuals expressing mutual support, or little/no support, are less easily placed in the low to high socioeconomic continuum. Consequently, I suggested that we need to go beyond the two established theoretical perspectives of self-interest and personal capabilities when explaining mutual welfare and environmental support and, for example, direct attention to factors and theories that take post-materialism and non-economic dimensions into account. I also stressed, in line with previous research, that by including value-based factors in future regression models it would most likely increase the explained variance in attitudes, which was rather low in this study.

4.2 Article II

Divided cities, divided attitudes? Investigating public attitudes related to an eco-social agenda among urban residents living in more or less affluent city districts

Kajsa Emilsson; To be submitted

The aim of this article was to explore the association between urban socioeconomic context and public attitudes related to an eco-social agenda from a sustainable welfare perspective. Exploring socioeconomic contextual variation in attitudes should be seen against the backdrop that socioeconomic segregation is a widespread and increasing phenomenon and that the context individuals are situated in is assumed to have an impact on human agency. This, in turn, is a crucial dimension to take into consideration in imperative social-ecological transformations. If there is variation in attitudes with respect to socioeconomic context, this might contribute to a polarisation and/or cementing of attitudes, which in the longer run might have implications for the realisation of an eco-social agenda and social-ecological transformations. With the intention to make statistical generalisations to urban residents living in Sweden's three biggest cities (Stockholm, Gothenburg, and Malmö), the urban sample (n = 1,120) was subject to analysis. A design weight was used in the statistical analysis to account for the disproportionate sampling design.

In order to investigate the urban socioeconomic context, a city district variable based on affluence was created. Through hierarchical cluster analysis, the city districts in the three cities were clustered into three clusters ranging from low to high affluence. The following five socioeconomic factors, originating from public register data, were used to cluster the city districts: educational attainment, labour force participation, ill health, personal income, and social assistance. Just as in article I, the attitudes were measured by investigating support for general policy goals of the eco-social agenda. A composite nominal-scale variable was created that yielded four attitude patterns, namely the mutual support pattern, the environmental support pattern, the welfare support pattern, and the little/no support pattern. The results showed that in the urban population more than one third of Swedish urban residents expressed mutual support (35%), and about one fourth expressed little or no support for both sets of policies and concerns (26%), or environmental support (24%), respectively. Around 15% of the urban residents expressed welfare support. In the bivariate analysis it was shown that individuals who expressed either an environmental support pattern or a welfare support pattern seemed to be associated with high and low affluence city

districts, respectively. Individuals expressing a mutual support pattern or a little/no support pattern were more dispersed. Also, more affluent areas seemed to hold place for many different viewpoints, with rather equal shares of individuals expressing mutual support, environmental support in isolation, and little or no support.

Through multinomial logistic regression analysis, I investigated if urban socioeconomic context in terms of residency in more or less affluent city districts was significantly associated with expressing mutual support relative to expressing social welfare or environmental support in isolation, or little/no support, while controlling for a set of individual-level factors. The results showed that the attitudes were linked to urban socioeconomic context. Residency in city districts characterised by low, middle, and high affluence significantly increased or decreased the likelihood of expressing certain attitude patterns. Living in city districts with lower affluence to middle affluence significantly increased the likelihood of expressing mutual support relative to expressing environmental support or little/no support. In turn, individuals expressing environmental support or little/no support were associated with living in the city districts with higher affluence. Instead, when mutual supporters were contrasted to individuals expressing welfare support, the former tended to live in city districts with higher affluence and the latter in city districts with lower affluence. The results should be interpreted with care, however, because the preliminary results from the multilevel regression analysis (which took into account that the residents were clustered into the 34 different city districts) showed that the grouping structure in the data was very low. This suggested, instead, that individuals living in the same district were not very similar to each other in terms of their attitudes. It could, however, be an indication of the fact that the clustered data of the 34 city districts and the city district cluster variable are actually measuring different things. Whereas the clustered data could be understood as measuring 'place as location', the city district cluster variable could be seen as measuring 'place as context'. Regarding the individual-level factors, the results mostly followed previous research and literature rather well, but there were also some unexpected results. A very strong association was found between political party identification and the attitudes. For example, identification with Red-green parties, stronger environmental values, less egoistic values, and stronger future time orientation increased the likelihood of expressing mutual support.

All in all, the results suggested that urban socioeconomic context matters for what kind of attitudes related to an eco-social agenda individuals hold. To what extent place as context actually has an impact on the attitudes is something for future research to investigate.

4.3 Article III

Ecological ceiling and social floor: public support for eco-social policies in Sweden

Jamil Khan, Kajsa Emilsson, Martin Fritz, Max Koch, Roger Hildingsson, & Håkan Johansson; Published in *Sustainability Science*

In this article the aim was to investigate public support for five specific eco-social policies combining goals of social justice and ecological sustainability, namely a maximum income, a wealth tax, a basic income, a working time reduction, and a meat tax. Eco-social policies contribute both to providing a social floor or redistributing resources to where they are needed and to respecting an ecological ceiling by keeping human activities within ecological limits. In investigating both the level of support for each of the policies and what factors predicted the support, the whole sample (n = 1,529) was subject to analysis. In order to make statistical generalisations to the general Swedish public, a design weight was used in the statistical analysis to account for the disproportionate sampling design.

The results indicated that the most popular eco-social policy was the working time reduction policy, with around 50% supporting it. Around 30% did not support it, however. The wealth tax policy proposal gained around equal amounts of support as non-support, i.e., 40%. The meat tax policy proposal gained slightly less support. Still, though, around 30% were in favour of it, while around 50 % expressed scepticism. The maximum income and the basic income policies gained the least support (25% and 15%, respectively), towards which the respondents were also the most sceptical (more than 50% and 60%, respectively).

Through multiple linear regression analyses – one analysis for each policy proposal – we investigated the effect of socio-economic, knowledge-based, and value-based factors on the five eco-social policies. Personal income was negatively associated with the wealth tax, maximum income, and working time reduction policies,

whereas employment status was positively associated with the same policies. Education and climate change knowledge were significantly and positively associated only with the meat tax policy. Climate change knowledge was also significantly negatively associated (but only at the 0.10 level, p-value = 0.051) with the basic income policy. The social justice factor was positively associated with all policies except the meat tax, indicating that individuals who were positive towards social and redistributive justice tended to express support for the maximum income policy, the wealth tax policy, the basic income policy, and the working time reduction policy. Instead, the ecological value factor, measured through the new ecological paradigm, was positively associated with the meat tax, indicating that individuals with strong ecological values were in favour of the meat tax. This ecological factor was also significantly associated, but negatively, with the maximum income policy, indicating that individuals with stronger ecological values were less supportive of the maximum income policy. One factor distinguished itself, namely the political orientation factor, in that it was strongly and significantly associated with all five policies. This indicates that political orientation has significance across potentially perceived policy divides and hence that it to a greater extent explains support for policies targeting an ecological ceiling *and* a social floor. It also suggests that the left-right divide seems to be a watershed in support for eco-social policies.

Lastly, in terms of the control variables it was shown that age was significantly associated with the basic income, working time reduction, and meat tax policies, and younger individuals were more supportive of these policies. Gender was significantly associated with the maximum income cap, the working time reduction, and the meat tax policies, and women were more supportive of these policies compared to men. The urban/rural variable was significantly associated with the maximum income cap, the wealth tax, and the basic income policies at the 0.01 significance level, but only at the 0.10 level with the meat tax policy (p-value = 0.080), which thus should be interpreted with caution. No consistent pattern was found, however, because living in a city, compared to not living in a city, was negatively associated with the maximum income cap and the wealth tax policies, but positively associated with the basic income and the meat tax policies. Institutional trust was only significantly associated with the meat tax policy, indicating that higher institutional trust resulted in higher levels of support for the policy.

4.4 Article IV

The active, the sympathetic, and the reluctant: Political action and eco-social attitude patterns among Swedish residents

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In this article the aim was to explore how eco-social attitude patterns were related to political action aimed at preventing climate change and promoting social welfare. Once again, the attitudes were measured by investigating support for general policy goals related to an eco-social agenda. A composite nominal-scale variable was created, and this yielded the four eco-social attitude patterns of mutual support (referred to as 'synergy' in the article), environmental support (referred to as 'green crowding-out'), welfare support (referred to as 'red crowding-out'), and little/no support (referred to as 'rejection'). Political action was measured through a set of items that captured various modes of political action ranging from institutionalised forms of political action (e.g., organisational membership, donating money) and non-institutional forms of political action (e.g., signing a petition, demonstrating, protesting, civil disobedience) to life-style politics (e.g., energy-saving actions, not eating meat) and digital network participation (e.g., posting on social media). Through the survey question on political action that asked the respondents to indicate which type of political action they had "done during the last 12 months", "could possibly do", or "would not do", we were able to distinguish between individuals who reported being active, those who expressed sympathy or a willingness to act, and those who were reluctant towards various modes of political action.

In order to explore the links between attitudes and political action, we followed a relational and explorative approach in the tradition of Bourdieusian empirical research by conducting an MCA. The relational and explorative approach through MCA was suitable also because we understand attitudes and political action as equally central components and as deeply interconnected in the striving towards social-ecological transformation. This means that we did not intend to determine the effect of one on the other, as is done in regression analysis, which also would have been complicated because it is not that obvious if it is political action that determine attitudes or if it is the other way around. Through MCA we were able to visualise the relationships between eco-social attitude patterns and the various modes of political action in a map. Also, including data on individuals'

socioeconomic and political positions allowed us to identify lines of political tension and conflict as well as possibilities for alliances for and against social-ecological transformations. With the intention to explore the links among the general Swedish public, the whole sample (n = 1529) was subject to analysis.

The results showed that from a two-dimension solution – where dimension 1 showed the difference between reluctance towards and support for political action and where dimension 2 showed the difference between willingness to take part in political action and actual engagement in various forms of political action – a political action triangle could be distinguished. One node in the triangle consisted of the averages of all the 'have done' responses to the different types of political action. The other node consisted of the averages of all the 'would do' responses. The third node consisted of the averages of all the 'would not do' responses. Regarding the various modes of political action, they followed the nodes in some cases while in others they did not. In relation to the 'would not do' responses, the various modes appeared close to each other and to the averages. Thus, to be reluctant towards one type of political action generally seemed to be associated with reluctance to any other type of political action. With the exception of non-institutionalised forms of political action, the same patterns more or less appeared for both the 'have done' and the 'would do' responses. For instance, actual engagement in institutionalised forms of political action, e.g., organisational membership and contacting a politician/official, appeared rather close to the average of the 'have done' categories. However, non-institutionalised forms of political action deviated a bit in the sense that they were separated from the other types. This was especially the case when it came to the protesting activities, which appeared most distant from the averages and instead closer to the position of stronger support for political action, both in terms of actual engagement in and willingness to take part in protest activities. A potential explanation for this is that persons have to be strongly committed in order to engage in this type of action. Partly, this might also be a consequence of the overrepresentation of older respondents in the survey study and thus that protesting activities were less often performed.

When it comes to the four eco-social attitude patterns and their interconnections with political action, the results showed that the four attitude patterns followed the three nodes of the political action triangle. Individuals expressing synergetic attitudes were most actively engaged in political action. Instead, individuals who held green crowding-out attitudes rather expressed a sympathy for and a

willingness to take part in political action. Individuals with red crowding-out and rejection attitudes seemed overly reluctant towards all types of political action. The data on individual-level characteristics, such as socioeconomic and political positions, showed, for example, that a leftist self-placement orientation on the left-right scale was associated with actual engagement in political action and expressing a synergy attitude pattern, whereas a right-wing orientation was associated with non-engagement in political action and expressing red-crowding out and rejection attitude patterns. To some extent these results are in line with previous research on environmental action; for example, holding ecological attitudes is associated with environmental action. However, while previous research has theorised about the value of social justice concerns, such concerns have seldom been the focus of empirical investigation. The results in this study showed that being both environmentally and socially concerned is associated with stronger political commitment and actual political action, a finding that deserves to be studied further.

5 Discussion and concluding remarks

In this thesis I have explored attitudes related to an eco-social agenda from a sustainable welfare perspective by investigating support for general policy goals as well as for specific policy measures. I have also explored what characterises the individuals who express these kinds of attitudes in terms of their socioeconomic characteristics, values, the context they are situated in, and what kind of political activities they are involved in (if at all). By doing that the thesis adds new and additional empirical knowledge regarding what attitudes people hold with respect to an eco-social agenda and to sustainable welfare, but also who these individuals are in terms of various individual and contextual-level characteristics.

This concluding discussion will first review and analyse to what extent people express attitudes consistent with an eco-social agenda from a sustainable welfare perspective, and thus to what extent they are supportive of both welfare and environmental issues but also of specific eco-social policies. This will be done by considering and comparing the results in Articles 1–4, which in various ways explored support for general policy goals as well as for specific policy measures related to an eco-social agenda. Then it will move on to discuss what individual-level and contextual-level factors are associated with the attitudes and how these can be understood in relation to the four analytical concepts of homo economicus, homo sociologicus, homo locus, and homo politicus. These two points of discussion will thus respond to the thesis's overall aim and the three research questions. Lastly, this chapter ends with a discussion about potential pathways towards an eco-social agenda in terms of bridging attitudinal divides, changing the political agenda, and mobilising from below. Whereas the first two sections in this chapter more clearly unveil the scientific relevance of this thesis's results, e.g., by adding new and empirical knowledge about attitudes related to an eco-social agenda, the discussions in the last section can be seen in the light of a somewhat

broader societal relevance for decisionmakers and policymakers and other stakeholders who have an interest in realising an eco-social agenda.

5.1 Attitudes consistent with an eco-social agenda from a sustainable welfare perspective?

The first research question asked: *To what extent do Swedish residents express attitudes consistent with an eco-social agenda?* The four studies showed some rather mixed results. When the attitudes were measured in terms of general policy goals resulting in the four eco-social attitude patterns in the general Swedish population (Article 1 & 4), the largest share of the respondents (about one third) expressed relatively low or no support for both sets of policy agendas. They were tightly followed by the second largest share of respondents where slightly more than one fourth expressed above average support for both environmental and welfare issues, captured through the mutual support pattern. The picture changed when only the urban sample was investigated (Article 2). Then it was shown that slightly more than one third of Swedish urban residents expressed mutual support, and about one fourth expressed relatively little or no support for both agendas. The same opposing results were found for the environmental and the welfare support patterns. A larger share of respondents among the Swedish population expressed a welfare support pattern compared to the environmental support pattern. The opposite results were found for the Swedish urban population. These differences between the Swedish population as a whole and the Swedish urban population suggest that place seems to matter to some extent for what kind of attitudes individuals hold (cf. Gallego et al., 2016; Staeheli, 2008; Weckroth & Ala-Mantila, 2022) and that urban residents seem to be different from their suburban, smaller city, or rural counterparts (e.g., Gimpel et al., 2020), which I will come back to in section 5.2.

When it comes to the attitudes towards specific eco-social policy proposals, the results indicated that Swedish residents tended to be rather divided in terms of their support for the policies (Article 3). The most popular eco-social policy, i.e., 'working time reduction', gained support among half of the respondents while around one third did not support it. One policy, i.e., the wealth tax, gained almost equal amount of support as non-support. The other three policies, i.e., a meat tax,

a maximum income cap, and a basic income, were met with more scepticism among the respondents, and especially so the latter two policy proposals.

All in all, when considering the results from all four studies, and even though the results tend to be rather mixed or ambiguous I would argue that there is still a quite substantial share of Swedish residents who express attitudes consistent with an eco-social agenda from a sustainable welfare perspective. Here we need to bear in mind that many of the dimensions that were investigated in this thesis are rather unconventional, and in particular some of the eco-social policy proposals. Comparatively large shares of the respondents expressed rather sceptical attitudes, however, which perhaps is not too surprising given the character of the dimensions investigated (cf. Otto & Gugushvili, 2020, who found larger shares of mutual and environmental supporters but who also included fewer and rather conventional welfare and environmental items in the variable in operationalisation attitudes related to an eco-social agenda)[30]. What is striking, however, is that the respondents tend to be rather divided in their attitudes, a finding that seems to be enhanced when we take into account which individual-level and contextual-level factors that were associated with the attitudes. This will be discussed more thoroughly in Section 5.2 but to give an example, individuals' political orientation, either in terms of self-placement on the left-right scale or identification with political parties, seemed to be strongly associated with what kind of attitudes they expressed. These kinds of divides or cleavages in environmental and welfare attitudes, both when studied separately and in combination, have been highlighted in previous research (e.g., Carlsson et al., 2021; Fairbrother et al., 2019; Otto & Gugushvili, 2020; Svallfors, 2007). In addition to divides along the left-right axis, in previous research on welfare attitudes discussions about social stratification have been central in that people in the same social stratum, e.g., in terms of income levels or educational attainment, express similar attitudes based on their expectations of social policies (Kangas, 1997; Svallfors, 2007). When it comes to attitudes related to an eco-social agenda in previous research, it has been stressed that a so-called 'eco-social divide' exists among European residents, and thus that "people are considerably divided in their support of public welfare and climate policies" (Otto & Gugushvili, 2020, p. 2).

[30] It is interesting to note that in terms of factors being associated with the eco-social attitude patterns they seemed to be point in the same direction in this study compared to the study by Otto & Gugushvili (2020).

This can be seen against the backdrop that, for example, political ideology seems to be one of the "most important drivers of a newly emerging eco-social divide" (Otto & Gugushvili, p. 2). The findings in this thesis, which point towards a divide in attitudes related to an eco-social agenda, thus correspond well to previous research and literature in the field.

The findings in thesis also correspond well to current trends in the European political landscape, where recent decades have witnessed social and political divisions in relation to ideology, place, and socio-demographic characteristics (e.g., Ballas et al., 2017; Dijkstra et al., 2020; Ford & Jennings, 2020). Here, for instance, the rise of radical right parties and new ideological conflicts in terms of the so-called GAL-TAN (Green-Alternative-Liberal versus Traditional-Authoritarian-Nationalist) scale are apparent (Ford & Jennings, 2020). These patterns are also evident in Sweden, even though researchers caution against exaggerating divides that in some cases are insignificant or that polarisations are particularly pervasive in present times compared to previously (e.g., Erlingsson et al., 2021; Oscarsson et al., 2021; see however, Carlsson et al., 2021, and Martinsson & Weissenbilder, 2019, for findings regarding increased political polarisation in relation to environmental issues.). Ideological polarisation along the left-right scale, for example, has always been prevalent in Sweden. It might, however, be that a so-called affective polarisation is increasing, i.e., the tendency to dislike or distrust others who are perceived as opponents (Oscarsson et al., 2021). And perhaps this is what is reflected in the results of this thesis, both in terms of how the respondents answered and in terms of who took their time to respond to the survey. I will come back to this below. Moreover, the attitudinal divides can perhaps also be seen as a reflection of rising inequalities in, for example, wealth and housing (e.g., Christophers, 2019: Lundberg & Waldenström, 2018). For example, it has been stressed that socioeconomic inequality leads to weakened solidarity and social cohesion (e.g., Wilkinson & Pickett, 2009; see also Gough, 2017). In a society with rising inequalities it is not unlikely that larger shares of individuals have widely different interests and priorities, which then can be reflected in their attitudes (cf. Svallfors, 2007). Additionally, in segregated societies, social cleavages and attitudinal divides are likely to be reinforced because individuals have less contact with others who are different from themselves (Kearns et al., 2014; also compare with the results in Article 2 which showed that attitudes related to an eco-social agenda tend to vary with residency in more or less affluent city districts).

Some notes of caution should be made, however, in relation to the discussions about this thesis's results which point towards attitudinal divides. First, we need to be aware of the fact that one of the operationalisation strategies, i.e., the composite scale variable that gave rise to the four eco-social attitude patterns, might in itself enhance the impression of polarised attitudes. In creating four distinctive groups, potential nuances and variation in attitudes in each of these attitude patterns simply disappear. Nevertheless, when the attitudes were measured in terms of support for the five eco-social policies, the results still pointed towards attitudinal divides. A key task for future research in this respect, just as was discussed in the 'Methodological reflections' (Section 5.3), is to develop more robust and manifest operationalisation strategies of attitudes related to an eco-social agenda. Second, in interpreting the results it is also crucial to take the unit nonresponse bias into account. Just as was indicated previously in the method chapter, but also in Article 2, there is an over-representation of older individuals, individuals with rather high-income levels, and individuals with high educational attainment. Also, among the respondents rather large shares indicated that they either placed themselves to the left or to the right on the left-right scale, with slightly more indicating that they were left-wingers (see discussions in Section 3.1.2). Whereas the bias in relation to age and socioeconomic characteristics pertains to the quite common 'middle-class bias' in survey studies (Goyder et al., 2002; Johansson-Tormod & Klevmarken, 2022), the political orientation bias is perhaps somewhat more distinctive in relation to the specific survey study in this thesis. This bias could thus be an expression of who took their time to respond to the survey in the first place and to whom questions about sustainable welfare and social-ecological transformations are of interest, no matter if the respondents were in favour or against it. Hence, when the respondents noticed that the survey study was about climate change, social welfare, and societal transformations it might be that individuals with attitudes more strongly associated with certain political ideologies felt more encouraged to respond compared to individuals with attitudes less strongly associated with certain political ideologies (cf. Wenemark et al., 2011). I will come back to this in the last Section 5.3 when discussing potential pathways towards an eco-social agenda in terms of bridging attitudinal divides. This makes it, however, even more important to put extra effort in getting as large a sample size as possible. It seems to be even more important in survey studies of this type that contains questions that could be perceived as rather politicised. Also avoiding the recurrent middle-

class bias is highly central because there might be injustices in 'who matters' when it comes to influencing policy change. If, as has been suggested, high-income residents are more likely to influence policy change (e.g., Elsässer et al., 2018; Gilens & Page, 2014; Persson 2021), then it becomes pivotal to avoid reproducing voices of the higher socioeconomic stratum.

In sum, even though the results of this thesis indicated that a rather substantial share of Swedish residents expressed attitudes consistent with an eco-social agenda from a sustainable welfare perspective, but also that the residents seemed to be rather polarised in their attitudes, more research is needed in order to validate these findings and to say something about more persistent trends. This could be done through repeated cross-sectional survey studies, but also longitudinal survey studies to collect data over an extended period of time, even though they are so far rather uncommon in attitudes research. I also encourage research in other national contexts, both in terms of cross-regional and cross-national studies. Thus, even though the findings in this thesis might be valuable to countries and/or cities with similar institutional settings and/or socioeconomic segregation patterns, e.g., Nordic countries and cities, but also Western countries to some extent, they would need to be validated through cross-national/regional studies. Lastly, it would also be interesting to explore attitudes related to an eco-social agenda from another theoretical point of view other than sustainable welfare. By, for instance, posing questions in relation to an ecological modernisation approach, or any other approaches, future research could investigate and compare support for different types of eco-social agendas.

5.2 Factors associated with attitudes related to an eco-social agenda from a sustainable welfare perspective

The second and the third research questions were about factors associated with the attitudes. In general, the results showed that individual-level factors that in various way capture socioeconomic characteristics, values, and political activities were associated with attitudes related to an eco-social agenda. Also, contextual-level factors that captured the urban/rural-divide and socioeconomic context were

associated with the attitudes in various ways. Below I will answer first the second research question and focus specifically on the socioeconomic, value, and context-based factors. Then I will move on to answer the third research question and discuss the political action factors.

Starting with the second research question, it asked: *Which socioeconomic, value- and context-based factors are associated with the attitudes? And how can the associations be understood from a theoretical point of view?*

5.2.1 The socioeconomic factors and homo economicus

The results showed that income, employment, occupational status, and education were associated with attitudes related to an eco-social agenda, but in different ways depending on if the attitudes were measured in terms of general policy goals resulting in the four eco-social attitude patterns or the specific eco-social policies. In terms of the eco-social attitude patterns (Article 1, 2 & 4), it was shown that individuals who expressed a welfare attitude pattern were associated with lower educational attainment, lower occupational status, and non-employment (e.g., pensioners, students), whereas individuals expressing an environmental support pattern were associated with higher incomes, higher educational attainment, and higher occupational status. Individuals who expressed a mutual support pattern or a little/no support pattern were associated with both low and high socioeconomic status factors in different ways. In the regression analyses, for instance, it was shown that low- to middle-range income levels, high educational attainment, employment, and low- to high-status occupations significantly increased the likelihood of expressing mutual support. Individuals expressing little/no support were significantly associated with higher income levels, lower educational attainment, middle status-occupations, and non-employment. When the attitudes were measured in terms of support for the eco-social policies a somewhat ambiguous result emerged (Article 3). The socioeconomic factors were in various degrees and directions significantly associated with four out of the five policies, i.e., wealth tax, maximum Income, reducing working time, and the meat tax policies. Personal income was negatively associated with the wealth tax, maximum income, and working time reduction policies, whereas employment status was positively associated with the same policies. Education was positively and significantly associated only with the meat tax policy.

When trying to understand these results in relation to the analytical concept of homo economicus, where the self-interest and the personal capability perspectives are central, it provides guidance in some cases whereas in others less so. Partly this has to do with the somewhat ambiguous results as discussed above, and partly it has to do with the appearance of a divide that sometimes follows and sometimes cuts across the traditional socioeconomic continuum. The self-interest perspective provides a tentative explanation for why individuals with lower incomes and lower educational attainment express welfare support but less environmental support (Article 1 and 2). It simply could be that they have a personal interest in the welfare agenda, but less personal capabilities to engage in the environmental agenda (e.g., Calzada et al., 2014; Jæger, 2006). In the same way we could understand those individuals with lower personal income who expressed support for the wealth tax, maximum income, and working time reduction policies (Article 3). Instead, the personal capability perspective is helpful in explaining why individuals with higher income levels expressed support for the environmental agenda (Article 1 and 2) and why individuals with higher educational attainment expressed support for the meat tax policy (Article 3). These individuals are the ones with personal capabilities to engage in environmental action. They are, for instance, not too affected by potential burdens of fiscal responsibilities in terms of taxes. Also, these individuals have had the possibility to educate themselves about the severity and causes of climate change (e.g., Fairbrother et al., 2019; Rhodes et al., 2017).

The self-interest and personal capability perspectives provide less guidance, however, when it comes to understanding the attitudes in relation to the mutual and the little/no support patterns, but also in relation to the eco-social policies in general. Just as discussed above both high and low socioeconomic status factors were associated with the mutual and the little/no support patterns, which make these two patterns less easily placed into the traditional socioeconomic continuum and also less easily understood through the two theoretical perspectives. Regarding the eco-social policies, the rather ambiguous results in relation to socioeconomic factors also makes it difficult to analyse them conjointly in terms of the self-interest and the personal capability perspectives. Education was only significantly and positively associated with the meat tax policy proposal. Personal income was negatively associated with the wealth tax, maximum income, and working time reduction policies, whereas employment status was positively associated with the same policies. Hence, the self-interest perspective seems to hold with respect to

the personal income factor, but neither in relation to the employment factor nor the education factor where instead the personal capability perspective is more applicable. Just as in the case of the mutual and the little/no support patterns, this suggests that both the self-interest and the personal capability perspectives are applicable simultaneously in understanding attitudes related to an eco-social agenda. That the mutual support pattern and the little/no support pattern can be explained simultaneously by the self-interest and the personal capability perspectives is rather contradictory, however. This indicates that these perspectives provide less guidance in understanding the attitudes of individuals either expressing mutual support or little/no support. Or at least it significantly complicates the understanding of the attitudes.

More research is thus needed to investigate if attitudes related to an eco-social agenda can be understood in relation to the well-established and traditional perspectives, as theorised in the welfare and the environmental attitude literature. For example, it might be that certain individuals who express a mutual support pattern can be understood from a self-interest perspective, whereas others can be understood from a personal capability perspective. Just as was shown in Article 2, the mutual support pattern was relatively widespread in the different socioeconomic contexts. Perhaps then the mechanisms behind these attitudes are different for individuals who are situated in a context with lower affluence compared to individuals who are situated in a context with higher affluence. Or perhaps the self-interest and the personal capability perspectives are not applicable at all to the mutual support pattern. In Article 1, I stressed that we most likely need to go beyond these two perspectives when it comes to understanding mutual supporters, but also individuals who express little or no support, where, for instance, social class based on occupations or the incorporation of certain value-based factors could be a viable way to explore further. Some of these value-based factors were explored in Article 2, which will be discussed below.

5.2.2 The value-based factors and homo sociologicus

The results showed that factors related to individuals' internalised values and beliefs, categorised under homo sociologicus, seemed to be important in understanding attitudes related to an eco-social agenda (cf. Dallinger, 2010, and Sivonen & Koivula, 2021, who discuss the importance of value-based factors in welfare and environmental attitudes, respectively). These factors were political

ideology, altruistic, social justice, biospheric or environmental, and egoistic values, but also future time orientation. The value-based factor that seemed to be most strongly associated with the attitudes was the political ideology factor.

Political ideology, either measured in terms of self-placement on the political left-right scale or identification with political parties, was significantly and strongly associated with the attitudes, both when measured in terms of the eco-social attitude patterns and in terms of the eco-social policies. Individuals who expressed a mutual support pattern identified with Red-green parties (Article 2 and 4) and placed themselves to the left on the left-right scale (Article 4). When individuals expressing a mutual support pattern were contrasted to individuals in the three other attitude patterns it was shown that these latter individuals were associated with Liberal, Liberal conservative, and Christian democratic parties, but also with not identifying with any political party at all or not knowing with which political party they identified. Individuals expressing a welfare support pattern or a little/no support pattern were also associated with Nationalist right-wing and far-right parties (cf. Article 4 where it was shown that these individuals reported a moderate to a strong right-wing political orientation). Most of these findings were not too surprising because the reference category of the political party variable was Red-green party identification, which included the Social Democratic Party, the Green Party, and the Left Party. That is, political parties that put social justice and environmental issues high on the agenda. This means that rather than identifying with the Red-green parties as did individuals expressing a mutual support pattern, individuals expressing an environmental, a welfare or a little/no support pattern identified with any other of the political parties or no party at all. The results are still a bit puzzling, however. Especially so in terms of the dependent latent welfare variable on which some rather unconventional items loaded strongly, i.e., the social justice and economic redistribution items, plus the four policies of basic income, a wealth tax, working time reduction, and maximum income. These are not the kind of features that traditionally are associated with Liberal, Liberal conservative, Christian democratic, or Nationalist right-wing parties. Moreover, in terms of the attitudes towards the eco-social policies, the left-right self-placement factor was strongly associated with all five policy proposals. Individuals placing themselves to the left on the left-right scale were more supportive of all five policies (Article 3). Thus, left-wing self-placement on the left-right scale and/or identification with Red-green parties was associated with attitudes consistent with an eco-social agenda. Just as indicated previously in Section 5.1,

this points towards a political polarisation in attitudes related to an eco-social agenda. These findings are in line with previous research on eco-social attitudes, as well as research on environmental attitudes (Otto & Gugushvili, 2020; Carlsson et al., 2021; Martinsson & Weissenbilder, 2019). Just as has been stressed by researchers regarding the politicisation of environmental issues it can generate lower support for environmental policies because the debates about climate change is not considered to be primarily a scientific one but rather a political one, which in turn opens up for agreement or disagreement based on political ideology (cf. Guber, 2013; Hoffman, 2011; Hoogendoorn et al., 2020). These reasonings are important to take into consideration also when it comes to eco-social policies.

When it comes to the other value-based factors – i.e., altruistic, social justice, biospheric or environmental, and egoistic values, as well as future time orientation – the results are less clear-cut. The altruistic value factor, included in the study on eco-social policies, was only significantly associated with the meat tax policy, and it showed that less altruistic persons supported this policy proposal (Article 3). In the same study, it was shown that social justice was significantly associated with all policies except the meat tax policy. Individuals who were in favour of social justice expressed support for the maximum income cap, the wealth tax, the basic income, and the working time reduction policies. The environmental value factor was only significantly associated with the meat tax policy, indicating that those with stronger environmental values supported it. Altogether, this rather ambiguous result makes it difficult to say in what way altruistic, social justice, and/or environmental values have an impact on eco-social policies in general. Here it is also interesting to note that the social justice factor was only associated with those policies that could have been perceived by the respondents as being more social welfare policies, i.e., maximum income cap, the wealth tax, the basic income, and the working time reduction policies. Instead, the environmental value factor was only associated with the policy that could have been perceived by the respondents as being more environmental, i.e., the meat tax policy. More research is definitely needed in terms of eco-social policies and the associated factors, and just as discussed under 'Methodological reflections' (Section 3.4), future research should carefully consider how to phrase survey questions of specific policies.

Regarding the biospheric and egoistic basic human values and future time orientation, which were analysed in relation to the eco-social attitude patterns, it

was shown that all of these factors were significantly associated with the attitudes. Stronger biospheric or environmental values were associated with expressing a mutual support pattern, and weaker environmental values were associated with expressing welfare or little/no support patterns, but also a bit surprisingly with expressing an environmental support pattern (but only at the 0.10 significance level, p-value = 0.072). This latter finding contradicts previous research regarding the positive association between environmental values and environmental attitudes (Bouman et al., 2018). The egoistic factor showed that being less egoistic was associated with expressing mutual support. Stronger egoistic values were associated with expressing little/no support, which was in line with previous research and theoretical assumptions (e.g., Kulin and Svallfors, 2013; Bouman et al., 2018), but also with expressing environmental support in isolation, which again was surprising and not in line with previous literature (Bouman et al., 2018). Future research will have to tell if this has something to do with separating pro-environmental individuals into two categories just as was done through the eco-social attitude patterns where some individuals might have a stronger focus on environmental issues (i.e., the environmental support pattern) and where others might have an equally strong focus on environmental and social issues (i.e., the mutual support pattern). Lastly, in terms of future time orientation it was shown that being future time oriented significantly increased the likelihood of expressing a mutual support pattern. Instead, less future time-oriented individuals were significantly associated with expressing welfare and little/no support patterns. Thus, future time orientation, even though it was measured in a rather abstract way, definitely seems to have something to do with attitudes consistent with an eco-social agenda (cf. Strathman et al., 1994; Hu et al., 2017). However, whether this is an expression of caring for future generations, or something else, is something than can be explored further in future research.

With respect to these findings, especially Article 2, I would like to encourage future research on attitudes related to an eco-social agenda to explore the notion of homo iunctus, i.e., the connected humankind that captures the idea of a relational approach to other beings and nature (see discussions in Article 1, see also Helne & Hirvilammi, 2017). Just as discussed above, stronger environmental values, less egoistic values, and stronger future time orientation were associated with expressing attitudes consistent with an eco-social agenda. These kinds of values could be understood as an expression of a relational approach to other beings and to nature. In relation to this a 'social-ecological morality' could be

thought of. That is, a kind of morality that recognises the "immoral character of fossil fuels" (Otto et al., 2020, p. 2360) *and* of social injustices, and which in turn could be reflected in public attitudes (cf. Svallfors, 2006, and his discussions about a moral economy and welfare attitudes). In some ways, these discussions are also close to the idea of post-materialism where ideas about a more humane society and environmental protection are central (Inglehart, 1995). Similarly, and in order to better understand the little or no support pattern, an equivalent analytical concept could be thought of. In future explorations of individuals expressing attitudes more or less consistent with an eco-social agenda, post-material and material values could be explored further (Inglehart, 1995). Here previous environmental literature could be consulted that discusses the consumer who maximises their own personal wellbeing at the expense of environmental sustainability (see Nyborg, 2000, and Faber et al., 2002, who discuss this under the notion of homo economicus). Also, Schwartz's (1992) two higher-order value types of openness to change and conservatism could be considered, which seems particularly important in relation to imperative social-ecological transformations.

In sum, the results showed that value-based factors, categorised under homo sociologicus, tended to be associated with attitudes related to an eco-social agenda from a sustainable welfare perspective. That was particularly the case in terms of political ideology. However, the results were rather ambiguous when it came to the other value-based factors. This could, for example, be seen against the backdrop that the altruistic, social justice, biospheric or environmental, egoistic, and future time orientation factors were not included as often as the political ideology factor in the analyses. And, when they were included, their associations with the attitudes tended to be weaker compared to the political ideology factor. Perhaps this is an indication that climate change, social welfare, and social-ecological transformations are so politicised – just as was already mentioned in 5.1 – that those values pertaining to altruism, the biosphere, egoism, and so on get pushed into the background and thus that the political ideology factor becomes more important in understanding attitudes related to an eco-social agenda. Nevertheless, the results suggest that it is highly central to explore further the notion of homo iunctus and a social-ecological morality, but above all whether a social-ecological transformation brings with it a political divide, and if so, what this entails for mobilising support for an eco-social agenda. I will come back to this in Section 5.3.

5.2.3 The context factors and homo locus

The results showed that the contextual-level factors that captured the urban/rural divide and socioeconomic contextual variation were associated with attitudes related to an eco-social agenda from a sustainable welfare perspective in various ways.

The urban/rural-divide was explored both when the attitudes were measured in terms of general policy goals resulting in the four eco-social attitude patterns and in relation to specific eco-social policies. It was shown that living in a city significantly increased the probability of expressing a mutual support pattern. Instead, individuals living in rural areas, towns, and suburbs were more likely to express welfare or little/no support patterns (Article 1). A somewhat more ambiguous result appeared for the eco-social policies (Article 3). On the one hand, it was shown that individuals living in rural areas, towns, and suburbs in general seemed to be associated with expressing support for the maximum income cap and the wealth tax policy proposals. On the other hand, residents living in a city seemed to be supportive of the basic income policy proposal, but also of the meat tax policy proposal (but only at the 0.10 significance level, p-value = 0.080).

Regarding the socioeconomic context factor pertaining to city districts' affluence, the results showed that it was significantly associated with the eco-social attitude patterns in some cases when controlling for a set of individual-level factors (Article 2). Living in city districts with lower affluence and middle affluence significantly increased the likelihood of expressing a mutual support pattern. In turn, residency in city districts with higher affluence was associated with individuals who expressed environmental or little/no support patterns. Instead, when individuals expressing a mutual support pattern were contrasted to individuals expressing a welfare support pattern, the former tended to live in city districts with higher affluence and the latter in city districts with lower affluence. These findings would need to be validated in future research through multilevel regression modelling that takes clustering in the data into account. As of for now, preliminary results showed that the grouping structure in the data was very low, which in turn suggested that individuals living in the same districts were not very similar to each other in terms of their attitudes. This could, however, be an indication of the fact that the clustered data of the 34 city districts and the city district cluster variable are actually measuring different things. The city district cluster variable more clearly has specific characteristics tied to it because it was created from a set of socioeconomic and social risk factors, e.g.,

educational attainment or ill health, on a structural level. This variable can thus be seen as representing 'place as context'. If, instead, the clustered data of the 34 city districts represent 'place as location or site' (Staeheli, 2008) is for future research to explore further. Nonetheless, the results from the logistic regression analysis showed that the city district cluster variable was significantly associated with the attitudes in some cases. It pointed to the fact that socioeconomic conditions on a structural level have implications for attitudes related to an eco-social agenda (cf. Svallfors, 2012a). These results can be seen in the light of an urban place-based politics where targeted interventions in specific areas are key to prevent and solve certain societal and/or environmental problems (Johansson, 2022). This place-based politics with connections to an eco-social agenda can be found in, for example, so-called urban redevelopment projects[31], and other types of urban eco-social interventions[32]. Given that individuals are impacted by the context they are situated in, decisionmakers and policymakers could consider this type of politics and interventions, or others, as a way to increase support for an eco-social agenda (cf. Weckroth & Ala-Mantila, 2022). Lastly, just as in the case of the individual-based socioeconomic theories, current contextual-based theories stemming from the environmental and the welfare attitude literature, respectively, provided less guidance in understanding why individuals who either expressed a mutual support pattern or a little/no support pattern were situated in certain socioeconomic contexts.

In sum, the results indicated that the urban/rural divide and the socioeconomic context factor, categorised under homo locus, were significantly associated with attitudes related to an eco-social agenda. This confirms the value of conducting research beyond the 'methodological nationalism', which "could conceal regional differences within nation states" (van Oorschot et al., 2022, p. 208). Future research would need to investigate to what extent, if at all, the context itself has an impact on the attitudes. If so, this could contribute to further polarising and cementing attitudes related to an eco-social agenda, with implications for social-

[31] Urban redevelopment projects, also referred to as modern eco-city districts, have a strong focus on, for example, sustainable alternatives and technologies for managing water, energy, waste, and transportation. Examples of these projects are Hammarby Sjöstad and Norra Djurgårdsstaden in Stockholm, and Western Harbour and Augustenborg in Malmö. (e.g., Bibri & Krogstie, 2020; see also Emilsson & Koch, 2022).

[32] Eco-social innovations often start off as grassroot innovations that combine ecological and social goals. They are assumed to challenge 'business as usual'. Examples of these innovations are agriculture networks, barter groups, urban gardening, and so forth (e.g., Björngren Cuadra & Kennedy Tsunoda, 2022; Matthies et al., 2020; see also Emilsson & Koch, 2022).

ecological transformations in the longer run. Here it could be helpful to explore contextual and compositional effects in relation to the attitudes (Cutler, 2007; Huijsmann et al., 2021). It cannot be stressed enough that in order to conduct proper statistical analyses in relation to context, such as multilevel modelling, a large sample is key.

5.2.4 The political action factors and homo politicus

Finally, the third research question asked: *How are various forms of political action to prevent climate change and promote societal change connected, if at all, to attitudes related to an eco-social agenda?*

The last and fourth analytical concept pertained to various modes of political action to prevent climate change and promote societal change, which was studied primarily in Article 4. One political action item was included in Article 3, however, but only for one of the eco-social policy proposals, where it was shown that meat consumption, as a type of lite-style politics, had a strong effect on the meat tax policy (cf. Kollmuss & Agyeman, 2002, and Marquart-Pyatt et al., 2019, who argue that measured attitudes need to be closely related to the specific type of environmental activity if one expects to find an effect of the former on the latter).

The results in Article 4 showed that the four eco-social attitude patterns were associated with various modes of political action, but also with the extent to which the respondents were committed to doing various kinds of political action. Through MCA and by visualising the results in a map, a three-node pattern forming a 'political action triangle' could be distinguished. One node showed that individuals who expressed a mutual support pattern were associated with actual engagement in various modes of political action, ranging from institutionalised modes to digital network participation and above all to lifestyle politics. Another node showed that individuals who expressed an environmental support pattern were associated with a willingness and a sympathy to take part in political action – above all in institutionalised forms of political action, digital network participation and lifestyle politics – but did not actually engage in it. The third and last node indicated a relationship between individuals expressing a welfare support pattern or a little/no support pattern and reluctance towards all types of political action. Regarding the various modes of political action, one such mode stood out, i.e., non-institutionalised modes of political action, which were the

least widespread, and particularly the protesting activities. The rather less performed non-institutionalised types of political action, and above all protest activities, could be seen as the results of, for example, higher social and psychological barriers connected to it but also as a consequence of the overrepresentation of older respondents in the survey study. When it comes to the exploration of linkages between political action and attitudes related to an eco-social agenda, more research is needed to validate these findings. Future research could also dive deeper into the potential explanation behind the associations and, for instance, explore if it is the broader conceptualisation of politics – which could be assumed to be at stake because being concerned about social and ecological issues involves taking a much broader perspective on political problems – that makes these individuals more likely to engage in political action (cf. Görtz & Dhal, 2021) or if it is something else. Also, it could be worth considering if the previously proposed analytical concept of homo iunctus, and perhaps also a social-ecological morality, somehow can be linked to the active or engaged citizen. Inspiration can be found in the environmental literature that discusses the responsible and virtuous citizen with respect to values and behaviours, and who is "concerned with the public interest' and 'with the good of the community" (Faber et al., 2002, p 328f.; see also Nyborg, 2000, and Jagers, 2009).

Finally, I would like to make a reflection about the most widespread type of political action, i.e., lifestyle and consumer political action, and above all in relation to imperative social-ecological transformations. Considering previous literature and research, it is not too surprising that this mode of political action was the most widespread (Dalton, 2015; de Moor & Verhaegen, 2020). Just as Marsh and Akram (2015) point out, different types of political action might be beneficial for democratic action, irrespective of what the underlying motives are, e.g., in terms of the 'personal project' or something else. Thus, even though an activity is not intended at first to have an impact on politics, it might well turn into a political act later on. It might, however, be important to take a more critical look at the more common lifestyle politics and the consequences thereof in relation to social-ecological transformations that aim to be as just and fair as possible. Scholars have started shedding light on lifestyle and consumerist politics from a neoliberal lens, which points to a shift from agency of citizens to that of consumers (Kyroglou & Henn, 2022). It is in this respect that a note of caution should be made. Lifestyle and consumer politics could potentially trigger other societal problems. Some individuals, for example, do not have the capacity to

invest in energy-efficient appliances or eco-efficient measures such as effective insulation or solar panels. This means that they are left with energy consuming appliances and heating systems, which in turn might lead to 'energy poverty' and in extreme cases to a choice between eating and heating (Gough, 2017). Also, relying on the market might be tenuous in the light of greenwashing, and thus the misleading of consumers regarding a company's environmental practices or the environmental benefits of a product or a service (e.g., Delmas & Burbano, 2011), and where individuals themselves have to be highly active as political consumers to trace information about production processes. This suggests that a diverse repertoire of various modes of political action is probably the best precondition when it comes to pushing for change.

5.3 Pathways towards an eco-social agenda

The findings in this thesis indicate, at least at first glance, that realising an eco-social agenda might be difficult if broad popular consent is needed. This is particularly the case when it comes to the results indicating that attitudes related to an eco-social agenda tend to be rather polarised. However, the quite substantial share of Swedish residents who expressed attitudes consistent with an eco-social agenda from a sustainable welfare perspective can be seen as a vantage point in terms of realising an eco-social agenda, even though comparatively large shares of the respondents expressed sceptical attitudes. I will end this chapter with a discussion about three potential pathways towards an eco-social agenda with a focus on 1) bridging attitudinal divides, 2) changing the political agenda, and 3) mobilising from below. While the first two pathways speak more directly to decisionmakers and policymakers, the latter one speaks to a broader repertoire of stakeholders who have an interest in realising an eco-social agenda.

5.3.1 Bridging attitudinal divides

By focusing on bridging polarised attitudes, decisionmakers and policymakers might 'win over' otherwise sceptical groups of individuals and thus increase the overall support for an eco-social agenda. I would like to highlight five plausible, but not exclusive, ways forward. Inspiration comes from Fairbrother (2022) who discusses how to build public acceptance for climate policies. The first four

plausible ways are connected more explicitly to attitudinal divides that might arise as a result of different socioeconomic patterns, which appeared to be the case at both an individual level as well as on a contextual level in this thesis. Inherent in discussions of social policy and climate change is the recognition that climate change and transformations to more sustainable societies give rise to injustices and conflicts among groups of individuals and societal actors (e.g., Gough, 2017; Koch & Mont, 2016a). Policymakers will therefore need to address and balance conflicting priorities and interests.

First, in order to increase support among socially disadvantaged groups of individuals, who otherwise might be unfairly targeted with paying the costs of climate mitigation measures (cf. 'double and triple injustices' as discussed, for example, by Gough, 2017, but also the Yellow Vests movement in France, see Driscoll, 2021), eco-social policies with progressive tax distributions could be promoted (cf. maximum income caps). Such eco-social policies would have the ambition to counter the kinds of inequalities that come with the burdens of climate change and societal transformations.

Second, in order to increase support among individuals with stronger economic capital, inspiration might be gained from previous policy literature on earmarking revenues from taxes. In the environmental literature, for instance, it has been shown that when the revenues of environmental taxes are earmarked the support for them increases. Earmarking the revenues makes the policies more effective, which seems to be important for the public (Kallbekken & Sælen, 2011; Kaplowitz & McCright, 2015; Steg et al., 2006). Thus, being as explicit as possible about how to use the revenues from the eco-social policies, e.g., the wealth tax and the maximum income caps, could potentially increase support among individuals with stronger economic capital.

Third, because these first two points refer primarily to taxes, it is also interesting to note that people tend to be more reluctant to the actual wording of 'taxes' compared to calling the taxes 'contributions' or 'fees' (Baranzini & Carattini, 2017; Fairbrother, 2022). Even though this might be perceived as too simplistic, given that it seems to work makes it definitely worth considering.

Fourth, yet another crucial dimension to consider is political trust. Both in the welfare attitude literature and in the environmental attitude literature, it has been stressed that positive welfare and environmental attitudes are correlated with high

political trust.[33] Thus people need to feel confident that, for example, the state can actually solve its tasks and that tax revenues are being spent effectively and wisely (e.g., Fairbrother et al., 2019; Kallbekken & Sælen, 2011; Svallfors, 2015).

The final and fifth dimension to consider is connected more explicitly to attitudinal divides based on political ideology. One way to bridge political polarisation in attitudes related to an eco-social agenda could be to avoid polarising narratives if possible (cf. Fairbrother, 2022). Here I am thinking primarily about some of the thesis's results that point towards a political polarisation in attitudes related to an eco-social agenda. From previous research and the literature, we know that in relation to political ideology the notion of justice might be a polarising issue, but also the debate about economic growth (e.g., Jost et al., 2003; Caprara et al., 2006). These two issues are, however, highly central in an eco-social agenda from a sustainable welfare perspective (Büchs, 2021; Koch and Mont, 2016a; Koch, 2018). Thus, avoiding discussing justice and the questioning of economic growth would be like trying to ignore the elephant in the room, which most likely would prove rather ineffective and even obstructive in the strive towards sustainable welfare. Perhaps then the question should be how these issues might be de-politicised (if this is possible at all). Yet another way of avoiding polarising narratives could be to avoid polarising debates or strategies about future avenues for an eco-social agenda. Sustainable welfare is one approach out of many others (e.g., Shoyen et al., 2022), and perhaps certain overlaps, where possible, might contribute to increasing public acceptance. Even though an ecological modernisation approach is the exact opposite of sustainable welfare in terms of the presence or absence of economic growth, there might be other dimensions in the two approaches that are less conflicting. For example, in the ecological modernisation approach innovations and technological progress are central dimensions. Even though it could be argued from a sustainable welfare perspective that it is "unrealistic to think that technological progress will be sufficient to decouple production growth from carbon emissions" (Shoyen et al., 2022, p. 10), it could be worthwhile to acknowledge the value of technological progress more explicitly. This is particularly so in those cases where innovations

[33] Institutional trust was included in one of studies (Article 3), but it was only significantly associated with one of the four policies, i.e., the meat tax policy. Institutional trust was measured in a rather broad way with the inclusion of trust for the government, parliament, municipality, political parties, labour unions, the EU, and the UN. This broad measurement strategy could be one explanation for why it was not significantly associated with the other four policies.

and technological progress are contributing to climate neutrality. Here the sustainable welfare approach could continue stressing the importance of social dimensions and the prevention of potential adversarial social consequences of a too narrow focus on climate-neutral innovations (Büchs & Koch, 2017; Gough, 2017). This, and other similar strategies, could potentially attract support among a broader public.

5.3.2 Changing the political agenda

A first, and perhaps obvious, step for decisionmakers and policymakers to build public acceptance for an eco-social agenda is to put the eco-social agenda *on the agenda*. Currently it seems as though the idea of an eco-social agenda is merely a theoretical construct (Fitzpatrick, 2011a; Koch, 2018; Shoyen et al., 2022). Hence, to a large extent we seem to be continuing along the silo-based logic which is "detrimental to society's capability to properly understand and address its relation to the – seemingly increasingly strained – natural environment" (Fischer-Kowalski, 2015). The inability, or perhaps the unwillingness, to properly understand society's relation to the environment is most recently shown in the debates about the current 'energy crisis' in Europe (The Council of the European Union, n.d.). These debates are highly central in relation to sustainable welfare because access to energy is closely linked to individuals' wellbeing in different ways (Lamb et al., 2020). For very good reasons the public is collectively encouraged by governmental agencies to save energy (The Swedish Energy Agency, n.d.). But why is it that no words are mentioned whatsoever about the positive effects for the environment? And why is it that governments did not encourage everybody several years ago to save energy, but from an environmental perspective, as a response to the ecological crisis? This kind of inaction from decisionmakers might even prevent beneficial environmental and/or collective action from making a change because it can be interpreted as though the ecological crisis is not really a crisis (cf. Hoffman, 2011; Hoogendoorn et al., 2020). The inaction in terms of the continuation of the silo-based logic might also prevent public support for an eco-social agenda because people might not even realise the need for such an agenda. Here decisionmakers and policymakers should be aware of so called 'feedback effects', meaning that once policies have been implemented, they tend to influence the public and to generate further support (see discussions in Stadelmann-Steffen et al., 2021, and van Oorschot et al., 2022). Thus, instead of

first waiting for broad public acceptance, implementing a policy can establish and increase support for the policy. Two very concrete examples are the congestion charges in Gothenburg and Stockholm, where "architects of the charges offered to repeal them if the measures proved too unpopular, but—after a period of time—they grew popular enough to retain" (Fairbrother 2022, p. 7). This could prove to be the case for eco-social policies as well.

5.3.3 Mobilising from below

By considering the emerging discussions about 'social tipping points', human agency in terms of, for example, public attitudes, opinion, social norms, behavioural and collective action is seen as one mechanism among others that can trigger societal transformations. Briefly social tipping points can be understood as fundamental, rapid, and non-linear societal changes triggered by small causes (e.g., Andrighetto & Vriens, 2022; Moore et al., 2022; Otto et al., 2020; Stadelmann-Steffen et al., 2021; Winkelmann et al., 2022). It has been suggested that minorities, for example, "can trigger a shift in the conventions held by the majority of the population" (Centola et al., 2018, p. 1). For this to happen the minorities need to reach a 'critical group size'. However, it is currently rather unclear how large the minority groups need to be. The theoretical predictions range from as low as 3% to as large as 40% of the population (see discussions in Andrighetto & Vriens, 2022). While some scholars argue that the minorities are most influential if they resemble – and thus can be understood as representatives of – the larger majority, e.g., in terms of wealth and power, other scholars argue that the minorities' influence is dependent on their degree of social and cultural capital (see discussions in Bolderdijk & Jans, 2021; Centola et al., 2018; Otto et al., 2020). Moreover, it is assumed that while the minority groups consist of individuals who act out of personal normative beliefs that make them willing to transgress existing norms, "after passing the tipping point the large majority follows not because of a change in their personal normative beliefs, but because of a change in social expectations" (Andrighetto & Vriens, 2022, p. 5). By deviating from existing norms, the minorities show that alternatives exist. This can cause "'irritations' in personal worldviews" (Otto et al., 2020, p. 2361) of the larger majority, which in turn can trigger change. However, and because of the assumption that minorities first have an impact on others' opinions and attitudes and only later are these changes converted into actual behaviours, it has been

stressed that "both minority and majority members may underestimate the influence that minorities can have" (Bolderdijk & Jans, 2021, p. 26). Also, because the processes that lead to the tipping point can be lengthy, in contrast to the actual tipping point, which is rapid, it might give the impression that the impact is non-existent. Encouraging these minorities thus becomes important. Here decisionmakers and policymakers can play a role. They could, for example, give minorities a 'voice' by, for example, facilitating the act of challenging social norms. One such very concrete act could be to introduce policies in which vegetarian foods and meals are considered the default (Bolderdijk & Jans, 2021). The involvement of policymakers might thus speed up the social tipping processes (see Andrighetto & Vriens, 2022, who discuss so-called 'top-down initiatives' as catalysts in norm change).

It should be noted that even though researchers have conducted computational and experimental studies and have analysed concrete historical events through the lens of social tipping points – e.g., the abolition of the transatlantic slave trade and the normalization of discouraging smoking in public places – much of the discussions are still on a theoretical level (e.g., Andrighetto & Vriens, 2022; Centola et al., 2018; Otto et al., 2020; Stadelmann-Steffen et al., 2021). Even though there is a lot more to take into consideration when discussing these social tipping points (see discussions in Andrighetto & Vriens, 2022, and Fesenfeld et al., 2022)[34], it is still interesting to think about the thesis's results in relation to these discussions. This is particularly the case when it comes to those who express attitudes consistent with an eco-social agenda, but also those who would engage in political action to promote sustainable welfare, for example by not eating meat by not flying, or by investing in more effective insulation or solar panels. These types of individuals can be seen as vantage points that can trigger a social tipping point. It has been suggested that even now there appear to be on-going changes in norms, specifically in terms of rapid changes in energy and transportation systems, e.g., solar and wind power and electric vehicles (Moore et al., 2022; Stadelmann-Steffen et al., 2021; Winkelmann et al., 2022). Because these latter shifts in technology require financial capital and thus are not available for everybody, it is necessary to stress that this might create tensions in the strive

[34] It might be fruitful to consider adjacent literature regarding societal change to get a more nuanced picture of barriers and enablers of transformations (e.g., Mahoney & Thelen, 2010; Pierson, 2000; Shove et al., 2012; Weible et al. 2011).

towards climate-neutral societies (cf. previous discussions about lifestyle and consumer politics in Section 5.2.4). Just as highlighted previously, here a sustainable welfare approach is highly valuable in emphasising the importance of social dimensions and the prevention of potential adversarial social consequences of a too narrow focus on climate-neutral innovations (Büchs & Koch, 2017; Gough, 2017). It should be noted, however, that norm changes are assumed to take place in less costly activities as well, e.g., vegetarian diets and not flying as mentioned above. The role of social movements, such as Fridays for Future, has also been identified as "creating critical conditions, or potentially triggering the social transformations required for large-scale climate action" (Winkelmann et al., 2022, p. 9). In sum, the discussions about social tipping points can provide a glimpse of hope for stakeholders who have an interest in realising an eco-social agenda if it turns out that only a minority seem to support and participate in political action to promote such an agenda, as this thesis's results indicate. There should still be efforts, however, to also get the more sceptical ones on board with the strive towards social-ecological transformations.

Realising an eco-social agenda is a critical step in a wider social-ecological transformation perspective. This thesis can be seen as one small step in that direction. And just as was emphasised already in the introduction of this thesis, the focus on the public should be seen as "an analytical effort to bring society back into the investigation of political transformations" (Eikert 2019, p. 158). This is particularly important in social-ecological transformations because, as stressed by prominent environmental researchers, "we are the first generation with widespread knowledge of how our activities influence the Earth system, and thus the first generation with the power and the responsibility to change our relationship with the planet" (Steffen et al., 2011, p. 757). What the people do and think is therefore highly relevant.

Summary in Swedish

Denna avhandling undersöker den svenska befolkningens attityder i förhållande till en ekosocial agenda utifrån ett hållbart välfärdsperspektiv. Forskare har länge angripit frågor om miljö och välfärd som två separata fält. De aktuella miljö- och klimatförändringarna visar dock att dessa två fält måste förstås i samklang med varandra om vi ska kunna ställa om till ett klimatneutralt samhälle där hållbar välfärd utgör ledordet. Ett välfärdsperspektiv är helt avgörande för att förstå på vilket sätt individers välfärd och välmående bidrar till de pågående klimatförändringarna men även för att förstå och förutse på vilket sätt klimatförändringar kommer att påverka människors livsvillkor. Denna typ av frågor skulle kunna hanteras i en ekosocial agenda. Avhandlingen knyter därför samman miljöattitydforskning och välfärdsattitydsforskning och undersöker allmänhetens stöd dels för övergripande politiska mål som är relaterade till en ekosocial agenda och dels för specifika ekosociala policyer. Avhandlingen analyserar vilken betydelse individernas socioekonomiska bakgrund, deras värderingar samt det kontextuella sammanhang de befinner sig i har för de attityder som uttrycks. Detta undersöks även i relation till vilken typ av politisk handling de är engagerade i (om alls).

Avhandlingen bidrar till det framväxande forskningsfält som fokuserar på skärningspunkten mellan klimatförändringar och socialpolitik och särskilt till forskning om attityder gentemot en ekosocial agenda. Avhandlingen bidrar också med kunskap i förhållande till den högst angelägna frågan om samhälleliga omställningsprocesser där strävan mot hållbar välfärd och förverkligandet av en ekosocial agenda kan ses som nyckelkomponenter i utvecklingen mot ett rättvist och klimatneutralt samhälle.

Avhandlingen baseras på fyra forskningsartiklar. Studien följer en kvantitativ forskningsdesign genom en unik tvärsnittsstudie med enkät som datainsamlingsmetod. Enkäten innehöll bland annat frågor om miljö- och välfärdspolitik, värderingar, politiskt deltagande och personliga bakgrundsfrågor om ekonomi, utbildning, osv. I enkätstudien tillämpades en slumpmässig och

stratifierad urvalsstrategi för att fånga respondenter i Stockholm, Göteborg, Malmö och Sverige i stort. I avhandlingens fyra delstudier tillämpades logistik regressionsanalys, multipel regressionsanalys och multipel korrespondensanalys.

Resultaten visar att en relativt stor andel av respondenterna uttrycker stöd för en ekosocial agenda och för vissa ekosociala policyer. Samtidigt är många respondenter skeptiska eller negativt inställda till såväl en ekosocial agenda som ekosociala policyer. Analyserna av de förklarande variablerna på individ- och kontextnivå visar att de teoretiska modellerna (homo economicus, homo sociologicus, homo locus och homo politicus) på olika sätt och i olika grad är förknippade med attityderna. De individer som uttrycker stöd för både miljö och välfärd och som därmed anses vara positivt inställda till en ekosocial agenda, tenderar exempelvis att ha hög utbildningsnivå, låg- till medelhög inkomstnivå, bo i större städer, värdera miljön högt, delta i olika former av politisk handling och placera sig till vänster på vänster-höger skalan. I motsats finner vi de individer som varken uttrycker stöd för miljö eller för välfärd och som tenderar att ha lägre utbildningsnivå, högre inkomstnivåer, bo i mindre städer eller på landsbygden, värdera miljön lägre, vara minst politiskt aktiva och placera sig till höger på vänster-höger skalan, osv. Politisk ideologi sticker ut som central och har högt förklaringsvärde.

Avhandlingen visar på en pågående politisk polarisering i förhållande till befolkningens attityder till en integrerad miljö- och välfärdsutveckling, där allmänheten är splittrad avseende stöd för en ekosocial agenda och för specifika ekosociala policyer. Studien visar därmed att det finns omfattande hinder som behöver överkommas för att driva samhällsutvecklingen mot ett system som erbjuder invånarna en välfärd som är hållbar. Det kan till exempel handla om att överbrygga attitydklyftor och att förändra den nuvarande politiska agendan. Avhandlingens resultat är således viktiga för att kunna förstå den omställningspotential som finns i det svenska samhället.

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Appendix 1-6

Appendix 1 - Survey Questionnaire

Miljö och välfärd

1. Det talas mycket om klimatförändringar nuförtiden. Vad tror du om följande?

	Stämmer helt och hållet	Stämmer till viss del	Stämmer knappast	Stämmer inte alls	Vet inte
Förbränning av olja orsakar koldioxidutsläpp	☐	☐	☐	☐	☐
Den globala koldioxidkoncentrationen i atmosfären har ökat under de senaste 250 åren	☐	☐	☐	☐	☐
Klimatförändringar orsakas till största delen av människan	☐	☐	☐	☐	☐
Klimatförändringar kommer att påverka min ekonomiska situation tydligt negativt de närmaste 25 åren	☐	☐	☐	☐	☐
Klimatförändringar kommer att påverka platsen där jag och min familj bor tydligt negativt	☐	☐	☐	☐	☐
Klimatförändringar kommer att påverka min hälsa tydligt negativt under de närmaste 25 åren	☐	☐	☐	☐	☐

2. Vad tycker du om följande miljöpolitiska förslag för att minska klimatförändringar?

	Mycket bra	Ganska bra	Varken bra eller dåligt	Ganska dåligt	Mycket dåligt	Vet inte	Vill inte svara
Högre skatt på fossila bränslen, som olja, gas och kol	☐	☐	☐	☐	☐	☐	☐
Subventionering av förnybar energi, som vindkraft och solkraft	☐	☐	☐	☐	☐	☐	☐
En lag som förbjuder försäljning av de minst energieffektiva hushållsapparaterna	☐	☐	☐	☐	☐	☐	☐
En skattefinansierad expansion av kollektivtrafiken	☐	☐	☐	☐	☐	☐	☐
En begränsning av biltrafiken i tätbefolkade områden	☐	☐	☐	☐	☐	☐	☐
Ökad skatt på hushållsel	☐	☐	☐	☐	☐	☐	☐
Subventioner på grön elektricitet	☐	☐	☐	☐	☐	☐	☐
En köttskatt	☐	☐	☐	☐	☐	☐	☐
En statligt finansierad informationskampanj i syfte att minska köttkonsumtion	☐	☐	☐	☐	☐	☐	☐
Högre skatter på det som är dåligt för miljön i kombination med lägre skatter på det som är bra för miljö	☐	☐	☐	☐	☐	☐	☐

3. Hur mycket av den elektricitet som används i Sverige bör komma från var och en av dessa källor?

	En mycket stor del	En stor del	En medel-stor del	En liten del	Ingen alls	Vet inte	Vill inte svara
Kol (svart- och brunkol)	☐	☐	☐	☐	☐	☐	☐
Naturgas	☐	☐	☐	☐	☐	☐	☐
Vattenkraft som alstras av strömmande vatten från älvar, dammar och hav	☐	☐	☐	☐	☐	☐	☐
Kärnkraft	☐	☐	☐	☐	☐	☐	☐
Solenergi eller solkraft	☐	☐	☐	☐	☐	☐	☐
Vindkraft	☐	☐	☐	☐	☐	☐	☐
Bioenergi som genereras från material som trä, växter och djuravföring	☐	☐	☐	☐	☐	☐	☐

4. I hur stor utsträckning instämmer du eller tar avstånd från följande påståenden?

	Instämmer helt och hållet	Instämmer	Varken instämmer eller tar avstånd	Tar avstånd	Tar starkt avstånd
Den så kallade "klimatkrisen" som vi människor står inför är väldigt överdriven	☐	☐	☐	☐	☐
Om saker och ting fortsätter som de gjort fram till nu kommer vi att stå inför en större miljökatastrof	☐	☐	☐	☐	☐
Naturen är känslig och dess balans kan lätt rubbas	☐	☐	☐	☐	☐
Jorden är som ett stort rymdskepp med begränsat utrymme och resurser	☐	☐	☐	☐	☐
Människan exploaterar och överutnyttjar jordens resurser	☐	☐	☐	☐	☐

5. Vad tycker du om följande välfärdspolitiska förslag?

	Mycket bra	Ganska bra	Varken bra eller dåligt	Ganska dåligt	Mycket dåligt	Vet inte
Återinföra förmögenhetsskatt, vilket innebär att förmögenheter (ex. bankkonton, fastigheter, aktier, m.m.) över en viss nivå ska beskattas.	☐	☐	☐	☐	☐	☐
Avskaffa all form av statlig inkomstskatt, vilket innebär att samtliga skattebetalare, oavsett om man är hög- eller låginkomsttagare, endast betalar kommunal inkomstskatt.	☐	☐	☐	☐	☐	☐
Införa en övre gräns på beskattningsbar inkomst från arbete, där all intjänad inkomst över exempelvis 1 500 000 kr per år ska beskattas till 100 procent.	☐	☐	☐	☐	☐	☐
Införa en så kallad basinkomst för alla medborgare, oavsett om man jobbar eller inte, utan krav på motprestation.	☐	☐	☐	☐	☐	☐
Införa en arbetstidsförkortning med två timmar per dag, vilket innebär att arbetstiden blir 6 timmar per dag istället för 8 timmar per dag.	☐	☐	☐	☐	☐	☐

6. Människor har olika uppfattningar om vilket ansvar den offentliga sektorn bör eller inte bör ha. Ange på en skala från 0 till 10 för vart och ett av följande områden hur stort ansvar du anser staten bör ha. *0 = Bör inte vara statens ansvar och 10 = Bör helt och hållet vara statens ansvar.*

	0	1	2	3	4	5	6	7	8	9	10	Vet inte	Vill inte svara
Se till att de äldre får en rimlig levnadsstandard?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Se till att de arbetslösa har en rimlig levnadsstandard?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Se till att förvärvsarbetande föräldrar får tillräcklig barnomsorg?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

7. I hur stor utsträckning instämmer du eller tar avstånd från att välfärdsstatliga bidrag och tjänster (ex. sjukvård, pensioner och socialförsäkringar) i Sverige ...

	Instämmer starkt	Instämmer	Varken instämmer eller tar avstånd	Tar avstånd	Tar starkt avstånd	Vet inte	Vill inte svara
... utgör en alltför stor belastning på ekonomin?	☐	☐	☐	☐	☐	☐	☐
... förhindrar utbredd fattigdom?	☐	☐	☐	☐	☐	☐	☐
... leder till ett mer jämlikt samhälle?	☐	☐	☐	☐	☐	☐	☐
... kostar företagen för mycket i skatter och avgifter?	☐	☐	☐	☐	☐	☐	☐
... gör människor lata?	☐	☐	☐	☐	☐	☐	☐
... kostar företagen för mycket i skatter och avgifter?	☐	☐	☐	☐	☐	☐	☐
... gör att människor blir mindre benägna att bry sig om varandra?	☐	☐	☐	☐	☐	☐	☐

8. I hur stor utsträckning instämmer du med eller tar avstånd från följande påståenden?

	Instämmer starkt	Instämmer	Varken instämmer eller tar avstånd	Tar avstånd	Tar starkt avstånd	Vet inte	Vill inte svara
För att samhället ska vara rättvist bör det vara små skillnader mellan människors levnadsstandard	☐	☐	☐	☐	☐	☐	☐
Stora inkomstskillnader är acceptabla för att man ska kunna belöna skillnader i förmåga och arbetsinsats på rätt sätt	☐	☐	☐	☐	☐	☐	☐
Regeringen och riksdagen bör vidta åtgärder för att minska inkomstskillnader	☐	☐	☐	☐	☐	☐	☐
Regeringen bör omfördela inkomster från hög- till låginkomsttagare	☐	☐	☐	☐	☐	☐	☐

9. Om du tänker på hur det ser ut idag i den kommun som du bor, i vilken utsträckning tycker du att kommunen ska prioritera och satsa mer på följande samhälls- och miljöfrågor?

	I mycket stor utsträckning	I ganska stor utsträckning	I ganska liten utsträckning	I mycket liten utsträckning	Vet inte
Grönområden	☐	☐	☐	☐	☐
Sociala program för att minska klyftor i samhället	☐	☐	☐	☐	☐
Kollektivtrafik	☐	☐	☐	☐	☐
Bostäder	☐	☐	☐	☐	☐
Luftkvaliteten	☐	☐	☐	☐	☐
Arbetsmarknaden	☐	☐	☐	☐	☐

10. Om 15 år, i vilken utsträckning tror du att den kommunen du bor i nu, kommer att stå inför följande sociala och miljömässiga utmaningar?

	I mycket stor utsträckning	I ganska stor utsträckning	I ganska liten utsträckning	I mycket liten utsträckning	Vet inte
Stigande havsnivåer	☐	☐	☐	☐	☐
Ökad ekonomisk ojämlikhet	☐	☐	☐	☐	☐
Försämrad välfärd (ex. äldre-, barn- och handikappomsorg)	☐	☐	☐	☐	☐
Förorenad luft	☐	☐	☐	☐	☐
Bostadsbrist	☐	☐	☐	☐	☐
Vattenbrist	☐	☐	☐	☐	☐
Etnisk segregation	☐	☐	☐	☐	☐

11. Om 15 år, i vilken utsträckning skulle du önska att staden/byn där du bor är...

	I mycket stor utsträckning	I ganska stor utsträckning	I ganska liten utsträckning	I mycket liten utsträckning
Grönare, där naturen har en större plats, exempelvis genom fler grönområden, vattendrag, etc.	☐	☐	☐	☐
Modernare, där den senaste tekniken och innovation får ett stort utrymme	☐	☐	☐	☐
Mer expansiv, med mer handel och företagande	☐	☐	☐	☐
En plats med mer personliga kontakter och relationer, exempelvis mellan grannar eller mellan andra människor	☐	☐	☐	☐
Mer inkluderande, där alla oavsett bakgrund känner gemenskap och tillhörighet	☐	☐	☐	☐
En plats med stark lokal- och medborgardemokrati, där medborgarna får vara med och bestämma	☐	☐	☐	☐

Framtid & åtgärder

12. I vilken utsträckning stämmer följande påståenden in på dig själv och din syn på framtiden?

	Stämmer helt	Stämmer delvis	Stämmer knappast	Stämmer inte alls
Jag funderar på hur saker och ting kommer att vara i framtiden och försöker påverka dessa genom hur jag lever mitt liv här och nu	☐	☐	☐	☐
Jag tycker det är viktigt att ta varningssignaler om negativa framtidsscenarier på allvar även om dessa inte kommer att inträffa på många år framöver	☐	☐	☐	☐
Jag är beredd att offra min lycka och mitt välmående här och nu för att uppnå framtida resultat	☐	☐	☐	☐
Jag tar endast hand om omedelbara bekymmer och tänker att saker och ting löser sig i framtiden	☐	☐	☐	☐
Jag tycker det är onödigt att avstå från någonting i nuläget då framtida frågor kan hanteras längre fram	☐	☐	☐	☐

13a. I vilken utsträckning bör följande aktörer ta ansvar för och lösa frågor om välfärd?

	I mycket stor utsträckning	I ganska stor utsträckning	I ganska liten utsträckning	I mycket liten utsträckning
Enskilda individer (mig själv inkluderat)	☐	☐	☐	☐
Föreningar och frivilligorganisationer	☐	☐	☐	☐
Privata företag	☐	☐	☐	☐
Kommunen	☐	☐	☐	☐
Regionala myndigheter (ex. länsstyrelser, landsting)	☐	☐	☐	☐
Staten (ex. regeringen och riksdagen)	☐	☐	☐	☐
EU	☐	☐	☐	☐
Internationella aktörer (ex. FN)	☐	☐	☐	☐

13b. I vilken utsträckning bör följande aktörer ta ansvar för och lösa frågor om klimat?

	I mycket stor utsträckning	I ganska stor utsträckning	I ganska liten utsträckning	I mycket liten utsträckning
Enskilda individer (mig själv inkluderat)	☐	☐	☐	☐
Föreningar och frivilligorganisationer	☐	☐	☐	☐
Privata företag	☐	☐	☐	☐
Kommunen	☐	☐	☐	☐
Regionala myndigheter (ex. länsstyrelser, landsting)	☐	☐	☐	☐
Staten (ex. regeringen och riksdagen)	☐	☐	☐	☐
EU	☐	☐	☐	☐
Internationella aktörer (ex. FN)	☐	☐	☐	☐

14. Hur stort förtroende har du för följande institutioner och aktörer?

	Mycket stort	Ganska stort	Varken stort eller litet	Ganska litet	Mycket litet
Regeringen	☐	☐	☐	☐	☐
Riksdagen	☐	☐	☐	☐	☐
Kommunen	☐	☐	☐	☐	☐
Politiska partier	☐	☐	☐	☐	☐
Fackföreningar	☐	☐	☐	☐	☐
Företag	☐	☐	☐	☐	☐
EU	☐	☐	☐	☐	☐
FN	☐	☐	☐	☐	☐

15. Hur mycket eller hur lite tror du att det går att påverka den lokala politiken i din kommun?

	Mycket	Ganska mycket	Inte särskilt	Inte alls	Vet inte
Genom att engagera mig enskilt kan jag påverka den lokala politiken i min kommun	☐	☐	☐	☐	☐
Gemensamt organiserade medborgare kan påverka den lokala politiken i min kommun	☐	☐	☐	☐	☐

16. I vilken utsträckning instämmer du med följande påståenden?

	Mycket	Ganska mycket	I viss mån	Inte särskilt	Inte alls
Att rädda miljön måste prioriteras, även om det leder till att tillväxten minskar och en del jobb försvinner	☐	☐	☐	☐	☐
Det är viktigare att prioritera den sociala välfärden, även om det leder till minskade resurser för att bekämpa klimatförändringar	☐	☐	☐	☐	☐
Åtgärder för att minska utsläppen av växthusgaser får inte leda till att vi får en sämre social välfärd	☐	☐	☐	☐	☐
Det är viktigare att tillgodose individers levnadsstandard än att rädda miljön	☐	☐	☐	☐	☐
Man kan lita på att den moderna vetenskapen kan lösa våra miljöproblem	☐	☐	☐	☐	☐
Man kan lita på att nationella regeringar kan lösa våra miljöproblem	☐	☐	☐	☐	☐
Man kan lita på att företagen och marknaden kan lösa våra miljöproblem	☐	☐	☐	☐	☐
Klimatförändringarna måste i första hand stoppas genom individers frivilliga förändringar av sin livsstil	☐	☐	☐	☐	☐
Regeringen måste agera utifrån vad klimatforskarna säger, även om majoriteten av medborgarna är emot	☐	☐	☐	☐	☐

17. Det finns många olika saker man kan göra för att förhindra klimatförändringar och åstadkomma samhällsförändring. Vilken eller vilka saker har du gjort under de senaste 12 månaderna? Om du inte har gjort något, vad skulle du kunna tänka dig eller inte tänka dig att göra? *Ange endast ett svar per rad.*

	Har gjort de senaste 12 månaderna	Kan tänka mig att göra	Kan inte tänka mig att göra	Vill inte svara
Betalat mer i boendekostnader för mer miljövänliga åtgärder, exempelvis investerat i mer effektiv värmeisolering, solpaneler, etc.	☐	☐	☐	☐
Sänkt temperaturen i mitt hem under vintertid	☐	☐	☐	☐
Slutat äta kött	☐	☐	☐	☐
Slutat flyga	☐	☐	☐	☐
Klimatkompenserat	☐	☐	☐	☐
Kontaktat en politiker eller en tjänsteman	☐	☐	☐	☐
Skänkt pengar till en politisk organisation eller grupp	☐	☐	☐	☐
Skrivit insändare	☐	☐	☐	☐
Skrivit på sociala medier	☐	☐	☐	☐
Deltagit en demonstration	☐	☐	☐	☐
Deltagit i en miljödemonstration	☐	☐	☐	☐
Deltagit i en global klimatstrejk, s.k. Global climate strike for future	☐	☐	☐	☐
Deltagit i en 1 maj-demonstration	☐	☐	☐	☐
Deltagit i en arbetsplatsstrejk	☐	☐	☐	☐
Deltagit i olika slags fredliga protestaktioner (t.ex. blockerat eller ockuperat en gata eller en byggnad, eller någon annan form av fredlig civil olydnad)	☐	☐	☐	☐
Deltagit i våldsamma protestaktioner, där våld har använts mot människor eller egendom	☐	☐	☐	☐

18. Nedan beskrivs kortfattat några personer. Hur mycket liknar de här personerna dig?

	Är inte alls som jag 1	2	3	4	5	6	Är väldigt mycket som jag 7
Det är viktigt för henne/honom att förhindra miljöföroreningar	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att skydda naturen och miljön	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att respektera naturen	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att vara en del av naturen	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att alla har lika möjligheter	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att ha hand om de som har det sämre ställt	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att alla behandlas rättvist	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att det inte finns några krig eller konflikter	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att vara hjälpsam mot andra	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att ha kontroll över vad andra gör	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att bestämma över andra	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att vara inflytelserik	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att vara rik och ha många ägodelar	☐	☐	☐	☐	☐	☐	☐
Det är viktigt för henne/honom att arbeta hårt och vara ambitiös	☐	☐	☐	☐	☐	☐	☐

Till sist några frågor om dig själv

19. Vänligen fyll i ditt postnummer:

└┴┴┴┘ └┴┴┘

20. Identifierar du dig som:

☐ Kvinna ☐ Man ☐ Annan könsidentitet

21. Vilket år är du född?

└┴┴┴┴┘

22. Har du barn under 18 år?

☐ Ja ☐ Nej

23. Ungefär hur stor, normalt sett, är din egen månadsinkomst före skatt?
Kryssa ett alternativ.

☐ 0 – 14 999 kr
☐ 15 000 – 29 999 kr
☐ 30 000 – 44 999 kr
☐ 45 000 – 59 999 kr
☐ 60 000 – 74 999 kr
☐ 75 000 – 89 999 kr
☐ 90 000 – 104 999 kr
☐ 105 000 – 119 999 kr
☐ 120 000 kr eller mer
☐ Vill inte svara

24. Vilken är den ungefärliga sammanlagda månadsinkomsten för samtliga personer i ditt hushåll före skatt? *Pension, studiemedel etc. ska räknas in. Kryssa ett alternativ.*

☐ 0 – 14 999 kr
☐ 15 000 – 29 999 kr
☐ 30 000 – 44 999 kr
☐ 45 000 – 59 999 kr
☐ 60 000 – 74 999 kr
☐ 75 000 – 89 999 kr
☐ 90 000 – 104 999 kr
☐ 105 000 – 119 999 kr
☐ 120 000 kr eller mer
☐ Vill inte svara

25. Var någonstans har du, respektive dina föräldrar, huvudsakligen vuxit upp?

	Du själv	Förälder 1	Förälder 2
Ren landsbygd i Sverige	☐	☐	☐
Mindre tätort i Sverige	☐	☐	☐
Stad eller större tätort i Sverige	☐	☐	☐
Stockholm, Göteborg eller Malmö	☐	☐	☐
Annat land i Norden	☐	☐	☐
Annat land i Europa	☐	☐	☐
Annat land utanför Europa	☐	☐	☐

26. I vilket land är du, respektive dina föräldrar, födda?

	Du själv	Förälder 1	Förälder 2
Sverige	☐	☐	☐
Annat, vilket?	☐ _____	☐ _____	☐ _____

27. Vilken är din högsta avslutade utbildning? Med avslutad menas att du tagit examen/gått färdigt. Om du studerar, ange den utbildningsnivå som du får efter avslutade studier.
Kryssa ett alternativ.

- ☐ Ingen
- ☐ Folkskola
- ☐ Grundskola
- ☐ Gymnasium
- ☐ Annan eftergymnasial utbildning
- ☐ Universitet eller högskola
- ☐ Forskarutbildning
- ☐ Annan utbildning: _____

28. Vilken är din huvudsakliga sysselsättning just nu?
Kryssa ett alternativ.

- ☐ Förvärvsarbetar på heltid (inkl. föräldraledighet eller annan tillfällig ledighet)
- ☐ Förvärvsarbetar på deltid (inkl. föräldraledighet eller annan tillfällig ledighet)
- ☐ Frilans eller egenföretagare (utan anställda)
- ☐ Egenföretagare med anställda
- ☐ Studerar på heltid
- ☐ Arbetslös
- ☐ Ålders- eller förtidspensionerad
- ☐ Sköter eget hushåll
- ☐ Annan sysselsättning. Vilken? _____

29. Har du eller har du haft någon arbetsledande funktion för andra (eller dina egna) anställda på ditt huvudsakliga arbete?

☐ Ja
☐ Nej

30. Vilket är eller har varit ditt senaste yrke?

31. Har du under de senaste 12 månaderna varit med i någon av nedanstående typer av organisationer? Ange om du varit passiv eller aktiv medlem.
Du kan kryssa i flera organisationstyper.

	Passiv medlem (betalar avgift)	Aktiv medlem	Inte medlem	Vill inte svara
Fackförening	☐	☐	☐	☐
Politiskt parti	☐	☐	☐	☐
Feministisk eller kvinnoorganisation	☐	☐	☐	☐
Idrotts-/friluftsförening	☐	☐	☐	☐
Miljöorganisation	☐	☐	☐	☐
Byalag eller kvartersförening	☐	☐	☐	☐
Invandrarförening	☐	☐	☐	☐
Pensionärsförening	☐	☐	☐	☐
Kulturförening	☐	☐	☐	☐
Humanitär organisation eller välgörenhetsorganisation	☐	☐	☐	☐
Människorättsorganisation	☐	☐	☐	☐
Annan organisation:	☐	☐	☐	☐

32. När det gäller politik talar man ofta om vänster och höger. Hur skulle du vilja placera dig själv på den här skalan?

Klart till vänster	Något till vänster	Varken till vänster/höger	Något till höger	Klart till höger	Vet inte	Vill inte svara
☐	☐	☐	☐	☐	☐	☐

33. Vilket parti tycker du bäst om idag?

- ☐ Centerpartiet
- ☐ Kristdemokraterna
- ☐ Liberalerna
- ☐ Miljöpartiet
- ☐ Moderaterna
- ☐ Socialdemokraterna
- ☐ Sverigedemokraterna
- ☐ Vänsterpartiet
- ☐ Inget parti
- ☐ Vet inte
- ☐ Annat parti: _____

34. Anser du dig vara en övertygad anhängare av detta parti?

Ja, mycket övertygad	Ja, något övertygad	Nej
☐	☐	☐

35. Tillhör du någon av följande religioner?

	Nej	Ja, fast jag har inte varit på gudstjänst eller möte under de senaste 12 månaderna	Ja, och jag har varit på gudstjänst eller möte under de senaste 12 månaderna	Vill inte svara
Buddhism	☐	☐	☐	☐
Hinduism	☐	☐	☐	☐
Islam	☐	☐	☐	☐
Judendom	☐	☐	☐	☐
Kristendom	☐	☐	☐	☐
Annan: _____	☐	☐	☐	☐

36. På det stora hela, hur nöjd är du med ditt liv?

Inte alls nöjd									Mycket nöjd
1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

37. Har du något ytterligare som du vill framföra är du välkommen att skriva det här.

Stort tack för din medverkan!

Appendix 2 – Background Survey Questions

Number	Survey question	Source
1.	Knowledge about climate change	Shi et al. (2016). Also, see Hu et al. (2017); Rhodes et al. (2017); Zahran et al. (2006)
	Concern about climate change	Hu et al. (2017). Also, see Kachi et al. (2015); O'Connor et al. (2002); Rhodes et al. (2017); Zahran et al. (2006)
2.	Environmental policies	European Social Survey (2016), Linde (2018)
3.	Environmental policies – electricity and energy	European Social Survey (2016)
4	New ecological paradigm (NEP), i.e. Human-environment relationships	Dunlap et al. 2000; Also, see Dietz et al. (2007), Rhodes et al. (2017).
5.	Welfare policies	Own construction, plus European Social Survey (2016), University of Gothenburg, SOM Institute (2017)
6.	Welfare policy and the government's role in providing welfare	European Social Survey (2016). Similar in Bean & Papadakis (1998); Calzada et al., 2014; Blekesaune & Quadagno, 2003; Linos & West, 2003; Svallfors (2012a)
7.	Welfare policy – social benefits and services	European Social Survey (2016)
8.	Welfare policy – social justice and redistribution	European Social Survey (2016), de Moor et al. (2020), Wahlström et al. (2019)
9.	Prioritising in the city	Own construction. Inspiration from Gilboa et al. (2015)
10.	Future challenges in the city	Own construction. Inspiration from Gilboa et al. (2015)
11.	Visions about the future city	Own construction
12.	Future concerns	Dietz et al. (2007); Hu et al. (2017)
13.	Responsible actors for taking care of welfare and environmental issues	Own construction
14.	Institutional trust	de Moor et al. (2020), Wahlström et al. (2019)
15.	Impact on local politics	Inspiration from de Moor et al. (2020), Wahlström et al. (2019)
16.	Solving environmental problems	de Moor et al. (2020), Wahlström et al. (2019) plus own construction

17.	Political action to prevent climate change and promote to societal change	Inspiration from de Moor et al. (2020), Wahlström et al. (2019). See also O'Connor et al. (2002); Wynes & Nicholas (2017)
18.	Biospheric, altruistic, and egoistic values	Bouman et al. (2018). See also Steg et al. (2005); Calzada et al. (2014); Dietz et al. (2007); European Social Survey. (2016); de Groot et al. (2012); Harring et al. (2017); Rhodes et al. (2017); Schwartz (1992).
19.	Postal codes	-
20.	Gender	de Moor et al. (2020), Wahlström et al. (2019)
21.	Age	University of Gothenburg, SOM Institute (2017)
22.	Children under 18 years old	Inspiration from University of Gothenburg, SOM Institute (2017)
23.	Individual income	Inspiration from University of Gothenburg, SOM Institute (2017)
24.	Household income	Inspiration from University of Gothenburg, SOM Institute (2017)
25.	Upbringing city/country	Inspiration from University of Gothenburg, SOM Institute (2017)
26.	Ethnicity	Inspiration from European Values Survey (2008)
27.	Education	de Moor et al. (2020), Wahlström et al. (2019)
28.	Employment	de Moor et al. (2020), Wahlström et al. (2019)
29.	Management position	de Moor et al. (2020), Wahlström et al. (2019)
30.	Profession	de Moor et al. (2020), Wahlström et al. (2019). See also University of Gothenburg, SOM Institute (2017)
31.	Membership in organisation	Inspiration from de Moor et al. (2020), Wahlström et al. (2019), see also University of Gothenburg, SOM Institute (2017)
32.	Self-placement left-right scale	University of Gothenburg, SOM Institute (2017)
33.	Party identification	University of Gothenburg, SOM Institute (2017)
34.	Party identification	University of Gothenburg, SOM Institute (2017)
35.	Religion	Inspiration from University of Gothenburg, SOM Institute (2017)
36.	Life satisfaction	University of Gothenburg, SOM Institute (2017)
37.	Open question	-

Appendix 3 – Pilot study

In total, 22 individuals responded to the pilot survey, both women and men who were around 28–58 years old, and mostly Swedish born with a university degree. Due to time constraints, colleagues and acquaintances were invited to the pilot study. Even though time was a decisive factor for inviting colleagues and acquaintances, in retrospect it would have been wise to spend some more time on the pilot study and specifically try to include individuals with lower educational attainment and individuals who did not have Swedish as their mother tongue.

The participants provided feedback directly in the pilot survey, as there was space for comments beneath every question/statement. In general, some participants thought the survey was too long and that some questions/statements were difficult to understand. Therefore some questions were deleted (e.g., questions about place attachment, means of transportation) and others were compromised or changed. For instance, some participants did not understand what we meant by a 'green tax shift' ('grön skatteväxling' in Swedish) and thus in the last item in question 2 we changed it to 'higher taxes on what is bad for the environment in combination with lower taxes on what is good for the environment'. However, some questions and statements were not changed even though we got some comments about them, and in general this had to do with the fact that they were replicated from previous research and survey studies (e.g., question 6–8[1]) and that we had some thoughts about comparing our results and/or data with previous research. Also, in

[1] When it comes to survey question 6, which comes from the European Social Survey (2016), some participants commented on the fact that we asked about the role of the government in relation to childcare and elderly services. In the original ESS survey question, the government is translated into the state in the Swedish version, which is correct. However, in a Swedish context it would have been more appropriate to talk about the public sector, since, for instance, childcare service is an issue for Swedish municipalities and not the state. Thus, we had the intention to change the 'state' to the 'public sector', but we failed to do that correctly and instead the survey question contained both the public sector and the state. The results from this thesis's survey study have been compared with results with the results from the Swedish sample in the last ESS, and it follows the same pattern. Thus, the use of different concepts in the question did not seem to have affected the respondents substantially.

deleting some survey items it created space for inserting an item battery regarding basic human values (question 18[2]), which have been included in both environmental and welfare attitude research previously (e.g., Bouman et al., 2018; Kulin & Svallfors, 2013). Moreover, many participants in the pilot study were also asking for more 'I don't know' and 'I don't want to answer' options than we originally had because we wanted to avoid getting a lot of answers that would be coded as missing.

[2] A typo in the survey item 6 has been found: "Det är viktigt för henne/honom att *ha* hand om de som har det sämre ställt". It should be 'ta' and not 'ha'. By controlling for Cronbach's alpha and correlations for the items measuring altruistic values it did not seem to have any impact on the results.

Appendix 4 – Letters and reminders

LUNDS UNIVERSITET

Hållbar välfärd

Enkätstudie

Du har blivit slumpmässigt utvald att delta i en enkätstudie som är en del av ett forskningsprojekt om hållbar välfärd, det vill säga hur mänskliga behov kan tillfredsställas inom ekologiska gränser. Forskningshuvudman är Lunds universitet. För mer information om forskningsprojektet – **"Den nya urbana utmaningen? Hållbara välfärdsmodeller i de svenska storstäderna"** – se vår hemsida:
www.soch.lu.se/forskning/aktuellaprojekt/den_nya_urbana_utmaningen

Enkätstudien syftar till att undersöka och förklara attityder och inställningar till hållbar välfärd.

Hur går studien till?

Forskningsprojektet genomförs i form av en enkätstudie.
Det finns möjlighet att fylla i en pappersenkät eller en webbenkät.
Det tar ungefär 20–30 min att fylla i enkäten.

För att svara på webben går du in på följande länk: **www.enkat.net/hallbar**

Använd följande **kod**
för att svara på webben:

eller skanna **QR-koden**:

SUPPORT

För avregistrering eller teknisk support,
kontakta Enkätfabriken på:
support@enkatfabriken.se / 020 121028

ANSVARIGA FÖR STUDIEN

Max Koch (ansvarig huvudforskare)
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Lunds universitet
Samhällsvetenskapliga fakulteten
Socialhögskolan
Box 23, 221 00 Lund
Besöksadress: Allhelgona kyrkogata 8

Detaljerad information om undersökningen

Möjliga följder och risker med att delta i studien

I samband med hantering av personuppgifter finns det alltid en risk för integritetsintrång och att obehöriga får tillgång till data. Utifrån de åtgärder som beskrivs nedan (se 'Vad händer med mina uppgifter') bedömer vi riskerna att delta i enkätstudien som nästintill obefintliga.

Vad händer med mina uppgifter?

Projektet kommer att samla in och registrera information om dig. Dina svar och dina resultat kommer att behandlas så att inte obehöriga kan ta del av dem. Förutom de uppgifter och svar som du lämnar i enkäten kommer projektet att samla in personuppgifter i form av folkbokföringsadress, ålder, kön och telefonnummer. Detta för att kunna göra ett representativt och slumpmässigt urval av forskningspersoner, samt för att kunna skicka ut påminnelser via SMS. Datainsamlingen genomförs av Enkätfabriken AB som ansvarar för distribution och insamling av enkäterna, samt sammanställning av resultaten. Ett personbiträdesavtal mellan Lunds universitet och Enkätfabriken AB har upprättats. Dina personuppgifter behandlas i enlighet med Dataskyddsförordningen (GDPR). Den rättsliga grunden för behandlingen av personuppgifter enligt art. 6 EU:s dataskyddsförordning, GDPR, är att behandlingen sker för att utföra en uppgift av allmänt intresse. Projektet har utformats för att minimera riskerna för dataintrång och för att kunna koppla enkätsvaren till enskilda individer.

Följande åtgärder *innan* och *under* datainsamlingen minimerar riskerna: 1) Mottagande av personuppgifter från Statens personregister (SPAR) samt utbyte av personuppgifter med underleverantörer, som trycker och postföretag, sker via säkra och krypterade system. 2) Postala enkäter skannas in i Enkätfabriken AB:s egen inskanningscentral. 3) Personuppgifter lagras i en separat del av Enkätfabrikens krypterade filsystem med begränsad åtkomst. 4) Webbenkätverktyget driftas på Enkätfabrikens egna servrar. 5) Alla inskickade enkätsvar avpersonifieras genom att en unik kod kopplas till varje individ i urvalet. Det betyder att inga svar från enkäten kan kopplas till en enskild individ.

Följande åtgärder ***efter*** datainsamlingen minimerar riskerna: 1) Data som innehåller personuppgifter raderas senast 8 veckor efter undersökningens avslutande. Efter denna period tas alla personuppgifter kopplade till projektet bort, vilket gör att det inte längre finns någon möjlighet alls att koppla svaren till enskilda individer. 2) Datafilen som innehåller enkätsvaren förvaras på ett speciellt skyddat USB eller en extern hårddisk. 3) Den statistiska bearbetningen av data görs på en dator som inte är uppkopplad mot internet. 4) Endast aggregerade data och generella mönster redovisas i samband med publikationer.

Ansvarig för dina personuppgifter är Lunds universitet. Enligt EU:s dataskyddsförordning har du rätt att kostnadsfritt få ta del av de uppgifter om dig som hanteras i studien, och vid behov få eventuella fel rättade. Du kan också begära att uppgifter om dig raderas samt att behandlingen av dina personuppgifter begränsas. Om du vill ta del av uppgifterna ska du kontakta Max Koch, ansvarig huvudforskare, (e-post: max.koch@soch.lu.se, telefon: 046-222 12 68) eller Kajsa Emilsson (e-post: kajsa.emilsson@soch.lu.se, telefon: 046-222 92 38). Dataskyddsombud nås på: dataskyddsombud@lu.se. Om du är missnöjd med hur dina personuppgifter behandlas har du rätt att lämna in klagomål till Datainspektionen, som är tillsynsmyndighet.

Hur får jag information om resultatet av studien?

I första hand kommer undersökningen att presenteras i form av vetenskapliga artiklar i internationella tidskrifter. Studien presenteras även som en del av Kajsa Emilssons doktorsavhandling vid Lunds universitet, Socialhögskolan. Undersökningen kommer också att presenteras och spridas på andra sätt, i form av rapporter, presentationer på seminarier och konferenser m m.

Deltagandet är frivilligt

Ditt deltagande är frivilligt och du kan när som helst välja att avbryta. Om du väljer att inte delta eller vill avbryta ditt deltagande behöver du inte uppge varför. Ett avbrytande innebär inga konsekvenser för dig.

Samtycke till att delta i studien

Genom att skicka in pappersenkäten samtycker du till att delta i undersökningen. Samtycke lämnas även i samband med att webbenkäten påbörjas. Du kan välja att avbryta ditt deltagande fast du påbörjat webbenkäten.

LUNDS UNIVERSITET

B

SVERIGE
PORTO BETALT
PORT PAYÉ

Enkätstudie

Hej! Du har blivit slumpmässigt utvald att delta i en enkätstudie, som är en del av forskningsprojektet "Den nya urbana utmaningen". Projektet handlar om hållbar välfärd, det vill säga hur mänskliga behov kan tillfredsställas inom ekologiska gränser.

Inom kort kommer vi att skicka hem en pappersenkät till dig. Du kommer även att ha möjlighet att svara via webben.
Vi hade uppskattat om du vill svara.
Stort tack på förhand!

LUNDS
UNIVERSITET

B

SVERIGE
PORTO BETALT
PORT PAYÉ

Enkätstudie

Hej! För ett tag sedan fick du hem en enkät från oss. Eftersom vi saknar svar från dig kommer här en påminnelse. Vi kommer skicka ut en ny pappersenkät inom kort, men du kan också besvara den via webben på: **www.enkat.net/hallbar**
Använd följande kod för att svara:

Du kan också skanna QR-koden:

Enkätstudien är en del av forskningsprojektet "Den nya urbana utmaningen" och du har blivit slumpmässigt utvald. Projektet handlar om hållbar välfärd, det vill säga hur mänskliga behov kan tillfredsställas inom ekologiska gränser.

Vi hade uppskattat om du vill svara. Stort tack på förhand!

LUNDS
UNIVERSITET

Sms reminder 9 February 2020

Hej! För ett tag sedan fick du hem en enkät från Lunds universitet om hållbar välfärd. Vi hoppas att du vill svara på vår enkät så att vi kan förstå mer om hur klimatomställningen av samhället kan gå till. Eftersom vi saknar ditt svar kommer här en påminnelse. Ditt svar är viktigt och kan inte ersättas av någon annans. Du når webbenkäten här: …

Sms reminder 20 February 2020

Hej! För ett tag sedan fick du hem en enkät från Lunds universitet om hållbar välfärd. Eftersom vi fortfarande saknar ditt svar kommer här en påminnelse. Vi hoppas att du vill svara på vår enkät så att vi kan förstå mer om hur klimatomställningen av samhället kan gå till. Ditt svar är viktigt och kan inte ersättas av någon annans. Du når webbenkäten här: …"

Hej kära Malmöbo! För ett tag sedan fick du hem en enkät från Lunds universitet om hållbar välfärd. Eftersom vi fortfarande saknar ditt svar kommer här en påminnelse. Enkätstudien görs i Malmö, Göteborg och Stockholm. Ditt svar är viktigt eftersom just du kan hjälpa oss att förstå vad invånare i Malmö tycker om miljö och välfärd. Du når webbenkäten här: …"

Sms reminder 23 March 2020

Hej! För ett tag sedan fick du hem en enkät från Lunds universitet om hållbar välfärd. Vi skickar nu en sista påminnelse och hoppas att just du vill svara på vår enkät så att vi kan förstå mer om hur klimatomställningen av samhället kan gå till. Ditt svar är viktigt och kan inte ersättas av någon annans. Du når webbenkäten här: …

Hej kära Malmöbo! För ett tag sedan fick du hem en enkät från Lunds universitet om hållbar välfärd. Vi skickar nu en sista påminnelse. Enkätstudien görs i Malmö, Göteborg och Stockholm. Ditt svar är viktigt eftersom just du kan hjälpa oss att förstå vad invånare i Malmö tycker om miljö och välfärd. Du når webbenkäten här: …

Appendix 5 – Descriptive statistics

Table 1. Responses for the item battery 'Welfare policy instruments'

Items	Very good	Fairly good	Neither good nor bad	Quite bad	Very bad	Don't know	Missing	n
Reintroduce a wealth tax, which means that assets (e.g., bank accounts, property, shares, etc.) would be taxed above a certain threshold	347 (23%)	289 (19%)	191 (13%)	209 (14%)	364 (24%)	76 (5%)	53 (4%)	1529
Introduce a cap on income from employment, where gross wages of over, for example, 1,500,000 SEK (equals about 150,000 EUR) would be taxed at 100%	131 (9%)	187 (12%)	169 (11%)	277 (18%)	503 (33%)	204 (13%)	58 (4%)	1529
Introduce a so-called basic income for all citizens, regardless if one is working or not, and without requirement to work in return	126 (8%)	166 (11%)	138 (9%)	251 (16%)	655 (43%)	136 (9%)	57 (4%)	1529
Introduce a working time reduction with two hours per day, which means that the total working day would be six hours instead of eight	431 (28%)	353 (23%)	203 (13%)	187 (12%)	217 (14%)	84 (6%)	54 (4%)	1529

Note: The survey question was 'What do you think of the following welfare policy proposals?'

Table 2. Responses for the item battery 'Role of government'

Items	Scale 0-1 (Should not be govts' responsibility at all = 0)	Scale 2-3	Scale 4-6	Scale 7-8	Scale 9-10 (Should be entirely govts' responsibility = 10)	Don't know	Don't want to answer	Missing	n
Ensure a reasonable standard of living for the old	4 (< 1%)	13 (1%)	99 (7%)	438 (29%)	887 (58%)	23 (2%)	11 (1%)	54 (4%)	1529
Ensure a reasonable standard of living for the unemployed	23 (2%)	83 (5%)	428 (28%)	433 (28%)	455 (30%)	31 (2%)	22 (1%)	54 (4%)	1529
Ensure sufficient child care services for working parents	17 (1%)	36 (2%)	209 (14%)	387 (25%)	749 (49%)	62 (4%)	12 (1%)	57 (4%)	1529

Note: The survey question was 'People have different views on what the responsibilities of the government should or should not be. Indicate on a score of 0-10 how much responsibility you think the government should have when it comes to:'

Table 3. Responses for the item battery 'Social benefits'

Items	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know	Don't want to answer	Missing	n
Place too great strain on the economy	49 (3%)	198 (13%)	280 (18%)	450 (29%)	346 (23%)	112 (7%)	28 (2%)	66 (4%)	1529
Prevent widespread poverty	283 (19%)	663 (43%)	259 (17%)	81 (5%)	28 (2%)	119 (8%)	34 (2%)	62 (4%)	1529
Prevent widespread poverty	283 (19%)	663 (43%)	259 (17%)	81 (5%)	28 (2%)	119 (8%)	34 (2%)	62 (4%)	1529
Lead to a more equal society	294 (19%)	598 (39%)	293 (19%)	115 (8%)	34 (2%)	96 (6%)	28 (2%)	72 (5%)	1529
Cost businesses too much in taxes and charges	65 (4%)	203 (13%)	395 (26%)	413 (27%)	192 (13%)	168 (11%)	28 (2%)	65 (4%)	1529
Make people lazy	106 (7%)	282 (18%)	347 (23%)	338 (22%)	252 (17%)	114 (8%)	30 (2%)	60 4%)	1529

Note: The survey question was 'To what extent do you agree or disagree that social benefits and services (e.g., health care, pensions and social security) in Sweden…'

Table 4. Responses for the item battery 'Social justice'

Items	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know	Don't want to answer	Missing	n
For a society to be fair, differences in people's standard of living should be small	191 (13%)	457 (30%)	360 (24%)	307 (20%)	96 (6%)	44 (3%)	18 (1%)	56 (4%)	1529
Large differences in people's incomes are acceptable to properly reward differences in talents and efforts	168 (11%)	553 (35%)	354 (23%)	244 (16%)	94 (6%)	59 (4%)	18 (1%)	59 (4%)	1529
The government should take measures to reduce differences in income levels	248 (16%)	444 (29%)	336 (22%)	251 (16%)	112 (7%)	56 (4%)	22 (1%)	60 (4%)	1529
Government should redistribute income from the better off to those who are less well-off	187 (12%)	300 (20%)	344 (23%)	319 (21%)	199 (13%)	98 (6%)	21 (1%)	61 (4%)	1529

Note: The survey question was 'To what extent do you agree or disagree with each of the following statements?'

Table 5. Responses for the item battery 'Environmental policy instruments'

Items	Very good	Fairly good	Neither good nor bad	Quite bad	Very bad	Don't know	Don't want to answer	Missing	n
Increase taxes on fossil fuels	523 (34%)	425 (28%)	222 (15%)	153 (10%)	129 (8%)	38 (3%)	22 (1%)	17 (1%)	1529
Using public money to subsidise renewable energy	869 (57%)	416 (27%)	94 (6%)	51 (3%)	38 (3%)	31 (2%)	21 (1%)	9 (1%)	1529
A law banning the sale of the least energy efficient household appliances	381 (25%)	482 (32%)	284 (19%)	180 (12%)	83 (5%)	85 (6%)	18 (1%)	16 (1%)	1529
A tax-financed expansion of public transportation	715 (47%)	410 (27%)	186 (12%)	77 (5%)	50 (3%)	60 (4%)	22 (1%)	9 (1%)	1529
A limitation of car traffic in densely populated areas	497 (33%)	457 (30%)	239 (16%)	177 (12%)	93 (6%)	36 (2%)	19 (1%)	11 (1%)	1529
A tax increase on household electricity	72 (5%)	190 (12%)	312 (20%)	431 (28%)	418 (27%)	74 (5%)	18 (1%)	14 (1%)	1529
A subsidy on green electricity	561 (37%)	515 (34%)	204 (13%)	77 (5%)	65 (4%)	75 (5%)	19 (1%)	13 (1%)	1529
A tax on meat	233 (15%)	286 (19%)	243 (16%)	268 (18%)	392 (26%)	67 (4%)	22 (1%)	18 (1%)	1529
A state sponsored information campaign to reduce meat consumption	248 (16%)	330 (22%)	321 (21%)	248 (16%)	290 (19%)	63 (4%)	19 (1%)	10 (1%)	1529
Increased taxes on environmentally harmful activities and goods and lower taxes on environmentally friendly activities and goods	537 (35%)	530 (35%)	227 (15%)	84 (6%)	74 (5%)	52 (3%)	17 (1%)	8 (1%)	1529

Note: The survey question was 'What do you think of the following environmental policy proposals to reduce climate change?'

Table 6. Responses for the item battery 'Energy preferences'

Items	A very large amount	A large amount	A medium amount	A small amount	None at all	Don't know	Don't want to answer	Missing	n
Solar power	772 (51%)	403 (26%)	176 (12%)	93 (6%)	7 (1%)	45 (3%)	14 (1%)	19 (1%)	1529
Wind power	698 (46%)	420 (28%)	208 (14%)	96 (14%)	27 (2%)	42 (3%)	15 (1%)	23 (2%)	1529
Biomass energy generated from materials like wood, plants, and animal excrement	379 (25%)	365 (24%)	266 (24%)	218 (14%)	37 (2%)	131 (9%)	14 (1%)	19 (1%)	1529

Note: The survey question was 'How much of the electricity used in Sweden should be generated from each energy source?'

Table 7. Responses for the item battery 'New Ecological Paradigm'

Items	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Missing	n
The so-called 'ecological crisis' facing humankind has been greatly exaggerated	91 (6%)	211 (14%)	304 (20%)	400 (26%)	508 (33%)	15 (1%)	1529
If things continue on their present course, we will soon experience a major ecological catastrophe	628 (41%)	537 (35%)	249 (16%)	66 (4%)	29 (2%)	20 (1%)	1529
Nature is sensitive and its balance can be easily disturbed	600 (39%)	646 (42%)	215 (14%)	38 (3%)	13 (1%)	17 (1%)	1529
The earth is like a spaceship with limited room and resources	641 (42%)	591 (39%)	218 (14%)	35 (2%)	26 (2%)	18 (1%)	1529
Humans are severely abusing the environment	875 (57%)	484 (32%)	122 (8%)	17 (1%)	16 (1%)	15 (1%)	1529

Note: The survey question was 'To what extent do you agree or disagree with each of the following statements?'

Table 8. Responses for 'Educational attainment'

Item	None, did not complete primary school	Primary school	Lower secondary school	Higher secondary school	Post-secondary education (not university)	University	PhD	Other	Missing	n
Highest level of education completed	4 (< 1%)	37 (2%)	85 (6%)	305 (20%)	184 (12%)	689 (45%)	50 (3%)	14 (1%)	161 (11%)	1529

Note: The survey question was 'Which is the highest level of education that you completed? With completed means that you have graduated. If you are studying, indicate the level of education that you will obtain after completing your studies'

Table 9. Responses for 'Employment/occupation'

Item	Fulltime work*	Part-time work*	Freelance/ self-employed	Self-employed with employed staff	Studying fulltime	Un-employed	Retired (old-age or early retirement)	Housewife/ man	Other	Missing	n
Main occupation	624 (41%)	108 (7%)	75 (5%)	41 (3%)	84 (6%)	35 (2%)	374 (25%)	9 (1%)	13 (1%)	166 (11%)	1529

Note: The survey question was 'What is your main occupation right now?'. *Including maternity leave or other temporary absence.

Table 10. Responses for 'Personal income'

Item	Minimum	Maximum	Mean	Median	SD	Missing	n
Personal income	0	300,000	32,801	30,000	20,699	280 (18%)	1529

Note: The survey question was 'Approximately, how large in general is your personal income per month before taxes?'

Table 11. Responses for the item battery 'Basic human values'

Items	1=not at all like me	2	3	4	5	6	7=very much like me	Missing	n
It is important to her/him to prevent environmental pollution	40 (3%)	42 (3%)	81 (5%)	220 (14%)	336 (22%)	302 (20%)	363 (24%)	145 (10%)	1529
It is important to her/him to protect the environment	19 (1%)	23 (2%)	47 (3%)	138 (9%)	306 (20%)	377 (25%)	475 (31%)	144 (9%)	1529
It is important to her/him to respect nature	14 (1%)	10 (1%)	20 (1%)	81 (5%)	193 (13%)	345 (23%)	728 (48%)	138 (9%)	1529
It is important to her/him to be in unity with nature	27 (2%)	60 (4%)	86 (6%)	197 (13%)	295 (19%)	296 (19%)	420 (28%)	148 (10%)	1529
It is important to her/him that every person has equal opportunities	24 (2%)	27 (2%)	57 (4%)	155 (10%)	236 (15%)	312 (20%)	575 (38%)	143 (9%)	1529
It is important to her/him to take care of those who are worse off	21 (1%)	44 (3%)	104 (7%)	228 (15%)	322 (21%)	324 (22%)	342 (22%)	144 (9%)	1529
It is important to her/him that every person is treated justly	11 (1%)	19 (1%)	18 (1%)	66 (4%)	150 (10%)	311 (20%)	811 (53%)	143 (9%)	1529
It is important to her/him that there is no war or conflict	24 (2%)	11 (1%)	42 (3%)	81 (5%)	161 (11%)	262 (17%)	805 (53%)	143 (9%)	1529
It is important to her/him to be helpful to others	16 (1%)	8 (1%)	20 (1%)	58 (4%)	187 (12%)	344 (23%)	753 (49%)	143 (9%)	1529
It is important to her/him to have control over others' actions	371 (24%)	312 (20%)	241 (16%)	244 (16%)	129 (8%)	51 (3%)	38 (3%)	143 (9%)	1529
It is important to her/him to have authority over others	587 (38%)	335 (22%)	217 (14%)	142 (9%)	70 (5%)	17 (1%)	17 (1%)	144 (9%)	1529
It is important to her/him to be influential	347 (23%)	232 (15%)	232 (15%)	262 (17%)	192 (13%)	80 (5%)	38 (3%)	146 (10%)	1529
It is important to her/him to have money and possessions	414 (27%)	257 (17%)	255 (17%)	269 (18%)	124 (8%)	36 (2%)	29 (2%)	145 (10%)	1529
It is important to her/him to work hard and be ambitious	57 (4%)	46 (3%)	93 (6%)	181 (12%)	288 (19%)	346 (23%)	373 (24%)	145 (10%)	1529

Note: The survey question was 'Below some persons are described shortly. To what extent are the persons like yourself?'

Table 12. Responses for the item battery 'Climate change knowledge'

Items	Totally correct	Correct to some extent	Hardly correct	Not correct at all	Don't know	Missing	n
Burning oil produces CO_2 emissions	1185 (78%)	206 (14%)	13 (1%)	7 (1%)	118 (8%)	20 (1%)	1529
The global CO_2 concentration in the atmosphere has increased during the past 250 years.	1186 (78%)	183 (12%)	16 (1%)	9 (1%)	116 (8%)	19 (1%)	1529
Climate change is mainly caused by humans	931 (61%)	473 (31%)	42 (3%)	29 (2%)	38 (3%)	16 (1%)	1529

Note: The survey question was 'There is much discussion about climate change nowadays. What do think about the following?'

Table 13. Responses for the item battery 'Future time orientation'

Items	Totally true	True to some extent	Hardly true	Not true at all	Missing	n
I consider how things might be in the future and try to influence those things with my day-to-day behaviour	545 (36%)	739 (48%)	94 (6%)	43 (3%)	108 (7%)	1529
I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years	805 (53%)	503 (33%)	79 (5%)	28 (2%)	114 (8%)	1529
I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes	161 (11%)	674 (44%)	444 (29%)	132 (9%)	118 (8%)	1529
I only act to satisfy immediate concerns, figuring the future will take care of itself	64 (4%)	465 (30%)	583 (38%)	300 (20%)	117 (8%)	1529
I think that sacrificing now is usually unnecessary because future outcomes can be dealt with at a later time	47 (3%)	283 (19%)	541 (35%)	540 (35%)	118 (8%)	1529

Note: The survey question was 'To what extent are the following statements true about yourself and your view of the future?'

Table 14. Responses for the item battery 'Institutional trust'

Items	Very high	High	Neither high nor low	Low	Very low	Missing	n
The Government	97 (6%)	438 (29%)	399 (26%)	283 (19%)	205 (13%)	107 (7%)	1529
The Parliament	110 (7%)	442 (29%)	459 (30%)	280 (18%)	131 (9%)	107 (7%)	1529
The Municipality	72 (5%)	429 (28%)	506 (33%)	281 (18%)	128 (8%)	113 (7%)	1529
Political parties	32 (2%)	249 (16%)	520 (34%)	425 (28%)	195 (13%)	108 (7%)	1529
Labour unions	81 (5%)	337 (22%)	462 (30%)	314 (21%)	222 (15%)	113 (7%)	1529
The European Union	77 (5%)	392 (26%)	483 (32%)	288 (19%)	182 (12%)	107 (7%)	1529
The United Nations	148 (10%)	474 (31%)	429 (28%)	224 (155)	144 (9%)	110 (7%)	1529

Note: The survey question was 'How much trust do you have in the following institutions and actors?'

Table 15. Responses for 'Political party identification'

Items	Centre Party	Christian Democratic Party	Green Party	Left Party	Liberal Party	Moderate Party	Social Democratic Party	Sweden Democratic Party	No Party	Don't know	Other party	Missing	n
Political party	68 (4%)	68 (4%)	73 (5%)	169 (11%)	43 (3%)	147 (10%)	210 (14%)	162 (11%)	210 (14%)	185 (12%)	22 (1%)	170 (11%)	1529

Note: The survey question was 'Which party do you like the most today?'

Table 16. Responses for 'Self-placement on the left-right scale'

Item	Very much to the left	Somewhat to the left	Neither left nor right	Somewhat to the right	Very much to the right	Don't know	Don't want to answer	Missing	n
Political left-right orientation	235 (15%)	278 (18%)	226 (15%)	317 (21%)	174 (11%)	64 (4%)	78 (5%)	157 (10%)	1529

Table 17. Responses for the item battery 'Political action'

Items	Have done	Would do	Would not do	Don't want to answer	Missing	n
Paid for environmental measure	217 (14%)	885 (58%)	193 (13%)	81 (5%)	153 (10%)	1529
Reduced temperature at home	489 (32%)	486 (32%)	378 (25%)	39 (3%)	137 (9%)	1529
Stopped eating meat	267 (18%)	429 (28%)	659 (43%)	42 (3%)	132 (9%)	1529
Stopped flying	277 (18%)	391 (26%)	655 (43%)	63 (4%)	143 (9%)	1529
Climate offsetting	304 (20%)	712 (47%)	231 (15%)	129 (8%)	153 (10%)	1529
Contacted a politician/official	95 (6%)	561 (37%)	625 (41%)	109 (7%)	139 (9%)	1529
Donated money	335 (22%)	393 (26%)	551 (36%)	115 (8%)	135 (9%)	1529
Wrote a letter to the editor	54 (4%)	475 (31%)	757 (50%)	108 (7%)	135 (9%)	1529
Posted on social media	303 (20%)	340 (22%)	646 (42%)	102 (7%)	138 (9%)	1529
Joined a demonstration	145 (10%)	528 (35%)	645 (42%)	81 (5%)	130 (9%)	1529
Joined an environmental march	106 (7%)	572 (37%)	629 (41%)	84 (6%)	138 (9%)	1529
Joined a global climate strike	86 (6%)	513 (34%)	689 (45%)	98 (6%)	143 (9%)	1529
Joined a May Day march	98 (86%)	369 (24%)	831 (54%)	99 (7%)	132 (9%)	1529
Joined a workers' strike	14 (1%)	456 (30%)	785 (51%)	134 (9%)	140 (9%)	1529
Non-violent protest	16 (1%)	311 (20%)	965 (63%)	99 (7%)	138 (9%)	1529
Violent protest	7 (1%)	48 (3%)	1270 (83%)	74 (5%)	130 (9%)	1529

Note: The survey question was 'There are many different things people can do to prevent climate change and promote societal change. Which of the following things have you done during the last 12 months? If you have not done anything, what could/would you possibly do or not do?'

Table 18. Responses for the item battery 'Organisational membership'

Items	Passive member	Active member	Not a member	Don't want to answer	Missing	n
Trade union	628 (41%)	108 (7%)	543 (36%)	29 (2%)	221 (15%)	1529
Political party	69 (5%)	28 (2%)	1145 (75%)	39 (3%)	248 (16%)	1529
Environmental organisation	154 (10%)	18 (1%)	1076 (70%)	26 (2%)	255 (17%)	1529
Human or civil rights organisation	151 (10%)	26 (2%)	1060 (69%)	26 (2%)	266 (17%)	1529

Note: The survey question was 'Have you during the past 12 months been a member in any of the below organisations. Indicate if you have been a passive or an active member'

Table 19. Responses for 'Age'

Item	Minimum	Maximum	Mean	Median	SD	Missing	n
Age in years	18	84	51	52	17.61	1 (< 1%)	1529

Note: The survey question was 'Which year were you born?'

Table 20. Responses for 'Gender'

Item	Woman	Man	Other gender identity	n
Identification as woman, man, or other gender identity	769 (50%)	755 (49%)	5 (< 1%)	1529

Note: The survey question was 'Do you identify yourself as:'

Table 21. Responses for 'Having children under 18 years old'

Item	Yes	No	Missing	n
Children under 18 years old	366 (24%)	1029 (67%)	134 (9%)	1529

Note: The survey question was 'Do you have children under 18 years old?

Appendix 6 – PCA
(Communalities, eigenvalues for each factor,
factor loadings, histograms of factor scores)

Table 1. Communalities welfare items

Items	Initial data	Extraction
Reintroduce a wealth tax, which means that assets (e.g., bank accounts, property, shares etc.) would be taxed above a certain threshold	1.000	0.558
Introduce a cap on income from employment, where gross wages of over, for example, 1,500,000 SEK (equals about 150,000 EUR) would be taxed at 100%	1.000	0.508
Introduce a so-called basic income for all citizens, regardless if one is working or not, and without requirement to work in return	1.000	0.413
Introduce a working time reduction by two hours per day, which means that the total working day would be six hours instead of eight	1.000	0.356
Governments should ensure a reasonable standard of living for the old	1.000	0.682
Governments should ensure a reasonable standard of living for the unemployed	1.000	0.604
Governments should ensure sufficient child care services for working parents	1.000	0.658
Social benefits and services (e.g., health care, pensions and social security) in Sweden place too great strain on the economy	1.000	0.589
Social benefits and services (e.g., health care, pensions and social security) in Sweden prevent widespread poverty	1.000	0.803
Social benefits and services (e.g., health care, pensions and social security) in Sweden lead to a more equal society	1.000	0.759
Social benefits and services (e.g., health care, pensions and social security) in Sweden cost businesses too much in taxes and charges	1.000	0.636
Social benefits and services (e.g., health care, pensions and social security) in Sweden make people lazy	1.000	0.711
Social benefits and services (e.g., health care, pensions and social security) in Sweden make people less willing to care for one another	1.000	0.658
For a society to be fair, differences in people's standard of living should be small	1.000	0.607
Large differences in people's incomes are acceptable to properly reward differences in talents and efforts	1.000	0.552
The government should take measures to reduce differences in income levels	1.000	0.703
Government should redistribute income from the better off to those who are less well-off	1.000	0.659

Note: Extraction Method: Principal Component Analysis

Table 2. Communalities environmental items

Items	Initial data	Extraction
Increase taxes on fossil fuels	1.000	0.593
Using public money to subsidise renewable energy	1.000	0.540
A law banning the sale of the least energy efficient household appliances	1.000	0.424
A tax-financed expansion of public transportation	1.000	0.417
A limitation of car traffic in densely populated areas	1.000	0.470
A tax increase on household electricity	1.000	0.504
A subsidy on green electricity	1.000	0.490
A tax on meat	1.000	0.654
A state sponsored information campaign to reduce meat consumption		0.521
Increased taxes on environmentally harmful activities and goods and lower taxes on environmentally friendly activities and goods	1.000	0.598
Electricity should be generated from solar power	1.000	0.737
Electricity should be generated from wind power	1.000	0.739
Electricity should be generated from biomass energy generated from materials like wood, plants, and animal excrement	1.000	0.469
The so-called ‘ecological crisis’ facing humankind has been greatly exaggerated	1.000	0.424
If things continue on their present course, we will soon experience a major ecological catastrophe	1.000	0.702
Nature is sensitive and its balance can be easily disturbed	1.000	0.647
The Earth is like a spaceship with limited room and resources	1.000	0.641
Humans are severely abusing the environment	1.000	0.723

Note: Extraction Method: Principal Component Analysis

Table 3. Welfare items: Eigenvalues for each factor

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	6.154	36.201	36.201	6.154	36.201	36.201	4.097	24.103	24.103
2	1.793	10.550	46.751	1.793	10.550	46.751	2.798	16.461	40.564
3	1.412	8.308	55.059	1.412	8.308	55.059	1.844	10.844	51.408
4	1.096	6.447	61.506	1.096	6.447	61.506	1.717	10.098	61.506
5	.868	5.107	66.613						
6	.715	4.208	70.822						
7	.656	3.859	74.681						
8	.588	3.458	78.139						
9	.555	3.267	81.406						
10	.527	3.101	84.507						
11	.482	2.834	87.341						
12	.460	2.703	90.044						
13	.444	2.611	92.655						
14	.384	2.256	94.911						
15	.344	2.021	96.932						
16	.278	1.633	98.565						
17	.244	1.435	100.000						

Note: Extraction Method: Principal Component Analysis

Figure 1. Welfare items: Scree Plot of Eigenvalues for each factor

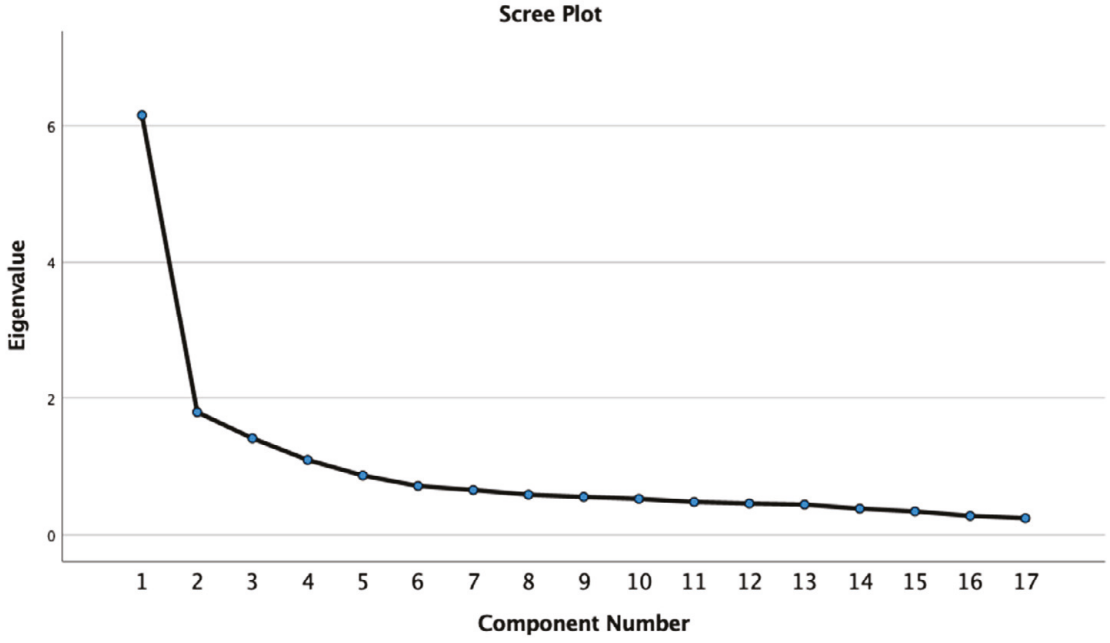

Table 4. Environmental items: Eigenvalues for each factor

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	6.779	37.660	37.660	6.779	37.660	37.660	4.977	27.647	27.647
2	1.769	9.828	47.488	1.769	9.828	47.488	2.754	15.301	42.948
3	1.743	9.682	57.170	1.743	9.682	57.170	2.560	14.221	57.170
4	.861	4.784	61.953	6.779	37.660	37.660	4.977	27.647	27.647
5	.821	4.561	66.514						
6	.728	4.042	70.556						
7	.644	3.577	74.133						
8	.603	3.349	77.482						
9	.577	3.205	80.687						
10	.538	2.987	83.674						
11	.507	2.815	86.489						
12	.462	2.564	89.053						
13	.413	2.294	91.348						
14	.384	2.132	93.480						
15	.315	1.747	95.227						
16	.304	1.688	96.916						
17	.292	1.621	98.537						
18	.263	1.463	100.000						

Note: Extraction Method: Principal Component Analysis

Figure 2. Environmental items: Scree Plot of Eigenvalues for each factor

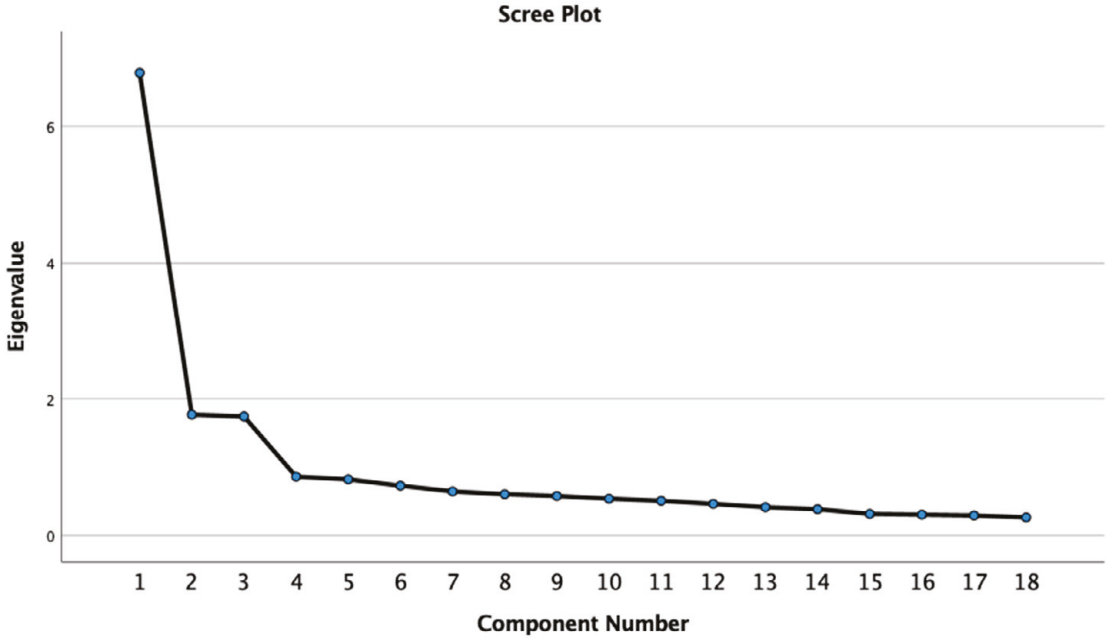

Table 5. Factor loadings welfare items

Item	Factor 1	Factor 2	Factor 3	Factor 4
The government should take measures to reduce differences in income levels	.780	.210	.130	.186
Government should redistribute income from the better off to those who are less well-off	.769	.196	.073	.151
For a society to be fair, differences in people's standard of living should be small	.728	.179	.080	.194
Reintroduce a wealth tax, which means that assets (e.g., bank accounts, property, shares, etc.) would be taxed above a certain threshold	.689	.262	.118	.010
Introduce a cap on income from employment, where gross wages of over, for example, 1,500,000 SEK (equals about 150,000 EUR) would be taxed at 100%	.683	-.082	.110	-.149
Large differences in people's incomes are acceptable to properly reward differences in talents and efforts	.640	.369	.080	.012
Introduce a so-called basic income for all citizens, regardless if one is working or not, and without requirement to work in return	.592	.081	.031	.236
Introduce a working time reduction by two hours per day, which means that the total working day would be six hours instead of eight	.536	.128	.179	.141
Social benefits and services (e.g., health care, pensions and social security) in Sweden make people lazy	.270	.762	.088	.223
Social benefits and services (e.g., health care, pensions and social security) in Sweden make people less willing to care for one another	.104	.756	.149	.231
Social benefits and services (e.g., health care, pensions and social security) in Sweden cost businesses too much in taxes and charges	.276	.747	.020	.038
Social benefits and services (e.g., health care, pensions and social security) in Sweden place too great a strain on the economy	.104	.736	.162	.099
Governments should ensure a reasonable standard of living for the old	.116	.016	.817	-.004
Governments should ensure sufficient child care services for working parents	.071	.168	.787	.075
Governments should ensure a reasonable standard of living for the unemployed	.357	.229	.623	.191
Social benefits and services (e.g., health care, pensions and social security) in Sweden prevent widespread poverty	.131	.144	.080	.871
Social benefits and services (e.g., health care, pensions and social security) in Sweden lead to a more equal society	.215	.307	.106	.779

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation. The rotation converged in 5 iterations.

Figure 3. Histogram of the 'welfare' factor score

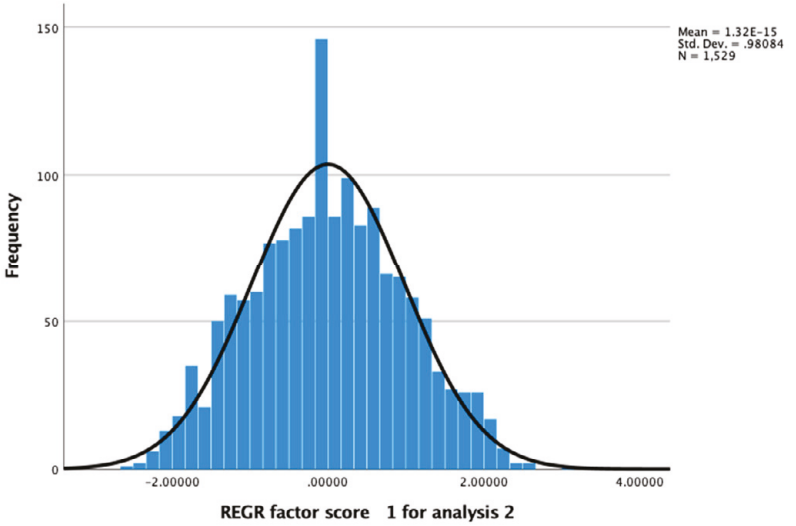

Table 6. Factor loadings environmental items

Item	Factor 1	Factor 2	Factor 3
A tax on meat	.797	.129	.038
Increase taxes on fossil fuels	.739	.189	.101
Increased taxes on environmentally harmful activities and goods and lower taxes on environmentally friendly activities and goods	.731	.198	.154
A tax increase on household electricity	.708	.054	.004
A state sponsored information campaign to reduce meat consumption	.699	.119	.133
A limitation of car traffic in densely populated areas	.658	.125	.148
A law banning the sale of the least energy efficient household appliances	.608	.142	.185
A tax-financed expansion of public transportation	.585	.156	.223
A subsidy on green electricity	.559	.151	.394
The so-called 'ecological crisis' facing humankind has been greatly exaggerated	.529	.362	.114
Humans are severely abusing the environment	.204	.814	.135
The Earth is like a spaceship with limited room and resources	.064	.798	.003
Nature is sensitive and its balance can be easily disturbed	.171	.768	.168
If things continue on their present course, we will soon experience a major ecological catastrophe	.426	.704	.160
Electricity should be generated from solar power	.076	.127	.845
Electricity should be generated from wind power	.196	.092	.832
Electricity should be generated from biomass energy generated from materials like wood, plants, and animal excrement	.092	.071	.675
Using public money to subsidise renewable energy	.472	.132	.547

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation. The rotation converged in 5 iterations.

Figure 4. Histogram of the 'environmental' factor score